

JIRIRI

Journal sur l'identité, les relations interpersonnelles et les relations intergroupes
Journal of Interpersonal Relations, Intergroup Relations and Identity

Volume 9, Hiver 2016 / Winter 2016

Rédacteur en chef / Editor in Chief

Simon Dubé, Université de Montréal, Canada

Rédactrices adjointes séniores / Senior Associate Editors

Diana Cárdenas, M. Sc., Université de Montréal, Canada

Roxane de la Sablonnière, Ph. D., Université de Montréal, Canada

Chef d'édition / Managing Editor

Jessie Philippo, Université de Montréal, Canada

Directrice des communications / Communications Director

Catherine Whitehead, Université de Montréal, Canada

Rédacteurs adjoints / Associate Editors

Mélissa Baril-Desrochers, Université de Montréal, Canada

Marie-Michelle Blouin, Université de Montréal, Canada

Camille Bourdeau, Université de Montréal, Canada

Céline El-Soueidi, Université de Montréal, Canada

Simone Gamm, Université de Montréal, Canada

Marika Handfield, Université de Montréal, Canada

Syrine Kharrat, Université de Montréal, Canada

Carolanne Labonté, Université de Montréal, Canada

Audrey Murray, Université de Montréal, Canada

Julie Ouerfelli-Éthier, Université de Montréal, Canada

Mathilde Pouliot, Université de Montréal, Canada

Luis-Manuel Vacaflor, Université de Montréal, Canada

Éditeurs consultants / Consulting Editors

Mathieu Caron-Diotte, Université de Montréal, Canada

Alex Fernet Brochu, University of British Columbia, Canada

Laura French Bourgeois, M. Sc., Université de Montréal, Canada

Anne Gendreau, Université du Québec à Montréal, Canada

Frank Kachanoff, M. A., McGill University, Canada

Nada Kadhim, Université du Québec à Montréal, Canada

Mathieu Pelletier-Dumas, M. A., Université de Montréal, Canada

David Phaneuf, Université de Montréal, Canada

Le *Journal sur l'identité, les relations interpersonnelles et les relations intergroupes* (JIRIRI) est une revue scientifique internationale concernant le monde de l'identité et des interactions sociales. La mission du JIRIRI est de permettre aux étudiants de premier cycle de vivre l'expérience complète de la démarche scientifique, de la mise sur pied d'idées originales jusqu'à leur diffusion, par le biais d'un processus de révision par un comité de pairs.

The *Journal of Interpersonal Relations, Intergroup Relations and Identity* (JIRIRI) is a scientific journal distributed internationally in the field of identity, interpersonal and intergroup relations. The mission of the JIRIRI is to offer undergraduate students a unique opportunity to fully experience the scientific method, from the development of original ideas to their diffusion, through the peer review process.

Rédacteur en chef / Editor in Chief

Simon Dubé, Université de Montréal, Canada

Rédactrices adjointes séniores / Senior Associate Editors

Diana Cárdenas, M. Sc., Université de Montréal, Canada

Roxane de la Sablonnière, Ph. D., Université de Montréal, Canada

Chef d'édition / Managing Editor

Jessie Philippo, Université de Montréal, Canada

Directrice des communications / Communications Director

Catherine Whitehead, Université de Montréal, Canada

Rédacteurs adjoints / Associate Editors

Mélissa Baril-Desrochers, Université de Montréal, Canada

Marie-Michelle Blouin, Université de Montréal, Canada

Camille Bourdeau, Université de Montréal, Canada

Céline El-Soueidi, Université de Montréal, Canada

Simone Gamm, Université de Montréal, Canada

Marika Handfield, Université de Montréal, Canada

Syrine Kharrat, Université de Montréal, Canada

Carolanne Labonté, Université de Montréal, Canada

Audrey Murray, Université de Montréal, Canada

Julie Ouerfelli-Éthier, Université de Montréal, Canada

Mathilde Pouliot, Université de Montréal, Canada

Luis-Manuel Vacaflor, Université de Montréal, Canada

Éditeurs consultants / Consulting Editors

Mathieu Caron-Diotte, Université de Montréal, Canada

Alex Fernet Brochu, University of British Columbia, Canada

Laura French Bourgeois, M. Sc., Université de Montréal, Canada

Anne Gendreau, Université du Québec à Montréal, Canada

Frank Kachanoff, M. A., McGill University, Canada

Nada Kadhim, Université du Québec à Montréal, Canada

Mathieu Pelletier-Dumas, M. A., Université de Montréal, Canada

David Phaneuf, Université de Montréal, Canada

Évaluateurs / Reviewers

Jean-Sébastien Audet, Université de Montréal, Canada

Cynthia Ayvazian, Université McGill, Canada

Rhonda Boateng, Bishop's University, Canada

Jean Bouchard, Université de Montréal, Canada

Florence Deguire, Université de Montréal, Canada

Samir Farhloul, Memorial University of Newfoundland, Canada

Audrey Faucher-Genest, Université Laval, Canada

Daphnée-Sarah Ferfache, Université de Montréal, Canada

Rosalie Filiatreault, Université de Montréal, Canada

Najat Firzly, Université d'Ottawa, Canada

Myriam Fleury-Bérubé, Université Laval, Canada

Vanessa Forget-Babin, Université de Montréal, Canada

Mélanie Garceau, Université de Montréal, Canada

Marie-Christine Goulet, Université Laval, Canada

Charlene Grau, Université de Bordeaux, France

Carolanne Hélin, Université de Bordeaux, France

Isabelle Hoang, Université du Québec à Montréal, Canada

Samantha Kargakos, Université de Montréal, Canada

Véronique Landry, Université de Moncton, Canada

Élisabeth Langelier, Université de Montréal, Canada

Marie-Jeanne Léonard, Université de Montréal, Canada

Véronique Martel, Université de Montréal, Canada

Andréanne Martin, Université Laval, Canada

Ahlia Mathura, Université de Montréal, Canada

Amanda McCann, University of Queensland, Australie

Meagan McCardle, Memorial University of Newfoundland, Canada

Samuel Mérineau, Université de Montréal, Canada

Stephanie Miodus, University of Pennsylvania, États-Unis

Syrine Nefkha-Bahri, Université de Montréal, Canada

Andréane Paquin, Université de Québec à Trois-Rivières, Canada

Cynthia Rocheleau, Université Laval, Canada

Baptiste Roucau, Concordia University, Canada

Mélodie Roy, Université de Montréal, Canada

Aissatou Tounkara, Université de Montréal, Canada

M'ballou Tounkara, Concordia University, Canada

Évaluateurs invités – Étudiants des cycles supérieurs

Guest reviewers – Graduate students

Christina Armstrong, Université Laval, Canada

Élisabeth Beaunoyer, Université Laval, Canada

Valérie Courchesne, Université de Montréal, Canada

Christoffer Dharma, Western University, Canada

Monica Dunnagan, Walden University, États-Unis

Allison Eades, University of Colorado, États-Unis

Zhipeng Gao, York University, Canada

Félix Gauthier-Mongeon, Université de Montréal, Canada

Daphnée Genesse, Université de Sherbrooke, Canada

Carolanne Helin, Université de Bordeaux, France

Leyla Javam, University of Toronto, Canada

Diana Kirilenko, South Ukrainian National Pedagogical University, Ukraine

Christian Laforge, Laurentian University, Canada

Anna MacKinnon, McGill University, Canada

Alexandra Matte-Landry, Université Laval, Canada

Mariam Najih, Arizona State University, États-Unis

Yanick Provost-Savard, Université de Montréal, Canada

Élie Rizkallah, Université du Québec à Montréal, Canada

Fanny Robichaud, Université du Québec à Montréal, Canada

Olivier Roncalez, McGill University, Canada

Isabelle Simard, Federal University of Rio de Janeiro, Brésil

Laurence Tanguay-Garneau, Université Laval, Canada

Laura-Eliza Vladutiu, Université du Québec à Montréal, Canada

JIRIRI

Journal sur l'identité, les relations interpersonnelles et les relations intergroupes
Journal of Interpersonal Relations, Intergroup Relations and Identity

Volume 9
Hiver 2016 / Winter 2016

- 4 **Remerciements / Acknowledgments**
- 5 **Éditorial**
Simon Dubé
- 6 **Editorial**
Simon Dubé
- 7 **Lettre des rédactrices adjointes séniores**
Diana Cárdenas, M. Sc., & Roxane de la Sablonnière, Ph. D.
- 8 **Letter from the Senior Associate Editors**
Diana Cárdenas, M. Sc., & Roxane de la Sablonnière, Ph. D.
- 9 **Processus de révision par les pairs / Peer-Review Process**
- 10 **Since You've Been Gone: Coping with a Relationship Breakup**
Darcie D. Valois, Danay C. Novoa, & Christopher G. Davis, Ph. D.
- 22 **Death and Dying: An Analysis of Suicide in Pittsburgh**
Karl Gibson
- 32 **When Conflict is Less Costly: Interdependence as a Buffer in Romantic Relationships**
Amna Shakil, Lisa Catherine Day, Ph. D., & Emily Anne Impett, Ph. D.
- 39 **Combiner amitié et sexualité : retour sur le vécu d'adolescents**
Catherine Beaulieu, Sarah-Ève Nadeau, & Francine Lavoie, Ph. D.
- 54 **Long-Distance vs. Geographically-Close Relationships: The Role of Maintenance and Attachment Styles in Shaping Relationship Quality**
Hannah Brazeau & Cheryl Harasymchuk, Ph. D.
- 65 **The Role of Religion as a Protective Factor for Worry**
John Todaro
- 76 **L'effet médiateur des rêves dysphoriques dans la relation entre une séparation maternelle à l'enfance et le développement du trouble de la personnalité limite à l'âge adulte**
Marie-Michelle B. Duhaime
- 83 **Impact of Group Identification Level and Group-Affirmation on the Evaluation of In-group Dissenter**
Eunjoo Jeong, Junghyun Park, Seonyeong Kim, Jane Han, Euwon Joh, & Doyo Choi

Mission

Le *Journal sur l'identité, les relations interpersonnelles et les relations intergroupes* (JIRIRI) est une revue scientifique internationale publiée annuellement en avril. La mission du JIRIRI est de permettre aux étudiants de premier cycle de faire l'expérience complète de la démarche scientifique, de la mise sur pied d'idées originales jusqu'à leur diffusion, par le biais d'un processus de révision par les pairs.

Le JIRIRI vise également à promouvoir la création et l'expression de nouvelles idées théoriques sur les thèmes de l'identité et des interactions sociales — idées qui pourront éventuellement devenir les prémisses solides de futurs travaux de plus grande envergure.

Le JIRIRI publie des articles théoriques et empiriques. Ainsi, tout étudiant de premier cycle en psychologie ou dans un domaine connexe désirant approfondir et diffuser des idées ou des résultats portant sur les thèmes de l'identité, des relations interpersonnelles ou intergroupes est invité à soumettre un manuscrit.

Processus de révision

Dès leur réception, le rédacteur en chef effectue une première sélection des manuscrits en ne conservant que ceux qui correspondent à la mission du JIRIRI. Ensuite, le processus d'évaluation par les pairs débute par l'envoi du manuscrit à quatre étudiants de premier cycle et à un étudiant des cycles supérieurs. Ces étudiants rédigeront une lettre d'évaluation anonyme destinée à l'auteur, qu'ils enverront à un membre de l'équipe éditoriale responsable du suivi du manuscrit.

Le responsable du manuscrit fera la synthèse de ces lettres dans une lettre d'édition destinée à l'auteur. La rédaction de la lettre d'édition sera supervisée par les éditeurs consultants, étudiants aux cycles supérieurs. La lettre d'édition devra souligner les critiques les plus importantes et rendre la décision concernant la publication de l'article. L'article peut être accepté, accepté avec révisions mineures, rejeté avec invitation à soumettre à nouveau ou rejeté.

L'auteur apportera alors les modifications suggérées par le comité de rédaction. Le processus de révision et de correction se poursuivra ainsi jusqu'à ce que le manuscrit soit jugé satisfaisant pour fin de publication.

Consignes pour la soumission d'un manuscrit

Les étudiants de premier cycle de toute université sont invités à soumettre leur manuscrit en français ou en anglais. Dans sa lettre au rédacteur en chef, l'auteur qui soumet un

manuscrit devra confirmer qu'il est présentement étudiant au premier cycle et que son article n'a pas déjà été publié ou soumis pour publication dans un autre journal scientifique. Un étudiant au baccalauréat peut soumettre un article qu'il a coécrit avec un professeur ou un étudiant aux cycles supérieurs, mais il doit impérativement en être le premier auteur. Il est impossible de soumettre un article au JIRIRI en tant que premier auteur si le baccalauréat a été complété plus de douze mois avant la soumission du manuscrit.

La première page du manuscrit devra contenir le titre de l'article ainsi qu'un titre abrégé de **45 caractères maximum**. La deuxième page devra contenir un résumé de l'article de **150 mots**. De plus, l'auteur devra fournir **cinq mots-clés** en lien avec les thèmes abordés dans l'article. Le texte doit contenir **au maximum 7 500 mots et respecter les règles de l'APA**.

Pour s'impliquer au sein du JIRIRI

Les étudiants de premier cycle qui souhaitent soumettre un manuscrit et les étudiants de premier cycle et des cycles supérieurs qui souhaitent s'impliquer dans le processus de révision en tant qu'évaluateurs sont invités à nous contacter au jjiriri@umontreal.ca.

Pour de plus amples renseignements, veuillez consulter notre site Internet: www.jjiriri.ca.

Adresse postale

Journal sur l'identité, les relations interpersonnelles et les relations intergroupes (JIRIRI)
a/s Roxane de la Sablonnière, Ph. D.
Rédactrice adjointe sénior
Université de Montréal
Département de psychologie
C.P. 6128, Succursale Centre-Ville
Montréal (Québec), Canada, H3C 3J7

À moins d'indication contraire, les articles publiés dans le JIRIRI sont libres de droits d'auteur. Quiconque souhaitant reproduire ou diffuser un article est autorisé et encouragé à le faire afin que des spécialistes, des organisations étudiantes ou d'autres personnes intéressées aux domaines de l'identité, des relations interpersonnelles et intergroupes puissent en bénéficier. Toute reproduction du JIRIRI en partie ou en totalité est libre de droits d'auteur et ne nécessite aucune permission des éditeurs, à la condition qu'il y ait reconnaissance du JIRIRI comme source et que le ou les noms des auteurs ainsi que les numéros de pages et de volumes soient cités. Nul ne peut s'approprier les droits d'auteur et toute entorse à ces règles doit être signalée au rédacteur en chef, Simon Dubé, à l'adresse suivante: jjiriri@umontreal.ca.



***Journal of Interpersonal Relations, Intergroup
Relations and Identity***

Mission

The *Journal of Interpersonal Relations, Intergroup Relations and Identity* (JIRIRI) is an international scientific journal published annually in April. The mission of the JIRIRI is to offer undergraduate students a unique opportunity to fully experience the scientific method from the development of original ideas to their diffusion, through the peer review process.

The JIRIRI also aims to promote the conception and expression of new theoretical ideas in the fields of identity, interpersonal and intergroup relations — ideas that could eventually become solid bases for large-scale studies.

The JIRIRI publishes both theoretical and empirical articles. Thus, any undergraduate student in psychology or in a related field eager to share and refine his or her ideas or results pertaining to identity, interpersonal or intergroup relations is invited to submit a manuscript.

Reviewing Process

First, the Editor in Chief makes a preliminary selection of the manuscripts and retains those that comply with the JIRIRI's mission. Then, the manuscripts are sent to four undergraduate students and one graduate student. These students will write anonymous reviews to the author and send them to a member of the editorial team responsible of the manuscript.

The editorial team member will write an edition letter to the author, which will synthesize the reviewers' comments. This process will be supervised by the consulting editors, who are graduate students. The edition letter must contain the most important comments and the decision regarding publication. The manuscript may be accepted as it is, accepted with minor modifications, rejected with the invitation to resubmit, or it may be rejected completely.

The author will then carry out the modifications considered necessary by the editorial board. Several rounds of reviews may be undertaken until the manuscript is judged suitable for publication.

Guidelines for Submitting an Article

Undergraduate students of all universities are invited to submit their manuscript in French or in English. In his letter to the Editor in Chief, the author submitting an manuscript must confirm that he is an undergraduate

student and that his manuscript has neither been published nor submitted for publication elsewhere. An undergraduate student may submit a manuscript that he has co-written with a professor or a graduate student only if he is first author. It is not possible to be the first author of an article in the JIRIRI if one's undergraduate degree was completed more than twelve months prior to the submission of the manuscript.

The cover page must include the title of the manuscript and a running head **not exceeding 45 characters**. The second page must include an abstract of **150 words** and the author must also provide **five keywords** that describe the subject of the article. The text must contain a **maximum of 7,500 words and conform to APA standards**.

To Participate in the JIRIRI

Any undergraduate student interested in submitting a manuscript, or any undergraduate or graduate student interested in taking part in the review process is invited to contact us at the following address: jiriri@umontreal.ca.

For more details, please consult our website at the following address: www.jiriri.ca.

Postal Address

Journal of Interpersonal Relations, Intergroup Relations and Identity (JIRIRI)
a/s Roxane de la Sablonnière, Ph.D.
Senior Associate Editor
Université de Montréal
Département de psychologie
C.P. 6128, Succursale Centre-Ville
Montréal (Québec), Canada, H3C 3J7

Unless otherwise indicated, articles published in the JIRIRI are not copyrighted. Anyone wishing to copy or distribute a manuscript is authorized and encouraged to do so for the benefit of other scholars, student organizations, or anyone else interested in the field of identity, interpersonal relations, and intergroup relations. Any intent to republish a part of the JIRIRI, not otherwise copyrighted, requires no permission from the editors as long as such a republication clearly acknowledges the JIRIRI as its source and clearly indicates the full name of the author(s), pages, and volume number. However, no copyright can be claimed, and prompt notice of such a republication must be sent to the Editor in Chief, Simon Dubé, email: jiriri@umontreal.ca.

Remerciements

Nous tenons tout d'abord à remercier le Département de psychologie de l'Université de Montréal et son Directeur, Monsieur Serge Larochelle ainsi que Monsieur Gyslain Giguère et les membres du comité organisateur de la 10^e Journée scientifique du Département de psychologie de l'Université Montréal. Nous remercions également Madame Sophie Dubois du service d'impression de l'Université de Montréal ainsi que Madame Odile Ducharme, notre conseillère financière, pour leur patience sans fin. De même, nous tenons à souligner la contribution financière de l'AGÉÉPUM (*Association générale des étudiants et étudiantes de psychologie de l'Université de Montréal*) et la FAÉCUM (*Fédération des associations étudiantes de l'Université de Montréal*), avec la bourse PIÉ (*Projet d'initiative étudiante*). Nous soulignons aussi la contribution financière du *Concours Québécois en Entrepreneuriat 2015*, pour son prix et du *Fonds de recherche du Québec – société et culture* (FRQSC), par l'entremise d'une subvention de soutien aux équipes de recherche intitulée « Identité et dysfonction sociale » (2013-SE-164404).

Nous remercions tous les étudiants qui ont collaboré au *Journal sur l'identité, les relations interpersonnelles et les relations intergroupes* (JIRIRI). Cette édition n'aurait pu voir le jour sans la collaboration de tous ces étudiants dévoués qui ont contribué au succès du JIRIRI. Par ailleurs, nous exprimons notre reconnaissance à nos collègues du *Laboratoire de recherche sur les changements sociaux et l'identité* (CSI).

Sur une note un peu plus personnelle, nous tenons à remercier Roxane de la Sablonnière pour son appui continuuel qui a permis à plus d'une centaine d'étudiants par année de se familiariser avec le domaine de la recherche et de la publication scientifique. Ainsi se concrétise son dicton favori : « Ce sont les idées qui changent le monde ». Finalement, nous aimerions remercier les rédactrices et rédacteurs en chef des éditions précédentes, qui continuent d'agir en tant que guides.

Acknowledgments

We would first like to express our gratitude to the Department of Psychology at the Université de Montréal and to its Director, Dr. Serge Larochelle. We would also like to thank Mr. Gyslain Giguère and the members of the organizing committee of the 10th annual Scientific Day of the Department of Psychology at the Université de Montréal. We also thank Ms. Sophie Dubois of the Université de Montréal's printing services and Ms. Odile Ducharme, our financial counsellor, for their patience with us. We would like to acknowledge the financial contribution from the *Association générale des étudiants et étudiantes de psychologie de l'Université de Montréal* (AGÉÉPUM) and the *Fédération des associations étudiantes de l'Université de Montréal* (FAÉCUM) team grant entitled "Projet d'initiative étudiante". We would also like to acknowledge the financial contribution from the *2015 Quebec Entrepreneurship Contest* for its prize and the *Fonds de recherche du Québec – société et culture* (FRQSC) team grant entitled "Identity and social dysfunctions" (2013-SE-164404).

We thank all the students who worked with the *Journal of Interpersonal Relations, Intergroup Relations and Identity* (JIRIRI) this year. This volume could not have been published without the participation of all the devoted students who contributed to its success. We also express our gratitude to our colleagues at the *Social Change and Identity Laboratory*.

Finally, on a more personal note, our heartfelt thanks go to Dr. de la Sablonnière for her continuous support which has provided over a hundred students each year with the opportunity to be involved in research and publication by participating in the JIRIRI. Indeed, this embodies her favourite saying, "Ideas change the world". We have also benefited from the unconditional support of the previous Editors in Chief, who frequently offered guidance.

Éditorial

SIMON DUBÉ

Université de Montréal



C'est avec fierté que je vous présente le volume 9 du *Journal sur l'identité, les relations interpersonnelles et les relations intergroupes* (JIRIRI). Bâtie sur l'excellence des années précédentes, cette édition démontre encore une fois ce qui peut être accompli grâce à l'initiative étudiante. Dans ce volume, les lecteurs trouveront une diversité d'articles provenant de sept universités différentes dont la qualité et l'originalité laissent entrevoir le talent d'auteurs motivés et d'un comité éditorial dévoué.

Depuis sa première parution en 2008, le JIRIRI s'est établi comme une opportunité unique pour les auteurs et les étudiants du premier cycle provenant de partout sur le globe de vivre l'expérience complète du processus de publication scientifique. Au cours des trois dernières années, nous avons triplé le nombre de personnes impliquées et apprenant à travers ce projet. Cette 9^e édition est le fruit du travail de 29 membres de l'équipe éditoriale et plus de 100 évaluateurs et collaborateurs provenant de 28 universités travaillant vers un objectif commun. La réputation grandissante du JIRIRI est reflétée à travers la reconnaissance nationale et internationale reçue récemment, tel que mis en évidence par le prix gagné au *Concours Québécois en Entrepreneuriat 2015* ainsi que notre nomination à la prestigieuse *Wharton - QS Stars Awards: Reimagine Education 2015*.

Pour la 9^e édition, l'équipe éditoriale avait deux objectifs. Premièrement, vu l'ampleur atteinte par le JIRIRI, une attention particulière a été mise sur la structure interne de l'équipe du JIRIRI et le processus de révision des manuscrits afin d'en augmenter l'efficacité. Par exemple, chaque membre de l'équipe était assigné à une sous-équipe dans des domaines tels que la communication ou la mise en page. Deuxièmement, un comité a été formé afin de donner à tout professeur ou enseignant intéressé à utiliser une revue scientifique comme outil d'enseignement le matériel pédagogique et l'expertise développée par le JIRIRI au cours de la

dernière décennie. En ayant un comité dédié à l'organisation de l'information, le JIRIRI vise à remplir sa mission d'enseigner la pensée critique au plus grand nombre d'étudiants possible.

Cette année, le comité éditorial a reçu 17 manuscrits, dont huit ont été acceptés et publiés dans le présent volume, résultant en un taux de rejet de 53%. Afin d'assurer la qualité de nos articles, plusieurs formations ont été mises en place pour l'équipe éditoriale. Un travail de formation a aussi été réalisé auprès de nos évaluateurs, qui ont reçu du matériel pédagogique concernant le processus de révision d'articles scientifiques par notre chef d'édition, Jessie Philippo. Additionnellement, l'équipe de cette dernière a assuré le processus de mise en page, permettant à l'édition de cette année d'atteindre de nouveau les standards élevés de la publication scientifique.

Pour conclure, je tiens aussi à souligner le travail fait par nos rédacteurs adjoints. Leur motivation et l'excellence de leurs lettres d'édition sont au cœur de cette publication. Ce fut un réel plaisir de travailler à leurs côtés. Je tiens à remercier l'ensemble de nos évaluateurs, collaborateurs et éditeurs consultants sans qui le 9^e volume du JIRIRI n'aurait jamais vu le jour. Leur engagement incarne ce qu'il y a de mieux dans la formation supérieure. Sur une note personnelle, j'aimerais remercier Roxane de la Sablonnière (Ph. D.), fondatrice du JIRIRI. Ce sont des professeurs comme elle qui font la différence dans la vie et la carrière des étudiants. Sa détermination, son investissement et sa confiance dans le potentiel de chacun inspirent tous ceux qui l'entourent à se dépasser. Finalement, j'aimerais remercier Diana Cárdenas (M. Sc.) dont la patience, les conseils et le soutien ont guidé cette équipe du JIRIRI à travers l'ensemble du processus de publication. Ensemble, elles ont fait de cette expérience formatrice l'une des plus enrichissantes qu'il nous ait été donnée d'entreprendre. Merci encore une fois.

Editorial

SIMON DUBÉ

Université de Montréal



It is with great pride that I present the ninth Volume of the *Journal of Interpersonal Relations, Intergroup Relations and Identity* (JIRIRI). Built on the excellence established in previous years, the present edition demonstrates once again what can be accomplished by a student initiative. In this volume, readers will find a variety of articles from seven different universities whose quality and originality highlight the talent of motivated authors and of our dedicated editorial committee.

Since its first edition in 2008, the JIRIRI established itself as a unique opportunity for undergraduate authors and students from across the globe to experience firsthand the entire scientific publication process. Over the past three years, we have tripled the number of people involved and learning from this project. The ninth edition is the result of 29 editorial team members and more than 100 collaborators and evaluators from 28 universities working towards a shared goal. The journal's growing reputation is reflected in the national and international recognition the JIRIRI has recently received, as evidenced by the price earned at the *2015 Québec Entrepreneurship Contest*, as well as its nomination at the prestigious *Wharton - QS Stars Awards: Reimagine Education 2015*.

For the ninth volume, the editorial team had two goals. Firstly, given the size achieved by the JIRIRI, special attention was put on the internal structure of the JIRIRI team and the manuscript review process to increase its efficiency. For instance, each member of the editorial team was assigned to a specific sub-team in areas such as communication or layout in order to facilitate these processes. Secondly, a committee was set up to give any professor or teacher interested in using scientific journals as teaching tools all the teaching material and expertise

developed by the JIRIRI throughout the last decade. By having a committee dedicated to organizing information, the JIRIRI aims at fulfilling its mission of teaching critical thinking to as many students as possible.

This year, the editorial committee received 17 manuscripts, eight of which are accepted and published in the current volume, resulting in a rejection rate of 53%. To ensure the quality of our articles, several training sessions were given to our editorial team. Training work was also done with our reviewers who received educational material on the peer-review process of scientific articles by our Managing Editor, Jessie Philipppo. Additionally, her team ensured all the editing process, which allowed this year's edition to reach once again the high standards of scientific publication.

To conclude, I would like to acknowledge the work done by the Associate Editors. Their motivation and excellent letters are at the heart of this publication. It was a real pleasure working with them. I would also like to thank all of the reviewers, collaborators and Consulting Editors without whom the ninth volume would not have been possible. Their commitment embodies all that is best in higher education. On a more personal note, I would like to thank Roxane de la Sablonnière (Ph. D.), founder of JIRIRI. Professors like her make a difference in the lives and careers of students. Her determination, her investment in all circumstances and her confidence in the potential of each inspires everyone around her to excel. Finally, I would like to thank Diana Cárdenas (M. Sc.) whose patience, advice and support guided us through the entire publication process. Together, they made this formative experience one of the most rewarding this team had the privilege to undertake. Thank you once again.

Lettre des rédactrices adjointes séniores

DIANA CÁRDENAS, M. Sc., & ROXANE DE LA SABLONNIÈRE, Ph. D.
Université de Montréal



C'est avec fierté que nous présentons à notre lectorat le neuvième volume du *Journal sur l'identité, les relations interpersonnelles et les relations intergroupes* (JIRIRI). Le présent volume, de même que sa production, témoignent d'une qualité exceptionnelle, non seulement en ce qui a trait aux articles soumis au JIRIRI, mais également sur le plan de la reconnaissance internationale atteinte.

Le JIRIRI est publié annuellement; ainsi, il est essentiel d'atteindre un niveau de qualité élevé des articles assez rapidement. Ceci est congruent avec la vision du JIRIRI des étudiants de premier cycle et leur potentiel dans le développement d'idées innovatrices, mais se traduit également par une lourde pression que les membres du JIRIRI, de même que les auteurs, portent afin d'atteindre les échéanciers. Dans le présent volume ce processus a été grandement facilité par deux facteurs importants. Premièrement, la version initiale de chaque manuscrit soumis était d'une qualité sans précédent. Conséquemment, les lettres rédigées par notre comité éditorial pouvaient se concentrer sur le contenu et la profondeur des idées principales des articles. Cet exercice se rapproche étroitement du monde de la recherche, en procurant aux étudiants du baccalauréat une expérience concrète de ce que représente le monde académique. Deuxièmement, la majorité des articles ont été soumis tôt dans l'année éditoriale. Ceci a permis d'augmenter le nombre de tours de révisions pour chaque article, maximisant leur qualité. Ainsi, le neuvième volume du JIRIRI a su atteindre un niveau de qualité duquel nous sommes extrêmement fières.

D'année en année, chaque équipe du JIRIRI a su gérer les améliorations nécessaires qui ont défini le volume dans lequel ils s'impliquaient, tel que l'amélioration des lettres d'édition et de l'organisation de l'équipe éditoriale. Le présent volume démontre les résultats éloquents et consistants qui découlent de ces améliorations, bien qu'il y ait toujours place à l'amélioration. Pour les années à venir, notre objectif est de diminuer le taux de rejet des articles. Nous constatons que plusieurs auteurs travaillent excessivement fort afin d'intégrer nos commentaires et arrivent au terme du processus sans atteindre la norme d'acceptation.

Un taux plus faible de refus sera atteint par l'entremise de deux méthodes. Premièrement, chaque lettre transmise aux auteurs par notre comité éditorial sera accompagnée d'une conférence vidéo. La possibilité d'entretenir des conversations en face à face avec les éditeurs du JIRIRI met en lumière la disponibilité de l'équipe du JIRIRI pour répondre à toute question et, simultanément, démystifie le processus de révision pour les auteurs. Deuxièmement, seulement environ 15 manuscrits seront révisés chaque année pour la publication. En ayant un plus petit nombre d'articles à réviser, l'équipe du JIRIRI sera en mesure d'offrir un meilleur soutien aux auteurs.

Le JIRIRI est une initiative d'étudiants au baccalauréat, gérée et créée par les étudiants au baccalauréat. Le présent volume témoigne du potentiel des étudiants de premier cycle à adopter un mode de pensée critique, à développer une écriture scientifique et une argumentation logique qui dépassent toutes attentes. Ce volume, tout comme ses précédents, nous a convaincues du potentiel des étudiants au baccalauréat de développer des idées ayant le potentiel de changer le monde.

Letter from the Senior Associate Editors

DIANA CÁRDENAS, M. Sc., & ROXANE DE LA SABLONNIÈRE, Ph. D.
Université de Montréal



We proudly present to our readership the ninth volume of the *Journal of Interpersonal Relations, Intergroup Relations and Identity* (JIRIRI). The present volume and its production has been exceptional from the quality of the articles submitted to the national and international recognition the journal has achieved.

The JIRIRI is published annually, which means that it is essential for articles to achieve great quality in a very short amount of time. This is congruent with the JIRIRI's vision of undergraduate students and their potential for world-changing ideas, but it does put pressure on the editorial team and authors to manage deadlines.

In the present volume, this process was facilitated by two important factors. First, the initial version of each submitted manuscript was of an unprecedented quality. As such, the letters written by our editorial board could focus on the substances and depth of the articles' main ideas. This exercise closest resembles the research world, helping undergraduate students fully experience what it means to be a researcher. Secondly, most articles were submitted early in the editorial year. This increased the number of revision rounds for each article, maximizing their quality. As such, the ninth volume of JIRIRI achieved a quality of which we are extremely proud.

Each year, the JIRIRI's team has had key improvements that defined the volume, such as the improvement of editorial letters and the organization of the editorial team. The present volume demonstrates that these improvements give strong and consistent results, but there is still room for improvement. In the following years, our goal is to decrease the rejection rate. We find that many authors work extremely hard to address our comments and yet at the end of the process they do not achieve the acceptance status.

A lower rejection rate will be achieved by employing two new methods. First, each letter sent from the editorial board to the authors will be accompanied by a video conference. Having a face-to-face conversation between the JIRIRI editors and the authors will highlight the availability of the team to answer any question the authors may have while simultaneously demystifying the revision process for authors. Secondly, only about 15 manuscripts will be revised for publication each year. By having a smaller number of articles to revise, the JIRIRI team will be able to offer better support to its authors.

The JIRIRI is an initiative of undergraduate students managed by and created for undergraduate students. The present volume witnesses that undergraduate students have potential for critical thinking, scientific writing and logical argumentation that go beyond our expectations. This volume as those from previous years convince us that undergraduate students can develop ideas capable of changing the world.

Processus de révision par les pairs

Le JIRIRI a mis au point un processus de révision par un comité de pairs adapté aux étudiants universitaires de premier cycle. Chaque membre de l'équipe éditoriale possède des tâches précises, qui visent l'apprentissage et le développement de compétences liées au domaine de la publication scientifique. L'équipe éditoriale est guidée par le *rédacteur en chef*, qui assure le bon déroulement du processus de révision et de publication tout en respectant l'échéancier. Les tâches du *chef d'édition* consistent à mettre à jour les documents du JIRIRI, à organiser des ateliers de formation pour les évaluateurs, et à superviser la mise en page du JIRIRI. La *directrice des communications* est responsable de la promotion et du financement. Par exemple, elle rédige des demandes de bourses pour permettre la publication et l'expansion du JIRIRI. Les *rédacteurs adjoints* sont responsables du processus de révision et de publication d'une partie des manuscrits soumis.

Le processus d'évaluation des manuscrits se déroule en trois étapes. Le rédacteur en chef amorce le processus en effectuant une sélection parmi les manuscrits soumis, puis envoie ces manuscrits aux rédacteurs adjoints. Ceux-ci s'assurent que tous les manuscrits font d'abord l'objet d'une évaluation par cinq *évaluateurs*, quatre étudiants de premier

cycle, et un *évaluateur invité*, étudiant aux cycles supérieurs. Suite à ces évaluations, un des membres du comité éditorial prend en charge l'intégration de l'ensemble des commentaires formulés afin de fournir à l'auteur une synthèse des commentaires par le biais d'une *lettre d'édition*. Ensuite, les *éditeurs consultants*, des étudiants aux cycles supérieurs ou des étudiants ayant complété leurs études de premier cycle, passent en revue les lettres d'édition dans le but de mieux guider les auteurs et de superviser le travail des éditeurs. De plus, Roxane de la Sablonnière, Ph. D., et Diana Cárdenas, M. Sc., agissent à titre de *rédactrices adjointes séniors* et supervisent tout le processus en collaboration avec le rédacteur en chef. Suite à une nouvelle soumission du manuscrit par l'auteur, de nouveaux tours d'évaluation se déroulent selon le même principe jusqu'au moment où l'article est jugé convenable pour fin de publication. Plus le processus de révision avance, plus les modifications exigées deviennent spécifiques et détaillées. Ainsi, le premier tour vise principalement à s'assurer de la contribution scientifique du manuscrit. Puis, les étapes subséquentes visent l'amélioration d'aspects précis tels que la correction des analyses statistiques. Durant la totalité du processus, l'équipe éditoriale s'engage à offrir de l'aide et du soutien aux auteurs. Grâce à la collaboration de tous ces gens, le JIRIRI peut atteindre ses objectifs et sa mission.

Peer-review process

The JIRIRI has developed a peer-review process that has been adapted for university undergraduate students. Each member of the JIRIRI team is responsible for specific tasks that aim at developing important skills in the field of scientific publication. The editorial board is guided by the *Editor in Chief*, who ensures the smooth progress of the review and correction process by encouraging other team members to respect deadlines. The tasks of the *Managing Editor* consist of updating JIRIRI's documents, organizing workshops for reviewers and supervising the page layout of the JIRIRI. The *Communications Director* promotes and finds financing for the JIRIRI. For example, he submits grant applications that allow for the publication and expansion of the JIRIRI. The *Associate Editors* are responsible for the review and publication process of some of the submitted articles.

The review process has three parts. First, the Editor in Chief makes a preliminary selection of the manuscripts, retaining those that comply with the JIRIRI's mission, and sends them to the Associate Editors. The Associate Editors ensure that all

articles are reviewed by four undergraduate *reviewers* and one *guest reviewer*, who must be a graduate student. Following the reception of the reviews, the Associate Editor provides a summary of the comments to the manuscript's author in an *Editor's Letter*. In addition, the *Consulting Editors*, graduate students or students who have finished their undergraduate degree, review the editor's letter to provide guidance to the authors and the editor in charge of the paper. The entire process is supervised by the *Senior Associate Editors*, Roxane de la Sablonnière, Ph. D., and Diana Cárdenas, M. Sc., in collaboration with the Editor in Chief. Several rounds of reviews may be undertaken until the manuscript is judged suitable for publication. As the review process moves from the first to the last round of reviews, the comments and modifications required become more precise and detailed. At first, the reviewing process ensures the overall scientific contribution of the paper. Then, subsequent rounds are aimed at improving more precise and detailed aspects, such as statistical analyses. Throughout the entire process, the editorial team is readily available to offer help and support to the authors. Thanks to the collaboration of the entire team as well as the authors, the JIRIRI has been able to reach its goals and mission.

Since You've Been Gone: Coping with a Relationship Breakup

DARCIE D. VALOIS, DANAY C. NOVOA, & CHRISTOPHER G. DAVIS, PH. D.

Carleton University

Continuing bonds (CBs) are cognitive and behavioral attempts to maintain a bond with the lost loved one. They are common in bereavement and are believed to reflect the attachment system's response to loss. Extending the notion of CBs to the context of breakup of a romantic relationship, this cross-sectional study of 103 undergraduates who experienced a breakup in the past six months (87 women and 16 men) indicated that expressions of internalized CBs (such as wondering what he/she would think of something) were associated with greater grief and more symptoms of depression after taking into account attachment anxiety and avoidance. Externalized CBs (such as feeling his/her presence) were uniquely associated with greater grief, but not depressive symptoms. These findings parallel those in the bereavement literature, and suggest that CBs may be indicative of intense grief. As neither internalized nor externalized CBs were associated significantly with life satisfaction, there is no indication that CBs interfere with one's ability to function in daily life.

Keywords: breakup, grief, continuing bonds, attachment, well-being

Les liens continus (LC), qui sont les tentatives cognitives et comportementales faites par l'individu afin d'essayer de maintenir un lien avec un être cher perdu, sont communs lors du deuil et reflètent la réponse d'attachement face à une perte. Cette étude transversale applique la notion des LC à une rupture amoureuse et comprend 103 étudiants de premier cycle qui ont vécu une rupture amoureuse dans les derniers six mois (85% de femmes). De plus, les résultats indiquent que des LC internalisés (comme se questionner sur ce que l'ancien partenaire de la personne penserait de quelque chose) sont associés avec un plus grand chagrin émotionnel et plus de symptômes dépressifs chez la personne, après avoir pris en compte l'anxiété d'attachement et l'évitement. Par contre, les LC externalisés (comme ressentir la présence de l'ancien partenaire de la personne) sont uniquement associés à un plus grand chagrin émotionnel, mais pas à des symptômes dépressifs. Ces résultats font le pont avec ceux de la littérature du deuil et suggèrent que les LC peuvent indiquer la présence de chagrin intense. Étant donné que ni les LC internalisés ni les LC externalisés ont été associés significativement avec la satisfaction globale dans la vie d'un individu, il n'y a aucune indication que les LC interfèrent avec l'habileté d'un individu de fonctionner normalement dans la vie de tous les jours.

Mots-clés : rupture, chagrin, liens continus, attachement, bien-être

The termination of a romantic relationship, like the loss of a loved one through death, often evokes a grief response. Just as with loss through death, there are considerable individual differences in how people respond to the breakup of a romantic relationship. For some, this loss provokes an intense, debilitating and long-lasting grief whereas for others, it is experienced as only mildly distressing (e.g., Bonanno, 2004; Sbarra & Emery, 2005).

Influential bereavement theorists have invoked Bowlby's (1980) attachment theory to explain individual differences in reaction to loss (e.g., Stroebe,

Schut, & Stroebe, 2005). In this paper, we use attachment theory to better understand reactions to the dissolution of a romantic relationship. In particular, we examine *continuing bonds (CBs)*, a concept that has attracted significant attention in the bereavement literature, but has not been considered in the context of relationship dissolution. To the extent that the CBs play a similar role in this new context, we help generalize recent advances in bereavement-based theory and research to a broader psychology of loss (Harvey & Miller, 1998).

CBs refer to the tendency of some bereaved individuals to maintain a connection with the lost person by attempting to mentally communicate with him or her, by imagining his or her presence, holding

Please address all correspondence to Darcie Valois (email: darcievalois@email.carleton.ca).

on to his or her belongings, or by “seeing,” “hearing,” or “feeling” the person when in fact he or she is not there. From an attachment perspective, such continuing bonds reflect a desire to find and reconnect with the attachment figure (Bowlby, 1980; N. P. Field & Sundin, 2001). As individuals differ in their attachment orientations or styles, they may also differ in their need to maintain the attachment following loss. As such, CBs may be regarded as a manifestation of attachment-related processes in the context of loss. In this study, we extend the CB concept to the relationship dissolution literature. Furthermore, we assess the extent to which patterns of association observed between CBs and grief and adjustment in the bereavement literature replicate in the context of a relationship dissolution. Specifically, the purpose of this study is to examine whether CBs are associated with grief following relationship dissolution similarly to the way CBs correlate with bereavement-related grief, taking into account attachment orientations. Accordingly, we first review the attachment perspective on loss and then consider theory and evidence from the bereavement literature on the roles that CBs play within this attachment perspective.

Attachment and Loss

Attachment theory has become an influential lens for understanding grief as a psychosocial process, and for understanding individual differences in adult grief trajectories (Shaver & Fraley, 2008; Stroebe, Schut, & Boerner, 2010; Stroebe et al., 2005). A number of studies suggest that there are significant parallels between the attachments that infants form with their caregivers and the attachments that adults form with their partners (e.g., Hazan & Shaver, 1987), and when adult romantic relationships end (through death or otherwise), people’s experiences of grief are not unlike the responses of young children upon separation from their caregiver. In the third volume of his influential trilogy on attachment, Bowlby (1980) argued that following the loss of an attachment figure, people are apt to search for and try to reconnect with the lost loved one, comparable to the way a young child will attempt to regain proximity to his or her caregiver following separation. The parallels between a young child’s response to separation and adults’ response to the loss of a loved one suggest the same attachment-related processes are involved. Therefore, it seems reasonable to consider grief from an attachment perspective.

Individual differences in attachment orientations fall along two dimensions: attachment-related anxiety (the degree to which a person worries that an attachment figure will be unavailable in times of need) and attachment-related avoidance (the degree to which one distrusts others and strives to maintain independence). Those scoring low on both dimensions are said to be securely attached; they are characterized by a sense that they can trust and count on others in times of need. Bowlby (1980) and those who have followed (e.g., Fraley & Shaver, 1997; N. P. Field & Sundin, 2001) suggested that grief is experienced differently depending on one’s attachment orientation. Securely attached individuals gradually come to accept the permanence of their loss, and relinquish the attachment to the lost loved one, whereas those with an anxious (also known as preoccupied) attachment may have difficulty relinquishing the connection, which may result in prolonged or chronic grief reactions. It has been suggested that those with avoidant (also known as dismissing) attachments tend to inhibit emotional expression and distance themselves from their feelings, thus they may be at risk of delayed grief (e.g., Bowlby, 1980).

Research on bereaved samples indicates that people with anxious attachments are particularly at risk of protracted or more severe grief reactions relative to those with secure attachments (N. P. Field & Sundin, 2001; Meier, Carr, Currier, & Neimeyer, 2013; Wayment & Vierthaler, 2002). Those with avoidant attachments do not report high levels of distress after loss, unless the death was violent (Meier et al., 2013). Findings similar to these have been reported in samples of young adults who have recently ended a romantic relationship (Davis, Shaver, & Vernon, 2003; Fagundes, 2012; Pistole, 1996). Fagundes (2012), for instance, showed in young adults who had recently experienced the dissolution of a romantic relationship that attachment anxiety was associated with greater distress, whereas attachment avoidance was not. The consistency of findings across studies of the bereaved and studies of dissolved romantic relationships suggests that attachment-related processes are at play in both contexts.

In summary, research indicates that grief is a common response among those who have lost a loved one by death or by relationship dissolution, and that individuals with more attachment anxiety who experience these events tend to have more severe and prolonged grief and distress than those with more

secure and avoidant attachment orientations. We now turn to the role that CBs play in the adjustment process.

Continuing Bonds After Loss

Grief researchers have noted that bereaved individuals often desire to retain an emotional bond with the deceased after the deceased has passed (N. P. Field, Gal-Oz, & Bonanno, 2003; Klass, Silverman, & Nickman, 1996; see Stroebe et al., 2005 for a review). For instance, the bereaved may do so by keeping their loved one's possessions, looking at photographs and memory objects, by mentally consulting with the deceased before important decisions, or perhaps by viewing the deceased as a role model and guide for one's life. In some cases, the bereaved report interactive experiences with the deceased, including feeling her presence or "seeing" him in a crowd.

Perhaps because expressions of CBs are commonly reported by the bereaved, those who work with CBs have long speculated on their role and function in the grief process because they are commonly reported by the bereaved. In his influential paper on mourning, Freud (1917/1957) argued that relinquishing these bonds with the deceased represents a critical aspect of grief. Although for many years grief counsellors emphasized the need to loosen and relinquish the emotional bonds to the deceased, Klass et al. (1996) suggested that failure to do so may not be problematic. Furthermore, they argued that people often use this bond to help them work their way through grief. However, empirical literature on the adaptiveness of CBs is mixed. Some research indicates that greater use of CBs is associated with more prolonged or complicated grief (e.g., Currier, Irish, Neimeyer, & Foster, 2015; N. P. Field et al., 2003), whereas other studies suggest a different view (Stroebe et al., 2010). For instance, in a longitudinal study of grief, Boelen, Stroebe, Schut, and Zijerveld (2006) showed that whereas 'sensing that the deceased was guiding you' and 'using cherished possessions of the deceased to feel near you' were both associated positively with grief and depressive symptoms 7-12 months post-loss, only the latter predicted grief and (marginally) depressive symptoms nine months later. They also reported that feeling 'calmed or supported by recovering memories or thoughts [of the deceased]' was not related at either time with grief or depressive symptoms.

Given the inconsistent findings in the literature, N. P. Field and Filanosky (2009) proposed differentiating internalized CBs (i.e., remain symbolic or spiritual, suggesting that the loss is permanent) from externalized CBs (i.e., one feels that the deceased has not really left, often involving hallucinations or illusions). They argued on the one hand that internalized CBs may facilitate adaptation to the loss when expressions of such bonds involved using the mental representation of the deceased as a secure base. On the other hand, they argued that expressions of externalized CBs, such as hearing the deceased's voice, seeing her in a crowd, reflect unresolved grief. Although they found that greater reports of externalized CBs were associated with more symptoms of complicated grief, they also found that greater use of internalized CBs was also independently associated with more symptoms of complicated grief. It remains unclear the extent to which use of internalized CB's facilitate adjustment following loss.

Recently, researchers (N. P. Field & Filanosky, 2009; N. P. Field, Gao, & Paderna, 2005) situate both internal and external CBs within an attachment framework. It was suggested that in the early phase of mourning, the attachment system has not yet registered the loss as irrevocable. As the reality of the loss sets in, the need for the return of the secure base motivates the individual to reorganize the relationship model to one based exclusively on an internal connection. However, when the personal implications of the loss are too great to be accepted, N. P. Field and Filanosky (2009) suggest that the individual may defensively avoid or exclude from awareness thoughts and feelings associated with the loss. Consistent with the notion of a defense mechanism, they suggest that the unresolved conflict between the need for reconnection and the reality of the loss may result in illusory perceptions of "hearing" the loved one's voice, or of "seeing" or "feeling" him or her. These externalized expressions of CBs may be suggestive of unresolved or prolonged grief.

The model that N. P. Field and colleagues (N. P. Field & Filanosky, 2009; N. P. Field et al., 2005) have developed suggests that the use of internalized bonds is normative in the initial post-loss period, at least among those with a secure or anxious attachment to the lost loved one. Individuals with an avoidant attachment, given their lack of trust, may be particularly unlikely to feel a need to maintain a bond with the lost loved one. Externalized bonds, indicative of problematic adjustment, should be most

common among those with an anxious attachment, as they reflect an inability to let go of the lost relationship.

Research in bereaved samples indicates mixed support for N. P. Field and colleagues' model (N. P. Field & Filanosky, 2009; N. P. Field et al., 2005). With regard to links between attachment orientations (anxious and avoidance) and CBs, N. P. Field and Filanosky (2009) were surprised to find no significant correlation between either attachment orientation and internalized or externalized CBs. However, in a bereaved sample of Hong Kong Chinese adults, Ho, Chan, Ma, and N. P. Field (2013) reported that those with anxious attachments were more likely than securely attached individuals to use externalized CBs. Use of internalized CBs in this study was not associated with attachment anxiety or avoidance. Interestingly, both studies (N. P. Field, 2006; Ho et al., 2013) showed greater use of internalized and externalized CBs to be associated independently with more symptoms of complicated grief. From these studies, it appears that whereas anxiously attached individuals may be prone to using externalized CBs, and that externalized CBs are associated with more complicated grief symptoms, the use of internalized CBs may not be as adaptive as previously thought.¹

In sum, whereas theory suggests that internalized CBs may be a normal reaction to the loss of an attachment figure, and therefore not symptomatic of intense or prolonged grief or distress, the data from bereaved samples suggests that greater use of internalized CBs is associated with greater grief and distress. Externalized CBs, however, are regarded as symptomatic of more severe forms of grief, and the evidence from the bereavement literature is consistent with this view. Although both internalized and externalized CBs are believed to reflect one's efforts to deal with the loss of an attachment figure, and thus are influenced by one's attachment orientation, they have been shown to predict grief and adjustment over and above attachment orientation. The existing literature on CBs is limited, however, to work in bereavement, though loss through death is but one way to lose an attachment bond. Anecdotally, we know that following the breakup of a romantic relationship people often report internalized and externalized CBs, but we do not know the extent to which these CBs reflect the same attachment-related processes as they do in bereavement, and whether they have the same implications for grief and adjustment.

In the present study, we therefore assess the role of CBs in adjustment following relationship breakup. We stand to gain confidence in the generalizability of attachment theory and the understanding of the function of CBs to the extent that the pattern of associations between grief, attachment orientations, and internalizing and externalizing CBs found in the bereavement literature replicate in the context of relationship dissolution. From a therapeutic perspective, understanding the function of both internalizing and externalizing CBs may help those coping with relationship dissolution, and those providing services to these individuals, recognize the significance of these seemingly aberrant thoughts and feelings.

The Present Study

The purpose of this study is to assess the extent to which patterns of associations between attachment orientations, internalizing and externalizing CBs, and grief and distress found in the bereavement literature replicate in the context of relationship dissolution. Therefore, we hypothesize, first, that grief will be correlated positively with anxious attachment orientation, but not with avoidant attachment orientation (H1). Second, following bereavement studies by N. P. Field and colleagues (N. P. Field & Filanosky, 2009; Ho et al., 2013), we test whether externalized CBs are correlated positively with attachment anxiety, but not attachment avoidance (H2). Third, and most importantly, we test whether internalized and externalized CBs significantly predict grief over and above the effects attributable to attachment orientation and characteristics of the breakup (initiator status, length of the relationship, and quality of the relationship; H3).

In addition to assessing the relations of CBs with grief (or breakup distress), we also assess their relations with more general indicators of psychological well-being, including a measure of depressed affect and life satisfaction. These secondary assessments are meant to be exploratory in nature, and thus are distinct from our hypotheses. In the context of loss, grief has been shown to correlate substantially with depressed affect (e.g., Wijngaards-de Meij et al., 2008). It is, however, recognized that they are distinct concepts. Depressed mood reflects a broader perspective on one's current situation than does grief. Recognizing that grief and depressed mood may not fully capture well-being, we also include an assessment of life satisfaction. Like depressed mood,

life satisfaction is likely influenced by events and factors beyond relationship dissolution. As such, we anticipate that CBs may have somewhat weaker links with these constructs than they do with grief.

Method

Participants

Participants were recruited from undergraduate psychology classes at a large Canadian university. To be eligible, they were required to have experienced the dissolution of a romantic relationship within the past six months. Those completing the online survey received a modest grade-raising credit. Of the 140 participants who began the survey, 37 were excluded because they did not meet the inclusion criterion, did not provide sufficient data, or failed attention checks imbedded in the survey, leaving a sample of $N = 103$ (87 women, 16 men; $M = 19.7$ years, $SD = 2.47$ years). The study was approved by the university's research ethics board.

Procedure

After completing an online consent form, participants were asked a series of questions about the terminated romantic relationship (e.g., how recently it ended, who initiated the breakup, and what led to the dissolution), and whether they were currently in a new romantic relationship. They then completed questionnaires assessing life satisfaction, depressive symptoms, a retrospective assessment of the quality of the relationship, breakup distress, attachment style, and CBs. Finally, they received a debriefing form explaining the purpose of the study.

Material

Life satisfaction. The *Satisfaction with Life Scale* (Diener, Emmons, Larsen, & Griffin, 1985) is a widely used instrument that assesses a global judgment about the state of one's life. It contains five items, each rated on a 7-point Likert scale. Scale reliability was $\alpha = .90$, which is consistent with Diener et al.'s (1985) findings when used with a sample of undergraduate students.

Depressive symptoms. Depressive symptoms were assessed with the Revised *Center for Epidemiological Studies Depression Scale Revised* (CESD-R) (Eaton, Smith, Ybarra, Muntaner, & Tien, 2004). Relative to the original *Center for Epidemiological Studies Depression Scale* (CESD) (Radloff, 1977), the CESD-R better reflects the primary symptoms of a major

depressive episode according to the DSM-IV. The 20-item CESD-R has been validated in a community sample and a student sample (Van Dam & Earleywine, 2011), where it has been shown to correlate highly and positively with trait anxiety and negative affectivity, and negatively (modestly) with positive affectivity. Van Dam and Earleywine (2011) also reported good internal consistency for the instrument ($\alpha = .92$ in the community sample and $\alpha = .93$ in the student sample). In the current study, $\alpha = .95$.

Relationship quality. Relationship quality prior to the breakup was assessed retrospectively by adapting the *Relationship Assessment Scale* (RA; Hendrick, 1988). The RA is a 7-item Likert scale that assesses participants' feelings about the relationship before the breakup. Each question asks participants to rate how they felt about a certain aspect of the relationship before the breakup occurred on a scale of 1 (*low satisfaction*) to 4 (*high satisfaction*). Example questions include: "Before the breakup, how well did your partner meet your needs?" and "Before the breakup, how many problems were in your relationship?". Hendrick's original instrument has been validated in prior research by demonstrating a high correlation ($r = .84$) with a measure of marital satisfaction (Vaughn & Mathyastastic Baier, 1999). Scale reliability in the present study was $\alpha = .84$.

Grief/breakup distress. T. Field, Diego, Pelaez, Deeds, and Delgado (2009) developed the *Breakup Distress Scale* (BD) by adapting items from the *Inventory of Complicated Grief* (ICG; Prigerson et al., 1995). The ICG is widely used in the bereavement literature for assessing complicated grief (e.g., Newson, Boelen, Hek, Hofman, & Tiemeier, 2011). The BD includes 16 of the ICG's 19 items, with the referent changed from deceased loved one to ex-partner. Items not retained were not relevant to relationship breakups. Example items include: "I feel stunned or dazed over what happened" and "I think about this person so much it's hard to do things I normally do". T. Field et al. (2009) reported that scores on the instrument correlated significantly and positively with anxiety, depressive symptoms, feeling betrayed by the breakup, hope for renewal of the relationship, and with elapsed time since the breakup in a college student sample. In the current sample, $\alpha = .94$.

Attachment. The Experiences in Close Relationships Questionnaire—Revised (ECR-R) (Fraley, Waller, & Brennan, 2000) was used to assess

participants' attachment-related avoidance and anxiety. Internal consistency and temporal stability of the two subscales have been shown to be very good ($\alpha > .90$ and test-retest correlations over a three week period, $r > .90$) and validity has been established by showing that scores on the two subscales predict subsequent reports of anxiety and comfort with closeness in interpersonal interactions from a daily diary study (Sibley, Fischer, & Liu, 2005). In the present study, $\alpha = .92$ for both subscales.

Continuing bonds. The *Continuing Bonds Scale* used was adapted from the original scale by N. P. Field and Filanosky (2009) to be made relevant to relationship breakups. Ten of the original 16 items were used, and the wording was changed to refer to an ex-partner instead of a deceased loved one (see Table 1). Participants were asked to indicate how often they engaged in a particular behaviour within the past month by choosing an option on a 4-point scale, which ranged from 0 (*not at all*) to 3 (*most of the time*).

Consistent with the original scale by N. P. Field and Filanosky (2009), the adapted Continuing Bonds Scale measured both the external and internal use of CBs (see Table 1 for list of items). The internal ($\alpha = .87$) and external ($\alpha = .78$) subscales demonstrated good reliability. The reliability of these scales is comparable to what N. P. Field and Filanosky (2009) found for the complete scale in a bereaved sample ($\alpha = .92$ and $.73$). The total mean for internalized continuing bonds for the entire participant

sample was higher ($M = 1.17$, $SD = 0.77$) than external continuing bonds ($M = 0.68$, $SD = 0.81$), which is also consistent with the findings with the original scale. Consistent with Field and Filanosky the distribution of scores for externalized CBs was positively skewed. Transforming scores by means of a square root transformation reduced skewness considerably but did not have a material change on the findings reported below. Given the lack of material change, we use the untransformed scores in the analyses below.

The most commonly experienced instance of internalized CBs was "imagining sharing with my ex something that happened to me" (experienced at least rarely by 78.2% of the sample). The most commonly experienced instance of externalized CBs was "imagining that my ex would suddenly come back to me" (experienced at least rarely by 59.2% of the sample).

Results

Preliminary Analyses

The preliminary analyses determined the extent to which constructs of interest were associated with demographic factors and loss-related variables. These analyses were conducted to assess the extent to which these factors might confound the main set of results. Independent samples *t*-test were conducted to assess the effects of gender, current relationship status (in a new relationship or single), and time since the breakup (less than 3 months vs. 3-6 months) on

Table 1
Adapted continuing bonds scale

Item
1. I thought about the positive influence of my ex on who I am today. (I)
2. I thought about my ex as a role model I try to be like. (I)
3. I imagined my ex guiding me or watching over me as if invisibly present. (I)
4. When making important decisions, I thought about what my ex might have done and used this in helping me make my decision. (I)
5. I thought about how my ex would have enjoyed something I said or did. (I)
6. I imagined sharing with my ex something special that happened to me. (I)
7. I imagined my ex's voice. (I)
8. I briefly acted as though I was still with my ex- such as calling out loud their name or preparing a table for two. (E)
9. I actually thought I felt my ex's physical touch. (E)
10. I imagined that my ex might suddenly come back to me. (E)

Note. (I) = internalized continuing bonds subscale; (E) = externalized continuing bonds subscale.

satisfaction with life, breakup grief, past relationship quality, attachment (anxiety and avoidance), depressive symptoms and CBs (internalized and externalized). Of the 24 *t*-test conducted, the only significant effects observed were for gender difference in attachment anxiety ($t(101) = -2.00, p < .05$) and relationship quality ($t(101) = -2.05, p < .05$), such that men scored higher than women on attachment anxiety and relationship quality. No other significant differences were found across gender, relationship status, or time since breakup ($t < |1.72|$, all $p > .09$).

One-way analyses of variance (ANOVA) were conducted to test whether initiator status (self, the other, or mutual) was associated with satisfaction with life, breakup grief, relationship quality, attachment anxiety and avoidance, depressive symptoms and internalized and externalized CBs. Only one significant difference was observed in relationship quality ($F(2, 99) = 11.84, p < .001$), where initiators perceived less relationship quality than partner initiated and mutual. No other effects were statistically significant, although initiator status had a marginally significant relation with life satisfaction (I initiated > partner initiated; $F(2, 99) = 2.77, p = .068$), breakup grief (partner initiator > I initiated; $F(2, 99) = 2.58, p = .081$), and internalized CBs (mutual > I initiated; $F(2, 99) = 2.55, p = .083$).

Main Analyses

The first goal of the present study was to assess the extent to which attachment orientations correlated with grief following relationship dissolution. Table 2 shows that high scores on attachment anxiety were

correlated positively and significantly with grief ($r(101) = .39, p < .001$); attachment avoidance, however, was not significantly associated with grief ($r(101) = -.02, p = .82$). Table 2 also shows that scores on attachment anxiety and avoidance were significantly correlated positively with depression scores and negatively with life satisfaction.

The second goal of the study was to assess the extent to which internalized and externalized CBs correlated with attachment anxiety and avoidance. Consistent with N. P. Field and Filanosky (2009) and Ho et al. (2013), internalized CBs were not significantly correlated with either attachment-related anxiety or avoidance ($r < |.12|, p > .25$). However, externalized CBs were positively correlated with attachment-related anxiety ($r = .23, p < .05$), but not with attachment-related avoidance ($r = -.11, p = .288$).

The third goal of the study was to assess the extent to which CBs predict breakup grief above and beyond one's attachment orientation. In a regression analysis, attachment anxiety and avoidance were entered in the first step and internalized and externalized CBs were entered on the second step. As shown in Table 3, attachment anxiety and avoidance together accounted for 16.7% of variance in breakup grief. Attachment anxiety was uniquely associated with grief, such that those reporting a more anxious attachment style tended to report more grief ($\beta = .42, p < .001$). The effect for avoidant attachment was not significant ($\beta = -.14, p = .153$). When internalizing and externalizing CBs were entered into the model in the second step, we observed that greater use of both internalized CBs

Table 2
Correlations of attachment style, continuing bonds and affect variables

	1	2	3	4	5	6	7	8
1. Anxiety	-							
2. Avoidance	.27**	-						
3. CB Internal	.11	-.08	-					
4. CB External	.23*	-.11	.63**	-				
5. Breakup Grief	.39**	-.02	.59**	.66**	-			
6. Satisfaction with Life	-.42**	-.24*	-.12	-.14	-.43*	-		
7. Depressive Symptoms	.43**	.19*	.41**	.41**	.68**	-.48**	-	
8. Relationship Quality	-.10	-.38**	-.31**	.24*	.31**	-.13	.12	-
<i>M</i>	3.53	3.05	1.17	0.71	32.94	23.66	11.50	19.41
<i>SD</i>	1.25	1.11	0.77	0.84	12.52	6.97	10.61	4.92

Note. CB = continuing bonds; * $p < .05$, two-tailed; ** $p < .01$, two-tailed.

($\beta = .31, p < 0.01$) and externalized CBs ($\beta = .40, p < .001$) uniquely predicted greater breakup grief. This regression was repeated including as covariates initiator status (dummy-coded), gender, and relationship quality—factors associated with our constructs of interest in preliminary analyses. Controlling for these factors had no appreciable effect on the findings.

For exploratory purposes, the regression analysis was repeated using symptoms of depression and life satisfaction as dependent variables. Table 3 shows that on the first step of the regressions, attachment anxiety independently predicted greater depressive symptoms ($\beta = .41, p < .001$) and lower life satisfaction ($\beta = -.38, p < .001$); attachment avoidance was not uniquely associated with either of these ($\beta < |.15|, p > .10$). At the second step, we observed that internalized CBs were positively associated with depressive symptoms ($\beta = .27, p < .05$), but not life satisfaction ($\beta = -.08, p = .475$; see Table 3). Those who reported use of externalized CBs reported marginally more symptoms of depression ($\beta = .19, p = .09$), but no effect was observed for the effect of externalized CBs on life satisfaction ($\beta = -.02, p = .878$). As was the case for the analyses involving grief as an outcome, controlling for initiator status, gender, and relationship quality had no appreciable effect on these findings.

Discussion

Loss of a loved one, whether due to death or relationship dissolution, elicits a grief response. From an attachment perspective, the loss of a close

relationship requires one to sever the bond, or at least transform it into a spiritual or symbolic level (see e.g., Bowlby, 1980; N. P. Field, 2006; Klass et al., 1996). Reports of CBs after the loss, particularly those that are internalized (e.g., thought about how he or she would have enjoyed something I did) are believed to reflect the transformation of the bond into a spiritual or symbolic level. In contrast, externalized bonds (e.g., thought I felt his or her touch) are believed to indicate problems changing the nature of the bond (N. P. Field & Filanosky, 2009).

Although there is mounting evidence of the roles of CBs in the context of bereavement, we are aware of no other study that has examined this phenomenon within the context of relationship dissolution. To the extent that a romantic relationship can be understood as an attachment bond, our main goal was to show that CBs play similar roles in the context of relationship dissolution as they do in bereavement. Confirming each of our hypotheses, we first found that attachment anxiety positively predicted breakup grief, whereas attachment avoidance did not (H1). We also found that attachment anxiety was positively associated with externalized CBs but not internal CBs, whereas avoidant attachment was not associated with either (H2). Lastly, we observed that both internalized and externalized CBs were independently associated with more grief post-relationship dissolution even after taking into account attachment orientations and characteristics of the breakup (such as initiator status, length of the relationship, and quality of the relationship; H3). These findings mirror what has been reported in samples of bereaved individuals (e.g., Ho et al., 2013). Given that our main interest centres on

Table 3

Regression of breakup grief, satisfaction with life and depressive symptoms on attachment orientations and continuing bonds

	Breakup Grief			Satisfaction with Life			Depressive Symptoms		
	<i>b</i>	<i>SE</i>	<i>t</i>	<i>b</i>	<i>SE</i>	<i>t</i>	<i>b</i>	<i>SE</i>	<i>t</i>
Step 1									
Anxious Attachment	4.25	0.95	4.48**	- 2.11	0.52	- 4.05**	3.75	0.86	4.37**
Avoidant Attachment	- 1.54	1.07	- 1.44	- 0.89	0.59	- 1.51	0.87	0.97	0.90
Step 2									
Anxious Attachment	2.68	0.73	3.65**	- 2.02	0.54	- 3.70**	2.91	0.81	3.60**
Avoidant Attachment	- 0.31	0.81	- 0.39	- 0.97	0.54	- 1.62	1.55	0.89	1.74 [†]
Internal Continuing Bonds	5.03	1.43	3.52**	- 0.76	1.06	- 0.72	4.04	1.57	2.56*
External Continuing Bonds	5.98	1.35	4.42**	- 0.15	1.00	- 0.15	2.55	1.49	1.71 [†]

Note. $n = 103$; * $p < .05$, two-tailed; ** $p < .01$, two-tailed; [†] $p < .10$, two-tailed.

the effects of CBs on grief over and above attachment, we will first discuss these findings and then proceed to discuss the relations of attachment and grief as well as attachment and CBs.

As hypothesized, individuals scoring higher on the attachment anxiety dimension were more likely to report externalized CBs than those scoring low on this dimension. Considering that those with an anxious attachment orientation fear abandonment (e.g., Hazan & Shaver, 1987), their externalized CBs likely reflect a desire to cling to their lost love and, to some extent, a refusal to believe that the relationship has ended. Although this analysis suggests that externalized CBs are cause for concern, we caution that pathologizing such expressions so soon after the loss may not be appropriate as the link between such thoughts and depressive symptoms was only marginally significant in the regression model.

Whereas externalized CBs were correlated positively with attachment anxiety, internalized CBs were not significantly correlated with attachment anxiety or avoidance—a pattern also found in bereavement studies (Boelen et al., 2006; N. P. Field & Filanosky, 2009; Ho et al., 2013). These data indicate that individuals with secure attachment orientations were as likely to indicate such CBs as those with insecure attachments, at least in the first six months post-breakup. Although individuals with secure attachment orientations may experience less grief following their breakup, they nevertheless face the same difficult task of severing and transforming their bond. That their grief is less intense suggests that those with a secure attachment orientation are better able to manage this change.

Although theorists have argued that internalized CBs may facilitate adjustment following loss (N. P. Field, 2006; Klass et al., 1996), data from this study and a number of bereavement studies indicate that such CBs are associated with greater grief and depressive symptoms (e.g., Currier et al., 2015; N. P. Field & Filanosky, 2009; Ho et al., 2013). Given the consistency of these findings, it is tempting to reject the theory. Before doing so, however, we recommend that the hypothesis be tested with a longitudinal data design. The cross-sectional designs used to date do not test the possibility that use of internalized CBs may lead to, or reflect, greater grief in the short term, but may facilitate a subsequent reduction in grief and distress.

It is interesting that whereas both internalized and externalized CBs were significantly correlated with grief and depressive symptoms (and perceived quality of the relationship), they were not associated significantly with life satisfaction. One way to interpret this pattern of results is to suggest that CBs affect mood but not one's general outlook on life. Unlike grief and depressive symptoms (which emphasize one's feelings), life satisfaction reflects a cognitive evaluation of one's present situation (Diener, 2000). Another way to interpret this pattern of results is to suggest that feelings of grief and distress promote the need or desire to maintain the relationship with the former partner; a feeling of dissatisfaction with life may not promote the same need. Given the cross-sectional nature of this study, we are unable to tease apart these two interpretations.

Consistent with what has been found in the bereavement literature (e.g., N. P. Field & Sundin, 2001), we found that individuals with more anxious attachments experienced more grief following their breakup relative to those with more secure attachments. Those with an anxious attachment also reported more symptoms of depression and lower life satisfaction. Since anxiously attached individuals tend to be dependent and reliant on romantic partners while fearing rejection and abandonment (Hazan & Shaver, 1987), a breakup is apt to be highly distressing for these individuals as it signifies their fears coming true. In the context of relationship dissolution, Davis et al. (2003) have suggested that anxiously attached individuals tend to be more preoccupied with their ex-partner and continued to desire to use them for attachment related needs after a breakup, which would indicate that it may take them longer to reorganize their attachment hierarchy and fully integrate their loss (Fagundes, 2012). This preoccupation with an ex-partner and delay in the ability to integrate the loss sound quite similar to unresolved grief.

Although greater attachment avoidance was associated at the bivariate level, with lower life satisfaction and more symptoms of depression; avoidance was not significantly associated with any of the three outcome measures after controlling for attachment anxiety. Once more, this pattern of results is similar to what others have found in samples of people coping with relationship breakups (Davis et al., 2003; Fagundes, 2012) and bereavement (N. P. Field & Sundin, 2001). For instance, N. P. Field and Sundin reported no relation between avoidant attachment and

post-bereavement for both physical and psychological symptoms in bereaved individuals who had lost their spouse. Similarly, among those who experienced relationship dissolution, avoidant attachment generally has not been significantly associated with distress (Davis et al., 2003) or adjustment (Fagundes, 2012). These results are reflective of the emotional distancing strategies typically used by individuals with avoidant attachment to cope with loss (Davis et. al., 2003; N. P. Field & Sundin, 2001), which have been thought to suppress attachment-related distress (Fraley, Davis, & Shaver, 1998; Fraley & Shaver, 1997).

Limitations and Suggestions for Future Research

With this study, we have introduced the notion of CBs into the relationship dissolution literature. Now that we have confirmed links between CBs, attachment orientations, and grief, future research will have to further investigate the subject with causal designs. It is possible that intense distress or grief motivates people to think of or imagine their lost love. Longitudinal designs would not only help determine the causal direction of effects, but they would also help establish whether CBs have long-term implications for mental health. In the bereavement literature, expressions of intense grief in the first six months are not generally regarded as signs of concern. Indeed, complicated grief is normally assessed at least six months post-loss (Prigerson et al., 1995). Thus it may be premature to suggest that internalized and externalized CBs experiences within the first six months of a relationship dissolution have implications for future adjustment.

Aside from the limitations associated with cross-sectional designs, a further limitation of this study is that participants were self-selected and from an undergraduate student population. Given that participants voluntarily chose to participate in this study, individuals who were experiencing particularly distressing breakups may not have wanted to complete the study because discussing the details and feelings of their breakup may have been too difficult emotionally. The undergraduate population poses another limitation, as these results may not be generalizable to older adults or those dealing with divorce, for example (Birnbaum, Orr, Mikulincer, & Florian, 1997). Although divorce involves the severance of attachment bonds, grief in this context can be complicated by legal processes that may distort, extend, or eviscerate any feelings of loss. We assume that relationship dissolution in non-married

couples may yield similar results to what we have observed here, but we remain cautious about extending our findings to this population and await further research before generalizing. Thus, future studies should explore older samples and potentially samples which include individuals experiencing divorce, as these samples may yield different results.

In order to control for any differences in the quality of the relationships prior to the breakup, we included in our study a retrospective measure of relationship quality. We recognize as a limitation that this assessment of relationship quality may contain retrospective bias. Nevertheless, we felt that failure to take into account differences in relationship quality would leave findings open to the argument that the links between CBs and grief could be due to relationship quality (i.e., those who were in unsatisfactory relationships may grieve less, and be less likely to experience CBs).

Conclusion

Our findings shed light into how coping with death and relationship breakups generalize into the broader field of psychology of loss. Specifically, the addition of CBs into the relationship dissolution literature confirms that this behaviour is relevant to other types of loss besides bereavement. Thus the similarities observed between coping with bereavement and coping with a breakup in the present study suggest that loss is a distressing experience which can bring about a great deal of grief, regardless how that loss came about. This insight could help inform future counselling strategies for those experiencing a relationship dissolution. For instance, those with an anxious attachment orientation have greater difficulty coping and experience more grief compared to those with other attachment orientations and thus may require more social support and personalized counselling strategies to help them work through their grief. Counselling for those who are bereaved is increasingly incorporating attachment models (e.g., Currier et al., 2015), and these same models may also be appropriate for individuals coping with relationship dissolution.

Throughout this article, we have emphasized ways in which coping with loss through death and relationship dissolution are similar. It was argued that CBs play similar roles in the context of bereavement and relationship breakup. However, it is also important to note the ways in which these contexts are

different. Though both experiences can be quite distressing for some individuals, losing a loved one through death is clearly more permanent than through a breakup. Dissolved relationships sometimes do rekindle and, on occasion, a broken romantic relationship becomes platonic. Moreover, whereas relationship breakups have the potential to be mutual or amicable, death does not. It remains to be seen the extent to which these differences interacted with CBs and grief.

Note

¹Although N. P. Field and Filanosky (2009) found that internalized CBs were positively correlated with greater grief in their sample of bereaved adults, they also found that internalized CBs were positively associated with reports of posttraumatic growth. That is, those reporting more use of internalized CBs tended to report that their experience with loss has led to positive changes—for example, in how they relate to others, have greater appreciation for life, and experience increases in self-confidence or personal strength. It is unclear what to make of these findings, as reports of growth after loss or adversity do not necessarily reflect or imply adjustment (Frazier et al., 2009; Nolen-Hoeksema & Davis, 2004).

References

- Birnbaum, G. E., Orr, I., Mikulincer, M., & Florian, V. (1997). When marriage breaks up: Does attachment style contribute to coping and mental health? *Journal of Social and Personal Relationships*, 14, 643-654.
- Boelen, P. A., Stroebe, M. S., Schut, H. A. W., & Zijerveld, A. M. (2006). Continuing bonds and grief: A prospective analysis. *Death Studies*, 30, 767-776.
- Bonanno, G. A. (2004). Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events? *American Psychologist*, 59, 20-28.
- Bowlby, J. (1980). *Attachment and loss: Sadness and depression* (Vol. 3). New York, NY: Basic Books.
- Currier, J. M., Irish, J. E. F., Neimeyer, R. A., & Foster, J. D. (2015). Attachment, continuing bonds, and complicated grief following violent loss: Testing a moderated model. *Death Studies*, 39, 201-210.
- Davis, D., Shaver, P. R., & Vernon, M. L. (2003). Physical, emotional, and behavioral reactions to breaking up: The roles of gender, age, emotional involvement, and attachment style. *Personality and Social Psychology Bulletin*, 29, 871-884.
- Diener, E. (2000). The science of happiness and a proposal for a national index. *American Psychologist*, 55, 34-43.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction with Life Scale. *Journal of Personality Assessment*, 49, 71-75.
- Eaton, W. W., Smith, C., Ybarra, M., Muntaner, C., & Tien, A. (2004). Center for Epidemiologic Studies Depression Scale: Review and revision (CESD and CESD-R). In M. E. Maruish (Ed.), *The use of psychological testing for treatment planning and outcomes assessment: Instruments for adults* (3rd ed., Vol. 3, pp. 363-377). Mahwah, NJ: Lawrence Erlbaum.
- Fagundes, C. P. (2012). Getting over you: Contributions of attachment theory for postbreakup emotional adjustment. *Personal Relationships*, 19, 37-50.
- Field, N. P. (2006) Unresolved grief and continuing bonds: An attachment perspective, *Death Studies*, 30, 739-756.
- Field, N. P., & Filanosky, C. (2009). Continuing bonds, risk factors for complicated grief, and adjustment to bereavement. *Death Studies*, 34, 1-29.
- Field, N. P., Gal-Oz, E., & Bonanno, G. A. (2003). Continuing bonds and adjustment at 5 years after the death of a spouse. *Journal of Consulting and Clinical Psychology*, 71, 110-117.
- Field, N. P., Gao, B., & Paderna, L. (2005). Continuing bonds in bereavement: An attachment theory based perspective. *Death Studies*, 29, 277-299.
- Field, N. P., & Sundin, E. C. (2001). Attachment style in adjustment to conjugal bereavement. *Journal of Social and Personal Relationships*, 18, 347-361.
- Field, T., Diego, M., Pelaez, M., Deeds, O., & Delgado, J. (2009). Breakup distress in university students. *Adolescence*, 44, 705-727.
- Fraley, R. C., Davis, K. E., & Shaver, P. R. (1998). Dismissing-avoidance and the defensive organization of emotion, cognition, and behavior. In W. S. Rholes & J. A. Simpson (Eds.), *Attachment theory and close relationships* (pp. 249-279). New York, NY: Guilford.
- Fraley, R. C., & Shaver, P. R. (1997). Adult attachment and the suppression of unwanted thoughts. *Journal of Personality and Social Psychology*, 73, 1080-1091.

- Fraley, R. C., Waller, N. G., & Brennan, K. A. (2000). An item-response theory analysis of self-report measures of adult attachment. *Journal of Personality and Social Psychology*, 78, 350-365.
- Frazier, P., Tennen, H., Gavian, M., Park, C., Tomich, P., & Tashiro, T. (2009). Does self-reported post-traumatic growth reflect genuine positive change? *Psychological Science*, 20, 912-919.
- Freud, S. (1917/1957). Mourning and melancholia. In J. Strachey (Ed.), *Standard edition of the complete psychological works of Sigmund Freud* (Vol. 14, pp. 152-170). London, UK: Hogarth Press. (Original work published in 1917).
- Harvey, J. H., & Miller, E. (1998). Toward a psychology of loss. *Psychological Science*, 9, 429-434.
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52, 511-524.
- Hendrick, S. S. (1988). A generic measure of relationship satisfaction. *Journal of Marriage and the Family*, 50, 93-98.
- Ho, S. M. Y., Chan, I. S. F., Ma, E. P. W., & Field, N. P. (2013). Continuing bonds, attachment style, and adjustment in the conjugal bereavement among Hong Kong Chinese. *Death Studies*, 37, 248-268.
- Klass, D., Silverman, P., & Nickman, S. L. (1996). *Continuing bonds: New understandings of grief*. New York, NY: Taylor & Francis.
- Meier, A. M., Carr, D. R., Currier, J. M., & Neimeyer, R. A. (2013). Attachment anxiety and avoidance in coping with bereavement: Two studies. *Journal of Social and Clinical Psychology*, 32, 315-334.
- Newson, R. S., Boelen, P. A., Hek, K., Hofman, A., & Tiemeier, H. (2011). The prevalence and characteristics of complicated grief in older adults. *Journal of Affective Disorders*, 132, 231-238.
- Nolen-Hoeksema, S., & Davis, C. G. (2004). Theoretical and methodological issues in the assessment and interpretation of posttraumatic growth. *Psychological Inquiry*, 15, 60-65.
- Pistole, M. C. (1996). After love: Attachment styles and grief themes. *The Family Journal*, 4, 199-207.
- Prigerson, H. G., Maciejewski, P. K., Reynolds, C. F., Bierhals, A. J., Newsom, J. T., Fasiczka, A., Frank, E., Doman, J., & Miller, M. (1995). The inventory of complicated grief: Scale to measure maladaptive symptoms of loss. *Psychiatry Research*, 59, 65-79.
- Radloff, L. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1, 385-401.
- Sbarra, D. A., & Emery, R. E. (2005). The emotional sequelae of non-marital relationship dissolution: Analyses of change and intraindividual variability over time. *Personal Relationships*, 12, 213-232.
- Shaver, P. R., & Fraley, R. C. (2008). Attachment, loss, and grief: Bowlby's views and current controversies. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (2nd ed., pp. 48-77). New York, NY: Guilford Press.
- Sibley, C. G., Fischer, R., & Liu, J. H. (2005). Reliability and validity of the Revised Experiences in Close Relationships (ECR-R) self-report measure of adult romantic attachment. *Personality and Social Psychology Bulletin*, 31, 1524-1536.
- Stroebe, M., Schut, H., & Boerner, K. (2010). Continuing bonds in adaptation to bereavement: Toward theoretical integration. *Clinical Psychology Review*, 30, 259-268.
- Stroebe, M., Schut, H., & Stroebe, W. (2005). Attachment in coping with bereavement: A theoretical integration. *Review of General Psychology*, 9, 48-66.
- Van Dam, N. T., & Earleywine, M. (2011). Validation of the Center for Epidemiologic Studies Depression Scale—Revised (CESD-R): Pragmatic depression assessment in the general population. *Psychiatry Research*, 186, 128-132.
- Vaughn, M. J., & Mathyastie Baier, M. E. M. (1999). Reliability and validity of the Relationship Assessment scale. *The American Journal of Family Therapy*, 27, 137-147.
- Wayment, H. A., & Vierthaler, J. (2002). Attachment style and bereavement reactions. *Journal of Loss & Trauma*, 7, 129-149.
- Wijngaards-de Meij, L., Stroebe, M., Schut, H., Stroebe, W., van den Bout, J., van der Heijden, P., & Dijkstra, I. (2008). Parents grieving the loss of their child: Interdependence in coping. *British Journal of Clinical Psychology*, 47, 31-42.

Received July 14, 2015

Revision received December 2, 2015

Accepted December 31, 2015 ■

Death and Dying: An Analysis of Suicide in Pittsburgh

KARL GIBSON
University of Pittsburgh

Suicide is one of the leading causes of death in the United States. This article examines the relationship between multiple levels of neighborhood distress, race, and suicide in the city of Pittsburgh, Pennsylvania. Using data from the Census as well as the Pittsburgh Neighborhood and Community Information System (PNCIS), this study investigates the relationship between racial disparities, neighborhood socioeconomic disadvantage (SED), residential instability, violence, and suicide in Pittsburgh's residential neighborhoods. Ordinary least squares (OLS) linear regression was used to model the data, regressing race, SED, residential instability, and violent crime on suicide rates. Findings suggest that SED is positively associated with suicide rates at the neighborhood level, as is having a low percentage of Black residents. Furthermore, the percentage of Black residents is found to be a stronger predictive factor than SED, despite Black neighborhoods exhibiting the highest levels of distress. Implications of these findings for future research are discussed.

Keywords: distress, neighborhoods, race, suicide, socioeconomic disadvantage

Le suicide est l'une des principales causes de décès aux États-Unis. Cet article étudie la relation entre la pauvreté du quartier, le groupe ethnique et le suicide dans la ville de Pittsburgh, Pennsylvanie. Utilisant les données du recensement ainsi que le Pittsburgh Neighborhood and Community Information System (PNCIS), cette étude investigate si le désavantage socioéconomique du quartier (SED), l'instabilité résidentielle et la violence du quartier prédisent le suicide, en contrôlant pour les disparités raciales, dans les quartiers résidentiels de Pittsburgh. Afin de tester les hypothèses, les disparités raciales, le désavantage socioéconomique, l'instabilité résidentielle et les crimes violents ont été rentrés dans une régression linéaire (méthode des moindres carrés, (OLS) prédisant le taux de suicide. Les résultats suggèrent qu'un grand désavantage socioéconomique, ainsi qu'un faible pourcentage de résidents noirs, sont associés au taux de suicide élevé dans le quartier. De plus, le pourcentage de résidents Noirs prédit d'avantage le taux de suicide que le désavantage socioéconomique, malgré que les quartiers majoritairement Noirs démontrent un plus haut taux de pauvreté. Les implications de ses résultats pour des recherches futures sont discutées.

Mots-clés : pauvreté, quartier, groupe ethnique, suicide, désavantage socioéconomique

Suicide was found to be the tenth leading cause of death for all age ranges in the United States in 2010, with a total of 38,364 suicides occurring over the course of the year for an average of 105 suicides per day. Furthermore, suicide was estimated to result in a cost of 34.6 billion dollars in medical and work loss costs every year (Centers for Disease Control and Prevention, 2010). Socioeconomic status (SES) can influence suicide rates, hindering social integration of individuals in a community as well as hindering

access to mental health services (Denney, Rogers, Krueger, & Wadsworth, 2009). While socioeconomic status can have as great an impact on suicide rates as mental disorders, studying its influence is critical to understanding suicide rates of populations (Page, Taylor, Hall, & Carter, 2009). The importance of assessing protective and risk factors associated with suicide cannot be understated.

Durkheim and a Brief History of Sociological Studies of Suicide

Durkheim was one of the first researchers to investigate the influence of social factors on suicide. In Durkheim's classic work, *Suicide*, his primary objective was to explain and analyze a largely individual behavior (suicide) as a social phenomenon (Durkheim, 1897/1951). Durkheim stated:

Research conducted by Karl Gibson, Department of Sociology, University of Pittsburgh. This research was supported in part by a grant from the Brackenridge Research Fellowship. Special thanks to Professor Waverly Duck and Professor Anita Zuberi for their suggestions regarding the content of this document. The author would also like to thank the City of Pittsburgh for providing the Pittsburgh map used for Figure 1. Correspondence concerning this article should be directed to Karl Gibson, Department of Sociology, University of Pittsburgh, PA 15213 (email: kgw2@pitt.edu).

If, instead of seeing in them only separate occurrences, unrelated and to be separately studied, the suicides committed in a given society during a given period of time are taken as a whole, it appears that this total is not simply a sum of independent units, a collective total, but is itself a new fact *sui generis*, with its own unity, individuality and consequently its own nature - a nature, furthermore, dominantly social (Durkheim, 1897/1951, p. 46)

What was unique about Durkheim's perspective, at the time, was that he viewed suicide rates as a social fact, maintaining that it had a social identity that was not entirely individual in nature. Many sociological studies of suicide are built upon Durkheim's central argument that suicide can be analyzed as a social incident, and not solely an individual act (Abrutyn & Mueller, 2014; Condorelli, 2013). Durkheim examined a number of factors to understand differing suicide rates, including religion, marital status, and the social organization of the economy. Using this approach, Durkheim found that social ties and social integration are inversely related to suicide rates within a society.

Whereas most of the existing literature investigates suicide at an individual-level, this paper seeks to expand research in this field by investigating neighborhood-level data. Certain community-level variables, such as residential instability, are better examined at the neighborhood-level than the individual-level, otherwise neighborhood-level effects can be missed. Community-level structure has an important influence over health outcomes, which cannot be reduced to the individual-level effects. In keeping with Durkheim's logic, this study seeks to explore the significance of neighborhood distress — conceptualized as race, economy, place, and social ties — for suicide rates in the city of Pittsburgh. Using a neighborhood-level approach provides public health officials with possible avenues for combating higher suicide rates in particular neighborhoods by identifying those that are at a higher risk for suicide.

The Role of Socioeconomic Status and Neighborhood Distress in Suicide

Suicide risk has been linked to multiple aspects of socioeconomic disadvantage (SED), including unemployment and lower social class (Purselle, Heninger, Hanzlick, & Garlow, 2009). SED can be conceptualized in terms of structural factors (such as poverty, unemployment, lack of education, and single-mother households) that can cause disadvantages for individuals and populations. Low SES can be seen as a symptom of neighborhood distress. In a study analyzing the rising trend in suicide rates from 1970 to

1985 in Ireland, suicide was found to be associated with SES, and most importantly, suicide rates were found to increase as unemployment rates increased, particularly among males (Kelleher & Daly, 1990). Additionally, a study of suicides in Denmark from 1981-1997 found that economic stressors, such as low income and unemployment, increased suicide risk for individuals, particularly in males (Qin, Agerbo, & Mortensen, 2003). Furthermore, Lewis and Sloggett (1998) found a strong correlation between higher unemployment rates and increased suicide rates when analyzing 1981 Census data from England and Wales.

In general, prior research findings suggest that lower income and higher unemployment rates are associated with higher rates of suicide in White populations (Johansson & Sundquist, 1997; Purselle et al., 2009). However, measures of SES seem to be limited in scope, with many studies focusing only on income, excluding other important measures of disadvantage, such as unemployment or level of education. Moreover, most studies in the suicide literature focus on individual-level data, neglecting how the SES of the neighborhood as a whole can influence suicide. When the entire population of a neighborhood exhibits low SES, it might be harder for neighbors to aid each other or provide social support. This, in turn, could lead to higher incidence of suicide in the neighborhood. In the present study, SED is hypothesized to predict an increase in the incidence of suicide within a community.

The Racial Disparities in Socioeconomic Status and Suicide

Traditionally, Black populations have exhibited lower suicide rates than White populations, despite Black populations' historical experience of racial discrimination, high levels of persistent poverty, and social isolation due to residential segregation in the United States. Over the past few decades, however, the disparity in suicide rates between these two groups has lessened (Gibbs, 1997; Stack, 2000a). Race has been found to play a crucial role in how income influences suicide rates, somewhat complicating the impact of SES. For example, Purselle et al. (2009) found that areas with income lower than the general population had more suicide victims living within the area. However, the difference appeared to be almost exclusively among White suicide victims who resided in areas where the average income was only 70% of the general White population. In Black populations, suicide victims had slightly higher incomes than their White counterparts, though the researchers note that the difference in income for Black populations was likely not meaningful. Nonetheless, Steenland, Halperin, Hu and Walker (2002) reported that, as the

income of a population increases, there is a significant decrease in the suicide rates of White populations, yet the decrease in suicide rates of Black populations was much less pronounced for the same unit increase in population income.

In addition to income, other measures of SES have been examined: the effects of levels of education and high school dropout rates on suicide. Joe, Baser, Breeden, Neighbors and Jackson (2006) note that both the risk of suicidal ideation and the risk of attempting suicide for African Americans were associated with having a low education level. In particular, African Americans with less than a high school education had a much greater likelihood of attempting suicide (Joe et al., 2006; see also Willis, Coombs, Drentea, & Cockerham, 2003).

Although Black populations exhibit lower average rates of suicide than White populations, findings regarding the effects of income and unemployment on the suicide rate of Black populations seem to be mixed. Furthermore, many studies investigating suicide on an individual-level provided inconclusive data on the number of Black victims, leading to difficulties detecting statistically significant racial differences with regard to risk factors such as SED, or other racial differences related to risk factors for suicide (Purselle et al., 2009). However, because Black neighborhoods historically exhibit the lowest suicide rates, while being the most socioeconomically disadvantaged, it has been difficult to predict the impact of SED on these neighborhoods. The present study addresses these matters: in addition to examining the relationship between race and suicide, it also examines the relationship of race to SED, with the aim of detecting possible moderation effects whereby race offers a protective buffer against living in disadvantaged neighborhoods.

Community Instability

Community instability can be defined as a neighborhood that is experiencing low rates of home ownership and decreased numbers of residents who have occupied the same home for the past five years. In this study, neighborhood instability will be examined as a measure of neighborhood distress. Johansson and Sundquist (1997) found that communities experiencing high turnover also experienced higher rates of psychiatric disorders, including a higher incidence of suicide. However, this finding was completed at a nationwide-level, ignoring possible neighborhood level effects. Furthermore, Coleman (1990) found that high levels of residential turnover led to a disruption of continuity within a community, hindering the development of new social ties and damaging existing social ties. Thus, an abrupt

population change could destabilize and negatively influence the social organization and network of a community, leading to distress for the neighborhood residents. However, prior literature is limited and does not focus on investigating how residential instability could impact suicide rates across neighborhoods. For the present study, it is hypothesized that high levels of residential instability will be predictive of higher rates of suicide.

Violent Crime and Suicide

A violent crime is an offense involving murder, robbery, rape, or aggravated assault. Neighborhoods that are highly distressed tend to show high levels of violent crime (Sampson, Raudenbush, & Earls, 1997). As higher levels of distress within neighborhoods are related to higher rates of violent crime, these sustained stressors can make residents more vulnerable to disease and stress-related behaviors. This could, in turn, affect the number of suicides within a given neighborhood. In addition, Cornaglia, Feldman and Leigh (2014) found that higher violent crime rates were correlated with adverse mental health outcomes for both victims and non-victims alike. However, prior literature has not investigated the impact of violent crime on suicide. In the present study, it is hypothesized that violent crime, an indicator of neighborhood distress and poor mental health outcomes, acts as a stressor, predicting higher rates of suicide for neighborhood residents.

Study Contributions

The goal of this paper is to take a nuanced look at the relationship between race, multiple measures of neighborhood distress (SED, residential instability, and violent crimes), and their influence on suicide rates. It is hypothesized that, as neighborhood distress — measured as SED, residential instability, and rates of violent crime — increase, so will suicide rates. A second hypothesis is that predominantly Black neighborhoods will have lower suicide rates than White neighborhoods. Finally, given evidence that black populations have, on average, lower suicide rates than white populations, this paper will examine whether race moderates the effect of neighborhood distress on suicide. Since black neighborhoods historically exhibited high levels of concentrated neighborhood distress, this topic has not yet been studied.

Context of the Study

Using multiple measures of neighborhood distress, this exploratory study of suicide will analyze variations of suicide rates across neighborhoods in

Pittsburgh, along with the factors that predict these variations. With respect to race, Pittsburgh offers a unique situation in which the population is predominantly White or Black, allowing for a more or less binary comparison of the two groups (68% White and 27% Black based on the 2000 census). As with many large former industrial cities, Pittsburgh is highly segregated along race and class lines. Several studies show that racial segregation and social isolation have produced greater neighborhood poverty for Blacks than Whites (Massey & Eggers, 1990; O'Hare & Mather, 2003; Wallace et al., 2013). This paper investigates the intersection of race and SED, as they affect suicide in White and Black populations.

Data and Methods

This study used Census data as well as other measures of local-level data from the Pittsburgh Neighborhood and Community Information System (PNCIS) in order to ascertain the relationship between suicide rates, various measures of neighborhood distress, and race. The PNCIS gathers data from various local entities (including the health department, police reports, and other administrative data sources) on the 90 official neighborhoods located in the city of Pittsburgh. While the study investigated all 90 neighborhoods in the Pittsburgh area, it retained only 85 of the neighborhoods for statistical analysis due to outlier effects: two neighborhoods had population sizes too small for analysis, and the other three neighborhoods were removed as outliers based on leverage, externalized studentized residuals, and overall influence (Cook's D and DFFITS). These neighborhoods were defined using the census tract boundaries, as demarcated in the 2000 Census.

Measures

Suicide. The suicide data was determined using death records occurring among residents in the city of Pittsburgh from 2006-2010. The number of suicides was aggregated over this time span, providing a total number of suicides for a given neighborhood from 2006-2010. Only completed suicides were included in this aggregate number. The suicide rate was calculated as a percentage of the total population using the 2000 Census data.

Socioeconomic Disadvantage Index. The SED index was calculated using the 2000 Census data. To create this index, the percentages of poverty, unemployment, high school dropouts, and single-mother households per individual neighborhood were combined into one variable (Cronbach's alpha was .83). Using the principal component factor analysis option in statistical analysis software (SAS), the standardized component was used to weight each

variable and subsequently combine these weighted variables into a single index variable.

Residential Instability Index. Residential instability was measured using resident tenure and the percentage of the population that resided in the same home for the past five years. Tenure was calculated as the percent of housing units in the neighborhood that were occupied from the 2000 Census. The Residential Instability Index combined these two variables into one variable (Cronbach's alpha was .85). Using the principal component factor analysis option in SAS, the standardized component was used to weight each variable and subsequently combine these weighted variables into a single index variable.

Violent Crime. Violent crime was calculated using police record data from the PNCIS. All incidents of violent crime were collected, and a yearly average was calculated for each neighborhood. In accordance with the Uniform Crime Reporting System (UCRS), which was established by the Federal Bureau of Investigation (FBI), all crime data within the PNCIS system includes twenty-nine different classifications arranged into hierarchies. Violent crime was defined using hierarchies 1-4, which include aggravated assault, robbery, rape, and murder. The years of data collection range from 2005 to 2010. Violent crime was estimated as a percentage per 1,000 people using the 2000 Census population data.

Race. Race was calculated using the percent Black of various neighborhoods in the 2000 Census. The percent Black is the percentage of the neighborhood population that identifies as Black. Since approximately 95% of the population in Pittsburgh is either White or Black (68% White and 27% Black based on the 2000 census), these two races were the focus of this study. Furthermore, like many other urban areas, Pittsburgh is highly racially segregated, with most neighborhoods having either White or Black residents.

Statistical Analyses

Ordinary least squares (OLS) linear regression was used to model the data, regressing race, SED, residential instability, and violent crime on suicide rates in order to test the various hypotheses. The effects of living in a socioeconomically disadvantaged neighborhood are hypothesized to predict an increase in the incidence of suicide within a community. Furthermore, neighborhoods with high levels of residential instability were hypothesized to experience higher suicide rates. Lastly, violent crime, an indicator of neighborhood distress and poor mental health outcomes, was hypothesized to act as a stressor,

predicting higher rates of suicide for neighborhood residents. Recall that, while Black populations exhibit lower average rates of suicide than White populations, findings regarding the effects of SED on Black populations seem to be mixed. Therefore, three additional moderation effects were examined. The first was the moderation effect of race on SED and suicide, the second was the moderation effect of race on residential instability and suicide, and the last was the moderation effect of race on violent crime and suicide.

Removal of Outliers

The possible influence of outliers was examined through regression and running subsequent models to test for robustness. Six methods were used to identify possible cut points: Leverage, R Student, Cook's D, Dffits, CovRatio, and DFBetas (Bollen & Jackman 1990; Chatterjee & Hadi, 1986). To determine a cut point for Leverage, the equation $2(k + 1)/n$ was used, yielding a value of 0.16. However, due to the small sample size, a more permissive value of 0.30 was used to identify the most influential outliers. R Student has a standard recommended cut point of greater than 2 or less than -2. Using both of these cutoffs, four neighborhoods were identified as possible outliers. For Cook's D, the equation $4(n - k - 1)$ was used. This yielded a value of 0.05, identifying five neighborhoods as possible outliers. For Dffits, observations with values greater than 1, or less than -1, were identified as outliers. Dffits identified three neighborhoods as possible outliers. For CovRatio, any significant variation from 1 is viewed as an outlier. Based on the suggested identification point of 1, any value less than 0.4 or greater than 1.6 was identified as a potential outlier. Lastly, DFBetas have a similar cut point to Dffits, where any value greater than 1 or less than -1 was identified as a possible outlier. Taking all

of these tests into consideration, three neighborhoods were removed as outliers. In addition to these three neighborhoods, two additional neighborhoods were removed due to population size, as their population sizes were less than 60 residents. The removal of outliers improved the strength of the model, however all patterns were observable in the data without the removal of outliers.

Results

Sample Descriptive Statistics

The results indicated that rates of suicide vary across neighborhoods in Pittsburgh (see Table 1). During the time period from 2006-2010, the number of suicides per neighborhood varied from 0 to 7, with an average of 1.88 suicides per neighborhood. The average percentage of suicides across the neighborhoods was less than 1 percent (0.05%), with the percentage of suicides not being evenly distributed among the various neighborhoods but appearing to cluster in certain areas (see Figure 1). Along with suicide, neighborhood SED varied greatly across the neighborhoods that make up the city limits of Pittsburgh, with an average SED index of -0.005. Variables contributing to the disadvantage index (median income, percent unemployment, percent high school dropout, and percent single-mother households) also varied greatly across the various neighborhoods. The average residential instability index value for neighborhoods was 0.04. Student dorms and housing as well as public housing may have contributed to the low tenure rates in a few neighborhoods, resulting in a higher residential instability index value. Lastly, the median number of violent crimes per 1,000 residents was 11.67.

Table 1

Means, minimums and maximums for all neighborhoods confounded

Variables	Source	<i>M (SD)</i>	Min	Max
Suicide (%)	PNCIS	0.05 (0.04)	0.00	0.22
Black Population (%)	Census	36.02 (34.08)	0.20	97.00
SED Index	Census	0.005 (0.65)	-0.99	2.32
Residential Instability Index	Census	0.04 (0.85)	-2.60	1.57
Violence ¹	PNCIS	16.27 (18.27)	0.15	137.80

Note. ¹Per 1000 residents; *N* = 85.

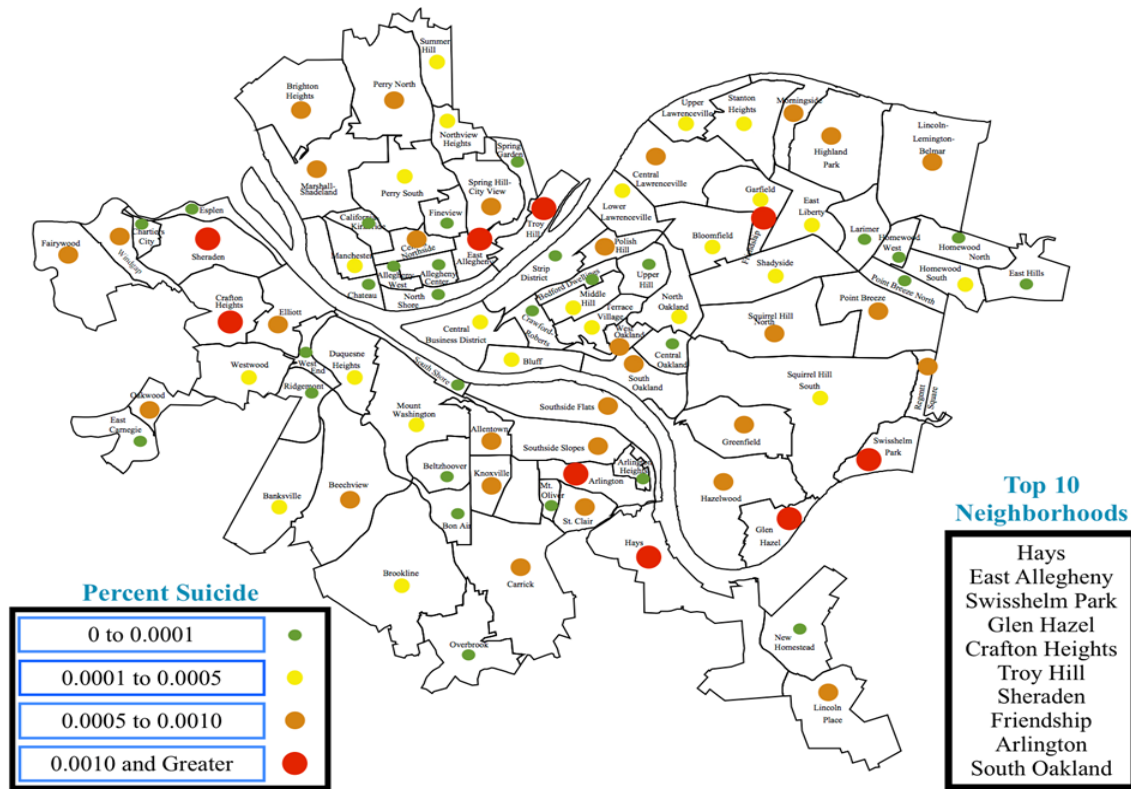


Figure 1. Neighborhood Map of Pittsburgh Displaying Percent Suicide Relative to Neighborhood Population (City of Pittsburgh, 2010).

Understanding the Main Variables: The Distribution of Variables According to Neighborhood Racial Makeup

In the city of Pittsburgh, approximately 95% of the population is White or Black. However, Pittsburgh is a fairly segregated city. In the sample population, the minimum percent of the population that was Black in a neighborhood was less than 1 percent (0.20%), while the maximum percent Black was 97%. Of the neighborhoods examined ($N = 85$), 46 (or 54%) neighborhoods had less than 25% of the population identifying as Black; 12 (14%) had between 25% and 50% of the population identifying as Black; and 27 (32%) had greater than 50% of their population identifying as Black. In other words, approximately half of the neighborhoods examined were predominantly White, while approximately a third of the neighborhoods were predominantly Black. In contrast, very few neighborhoods fell into the racially mixed category.

Furthermore, the variables examined were not evenly distributed across the different racial categorizations of neighborhoods (see Table 2). Because of this phenomenon, a series of Kruskal-Wallis Tests were used to confirm that the observed

differences across the groups (White neighborhoods, mixed neighborhoods, and Black neighborhoods) were statistically significant.

Suicide. White neighborhoods were found to have the highest average suicide rates ($M = 0.06$, $SD = 0.05$), while Black neighborhoods had the lowest rates ($M = 0.03$, $SD = 0.04$). Moreover, Black neighborhoods appear to have much lower suicide rates than either White or mixed neighborhoods, with mixed and White neighborhoods showing similar trends. The results of a Kruskal-Wallis Test confirm that there was a statistically significant difference across the three neighborhood categories ($\chi^2(2, N = 85) = 7.43$, $p < .001$).

Socioeconomic Disadvantage Index. SED increases as the percentage of Black residents in a neighborhood increases. Compared to White neighborhoods' average SED ($M = 0.08$, $SD = 0.03$), that of Black neighborhoods ($M = 0.17$, $SD = 0.07$) is approximately 10% higher. This trend indicates that neighborhoods that are mostly composed of Black residents are exposed to higher rates of disadvantage and poverty. Black neighborhoods had an average of 36% of their residents living in poverty, while mixed

Table 2

Distribution of variables by neighborhood racial composition

Variables	White (<i>n</i> = 46)	Mixed (<i>n</i> = 12)	Black (<i>n</i> = 27)
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)
Suicide (%)	0.06 (0.05)	0.05 (0.04)	0.03 (0.04)
SED Index	0.08 (0.03)	0.11 (0.04)	0.17 (0.07)
Residential Instability Index	0.27 (0.88)	- 0.19 (0.99)	- 0.25 (0.63)
Average Violence ¹	9.59 (9.50)	16.46 (11.50)	27.53 (11.50)

Note. ¹Per 1000 residents; *N* = 85.

neighborhoods averaged 22%, and White neighborhoods averaged 16%. The results of a Kruskal-Wallis Test confirmed that there was a statistically significant difference across the three neighborhood categories ($\chi^2(2, N = 85) = 38.52, p < .001$).

Residential Instability Index. Residential instability also varied across neighborhood racial categories. In particular, instability became progressively more negative (i.e. more unstable) as the percentage of Black individuals in the neighborhood increased. The average residential instability index value for White neighborhoods ($M = 0.27, SD = 0.88$) was higher than that for Black neighborhoods ($M = -0.25, SD = 0.63$). The results of a Kruskal-Wallis Test confirmed that there was a statistically significant difference across the three neighborhood categories ($\chi^2(2, N = 85) = 11.76, p < .001$).

Violent Crime. The average number of violent crimes committed per 1,000 residents was highest in Black neighborhoods ($M = 27.53, SD = 11.50$). The lowest average number of crimes occurred in White neighborhoods ($M = 9.59, SD = 9.50$). This was a difference of approximately 17.00 crimes per 1,000 residents. The results of a Kruskal-Wallis Test confirmed that there was a statistically significant difference across the three neighborhood categories ($\chi^2(2, N = 85) = 27.40, p < .001$).

Hypotheses Testing: Examining Suicide, Race, and Distress

Table 3 presents the results of a regression model including percent Black, SED, percent tenure, percent population change, and average number of violent acts

as independent measures, and percent suicide as the outcome variable, for 85 Pittsburgh Neighborhoods. The results of this model suggest that both race ($p < .001$) and SED ($p = .024$) are statistically significant factors. For every additional percent of Black population in the neighborhood, the average percent of suicide decreases by 0.07% ($SE = 0.02$), controlling for all other measures in the model. Furthermore, for every unit increase in SED, the suicide percent relative to population increases by 0.003 ($SE = 0.001$), again controlling for all other measures in the model. The largest effect is the percent Black (producing a -0.50 standard deviation change in the percent suicide).

Although SED still produces a robust effect, it is not as strong as percent Black (producing a 0.39 standard deviation change in the percent suicide). Residential instability and average violent acts were not found to be statistically significant. Overall, about 11% of the variability in percent suicide can be explained by the factors explored in this model.

Table 3

Regression for suicide on race, SES distress, percent tenure, percent population change, and average violence

Variables	Suicide (%)
	β
Black (%)	-.50
SED Index	.39
Residential Instability Index	.11
Average Violence ^a	-.11
Intercept	.00
<i>R</i> ² square (adjusted)	.11

Note. ¹Per 1000 residents; *N* = 85.

Additionally, three moderation effects were tested (see Table 4). The first model investigated whether race moderated the effect of SED on suicide, and was not found to be significant ($p > .05$). The second model investigated whether race moderated the effect of residential instability on suicide, and was not found to be significant ($p > .05$). Lastly, the third model tested whether race moderated the effect of average number of violent crimes on suicide, and was not found to be significant ($p > .05$). In summary, none of the moderation effects were found to be significant.

Table 4

Regression for suicide on three interaction models

Variables	Suicide (%)		
	Model 1	Model 2	Model 3
	β	β	β
Black Population (%)	-.33	.47	-.30
SED Index	-	.18	-
Residential Instability Index	-	-	.20
Average Violence ¹	-.25	-	-
Intercept	-	-	-
Race X Average Violence	.25	-	-
Race X SED	-	.07	-
Race X Residential Instability	-	-	-.20
<i>R</i> ² square (adjusted)	.06	.08	.08

Note. ¹Per 1000 residents; *N* = 85.

Discussion

The goal of this exploratory study was to investigate the relationship between neighborhood distress and suicide rates in Pittsburgh's residential neighborhoods. Applying Durkheim (1897)'s classic theoretical argument to a contemporary example, this study examined neighborhood-level data, as opposed to individual-level measures, to gain a more nuanced understanding of how race, suicide, and neighborhood distress are interrelated.

The first hypothesis examined the relationship between neighborhood SED and percentage of suicide relative to population. It was predicted that, even after controlling for race, the effects of SED within a neighborhood (e.g., a higher incidence of poverty, higher single-mother families, high unemployment rates, and high school dropout rates) would increase the suicide rate of the neighborhood. The second hypothesis predicted that with a high index of residential instability, there would be less access to social capital, leading to weakened social ties within the neighborhood, which would, in turn, increase the percentage of suicides. The third hypothesis predicted that a higher incidence of violent crimes would lead to increased rates of suicide. The results of OLS regression supported the first hypothesis, but did not support the other two hypotheses.

As Durkheim (1897)'s theory of social integration suggests, when a neighborhood is highly disadvantaged, it is more difficult for individuals to maintain the social ties that provide a protective effect against suicide within the neighborhood. Additionally, it is possible that high levels of SED in a community can lower collective efficacy—defined as the ability of a social network, within a given space, to pursue a common purpose and goal—further strengthening the social ties within the community (Sampson et al., 1997). However, residential instability and average incidence of violent crimes were not found to be predictive of a higher incidence of suicide in the present study. Upon examination of the ten neighborhoods with the highest suicide rates, none were found to have population changes that differed significantly from the mean. Specifically, six of the neighborhoods studied had higher percentage of tenured homes than the mean, while four were below the mean. Additionally, only two of the ten neighborhoods with the highest suicide rates had numbers of violent crimes above the median number for violent crimes.

The results of OLS regression supported the hypothesis that, as the percentage of the Black population increased, the percentage of suicides would decrease. When comparing the standardized coefficients for race and SED, race actually has a larger influence on suicide than does SED. Accordingly, despite the higher rates of disadvantage in Black neighborhoods, other factors must be at work, strengthening ties among residents and providing a protective effect for these spaces. Additionally, existing cultural differences in Black neighborhoods could explain these findings. Historically, extended familial and kinship networks have played a major role in the ability of African Americans to survive despite living in a hostile and discriminatory society (Billingsley, 1992; Gibbs, 1997). Indeed, the extended familial networks that have developed in these Black neighborhoods provide functions such as social support, emotional support, and economic support for their inhabitants (Gibbs, 1997). Therefore, the extended family networks may provide a necessary protective buffer for individuals in these communities. In addition to extended familial networks, the importance of religion within Black communities may also help explain the findings. By fostering commitment to particular life-preserving values, beliefs, and practices, religiosity was found to act as a suicide deterrent based on social integration within the community (Billingsley, 1992; Early, 1992; Stack, 1983; Stack, 2000b; Stark, Doyle, & Rushing, 1983).

Despite exhibiting the lowest suicide rates, Black neighborhoods also exhibit some of the highest levels of disadvantage in Pittsburgh (see Table 2). On average, Black neighborhoods exhibited the highest levels of SED, residential instability, and average incidence of violent crimes. Because of this phenomenon, models were run to examine whether there was a moderation effect between the various measures of neighborhood distress and race. None of the moderation effects tested were supported by the regression model (see Table 4).

Previous research examined interactions and order within poor Black neighborhoods (Duck, 2015; Duck & Rawls, 2012). Although the Black neighborhoods appear disordered and chaotic to outsiders, Duck (2015) found that activities within poor Black neighborhoods—such as drug dealing—also reflect a sense of order in these communities, as they show a local code of conduct. Thus, many apparent signs of decay, such as drug dealing, violence, and vacant lots, should not necessarily be viewed as signs of disorder *per se*.

Together, these findings suggest that SED plays an important role in increasing the incidence of suicide within neighborhoods, even after accounting for race. They also contribute to the literature by showing both the importance of using multiple measures for examining SED, as well as demonstrating the influence of this distress at a neighborhood-level rather than an individual-level. In addition, the findings of this study contribute to the literature by demonstrating the relative strengths of the two significant variables (race and SED), with race exhibiting a stronger effect on suicide than SED. However, neither the other variables of interest, nor the moderation effects were found to be significant. Future research is indicated to investigate how other measures of distress and disinvestment in a community influence suicide rates, as well as to uncover which features are unique to Black neighborhoods, and buffer the effects of concentrated poverty and distress.

Limitations

The primary limitation of the present study was that data on aggregate numbers of suicides were only available over a four-year span. A longer period of analysis may have allowed us to find trends in the data that the present study was unable to illustrate. Another limitation of the study is related to time ordering of the data used for analysis. Because data was collected from multiple sources, such as PNCIS and the Census, the measures were not always available for the same period of time. Nonetheless, this study demonstrated

that neighborhood data is a valuable tool for understanding and examining suicide. Neighborhood-level findings could be useful for public health officials as a possible avenue for combating high rates of suicide by identifying and implementing policy changes for neighborhoods that are at risk for higher rates of suicide.

Conclusion

The present study investigated the relationship between multiple measures of neighborhood distress and suicide rates in Pittsburgh. Consequently, it provided a more nuanced understanding of the relationship between race, suicide, and neighborhood distress. Despite Black neighborhoods exhibiting the highest levels of distress, they displayed the lowest rates of suicide and were found to be a stronger predictive factor of suicide rates than neighborhood SED. This suggests the presence of a protective factor within these spaces. These findings also suggest important avenues for future research. Such research could seek to better examine measures of community stability by analyzing the average length of time an individual has resided in a neighborhood, as well as the relative flow of individuals entering and exiting the neighborhood. Additionally, future research should further investigate the protective effect that Black neighborhoods have against suicide, elucidating which neighborhood characteristics might provide this effect. Finally, the present study has highlighted the effects of SED on suicide, which future research could further specify by utilizing other measures of disadvantage.

References

- Abrutyn, S., & Mueller, A. (2014). The socioemotional foundations of suicide: A microsociological view of Durkheim's suicide. *American Sociological Association*, 32, 327-351.
- Billingsley, A. (1992). *Climbing Jacob's ladder: The enduring legacy of African American families*. New York, NY: Simon & Schuster.
- Bollen, K., & Jackman, R. (1990). Regression diagnostics: An expository treatment of outliers and influential cases. In Fox, J. and Long, S. (Eds.), *Modern Methods of Data Analysis* (pp. 257-291). Newbury Park, CA: Sage.
- Centers for Disease Control and Prevention, (2010).l. Web-Based Injury Statistics Query and Reporting System (WISQARS) [Data file] Retrieved from: <http://www.cdc.gov/injury/wisqars/index.html>.
- Chatterjee, S., & Hadi, A. (1986). Influential observations, high leverage points, and outliers in linear regression. *Statistical Science*, 1, 379-393.

- City of Pittsburg, 2010. *Geographic Information System*. Retrieved from: <http://pittsburgpa.gov/dcp/gis/gis-data-new>
- Coleman, J. (1990). *Foundations of social theory*. Cambridge, MA: Harvard University Press.
- Condorelli, R. (2013). A Bayesian analysis of suicide data: Testing the Durkheim's suicide theory: A suicide study in Italy. *Quality and Quantity*, 47, 1143-1161.
- Cornaglia, F., Feldman, N., & Leigh, A. (2014). Crime and mental well-being. *The Journal of Human Resources*, 49, 110-140.
- Denney, J., Rogers, R., Krueger, P., & Wadsworth, T. (2009). Adult suicide mortality in the United States: Marital status, family size, socioeconomic status, and differences by sex. *Social Science Quarterly*, 90, 1167-1185.
- Duck, W. (2015). *No way out: Precarious living in the shadow of poverty and drug dealing*. University of Chicago Press.
- Duck, W., & Rawls, A. (2012). Interaction orders of drug dealing spaces: Local orders of sense making in a poor black American place. *Crime, Law, and Social Change*, 57, 33-75.
- Durkheim, E. (1897/1951). *Suicide: A study in sociology*. New-York, NY: Free Press.
- Early, K. (1992). *Religion and suicide in the African-American community*. Westport, CT: Greenwood Press.
- Gibbs, J. (1997). African-American suicide: A cultural paradox. *Suicide and Life - Threatening Behavior*, 27, 68-79.
- Joe, S., Baser, R., Breeden, G., Neighbors, H., & Jackson, J. (2006). Prevalence of and risk factors for lifetime suicide attempts among blacks in the United States. *Journal of the American Medical Association*, 296, 2112-2123.
- Johansson, S., & Sundquist, J. (1997). Unemployment is an important risk factor for suicide in contemporary Sweden: An 11-year follow-up study of a cross-sectional sample of 37389 people. *Public Health*, 111, 41-45.
- Kelleher, M., & Daly, M. (1990). Suicide in Cork and Ireland. *British Journal of Psychiatry*, 157, 533-538.
- Lewis, G., & Sloggett, A. (1998). Suicide, deprivation, and unemployment: Record linkage study. *British Medical Journal*, 317, 1283-1286.
- Massey, D., & Eggers, M. (1990). The ecology of inequality: Minorities and the concentration of poverty, 1970-1980. *American Journal of Sociology*, 95, 1153-1189.
- O'Hare, W., & Mather, M. (2003). *The growing number of kids in severely distressed neighborhoods: Evidence from the 2000 Census*. Baltimore, MD: Annie E. Casey Foundation.
- Page, A., Taylor, R., Hall, W., & Carter, G. (2009). Mental disorders and socioeconomic status: Impact on population risk of attempted suicide in Australia. *Suicide and Life-Threatening Behavior*, 35, 471-481.
- Purselle, D., Heninger, M., Hanzlick, R., & Garlow, S. (2009). Differential association of socioeconomic status in ethnic and age-defined suicides. *Psychiatry Research*, 167, 258-265.
- Qin, P., Agerbo, E., & Mortensen, P. (2003). Suicide risk in relation to socioeconomic, demographic, psychiatric, and familial factors: A national register-based study of all suicides in Denmark, 1981-1997. *The American Journal of Psychiatry*, 160, 765-772.
- Sampson, R., Raudenbush, S., & Earls, F. (1997). Neighborhoods and violent crime: A multilevel study of collective efficacy. *Science*, 277, 918-924.
- Stack, S. (1983). The effect of religious commitment on suicide: A cross-national analysis. *Journal of Health and Social Behavior*, 24, 362-374.
- Stack, S. (2000a). Suicide: A 15-year review of the sociological literature. Part I: Cultural and economic factors. *Suicide and Life - Threatening Behavior*, 30, 145-162.
- Stack, S. (2000b). Suicide: A 15-year review of the sociological literature. Part II: Modernization and social integration. *Suicide and Life - Threatening Behavior*, 30, 145-162.
- Stark, R., Doyle, D., & Rushing, J. (1983). Beyond Durkheim: Religion and suicide. *Journal for the Scientific Study of Religion*, 22, 120-131.
- Steenland, K., Halperin, W., Hu, S., & Walker, J. (2003). Deaths due to injuries among employed adults: The effects of socioeconomic class. *Epidemiology*, 14, 74-79.
- Wallace, M., Harville, E., Theall, K., Webber, L., Chen, W., & Berenson, G. (2013). Neighborhood poverty, allostatic load, and birth outcomes in African American and White women: Findings from the Bogalusa Heart Study. *Health and Place*, 24, 260-266.
- Willis, L., Coombs, D., Drentea, P., & Cockerham, W. (2003). *Uncovering the mystery: Factors of African American suicide*. *Suicide and Life - Threatening Behavior*, 33, 412-429.

Received July 15, 2015

Revision received October 23, 2015

Accepted February 9, 2016 ■

When Conflict is Less Costly: Interdependence as a Buffer in Romantic Relationships

AMNA SHAKIL, LISA CATHERINE DAY, PH. D., & EMILY ANNE IMPETT, PH. D.
University of Toronto

Past research has demonstrated that individuals with an interdependent self-construal are buffered against relationship difficulties across several domains. We tested whether an interdependent self-construal can buffer individuals from experiencing some of the negative effects of daily conflict in romantic relationships. We conducted a 14-day daily experience study with 166 individuals in romantic relationships. Results of the multilevel moderation analyses demonstrated that on days when people experienced more conflict with their romantic partner than they typically did in their relationships, individuals with a less interdependent construal style experienced a significant decline in relationship satisfaction. In contrast, this effect was somewhat attenuated for individuals with a more interdependent self-construal style. These findings identify a group of individuals for whom relationship satisfaction is not as negatively impacted by daily relationship conflict and have important implications for couples therapy.

Keywords: romantic relationships, self-construal, relationship conflict, relationship satisfaction, daily experience methods

Les études passées ont démontrées que les individus ayant un concept de soi interdépendant sont protégés contre des difficultés relationnelles dans de nombreux domaines. Nous avons testé si un concept de soi interdépendant peut protéger les individus de certains aspects négatifs des conflits quotidiens dans les relations amoureuses. Nous avons effectué une étude de 14 jours avec 166 individus vivant une relation amoureuse. Les résultats ont démontré que, les participants ayant un concept de soi moins interdépendant éprouvaient une baisse significative de satisfaction conjugale les jours où ces derniers vivaient davantage de conflits avec leur partenaire amoureux que d'habitude. À l'inverse, cet effet était atténué chez les individus ayant un concept de soi plus interdépendant. Ces découvertes identifient un groupe d'individus pour qui les conflits conjugaux quotidiens ont un moins grand impact négatif sur leur niveau de satisfaction conjugale et ont d'importantes implications pour la thérapie de couple.

Mots-clés : relation amoureuse, concept de soi, conflits conjugaux, satisfaction conjugale, mesures de l'expérience quotidienne

Interpersonal conflict is an unpleasant and inevitable experience in all close relationships, including relationships among romantic partners. A large body of research on conflict in romantic relationships has documented their costs. More specifically, relationships characterized by conflict have decreased relationship satisfaction (Cramer & Jowett, 2010), are associated with poorer physical

health outcomes (Kiecolt-Glaser et al., 2005), and do not tend to last as long as relationships in which romantic partners experience lower levels of conflict (for a review, see Booth, Crouter, & Clements, 2001). However, recent research in relationship science suggests that conflict does not inevitably detract from the qualities of romantic relationships, as engaging actively and constructively with a partner when discussing relationship issues has the potential to actually benefit relationships (Gordon & Chen, 2015; McNulty & Russell, 2010). In this paper, we suggest that individual differences in *interdependent self-construal*, that is, the extent to which people value social relationships and connections with others

We would like to express our gratitude to the Department of Psychology at the University of Toronto Mississauga. We would also like to thank Julie Ouerfelli-Ethier, the associate editor of the JI-RIRI, and the 5 anonymous reviewers for their suggestions and insights during the reviewing process. Please address correspondence to Amna Shakil (email: amna.shakil@mail.utoronto.ca).

(Markus & Kitayama, 1991; Singelis, 1994) will buffer individuals from experiencing some costs of interpersonal conflict in their romantic relationships.

Interdependence Self-Constraint in Relationship

A great deal of psychological research has shown variations of self-construal in individuals. Those who are high in interdependent self-construal see themselves as fundamentally interconnected with others, and value conformity to group norms, others' expectations and group-related goals. Alternatively, those who are high in independent self-construal see themselves as being unique and autonomous, and tend to value personal achievements over group harmony (Markus & Kitayama, 1991). Cross-cultural research typically emphasizes differences in self-construal between Eastern and Western cultures: individuals in Eastern cultures typically have an interdependent self-construal and individuals in Western cultures typically have an independent self-construal (Markus & Kitayama, 1991). However, a great deal of variability in self-construal also occurs within a given culture (Oyserman, Coon, & Kemmelmeier, 2002). In fact, interdependent and independent self-construals can coexist within the same individual (Singelis, 1994). This means that, although there are broad cultural differences in construal style, there is also a great deal of individual variation. Although independent self-construal continues to be an important construct, in this paper, we will focus on individual variation in interdependent self-construal or interdependence.

Interdependence affects the way individuals behave in romantic relationships. Emerging literature has demonstrated that interdependence buffers against relationship difficulties across several domains. For instance, a recent study examined the link between relationship costs or negative outcomes and avoidance goals, defined as goals to avoid disappointing one's partner (Impett, Le, Asyabi-Eshghi, Day, & Kogan, 2013). Results indicated that when making a sacrifice for avoidance goals, individuals high in interdependence were buffered against experiencing some of the emotional and relationship costs that were more typically experienced by people low in interdependence. The researchers conducted a 14-day daily experience study, which is a type of study in which participants completed short quantitative surveys for 14 consecutive days. The results demonstrated that individuals who were lower in interdependence felt inauthentic when they sacrificed for avoidance goals. This, in turn, has a negative

impact on their emotional well-being and on the quality of their relationship. On the other hand, individuals high in interdependence feel authentic when sacrificing for avoidance goals. Thus, these individuals are buffered against the emotional and relational difficulties experienced by people low in interdependence (Impett et al., 2013).

In addition to being buffered against the negative consequences of sacrificing for avoidance goals, highly interdependent individuals are also buffered against negative consequences of suppressing negative emotions during sacrifice. The same study (Le & Impett, 2013) demonstrated that suppression of negative emotions during sacrifice was related to lower well-being and relationship quality in individuals with low interdependence, but was related to higher well-being and relationship quality in highly interdependent individuals. Furthermore, feelings of authenticity towards the sacrifice that is, feeling that the sacrifice was a genuine expression of one's "true" self, mediated the associations. Therefore, it was concluded that for individuals high in interdependence, the suppression of negative emotions can actually be beneficial.

Although, several studies have shown that interdependence buffers against negative aspects of relationships, no existing research has examined the role of interdependence in buffering against one of the most significant difficulties couples can face: relationship conflict. Relationship conflict can interfere with human's basic need for close, intimate relationships with others (Baumeister & Leary, 1995), and can lead to several adverse effects such as decline in relationship satisfaction (Cramer, 2002), well-being (Baumeister & Leary, 1995), and an increase in depressive symptoms (Mackinnon et al., 2012). Given that there will inevitably be times when couples need to navigate relationship conflicts, and since conflict in romantic relationships can have several adverse effects, it is important to investigate potential factors that might buffer people against experiencing drops in satisfaction in the face of conflict.

Past research has investigated cross-cultural differences in how couples deal with relationship conflict. Specifically, Yum (2004) examined individuals from three different cultures (US mainland, Hawaii, and South Korea) to explore the importance of culture and culturally constructed individual characteristics when romantic partners have conflicting needs. Yum demonstrated that during

conflict, individuals who are highly interdependent, regardless of their levels of independence, engage in more relationship maintaining behaviors and are also more willing to inhibit behaviors that may harm their relationship. Specifically, he found that individuals who were high in both interdependence and independence were most likely to display such relationship maintaining behaviors, and individuals who were high in interdependence but low in independence had the second greatest likelihood of engaging in these behaviors. However, Yum's study relies entirely on hypothetical scenarios, and does not focus on real conflicts in romantic relationships. Moreover, this study also does not provide any information about how self-construal, relationship maintaining behaviors, or relationship conflict may be related to relationship satisfaction (Yum, 2004).

Overview of Current Hypotheses

In light of these past studies, the current study examined whether an interdependent self-construal style buffers individuals against experiencing declines in relationship satisfaction when experiencing daily conflict in their romantic relationships. To our knowledge, no existing research has examined the relationship between interdependent self-construal, conflict and satisfaction in romantic relationships. We expected that the association between daily relationship difficulties operationalized in the current investigation as daily conflict between romantic partners and daily relationship satisfaction would be moderated by the extent to which individuals construe the self as interdependent with significant others. More specifically, we hypothesized that on days when people experience conflict with their romantic partner, individuals low in interdependence will experience a steep decline in relationship satisfaction. In contrast, we expected that this effect would be attenuated for people high in interdependence.

Method

Participants

We tested our hypothesis with data from a 14-day daily-experience study of individuals in romantic relationships. The sample consisted of 166 undergraduates who completed at least two daily experience surveys from a large public university in Ontario, Canada (89 female, 74 male, 3 other or preferred not to disclose). It should be noted that eight individuals were excluded from the dataset because they only completed one daily survey. Participants

received two course credits in exchange for their participation in the study. The participants ranged in age from 17 to 43 ($M = 19.28$, $SD = 3.13$). Although all the participants had been in their romantic relationship for at least three months, the length of the romantic relationship ranged from 3 months to 10 years ($M = 21$ months, $SD = 19$ months). Participants comprised a diverse range of ethnic backgrounds: 26% were European, 5% were African American, 33% were Asian, 7% were Latino or Mexican, 1% were Native American, 9% were Middle Eastern, and 19% were multi-ethnic or self-identified as "other".

Procedure

The first portion of the study was a background survey which was conducted in the lab. Students signed up for an individual one-hour session during which they completed a number of individual difference measures on the lab computer. After the completion of the background survey, the participants were emailed a link to the daily experience surveys. Each daily survey, which the participants were instructed to complete every night before bed, took 5-10 minutes to complete.

The participants were emailed reminders to complete the daily survey every night for 14 consecutive nights. After the 14 days were completed, the participants were sent an email which asked them to stop taking the daily surveys. All participants who completed at least two daily surveys were included in our final analyses ($N = 166$). Participants completed between two and 17 daily surveys ($M = 11.70$, $SD = 2.90$), as some participants continued to participate in the study even after receiving the email instructing them to discontinue their participation after completing all 14 surveys. Due to the fact that we have less than perfect compliance, there were a total of 835 days that people could have completed, but did not.

Measures

Self-construal was measured with 24 items developed by Singelis (1994) assessing interdependent self-construal ($M = 5.00$, $SD = 0.68$, 12 items, $\alpha = .72$) and independent self-construal ($M = 5.10$, $SD = 0.67$, 12 items, $\alpha = .65$). All items were measured on a 7-point Likert scale (1 = *strongly disagree* to 7 = *strongly agree*). Relationship commitment was measured using a 7-item measure that included items such as "I am committed to maintaining my relationship with my partner". Participants rated their

agreement with each item on a 7-point Likert scale 1 = *strongly disagree* to 7 = *strongly agree* ($M = 6.01$, $SD = 0.94$, $\alpha = .87$). Daily relationship satisfaction and daily conflict were both measured with a single item in order to minimize participant fatigue and reduce attrition (Bolger, Davis, & Rafaeli, 2003). Daily relationship satisfaction was assessed with the item: “I felt satisfied with my relationship with my partner today” ($M = 5.55$, $SD = 1.52$), and daily conflict was measured with the item: “There was a great deal of conflict in my relationship today” ($M = 2.10$, $SD = 1.64$), both rated on a 7-point Likert scale.

Data Analytic Strategy

We analyzed the data with multi-level modeling using mixed models in SPSS 20.0 (IBM SPSS, 2011). We tested a two-level model where daily surveys are tested within people in order to avoid confounding within and between person effects (Kenny, Kashy, & Cook, 2006). The level 1 predictor (daily conflict) was partitioned into within and between person variance components, which were person-mean centered and aggregated, respectively. Both components were then included as main effects and interactions in the models.

Our hypothesis concerned the cross-level interaction between interdependent self-construal (level 2) and daily conflict (level 1), that is, the within person effect of daily conflict for people of varying levels of interdependence. We also controlled for this interaction at the between-person level in the analysis, as well as the main effect of independent self-construal, since independence can coexist with interdependence within a person (Singelis, 1994).

Furthermore, we tested simple slopes at one standard deviation above and below the mean of interdependence.

Results

Preliminary statistical analyses revealed that the relationship satisfaction and relationship conflict variables had non-normal distributions. Relationship conflict had a positive skew of 1.52 ($SE = 0.06$) and a kurtosis of 1.31 ($SE = 0.12$). Relationship satisfaction had a negative skew of 1.19 ($SE = 0.06$) and a kurtosis of 0.95 ($SE = 0.12$). However, we conducted bootstrapping analyses which indicate that our results are consistent even when accounting for the skewness in the data.

Our hypothesis concerned a predicted interaction between interdependence and daily conflict in predicting relationship satisfaction. The results of this analysis are shown in Table 1. As expected, we found a significant interaction between daily conflict and interdependence predicting relationship satisfaction, ($b = 0.14$, $SE = 0.03$, $p < .001$; 95% CI: [0.03, 0.23]). As expected, people lower in interdependence (those one standard deviation below the mean see Figure 1) experienced a steep decline in relationship satisfaction on days when they experienced more conflict than they typically did in their relationship ($b = -0.48$, $SE = 0.03$, $p < .001$; 95% CI: [-0.54, -0.42]).

However, this effect was significantly attenuated for highly interdependent people ($b = -0.29$, $SE = 0.03$, $p < .001$; 95% CI: [-0.35, -0.24]) as you can see in Figure 1. Importantly, the confidence intervals of the slopes do not overlap, indicating that they are

Table 1
Estimates of fixed effects

Parameters	<i>b</i>	<i>SE</i>	<i>df</i>	<i>t</i>	<i>p</i>	95% CI	
						<i>LL</i>	<i>UL</i>
Intercept	5.51	0.06	152.59	88.93	< .001	5.39	5.63
Daily Conflict (person-centered)	- 0.39	0.02	1474.70	- 19.08	< .001	- 0.43	- 0.35
Daily Conflict (aggregate)	- 0.53	0.07	180.62	- 7.78	< .001	- 0.66	- 0.39
Interdependence	0.09	0.09	152.73	1.02	.309	- 0.09	0.27
Independence	0.11	0.09	154.39	1.16	.250	- 0.08	0.29
Daily Conflict (person-centered) X Interdependence	0.14	0.03	1473.96	4.64	< .001	0.08	0.19
Daily Conflict (aggregate) X Interdependence	- 0.03	0.11	171.25	- 0.30	.766	- 0.25	0.18

Note. *SE* = standard error; *df* = degrees of freedom; CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

INTERDEPENDENCE AND DAILY CONFLICT

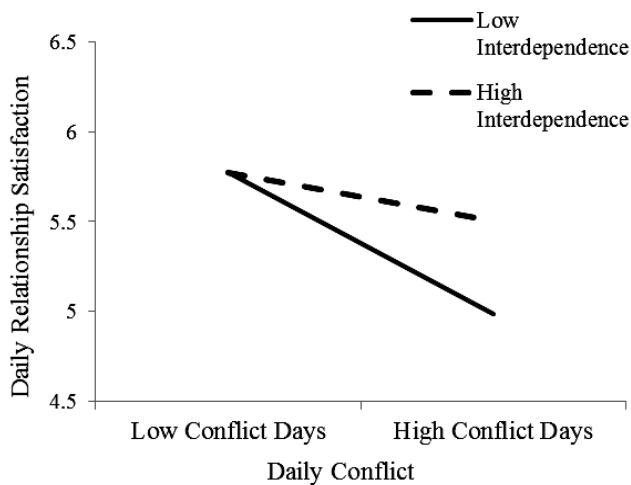


Figure 1. Interdependent self-construal moderates the link between daily conflict and daily relationship satisfaction.

significantly different from one another. Stated differently, on days when conflict was low, low interdependent individuals were just as satisfied as individuals higher in interdependence ($b = -0.10$, $SE = 0.10$, $p = .33$; 95% CI: $[-0.30, 0.10]$). On the other hand, on days when conflict was high, highly interdependent individuals were more satisfied than individuals lower in interdependence ($b = 0.28$, $SE = 0.10$, $p = .006$; 95% CI: $[0.08, 0.48]$). The results remained similar even after controlling for age, gender, relationship length and overall relationship commitment, showing that the effects observed are not being driven by these variables, nor by the result of highly committed and interdependent people.

Discussion

The results of this 14-day daily experience study of individuals in romantic relationships supported our hypothesis that construing the self as interdependent buffers against experiencing some of the daily costs of romantic relationship conflict. More specifically, whereas individuals with a less interdependent sense of self experienced dramatically lower relationship satisfaction when experiencing conflict with a romantic partner, this effect was somewhat attenuated for highly interdependent individuals. Interpreted differently, on days when couples experienced low levels of conflict in their relationship, individuals low as well as high in interdependence were equally satisfied. In contrast, on days when they experienced more conflict than they typically experienced in their romantic relationship, individuals higher in

interdependence experienced greater relationship satisfaction compared to individuals with lower interdependence.

Theoretical Contributions

The current investigation contributes to the developing literature in several key ways. First, this research contributes to a developing literature on the role of self-construal in shaping relationship processes. Previous research has focused on the specific relationship behavior of sacrifice, examining personal and interpersonal consequences of sacrifices undertaken in pursuit of avoidance goals (Impett et al., 2013) and the suppression of emotions in relationships (Le & Impett, 2013). This study extends these ideas to the broader domain of conflict in the context of romantic relationships. Second, this research adds to the existing literature on cross-cultural differences in relationship styles (e.g., Chopik & Edelstein, 2014; You & Malley-Morrison, 2000) by suggesting that one reason for these cultural differences might be due to individual differences in the extent to which people construe themselves as interdependent with others.

Social and Therapeutic Contributions

The present findings are important because they identify a group of individuals for whom relationship satisfaction is not as negatively impacted by the experience of daily relationship conflict. Given that at least some conflict is inevitable in long-term relationships, these results offer insights onto how relationship satisfaction might be maintained over the long-term, at least for individuals who are highly interdependent in their relationships. As such, the current findings have important implications for couples' therapy. It would be beneficial for a therapist to know that individuals who construe the self differently *vis-à-vis* others—that is, in more interdependent vs. independent terms—are not affected by conflict in the same way. This knowledge could help therapists tailor therapy for couples based on each partner's self-construal. Indeed, knowing that individuals high in interdependence are not as negatively affected by daily conflict in their relationship, or knowing that avoiding conflict can help interdependent individuals meet their superordinate goal of maintaining harmony, could be beneficial for both the couple and the therapist in many ways. For instance, these observations could help the therapist's understanding of their clients, in

turn allowing to tailor therapy towards their client's specific relationship needs, and thus resulting in better therapy outcomes.

Limitations and Future Directions

In the current research, we found that highly interdependent people are able to maintain higher levels of relationship satisfaction even on days they experienced more conflict in their relationship. This study employed a daily experience method, which allowed us to gain a more ecologically valid picture of the way these processes play out in individuals' day-to-day relationships. However, a limitation of this type of method is that it relies on self-report data, which could have introduced biases into the study. Another limitation of the methodology is that it relies solely on correlational data, preventing us from making any definitive claims on causality. We can conclude from the pattern of findings in this study that interdependent self-construal changes the daily association between conflict and satisfaction, but we do not know whether any of these variables are causally related to one another. It will be important for future work in this area to use self-construal priming (e. g., Oyserman & Lee, 2008) to more definitely establish the causal direction of these findings. More specifically, future research could use self-construal primes to temporarily promote interdependence, and then observe how participants respond to different hypothetical situations involving relationship conflict.

In addition to using ecologically valid research methods, we recruited an ethnically diverse sample, which likely produced a great deal of natural variation in interdependent construal. However, our sample consisted of undergraduate students living in Western culture, making it difficult to generalize our findings to a cross-cultural sample. Therefore, future studies should extend our findings to a cross-cultural sample. It is possible that individuals from Eastern cultures may also be buffered against some of the costs of conflict, similar to the buffering effect we observed for the highly interdependent people in our sample. In addition, it is important to point out that the participants in our sample were primarily dating their romantic partner. Thus, it is critical to investigate these questions with couples in long-term relationships to see if similar results would be found. The results could potentially differ, as dating relationships differ in important ways from married relationships (Dush & Amato, 2005). For instance, married couples usually live together, have been

together for a longer period of time, and have structural barriers to leaving the relationship such as children or shared finances. Because of these reasons, it is possible that married individuals are more interdependent than unmarried individuals, and thus may be more buffered against daily conflict than unmarried couples.

In conclusion, individuals low in interdependence experience steep declines in satisfaction on days when they experience a great deal of conflict in their relationship. On the other hand, individuals with a more interdependent construal style are buffered to a certain extent from experiencing such steep declines in satisfaction on high-conflict days. As such, this study identifies a group of individuals for whom relationship satisfaction is not as negatively impacted by the experience of daily conflict. The identification of such a group of individuals constitutes a theoretical contribution to the study of romantic relationships and has important implications for couple therapy.

References

- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117, 497-529.
- Bolger, N., Davis, A., & Rafaeli, E. (2003). Diary methods: Capturing life as it is lived. *Annual Review of Psychology*, 54, 579-616.
- Booth, A., Crouter, A. C., & Clements, M. (Eds.). (2001). *Couples in conflict*. Mahwah, NJ: Erlbaum.
- Chopik, W. J., & Edelstein, R. S. (2014). Age differences in romantic attachment around the world. *Social Psychological and Personality Science*, 5, 892-900.
- Cramer, D. (2002). Relationship satisfaction and conflict over minor and major issues in romantic relationships. *The Journal of Psychology*, 136, 75-81.
- Cramer, D., & Jowett, S. (2010). Perceived empathy, accurate empathy and relationship satisfaction in heterosexual couples. *Journal of Social and Personal Relationships*, 27, 327-349.
- Dush, C., & Amato, P. (2005). Consequences of relationship status and quality for subjective well-being. *Journal of Social and Personal Relationships*, 22, 607-627.

- Gordon, A. M., & Chen, S. (2015). Do you get where I'm coming from?: Perceived understanding buffers against relationship satisfaction after conflict. *Journal of Personality and Social Psychology*, 110, 239-260.
- Impett, E., Le, B., Asyabi-Eshghi, B., Day, L., & Kogan, A. (2013). To give or not to give?: Sacrificing for avoidance goals is not costly for the highly interdependent. *Social Psychological and Personality Science*, 4, 649-657.
- Kenny, D. A., Kashy, D. A., & Cook, W. L. (2006). *Dyadic data analysis*. New York, NY: Guilford Press.
- Kiecolt-Glaser, J. K., Loving, T. J., Stowell, J. R., Malarkey, W. B., Lemeshow, S., Dickinson, S. L., & Glaser, R. (2005). Hostile marital interactions, proinflammatory cytokine production, and wound healing. *Archives of General Psychiatry*, 62, 1377-1384.
- Le, B., & Impett, E. (2013). When holding back helps: Suppressing negative emotions during sacrifice feels authentic and is beneficial for highly interdependent people. *Psychological Science*, 24, 1809-1815.
- McNulty, J. K., & Russell, V. M. (2010). When "negative" behaviours are positive: A contextual analysis of the long-term effects of problem solving behaviors on changes in relationship satisfaction. *Journal of Personality and Social Psychology*, 98, 587-604.
- Mackinnon, S. P., Sherry, S. B., Antony, M. M., Stewart, S. H., Sherry, D. L., & Hartling, N. (2012). Caught in a bad romance: Perfectionism, conflict, and depression in romantic relationships. *Journal of Family Psychology*, 26, 215-225.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224-253.
- Oyserman, D., Coon, H. M., & Kemmelmeier, M. (2002). Rethinking individualism and collectivism. *Psychological Bulletin*, 128, 3-72.
- Oyserman, D., & Lee, S. W. S. (2008). Does culture influence what and how we think? Effects of priming individualism and collectivism. *Psychological Bulletin*, 134, 311-342.
- Singelis, T. (1994). The measurement of independent and interdependent self-construals. *Personality and Social Psychology Bulletin*, 20, 580-591.
- You, H. S., & Malley-Morrison, K. (2000). Young adult attachment styles and intimate relationships with close friends A cross-cultural study of Koreans and Caucasian Americans. *Journal of Cross-Cultural Psychology*, 31, 528-534.
- Yum, Y. (2004). Culture and self-construal as predictors of responses to accommodative dilemmas in dating relationships. *Journal of Social and Personal Relationships*, 21, 817-835.

Received July 1, 2015

Revision received September 3, 2015

Accepted October 17, 2015 ■

Combiner amitié et sexualité: retour sur le vécu d'adolescents

CATHERINE BEAULIEU¹, SARA-EVE NADEAU¹, & FRANCINE LAVOIE, PH. D.
Université Laval

Cette étude qualitative s'intéresse aux relations d'amitié avec bénéfiques (AAB) entamées à l'adolescence et désormais terminées chez des étudiants universitaires. Douze femmes et trois hommes s'expriment à ce sujet lors d'entrevues individuelles. Les résultats suggèrent que l'attraction physique et psychologique est la principale motivation pour commencer une AAB. Vivre des affects positifs est un avantage majeur, alors que le jugement d'autrui est un désavantage important. Souvent, la rupture d'une AAB provient du contexte extérieur et les amis avec bénéfiques mettent à terme leur amitié. Bien que les AAB aient déjà été étudiées par le passé, la connaissance du contexte précédant et suivant la terminaison de l'AAB est une contribution de la présente étude à la littérature. Les résultats de l'étude actuelle auront des retombées sur l'intervention, puisque les intervenants pourront aider les adolescents à connaître les caractéristiques positives et négatives de ce type de relation.

Mots-clés : relation d'amitié avec bénéfiques, adolescent, partenaire sexuel, rupture, relation interpersonnelle

The present qualitative study examines relationships with benefits (RB) initiated during adolescence and currently terminated among university students. Twelve women and three men were individually interviewed. The results showed that physical and psychological attraction is the number one motivation for starting a RB. The main advantage of the RB was the positive affect, whereas an important disadvantage was other people's judgment, making it more likely for friends with benefits to end their relationship. Even though RBs have been studied in the past, the present study provides new information concerning the context before and after the break up of a RB. The present results can impact future interventions. Indeed, counselors could help the adolescents recognize the positive and negative characteristics of this type of relationship.

Keywords: friends with benefits, adolescent, sexual partner, breakup, interpersonal relationship

L'adolescence est une période marquante dans la vie d'un individu et les événements qui s'y déroulent peuvent demeurer dans sa mémoire pour le reste de sa vie, comme l'observent Cloutier et Drapeau (2008). Un exemple notable est l'expérience des contacts sexuels, puisqu'elle représente un niveau élevé d'engagement et d'intimité. L'adolescent est

également confronté à de nouvelles pressions qui l'encouragent à être sexuellement actif (Cloutier & Drapeau, 2008). Les rapports sexuels occasionnels sont des rapports sexuels sans promesse d'engagement tel que défini par les jeunes adultes dans l'étude de Fielder et Carey (2010). La révolution sexuelle des années 60 marque le début des rapports sexuels occasionnels comme manifestation répandue (Bogle, 2007). Les étudiants universitaires et les intervenants en sexualité interrogés dans l'étude de Wentland et Reissing (2011) définissent l'aventure sans lendemain, l'invitation sexuelle inattendue (*booty call*), la fréquentation sexuelle (*fuck buddy*) et la relation d'amitié avec bénéfiques (AAB) comme les principaux types de rapports sexuels occasionnels. Plus

Nous tenons à remercier sincèrement Mme Francine Lavoie, Ph. D., pour sa supervision, son temps et ses nombreux et judicieux conseils. Ceux-ci nous ont permis de nous améliorer et de développer des habiletés spécifiques à la recherche. Nous aimerions aussi remercier l'équipe du JIRIRI qui, tout au long du processus de révision, nous a permis de nous dépasser et d'améliorer, à chaque fois, notre manuscrit menant aujourd'hui à sa publication. Toutes correspondances concernant cet article doivent être adressées à Catherine Beaulieu (catherine.beaulieu.9@gmail.com) et Sara-Eve Nadeau (sara-eve.nadeau.1@ulaval.ca)

spécifiquement, une AAB a lieu entre des amis qui ne sont pas engagés dans une relation romantique et qui n'ont pas de sentiments l'un pour l'autre (Bisson & Levine, 2009). Les relations amoureuses, d'amitié et d'AAB partagent certains points communs tels que la confiance, les activités sociales et l'acceptation de l'autre. En plus, l'AAB partage un autre point commun avec la relation amoureuse: la présence de la sexualité (Bisson & Levine, 2009). Cette définition des AAB est répandue dans la littérature sans toutefois être universelle. La présente étude s'intéresse aux AAB vécues à l'adolescence désormais terminées chez des adultes universitaires. Dans les faits, 74% des rapports sexuels des adolescents ont lieu à l'extérieur d'une relation amoureuse et se produisent avec un ami² (Manning, Giordano, & Longmore, 2006). Il est pertinent de s'intéresser aux AAB à l'adolescence, puisqu'il est possible que des particularités liées à cette période de vie teintent la manière dont elles sont vécues en donnant une signification particulière à ce type de relation.

Le stade de vie de l'adolescence donne lieu à des transformations aux niveaux physique, cognitif et social qui accentuent le développement identitaire amorcé à l'enfance (Cloutier & Drapeau, 2008). L'adolescent a maintenant les capacités et le besoin d'acquérir de l'autonomie et de faire ses propres choix, comme conserver ou délaisser certaines valeurs parentales. Les conséquences des choix qu'il fait à ce stade, comme celui de débiter une AAB, peuvent se répercuter sur sa vie d'adulte. Avoir une relation amoureuse est une occasion d'avoir une relation distincte de celles avec les membres de la famille. Ce type de relation promeut le développement de l'identité en aidant l'adolescent à se distancer de sa famille (Cloutier & Drapeau, 2008). Il est possible que l'AAB joue le même rôle.

Prévalence des AAB chez les jeunes adultes universitaires

En 2009, Bisson et Levine interrogent des jeunes adultes universitaires sur la prévalence et les raisons de commencer une AAB. Ils observent que 60 % d'entre eux ont eu au moins une AAB dans leur vie et plus du tiers en ont une au moment où ils sont interrogés. Cependant, cette étude exclut la population des tranches d'âge précédentes et subséquentes. Il est donc impossible de déterminer si les AAB sont propres à la période universitaire ou si elles peuvent débiter avant. L'étude de Weaver, MacKeigan et MacDonald (2011) rapporte que les étudiants

universitaires ont au cours de leur vie, en moyenne, 3,31 AAB et que celles-ci durent approximativement 8,78 mois.

L'attirance sexuelle dans la relation d'amitié

L'attirance sexuelle envers un ami du genre opposé est fréquente et cette tendance est plus forte chez les garçons que chez les filles (Halatsis & Christakis, 2009). Il y a différentes manières de gérer l'attirance sexuelle lorsque les deux amis en discutent. La première issue est que la relation d'amitié cesse, et ce, de deux manières: soit elle se transforme en relation amoureuse, soit elle est rompue. La deuxième issue est que l'amitié se poursuit. Trois types de continuation de l'amitié sont observés. Tout d'abord, elle peut continuer de manière platonique. Ensuite, il peut y avoir une décharge de l'attirance sexuelle par le biais d'une seule relation sexuelle. Finalement, il peut y avoir une intégration de la sexualité à la relation d'amitié. Cette dernière possibilité est celle qui est la plus commune, lorsque l'attirance sexuelle est exprimée entre les deux amis. Toutefois, les auteurs ne questionnent pas les participants sur les autres facteurs les menant à avoir des contacts sexuels avec un ami. Ainsi, l'attirance sexuelle n'est probablement pas la seule raison (Halatsis & Christakis, 2009).

Motivations à commencer une AAB

Les AAB vécues à l'adolescence sont peu étudiées dans la littérature scientifique. Pour cette raison, la connaissance des motivations à s'engager dans une AAB est surtout issue des études chez les jeunes adultes universitaires. Commencer une AAB pour répondre à ses besoins sexuels et éprouver du plaisir sont des motivations importantes, comme le mentionnent Bisson et Levine (2009). Bisson et Levine (2009), ainsi que Weaver et al. (2011) s'accordent pour dire que l'absence d'engagement et d'exclusivité est considérée comme un avantage des AAB par les participants. Par ailleurs, les universitaires jugent que c'est pour cette raison que l'AAB est davantage adaptée à leur stade de vie. De plus, le choix d'un ami plutôt que d'un étranger comme partenaire sexuel leur permet de vivre une expérience sexuelle sécuritaire (Bisson & Levine, 2009). Weaver et al. (2011) précisent que ce sentiment provient de l'impression de vivre un risque moindre d'affects négatifs. Les universitaires rapportent aussi que l'AAB est vue comme un apprentissage nécessaire, afin de vivre une relation amoureuse sérieuse dans le futur. Toutefois, il n'est pas

mentionné s'il s'agit de raisons pour commencer une AAB. De plus, les motifs de terminaison de l'AAB ainsi que depuis combien de temps celle-ci est terminée ne sont pas non plus abordés (Weaver et al., 2011). Finalement, une autre raison de commencer une AAB est de la considérer comme une étape dans le développement d'une relation amoureuse avec engagement (Owen & Fincham, 2011). Sans être des motivations, il est discuté que l'accessibilité et la disponibilité de l'ami avec bénéfices favorisent le début des contacts sexuels avec celui-ci selon les participants de l'étude de Weaver et al. (2011).

Un certain nombre de motivations sont identifiées chez les adolescents et peuvent aussi se retrouver chez les jeunes adultes universitaires. L'attrance envers la personnalité et l'apparence physique de l'ami est prise en considération dans la sélection de l'ami avec bénéfices (Erlandsson, Jinghede Nordvall, Öhman, & Häggström-Nordin, 2013). Pour la majorité des adolescents, commencer une AAB est un événement spontané. Par ailleurs, la consommation d'alcool est souvent en concomitance avec le début des rapprochements sexuels avec un ami. Aussi, les adolescents ajoutent qu'ils ne sont pas prêts à fournir l'effort de s'engager dans une relation amoureuse, mais qu'ils veulent profiter des avantages sexuels et relationnels offerts dans l'AAB. Néanmoins, l'étude rapportant ces résultats comporte un nombre inégal de participants et la distribution des réponses des participants selon leur genre n'est pas respectée (Erlandsson et al., 2013).

Les avantages d'avoir eu une AAB

La présence simultanée de plusieurs partenaires sexuels est un avantage de l'AAB (Erlandsson et al., 2013; Weaver et al., 2011). Également, une augmentation de la confiance en soi, l'absence de solitude et le fait d'avoir un partenaire pour combler ses besoins sexuels sont tous des impacts positifs possibles (Weaver et al., 2011). Erlandsson et al. (2013) ajoutent à cela le sentiment de bien-être et l'intimité psychologique. Aussi, les participants disent avoir une plus grande perception de contrôle que dans une relation amoureuse, par exemple, en étant responsables de la prise de décision en général. Toutefois, il est à considérer que les participants dans l'étude de Weaver et al. (2011) ne semblent pas avoir connu une mauvaise expérience d'AAB. Malgré que les émotions positives semblent prépondérantes par rapport aux émotions négatives (Owen & Fincham,

2011), l'AAB comporte toutefois certains désavantages.

Les désavantages d'avoir eu une AAB

Il y a fréquemment présence de sentiments amoureux non réciproques, malgré les attentes d'une relation amoureuse (Bisson & Levine, 2009; Erlandsson et al., 2013; Weaver et al., 2011). Conséquemment, certains participants précisent avoir l'impression d'être exploités sexuellement, vivre de la jalousie et être blessés affectivement (Bisson & Levine, 2009; Erlandsson et al., 2013). Ainsi, l'AAB peut donc nuire à la relation d'amitié (Bisson & Levine, 2009; Weaver et al., 2011). Aussi, la manifestation des doubles standards amène les femmes à être perçues plus négativement (Erlandsson et al., 2013). Les doubles standards réfèrent au fait que dans la société, des critères différents sont utilisés pour les hommes et les femmes, afin de juger un même comportement. Selon ces auteurs, les femmes peuvent être l'objet de médisance, lorsqu'il est question de vivre une AAB, en comparaison avec les hommes dont l'image est favorisée (Erlandsson et al., 2013). De son côté, l'étude d'Owen et Fincham (2011) propose que les affects négatifs proviennent de certaines croyances chez les participants (par exemple, lorsque ceux-ci se sentent obligés de demeurer dans l'AAB pour ne pas nuire à l'amitié). La présence de détresse psychologique chez l'un des deux amis avant d'entamer l'AAB pourrait donner une valence plus négative à cette expérience. Toutefois, les participants ne sont pas questionnés sur comment ils se sentent avant l'AAB et quel est le sens donné à la « détresse psychologique » avant le début de celle-ci. Les désavantages potentiels précédemment énumérés pourraient être parmi les motifs à l'origine de la rupture de l'AAB (Owen & Fincham, 2011).

Les statuts du lien après la rupture de l'AAB

Selon la définition de Bisson et Levine (2009) sur les AAB, la présente étude définit la rupture comme étant la cessation des contacts sexuels et des activités sociales dans un cadre non romantique et non engageant. Selon l'étude d'Owen, Fincham et Manthos (2013), à la suite de la rupture, le scénario le plus commun est que les deux individus demeurent amis; c'est le cas pour 81,5% d'entre eux. Plus précisément, ils rapportent que l'amitié demeure inchangée chez un peu plus du tiers des participants. Pour une minorité d'entre eux, la relation d'amitié est améliorée. À l'inverse, pour un peu moins du tiers, la

relation d'amitié est amoindrie. Ceux qui affirment être moins proches après la terminaison de la relation d'AAB disent vivre plus de déception par rapport à l'AAB. Pour ceux dont la relation d'amitié n'est pas poursuivie, la composante sexuelle était prédominante dans la relation d'AAB (Owen et al., 2013). Pour 10 % des participants, l'AAB évolue vers une relation amoureuse avec engagement. Toutefois, les participants qui sont en couple depuis les 12 derniers mois sont exclus de cette étude (Bisson & Levine, 2009).

État affectif à la suite de la rupture de l'AAB

D'avantage de déception, d'isolement et de détresse psychologique sont associés à la fin de la relation d'amitié avec bénéfices pour les jeunes adultes universitaires qui ne demeurent pas amis (Owen et al., 2013). Par ailleurs, Owen et al. (2013) croient que cette détresse psychologique peut être occasionnée par l'arrêt simultané de l'amitié et de la sexualité avec l'autre. Cependant, il est difficile de déterminer si les participants qui souffrent de détresse psychologique ont plus tendance à mettre fin à l'AAB que ceux qui n'en souffrent pas, ou si c'est la rupture de l'AAB qui cause la détresse.

La majorité des études recensées sont quantitatives et s'intéressent à la prévalence de l'AAB. La présente étude, pour sa part, se veut qualitative et la cueillette d'informations dans cette approche permet d'explorer plus en profondeur la perception subjective des participants (Yin, 2011). Elle permet donc aux chercheurs de pénétrer dans la réalité des participants dans le but de mieux comprendre leur perspective, leur expérience personnelle (Kazdin, 2003; Poisson, 1983; Yin, 2011), et la signification qu'ils lui donnent (Jackson, 2015). De plus, ce type de recherche permet de prendre en compte le contexte entourant l'expérience de chacun (Kazdin, 2003).

La présente étude se veut rétrospective de l'expérience vécue à l'adolescence, une période peu traitée dans la littérature, bien que Cloutier et Drapeau (2008) soulignent l'importance des expériences à cet âge sur le développement. L'étude actuelle permet de mieux décrire les particularités de l'AAB à cet âge et d'accroître la compréhension de son impact sur la vie des adolescents. De ce fait, plusieurs thèmes sur l'expérience des AAB sont abordés par cette étude: (a) les motivations à commencer une AAB, (b) les avantages et désavantages de celle-ci, (c) les motifs de sa terminaison, et (d) le statut du lien après la rupture.

De plus, fort peu d'études clarifient le contexte et les motifs de la cessation des AAB et les conséquences sur les individus. Comme l'étude actuelle s'y intéresse, elle rapporte de manière plus complète le déroulement de l'AAB et permet de mieux comprendre l'impact de la fin de celle-ci, à court terme, chez les adolescents. L'objectif principal de la présente étude est donc de décrire l'expérience des AAB vécues à l'adolescence chez des adultes universitaires, et plus particulièrement une fois que celles-ci sont terminées, en mettant l'accent sur les motivations de commencer une AAB, les avantages et désavantages de celle-ci, les motifs de sa terminaison et le statut du lien après la rupture.

Méthodologie

Participants

Les participants ont été recrutés par le biais d'un courriel envoyé à environ 30 000 étudiants de premier cycle, tous programmes confondus, de l'Université Laval. Pour participer à l'étude, ils devaient avoir commencé une AAB à l'adolescence et celle-ci devait être désormais terminée. Pour l'étude, une AAB implique présence de sexe oral, de caresses génitales ou de relations sexuelles avec pénétration plus d'une fois avec l'ami. Au final, l'étude comportait 12 femmes (F) et 3 hommes (H) ($N = 15$), âgés de 19 à 26 ans, avec une moyenne d'âge de 22.40 ans ($\bar{E.-T.} = 2.50$). Les 15 participants retenus étaient les premiers à avoir fait les entrevues et qui correspondaient aux critères d'éligibilité. Les participants avaient en moyenne 16.07 ans lors du début de leur AAB ($\bar{E.-T.} = 1.15$) avec une étendue allant de 14 à 17 ans. L'AAB pouvait être terminée à l'âge de 14 ans allant jusqu'à 21 ans avec une moyenne de 16.90 ans ($\bar{E.-T.} = 1.60$). En moyenne, 4.68 années ($\bar{E.-T.} = 2.24$) s'étaient écoulées depuis la fin de leur AAB. Celles-ci avaient duré entre 3 semaines et 48 mois avec une moyenne de 14.58 mois ($\bar{E.-T.} = 14.11$). Les participants avaient eu en moyenne 2.07 AAB à l'adolescence ($\bar{E.-T.} = 1.87$) avec un nombre d'AAB allant de 1 à 8. Les détails suivants concernent les contacts sexuels en lien avec l'AAB discutée en entrevue. Tous les participants rapportaient avoir eu des caresses génitales plus d'une fois. La plupart des participants mentionnaient avoir vécu du sexe oral plus d'une fois ($n = 12$). Ils rapportent également en majorité avoir eu des relations sexuelles avec pénétration plus d'une fois ($n = 13$). Il est à noter qu'un participant avait omis de répondre à cette question. Pour ce qui est des relations amoureuses

débutées à l'adolescence, 14 participants affirmaient en avoir eu et celles-ci avaient duré en moyenne 15.79 mois ($\bar{X}$ - T . = 19.15).

Matériel

Un questionnaire sociodémographique a été complété avant l'entrevue par chaque participant. Il a été adapté à partir des informations recueillies auprès des participants dans l'étude qualitative de Fernet (2005) sur la violence vécue par des adolescentes dans leur relation de couple. Ce questionnaire a été choisi afin d'obtenir un portrait général de l'ensemble des participants à partir d'informations qui ont déjà été demandées à ce type de population. Un questionnaire sur les AAB a aussi été rempli par chaque participant à la fin de l'entrevue. Il a été utilisé pour avoir des informations supplémentaires qui n'étaient pas abordées ou mentionnées en entrevue et pour avoir un portrait plus général de l'AAB. Un guide d'entrevue semi-structurée (Tableau 1) composé de huit questions ouvertes a été établi par les auteures de l'étude pour

encourager les participants à raconter leur plus récente AAB débutée à l'adolescence et à présent terminée. Les questions étaient présentées de manière chronologique, soit du commencement à la terminaison de la relation, afin de faciliter la compréhension de l'AAB pour les auteures de l'étude lors de l'administration de l'entrevue individuelle. Une compensation financière de dix dollars, sous forme d'argent ou de carte-cadeau, a été remise à chaque participant ainsi qu'une liste de ressources d'aide. Ces dernières étaient remises aux participants dans le but de les remercier d'avoir contribué à l'avancement des connaissances sur le sujet et de les référer à des ressources s'ils sentaient le besoin de discuter davantage avec des professionnels. L'enregistrement des entrevues individuelles a été fait à l'aide d'un magnétophone audio numérique.

Procédure

Après avoir envoyé un courriel à la communauté étudiante de premier cycle de l'Université Laval, les

Tableau 1

Guide d'entrevue semi-structurée

Section A
1. Si deux amis ont des contacts sexuels ensembles, et ce, plus d'une fois, comment nommeriez-vous ce type de relation ?
2. Vous êtes ici aujourd'hui pour nous parler puisque vous avez vécu une relation d'amitié avec bénéfices par le passé. Quel est votre lien à l'heure actuelle avec votre ami avec bénéfices dont les contacts sexuels sont désormais terminés ?
2.1. Qui a pris la décision que la relation d'amitié avec bénéfices se termine ?
Section B
1. Quel genre d'amis étiez-vous avant d'ajouter la sexualité à votre relation d'amitié avec bénéfices ?
1.1. Depuis combien de temps étiez-vous amis avant d'ajouter la sexualité à votre relation d'amitié ?
2. Comment la sexualité s'est introduite à votre relation d'amitié ?
2.1. Quelles étaient votre ou vos raisons d'avoir des contacts sexuels avec cet ami ?
3. Décrivez-moi comment était votre relation d'amis avec bénéfices durant la relation. Comment c'était au début de votre relation ? Au milieu ?
3.1. Qu'avez-vous apprécié le plus et le moins de votre relation d'amitié avec bénéfices ?
4. Comment votre relation d'amitié avec bénéfices s'est terminée ?
4.1. Comment c'était pour vous après que la relation d'amitié avec bénéfices se soit terminée ?
5. Comment était votre relation avec votre ancien ami avec bénéfices dans les jours ou les semaines qui ont suivi la fin de votre relation d'amitié avec bénéfices ?
5.1. Comment était votre amitié après votre relation d'amitié avec bénéfices comparativement à avant cette relation ?
6. Que retenez-vous de cette relation d'amitié avec bénéfices ?
6.1. Quels avantages et désavantages voyez-vous à avoir eu une relation d'amitié avec bénéfices ?
6.2. Si vous recommenciez une relation d'amitié avec bénéfices, que feriez-vous de pareil ? De différent ?
6.3. En quoi c'était différent d'une relation amoureuse ? De votre relation avec vos autres amis ?
6.4. En quoi une rupture d'une relation d'amitié avec bénéfices est différente ou similaire d'une rupture d'une relation amoureuse ?
6.5. Y a-t-il autres choses que vous aimeriez nous partager ?

deux auteures de l'étude ont communiqué, par courriel ou par téléphone, avec ceux intéressés à participer. Cette première communication permettait de vérifier leur éligibilité. Les deux premières auteures de l'étude ont ensuite fixé une entrevue individuelle avec chaque participant selon leurs disponibilités à l'intérieur d'un mois. Cette entrevue permettait d'aborder, dans un contexte de confiance, les différents thèmes à l'étude. De ce fait, le nombre d'entrevues à effectuer était divisé également entre les deux auteures. Cette façon de procéder permettait à chacune de rencontrer une variété de participants et de vécus et d'atteindre un accord et une aisance dans la façon de procéder dans les entrevues (Erlandsson et al., 2013).

Au moment de l'entrevue, le participant était contacté par téléphone à partir du laboratoire de recherche ou rencontré dans un local à l'Université Laval. Cette façon de procéder permettait d'accommoder le plus de participants, surtout ceux qui se sentaient plus gênés par rapport à la divulgation de leur expérience. Une des deux premières auteures de l'étude expliquait alors à nouveau le but de l'étude, présentait le formulaire de confidentialité et invitait le participant à donner son consentement libre et éclairé quant à sa participation. Ensuite, le participant remplissait le questionnaire sociodémographique. Lorsque l'entrevue s'effectuait par téléphone, l'une des deux premières auteures dictait toutes les informations sur le formulaire de consentement, les questionnaires et la manière de récupérer la compensation financière et la liste de ressources d'aide. Par la suite, elle obtenait verbalement le consentement du participant et toutes les réponses aux questionnaires qu'elle remplissait elle-même à l'écrit au nom du participant. Les entrevues effectuées selon le guide d'entrevue semi-structurée étaient d'une durée de 30 à 74 minutes avec une moyenne de 39 minutes. Selon les suggestions de Josselson (2013), des notes sur le participant et sur le déroulement de l'entrevue étaient prises après chaque rencontre. Ces notes étaient utiles lorsqu'il fallait se remémorer le contexte d'une entrevue et pour que la superviseure du projet, la troisième auteure, puisse avoir un suivi ponctuel de l'avancement de l'étude. Finalement, il y a eu transfert de l'enregistrement audio de l'entrevue dans un ordinateur et attribution du code au participant pour assurer sa confidentialité durant tout le processus d'analyse des résultats. La transcription des verbatims a débuté dès ce moment.

Analyse

De manière générale, l'étude actuelle adopte un paradigme à l'extrême droite du post-positivisme. Elle est régie selon le postulat qu'il est possible de saisir la réalité de manière objective par le chercheur qui est toutefois dans une relation partiellement dualiste avec le participant (Denzin & Lincoln, 1994 ; Ponterotto, 2005). Il en est ainsi puisqu'il est considéré que les chercheurs sont une source de biais lors de leur interaction avec le participant (Denzin & Lincoln, 1994 ; Ponterotto, 2005). Également, les valeurs et les émotions des chercheurs n'ont pas leur place au sein de cette recherche (Ponterotto, 2005). En effet, l'étude a pour objectif de décrire l'expérience des participants selon leur perspective et non de faire une construction conjointe de la réalité issue de l'interaction entre le participant et le chercheur (Jackson, 2015).

La méthodologie comprend certains éléments propres au paradigme constructiviste. Le but de la recherche est de décrire le phénomène des AAB chez les adolescents à partir du point de vue des participants aujourd'hui universitaires. Bien que les participants soient questionnés à partir de thèmes larges déterminés à l'avance (p. ex., les motivations de commencer une AAB), les connaissances des auteures sur ces thèmes étaient mises de côté lors de l'élaboration du guide d'entrevue semi-structurée et lors des entrevues et de l'analyse des résultats. Il devient alors possible d'avoir accès de manière généralement inductive à de nouvelles informations issues du vécu des participants. Il est également pris en compte qu'il n'existe pas une seule, mais plusieurs réalités (Ponterotto, 2005). L'AAB peut donc prendre diverses formes et significations chez les participants. Pour cette raison, les réponses des participants sont rapportées dans l'analyse des données bien que certains éléments soient mentionnés que par une minorité d'entre eux.

La validité de la recherche actuelle est évaluée selon les critères de Morrow (2005). La crédibilité (validité interne) est assurée par la discussion avec des collègues et la superviseure de recherche sur les impressions notées après chaque entrevue et sur les réflexions des chercheuses envers les données et le thème de la recherche. La cueillette des données a cessé lorsque peu de nouvelles informations émergeaient des nouvelles entrevues ce qui laissait penser que la saturation était atteinte. La transférabilité (validité externe) est appuyée par la description détaillée des caractéristiques des participants, du procédé

de cueillette de données et de l'analyse effectuée. La dépendabilité (fiabilité) ainsi que la confirmabilité (objectivité) sont appuyées par les traces laissées au cours de toutes les étapes du processus. Des rencontres pour discuter de l'avancement de la recherche, des nouvelles idées, des décisions et des questions étaient tenues de manière hebdomadaire. Également, chaque version de l'analyse à contenu thématique produite lors des différentes étapes de sa progression a été conservée. Le tout a été examiné et discuté avec la superviseure de la recherche.

L'analyse exploratoire (inductive et déductive) à contenu thématique de Braun et Clarke (2006) a été utilisée dans la présente étude. Cette analyse a été effectuée à l'aide de *QDA Miner version Lite* du logiciel de *Provalis Research*. La première étape de l'analyse est de lire à maintes reprises les verbatims pour en maîtriser les informations. À ce moment, les tâches consistent à prendre des notes sur les thèmes rencontrés et à remarquer les parties du discours des participants qui informent sur les AAB. C'est à cette étape que s'amorce la réflexion sur la manière de classer les informations issues du discours des participants.

La deuxième étape est de créer et de définir des codes, d'expliquer leurs modalités d'utilisation et d'en faire une liste pour s'y référer lors des analyses (Tableau 2). Les codes sont utilisés afin d'identifier les segments des verbatims qui sont ensuite classés. Les segments prennent la forme de phrases ou de mots. Il s'agit des éléments du discours des participants qui ont une signification par rapport à la question de recherche (Tableau 2). Les deux premières auteures principales de l'étude ont donc codé séparément deux mêmes entrevues et ont comparé

leurs résultats. Les différences entre les manières d'appliquer les codes ont été rediscutées et un consensus a été atteint pour uniformiser le codage des entrevues ultérieures.

La troisième étape est d'identifier des thèmes. Ces derniers permettent de regrouper les éléments codés qui se ressemblent et qui se présentent à plusieurs reprises dans les réponses entre des différents les participants. Ils sont créés à partir de l'analyse des codes (Tableau 2). Ainsi, selon leurs similarités et leurs différences, les codes sont regroupés en plusieurs thèmes qui peuvent parfois comprendre des sous-thèmes. À cette étape de l'analyse, il est également possible que certains codes ne soient pas classifiables dans les thèmes déterminés.

La quatrième étape est de réviser les thèmes afin de déterminer lesquels sont retenus et correspondent aux données des verbatims. Les thèmes qui contiennent des éléments qui ne sont pas homogènes sont divisés et ceux qui sont similaires sont rassemblés sous un seul thème. Également, il est vérifié si les extraits des verbatims retenus pour un thème correspondent bien à ce dernier. Si ce n'est pas le cas, il se peut que les segments des verbatims soient classés selon le mauvais thème ou que le thème lui-même ne soit pas adéquat et nécessite d'être modifié. Il est important d'être en mesure de distinguer les thèmes entre eux et que les éléments classés sous un même thème soient similaires. Les thèmes sont examinés afin de s'assurer qu'ils soient cohérents avec ce qui se dégage globalement de l'ensemble des données issues des entrevues avec les participants. Les données non classées sont révisées afin de s'assurer que rien qui puisse informer l'objectif de recherche n'ait été laissé de côté.

Tableau 2

Exemple d'analyse à contenu thématique

Thème	Codes	Définitions et modalités d'utilisation	Segments
Motivations de commencer des contacts sexuels avec un ami	Attente d'un couple	Lorsque la personne mentionne avoir commencé une AAB en vue de développer une relation amoureuse engagée.	« [...] ça va aboutir à quelque chose, pis ça va finir par être mon chum. » (F, 1).
	Attirance physique et psychologique	Lorsque le participant mentionne que l'AAB a débuté parce qu'il avait une attirance au niveau physique et/ou psychologique avec son ami.	« Je pense qu'il y avait une attirance puis une connexion qui s'était faite avec les activités qu'on a faites et les intérêts communs qu'on avait [...] » (H, 2).

La cinquième étape est celle de l'analyse des thèmes. Chaque thème est alors défini et une description des éléments qu'ils contiennent et qui permettent de répondre à la question de recherche est faite. La contribution de chaque thème à la compréhension du phénomène étudié est expliquée en détail. Des sous-thèmes sont créés afin de détailler les thèmes plus complexes. Par exemple, un thème peut être « les désavantages de l'AAB » et les sous-thèmes peuvent être les désavantages « affectifs » ou « personnels ». Les thèmes ne sont pas analysés uniquement de façon isolée, mais aussi de manière à les mettre en relation. En terminant, l'analyse exploratoire à contenu thématique ne s'effectue pas de manière linéaire et donc, il est possible qu'il soit nécessaire de retourner à une étape précédente avant de poursuivre l'analyse. En plus du travail initial de consensus, les deux premières auteures de l'étude ont codé en concertation une troisième entrevue, après avoir analysé le deux tiers des entrevues, afin de maintenir un accord interjuge.

Résultats

Définition de l'amitié avec bénéfices

Trois types de liens caractérisent la relation des participants avec la personne qui deviendra leur ami avec bénéfices. Pour un peu plus de la moitié des participants, ils sont qualifiés de bons amis. Ils font des activités à deux, se parlent fréquemment et se font des confidences. Cependant, pour plus du tiers des participants, ceux-ci ne sont pas amis antérieurement et font connaissance par l'intermédiaire d'un ami, d'un événement ou d'une activité. Malgré cela, leurs dossiers sont conservés pour l'analyse vu la centration sur le point de vue des participants. Selon ces observations, les participants ne doivent donc pas nécessairement être déjà amis avec une personne avant de développer une AAB avec elle.

Motivations à commencer une AAB

Diverses motivations amènent les participants à avoir des contacts sexuels avec leur ami avec bénéfices. Au départ, près du trois quarts des participants interrogés mentionnent que cela s'est fait de manière spontanée. Toutefois, en les interrogeant davantage, tous identifient des motivations. Plus précisément, quatre types sont identifiés et ceux-ci sont présentés par ordre décroissant de fréquence à laquelle ils sont abordés. Premièrement, il y a les motivations relationnelles. Dans ce cas-ci, tous les participants rapportent avoir de l'attirance physique et,

psychologique et vivre des affinités avec leur ami avec bénéfices: « Je pense qu'il y avait une attirance puis une connexion qui s'était faite avec les activités qu'on a faites et les intérêts communs qu'on avait [...] » (H2). Les attributs physiques et psychologiques du potentiel ami avec bénéfices et l'aisance avec celui-ci semblent donc être des éléments essentiels à considérer avant de commencer une AAB.

Deuxièmement, il y a présence de motivations sexuelles. Se sentir « prêt » à devenir sexuellement actif, avoir une curiosité, vouloir « élargir ses horizons » et vouloir éprouver du plaisir sont nommés par les participants. Ainsi, comme l'explique l'étude de Bisson et Levine (2009), il semble que de répondre à ses besoins sexuels s'avère être un élément important à considérer lorsqu'il est question de commencer une AAB au même titre que cela pourrait l'être dans le cas d'une relation amoureuse avec engagement.

Troisièmement, il y a les motivations affectives. Les participants ont pour objectif de répondre à leurs besoins affectifs comme recevoir de l'attention, de l'affection et se sentir valorisés en étant dans une AAB: « [...] je trouvais ça plate de comme pas m'être fait aimer par un gars [...] » (F3).

Quatrièmement, le choix de vivre une AAB semble répondre à deux motivations opposées qui sont la recherche d'une relation amoureuse avec engagement pour certains et, l'évitement d'une telle relation pour d'autres.

Facteurs déclencheurs d'AAB

En plus des motivations présentées, des facteurs déclencheurs influencent les participants à avoir des contacts sexuels avec leur ami avec bénéfices. Souvent, ce dernier est accessible par son statut de célibataire, son lieu de résidence et par la fréquence de leurs rapports sociaux ou des sorties récréatives. De plus, certains participants mentionnent qu'une personne entreprenante, qui « s'essaye », peut avoir déclenché le début des contacts sexuels. Des participants se sentent même « un peu forcés » d'avoir une sexualité avec leur partenaire. Il faut toutefois savoir que le terme « agression sexuelle » n'a été mentionné par aucun participant. Finalement, il est également discuté, dans de rares cas, que les contacts sexuels commencent parfois en concomitance avec la consommation de substances. Il est donc possible que les adolescents subissent des influences et des

contingences extérieures qui les encouragent à commencer une AAB.

Les avantages d'avoir eu une AAB

Quatre types d'avantages sont rapportés par les participants. Ceux-ci sont présentés par ordre décroissant de fréquence à laquelle ils sont mentionnés. Les premiers avantages sont de type affectif. Tous relatent vivre des retombées affectives positives. Pour plusieurs, il s'agit du fait de vivre un rapprochement avec une autre personne (p. ex., avoir un « confident » et vivre une « complicité »). Par ailleurs, l'AAB est considérée comme « simple [à vivre] » et permet aux participants de se « sentir libres » et de se « [faire] valoriser ». Les avantages suivants sont de type sexuel. Le fait de « découvrir sa sexualité », de vivre une première expérience sexuelle et de connaître ses préférences est mentionné par presque tous les participants.

De plus, des avantages de type personnel sont soulevés par les participants. Ceux-ci expriment que l'AAB leur permet de développer une meilleure estime de soi et des habiletés sociales: « [...] le fait de se sentir désirée encore quand t'as l'impression que tu vau plus rien. » (F4). Les derniers avantages qui ressortent de l'analyse sont de type relationnel. Les participants apprécient que la relation leur permette de mieux connaître leur ami avec bénéfices. L'absence d'engagement est aussi considérée comme un avantage: « C'était pas engageant. [...] la personne ne m'a jamais pété de crise de jalousie, [...] on se voyait quand ça adonnait. Et puis personne n'appartenait à personne. » (F5). Toutefois, la présence d'une forme d'engagement, comme l'exclusivité au plan sexuel, peut à l'inverse être appréciée par certains. En somme, l'AAB semble être une expérience valorisante et peu exigeante qui fait vivre des affects positifs en plus de donner une occasion de se développer et de vivre de nouvelles expériences.

Les désavantages d'avoir eu une AAB

Les entrevues permettent de cerner quatre types de désavantages présentés ici par ordre décroissant de mention. Premièrement, il y a des désavantages de type social. Bien souvent, l'AAB est secrète et des participants jugent ceci comme étant « lourd » et « compliqué » de garder ce secret. Les participants expliquent la présence du secret par la peur du « regard de l'entourage », sur le fait de vivre ce type de relation: « Quand c'est la première fois, [...] t'es censé dans les normes sociales le faire avec ton chum,

quelqu'un que t'aimes et tout. C'était pas le cas puis j'étais très à l'aise avec ça, mais je ne voulais pas me faire juger là-dessus. » (F3). Un participant mentionne aussi qu'il garde la relation secrète parce qu'il vit de la « honte » et de la « culpabilité » à ce sujet.

Deuxièmement, pour plusieurs, il y a des désavantages de type relationnel. D'abord, un bon nombre de participants relatent vivre des émotions négatives vis-à-vis une absence d'engagement. Certains disent que la relation est ambiguë et qu'il n'est pas toujours clair s'ils sont des amis avec bénéfices ou en couple. Quelques-uns des participants disent que de ne pas avoir de projets à long terme ou de ne pas savoir si la relation est exclusive amène des retombées négatives. Certains relatent qu'ils aimeraient recevoir plus d'affection: « [...], mais des fois [...] le besoin affectif de dormir avec quelqu'un ou de se faire dire des compliments ou d'avoir une relation, justement ce n'était pas comblé au fond ce besoin-là, ou semi [comblé]. » (F6). Finalement, les participants disent que la divergence entre les priorités, les modes de vie et l'attitude envers la sexualité leur font vivre des malaises, de la frustration ou les éloignent de leur ami avec bénéfices.

Troisièmement, il y a plusieurs désavantages de type affectif. Certains participants disent vivre des états négatifs occasionnés par l'absence d'engagement. D'une part, le fait que le statut du lien entre les deux personnes dans la relation est nébuleux, que la relation a des hauts et des bas et que la relation soit axée sur la sexualité amène des participants à vivre de la confusion, à se sentir comme un objet, à vivre des malaises et à être tristes. Également, le fait d'être impliqué dans une AAB amène certains participants à « se sentir mal dans leur peau », à vivre de la culpabilité ou à se sentir jugés négativement. D'un autre côté, pour moins de la moitié des participants interrogés, ceux-ci développent des sentiments amoureux non réciproques. Dans certains cas, les participants ne les expriment pas à leur ami avec bénéfices. La principale raison rapportée est qu'ils désirent le garder auprès d'eux. Dans le cas où le participant exprime ses sentiments amoureux, il peut tout de même décider de demeurer dans l'AAB, un des deux peut mettre fin à celle-ci ou elle peut être maintenue pendant un certain temps pour se terminer par la suite. Un dernier scénario plus rare est que l'amour est réciproque et l'AAB évolue vers une relation amoureuse avec engagement. Somme toute, les participants disent ressentir un certain mal-être à propos de l'AAB qui les amène à vivre une

labilité émotionnelle et à prendre une distance avec leur ami avec bénéfices, puisque ces affects négatifs sont conséquents au fait que la relation ne soit pas dans les normes, qu'il n'y a pas d'engagement clair et que les priorités ne sont pas toujours les mêmes que celles de l'ami.

Quatrièmement, il y a les désavantages de type sexuel. Certains participants affirment vivre de la « peur » et du « stress » puisque les dispositions nécessaires pour se protéger des maladies transmissibles sexuellement ou par le sang ou pour éviter les grossesses non désirées ne sont pas prises en considération.

Les motifs de terminaison de l'AAB

Les témoignages des participants permettent de faire ressortir trois types de dénouements des AAB présentés ici par ordre décroissant de mention. En premier lieu, il y a les terminaisons de type extérieur à la relation. Pour la plupart des participants, le motif principal est la rencontre ou le désir de rencontrer d'autres personnes plus intéressantes: « [...] je l'ai comme laissé pour aller avec quelqu'un d'autre [...] qui voulait plus s'investir. » (F6). Dans d'autres cas, les participants expliquent que la rupture de la relation s'est faite naturellement avec le temps ou par le déménagement de l'un des deux amis avec bénéfices. En bref, les participants rapportent ne pas avoir le contrôle sur les événements en périphérie de l'AAB et donc, la terminaison n'est pas souvent expressément volontaire.

En second lieu, il y a les terminaisons de type relationnel. Un petit nombre de participants rapportent que la délinquance et la consommation de substances de leur ami avec bénéfices les éloignent. Puis, lorsqu'il y a présence de sentiments amoureux non réciproques, les participants indiquent que c'est parce que cette situation leur fait vivre du stress qu'ils y mettent un terme. En dernier lieu, il y a les terminaisons de type personnel. Une participante rapporte qu'elle met fin à la relation puisque ce n'est pas congruent avec ses valeurs: « [...] je l'aimais pas, puis je n'étais pas une fille qui voulait juste de la sexualité dans le fond. » (F7). Une autre participante affirme que l'AAB ne correspond pas à l'appréciation qu'elle a d'elle-même: « Je commençais à [...] plus voir l'image que je projetais puis je n'étais pas satisfaite [...] » (F8). En résumé, lorsqu'il n'y a pas de congruence au niveau des valeurs, de l'image de soi

en lien avec le type de relation, ainsi qu'entre les deux amis, ceci peut mener à la fin de l'AAB.

État affectif à la suite de la rupture de l'AAB

En discutant avec les participants, il est observé que la fin de l'AAB peut leur faire vivre des affects positifs et négatifs. Dans la moitié des cas, les participants vivent à la fois les deux. Plusieurs expriment être en accord avec la terminaison de l'AAB ou que cela ne les affecte d'aucune manière. Certains disent qu'ils passent à une autre étape: « À un certain point on vieillit, puis on regarde vers autre chose. » (F9). Cependant, une participante mentionne trouver un autre partenaire avec lequel poursuivre ce type de relation: « [...] je trouvais tout le temps une autre personne pour compenser [...] » (F8). Somme toute, les participants voient la fin de l'AAB comme une occasion de passer à autre chose, que ce soit de trouver un autre partenaire ou de s'engager dans un autre type de relation. Pour ce qui est des participants qui ont des affects négatifs après la terminaison, ces derniers sont situés sur un continuum. En ordre croissant de l'importance de ces affects, ils mentionnent trouver la fin de l'AAB « plate » à « très difficile ».

Les statuts du lien après la rupture de l'AAB

Quatre types de liens sont observés une fois que l'AAB est terminée et ceux-ci sont présentés en ordre croissant de proximité entre les individus. Premièrement, de manière prépondérante, la relation d'amitié cesse et souvent de manière « brusque », c'est-à-dire que les personnes ne se parlent et ne se voient plus ou que très rarement. Deuxièmement, un seul participant demeure « ami » avec la personne, c'est-à-dire qu'ils se voient principalement en contexte de groupe. Troisièmement, pour un petit nombre de participants, ils demeurent « bons amis ». En fait, les deux personnes communiquent et font des activités ensemble fréquemment: « [...] je lui avais présenté mon nouveau chum, puis les deux avaient des affinités donc ils ont commencé à être amis [...] on était tout le temps rendus les trois ensemble [...] » (F6). Finalement, dans un cas, les amis avec bénéfices ont formé un couple. Considérant les informations recueillies sur le statut du lien avant et après l'AAB, trois trajectoires sont observées et sont présentées par ordre décroissant de mention. Tout d'abord, il y a la trajectoire descendante dans laquelle l'AAB a pour effet de diminuer ou de mettre fin à l'amitié. Par la suite, il y a la trajectoire nulle dans laquelle l'AAB n'a

aucun impact sur l'amitié. Finalement, il y a la trajectoire ascendante dans laquelle l'AAB rapproche les deux personnes qui deviennent davantage amis ou qui s'engagent dans une relation amoureuse. De manière générale, l'AAB ne semble pas être bénéfique pour la relation d'amitié.

Discussion

À la lumière des résultats obtenus, les informations sur le contexte précédant et suivant la terminaison de l'AAB ainsi que l'expérience subjective qu'en font les participants sont des ajouts de la présente étude à la littérature. À cet égard, l'objectif principal était de décrire l'expérience des AAB vécues à l'adolescence chez des adultes universitaires, et plus particulièrement une fois que celles-ci soient terminées. Plus précisément, l'accent fut mis sur les motivations à commencer une AAB, les avantages et désavantages de celle-ci, les motifs de sa conclusion et le statut du lien après la rupture.

Un élément propre à la présente étude est que, dans plusieurs cas, les participants rapportent qu'ils ne sont pas amis avant d'entamer l'AAB, ce qui suggère qu'il existe plusieurs types d'AAB. Mongeau, Knight, Williams, Eden et Shaw (2013) divisent d'ailleurs les AAB en cinq types qui comprennent entre autres les relations principalement axées sur la sexualité et celles où les membres sont de bons amis. Ceci porte à croire que la définition d'amitié avec bénéfices aurait avantage à être plus inclusive, puisqu'il en existe différents types où, comparativement aux résultats de l'étude de Bisson et Levine (2009), l'AAB ne commencerait pas exclusivement avec une personne de confiance. Ceci est probablement une caractéristique de cette expérience chez les adolescents qui n'avait pas été considérée auparavant dans les recherches.

De plus, les résultats de la présente étude, sont de prime abord, en accord avec ceux d'Erlandsson et al. (2013), car la majorité des adolescents rapportent qu'au départ leur AAB avait commencé de manière spontanée. Cependant, ils mentionnent tous d'autres motivations à commencer ce type de relation. Ces résultats peuvent s'expliquer par le fait que les sujets de l'étude avaient eu l'occasion de prendre du recul et de réfléchir sur eux-mêmes et sur leurs besoins à ce moment-ci. Les résultats de la présente étude sont aussi cohérents avec ceux de l'étude d'Erlandsson et al. (2013), puisque les notions d'attirance physique et psychologique sont récurrentes dans le choix du

partenaire. En revanche, dans le cas présent, certains participants ajoutent l'aspect de la présence d'affinités qui auraient eu un impact sur leur choix. Par conséquent, il est possible de penser que pour que les adolescents se sentent à l'aise de développer ce type de relation, ils doivent avoir des points en commun avec leur partenaire et être capables d'atteindre une proximité psychologique avec elle. La recherche d'une relation amoureuse avec engagement est aussi présente dans les conclusions de l'étude d'Owen et Fincham (2011) avec des jeunes adultes universitaires. Ceci appuie l'idée que l'AAB peut être considérée comme une étape préliminaire au développement d'une relation amoureuse avec engagement (Owen & Fincham, 2011).

Par ailleurs, la présente étude permet d'identifier une nouvelle source de motivation qui est également un des avantages de l'AAB rapportés par les participants: il s'agit de la découverte de la sexualité. Ceci est cohérent avec Cloutier et Drapeau (2008) qui mentionnent que les premières expériences sexuelles ont lieu à l'adolescence et marquent le passage de l'enfance vers l'adolescence. De plus, la présente étude va dans le même sens que les conclusions d'Erlandsson et al. (2013), puisque les participants cherchent à se faire apprécier et à vivre de l'intimité psychologique à travers cette relation. Cette étude permet donc de mettre en lumière que l'AAB, par le contexte d'intimité qu'elle procure, et en étant une relation distincte de celles entretenues avec les membres de la famille, peut favoriser le développement de soi chez les individus, et ce, au même titre que les observations faites par Cloutier et Drapeau (2008) sur les relations amoureuses. Cependant, Lehmler, VanderDrift et Kelly (2012) soulignent, quant à eux, qu'il existe tout de même une distinction, à plusieurs niveaux, entre une AAB et une relation amoureuse.

D'après la présente étude, et en cohérence avec l'étude de Weaver et al. (2011), des facteurs déclencheurs accompagnent les motivations des participants à commencer une AAB. Il est envisageable que ces facteurs soient essentiels pour faciliter les contacts sexuels entre amis, puisque les adolescents peuvent vivre certaines contraintes associées à une autonomie et des choix. À la différence de Weaver et al. (2011), ressentir de la pression est un facteur déclencheur dans la présente étude. Il est possible que ce résultat soit propre aux adolescents qui peuvent avoir plus de difficultés à affirmer leurs opinions, leurs sentiments et leurs

besoins que les personnes issues d'autres tranches d'âge. Également, il se peut que l'AAB soit favorisée par les pressions qui se présentent à l'adolescence et qui les encouragent à être sexuellement actifs (Cloutier & Drapeau, 2008). Il serait pertinent d'investiguer cette piste plus en profondeur.

La présente étude va dans le même sens que les conclusions de Weaver et al. (2011), puisque tous les participants de l'étude actuelle expriment avoir vécu des affects positifs. Ceci peut permettre de comprendre pourquoi les participants ont souvent eu plus d'un ami avec bénéfices et pourquoi la relation est normalement maintenue plusieurs mois. À ce propos, il est montré dans l'étude de Lehmiller et al. (2012) que le nombre d'amis avec bénéfices est plus élevé chez les adultes universitaires que le nombre de partenaires amoureux. Plus précisément, le nombre moyen total d'amis avec bénéfices est de six alors qu'il est près de deux pour le nombre de partenaires amoureux. En accord avec les études de Bisson et Levine (2009), Weaver et al. (2011) et Knight (2014), les résultats de l'étude actuelle indiquent que le choix de l'AAB plutôt que la relation amoureuse permet d'éviter des aspects de l'engagement. Notamment, il se peut que les jeunes ne soient pas prêts à fournir l'effort de s'engager dans une relation amoureuse (Erlandsson et al., 2013; Knight, 2014).

Contrairement à l'étude d'Owen et Fincham (2011) qui rapporte que les émotions positives sont prépondérantes dans l'AAB, les participants de la présente étude ont tendance à parler davantage des désavantages d'une telle relation. Il se pourrait que bien qu'ils aient fait l'expérience de l'AAB, les participants aient tout de même un jugement plutôt négatif envers ce type de relation. Il est possible qu'ils soient influencés par le fait que la relation est moins acceptée socialement ou que l'absence de conventions et de scénarios préétablis soient responsables de l'incertitude que les participants éprouvent fréquemment dans l'AAB.

D'autres impacts affectifs négatifs se manifestent également chez les participants. Il semble qu'être blessé affectivement soit effectivement un coût possible d'une l'AAB (Erlandsson et al., 2013). Il est possible qu'étant donné que la relation soit sans engagement, le partenaire porte moins attention au bien-être et aux besoins de son ami. Ce dernier risque alors d'être blessé davantage et d'avoir plus d'attentes et de besoins non répondus en comparaison aux individus en relation avec engagement. Ensuite, les

partenaires dans une AAB semblent éviter d'exprimer leur mécontentement ou leurs émotions (Knight, 2014; Lehmiller et al., 2012). Il est également possible que les participants ayant vécu une expérience plus négative de l'AAB soient moins conscients des facteurs de risque liés à ce type de relation, et soient moins aptes à reconnaître les signes d'une relation néfaste pour eux (Quirk, Owen, & Fincham, 2014). Il y a aussi présence de sentiments amoureux non réciproques chez certains participants de la présente étude, mais ils sont moins fréquents que ce que la majorité rapporte dans l'étude de Weaver et al. (2011). Ceci pourrait être expliqué par le fait qu'il existe moins d'ambiguïtés entre une AAB et une relation amoureuse chez les adolescents comparativement aux jeunes adultes. Toutefois, d'autres études seraient à effectuer sur cette question.

L'étude actuelle fournit aussi un apport nouveau à la littérature en abordant les types de conclusions possibles de l'AAB. Pour la majorité des participants, l'AAB se termine à la suite de circonstances extérieures à celle-ci. Il se peut que l'absence d'engagement dans la relation n'incite pas les partenaires à faire les efforts nécessaires pour la conserver lorsque des obstacles se présentent. Les divergences entre les deux amis avec bénéfices sont exprimées chez quelques participants pour expliquer la fin de l'AAB. Aller à l'encontre de ses valeurs ou ne pas apprécier l'image de soi, lorsqu'il est question d'être impliqué dans une AAB, incite certains participants à y mettre fin. Il se peut que les divergences en ce qui a trait aux valeurs et aux aspects interpersonnels avec l'ami amènent plus de coûts que de bénéfices dans l'AAB, et que ces coûts soient importants parce qu'ils concernent l'identité de l'adolescent et ses besoins affectifs. En somme, plusieurs désavantages dans l'AAB peuvent effectivement être mentionnés comme motifs de la fin de celle-ci.

Des affects négatifs peuvent être vécus suite à la rupture de l'AAB, tels que la déception, comme le mentionnent les conclusions des études d'Owen et al. (2013). Toutefois, la présente étude propose que la présence d'affects positifs, négatifs ou les deux simultanément soit possible. Certains participants expriment ainsi être en accord avec la fin de l'AAB ou être passés à une autre étape. Il se peut que les participants soient satisfaits que la relation se termine étant donnée la présence de désavantages. Cependant, ils perdraient également certains avantages comme l'intimité, la proximité et l'occasion d'assouvir leurs

besoins sexuels. Certains perdent également un ami, ce qui peut créer un affect négatif chez la personne, malgré le fait que l'AAB devait se terminer. Ainsi, l'ambivalence entre les affects positifs et négatifs peut s'avérer complexe à gérer pour les personnes impliquées.

Dans l'étude actuelle, le scénario le plus commun une fois l'AAB terminée est que les amis cessent toute interaction. Ceci va à l'encontre de l'étude d'Owen et al. (2013) où la majorité des participants demeurèrent amis. Il est possible que l'AAB nuise à la relation pour ceux qui sont amis et qu'elle ne rapproche pas, à long terme, ceux qui n'étaient pas amis avant. Il est possible de penser que si l'AAB est axée sur la sexualité, cet aspect puisse nuire à la notion d'amitié ou ne pas favoriser celle-ci chez deux individus qui n'ont qu'en tête leurs besoins sexuels et non l'intimité psychologique par exemple. Bisson et Levine (2009) et Owen et al. (2013) décrivent aussi qu'une minorité de personnes s'engageant dans une relation amoureuse voit leur relation d'amitié inchangée. Il serait intéressant que d'autres études approfondissent cet aspect de la terminaison de l'AAB.

Il est néanmoins important de prendre en considération les limites de cette étude dans l'interprétation de ses résultats. Premièrement, cette étude est effectuée auprès d'adultes universitaires pour mieux comprendre leur expérience à l'adolescence. Ceci fait en sorte que plusieurs années se sont écoulées depuis leur expérience d'une AAB. Ceci peut avoir influencé leurs interprétations et diminué la remémoration de leurs souvenirs. Une piste d'investigation pour des études futures serait d'étudier les AAB directement auprès d'une population adolescente. Deuxièmement, la présente étude ne fait pas de triangulation des données, ce qui fait en sorte qu'elle n'a accès seulement à la perspective du participant qui n'a pas été validée avec d'autres sources. Ceci diminue la crédibilité (validité interne) des résultats (Morrow, 2005). Une suggestion pour les études à venir serait d'interroger les deux personnes impliquées dans l'AAB, afin d'obtenir différents points de vue. Troisièmement, avec le nombre de participants rencontrés et le devis de recherche qualitatif, il s'avère impossible de généraliser les résultats obtenus à l'ensemble des adolescents. En effet, en recherche qualitative, les informations ne peuvent pas être généralisées à une autre population que celle de l'étude ou à d'autres contextes que celui de ses participants (Morrow, 2005).

En conclusion, la présente étude amène un apport nouveau à la littérature à plusieurs niveaux. En premier lieu, l'étude vient appuyer l'existence de diverses catégories d'AAB, c'est-à-dire le large éventail de définitions possibles engendrer par la notion d'amitié avant le début de l'AAB. En deuxième lieu, l'étude permet une rétrospective de l'expérience des AAB vécues à l'adolescence, période très peu étudiée dans les écrits à ce sujet, par l'entremise d'adultes universitaires. En troisième lieu, l'étude soutient l'information que l'expérience des AAB n'est pas un événement spontané. En quatrième lieu, l'étude met de l'avant le contexte de la fin de l'AAB, plus précisément les motifs derrière sa terminaison et le statut du lien avec l'ami avec bénéfices par la suite. En dernier lieu, l'étude soulève plusieurs nouvelles pistes à investiguer davantage dans les études quantitatives et est centrée sur le point de vue des participants, ce qui amène des éléments nouveaux.

Par son apport à la compréhension des AAB vécues à l'adolescence alors que celles-ci soient à présent terminées, cette étude aura des retombées sur l'intervention auprès d'adolescents en offrant des pistes aux intervenants. Ainsi, les intervenants travaillant auprès de cette population pourront plus facilement leur expliquer ce qu'est une AAB et quelles sont ses caractéristiques, autant positives que négatives, pour les laisser juger de celle-ci en étant plus éclairés. Ceci peut aider à informer les jeunes sur ce type de relation et à les conséquences, et ce, même chez les adolescents qui en vivent déjà une. De plus, ces adolescents auront l'occasion de réfléchir sur les difficultés qu'ils pourraient rencontrer dans ce type de relation afin qu'ils soient en mesure de les reconnaître, de les nommer et d'en parler avec une personne ressource. À la lumière des résultats de cette étude, les intervenants pourront également aborder avec les jeunes en le fait que cette relation peut être vécue comme un événement non planifié, auquel l'adolescent doit consentir, même si dans certains cas, cela arrive à la suite de pressions. Finalement, les intervenants pourront être mieux outillés pour soutenir les jeunes lors de la conclusion de leur AAB en sachant que, pour plusieurs, il s'agit de la perte simultanée d'un ami et d'un partenaire sexuel.

Notes

¹L'ordre alphabétique a été privilégié, donc, le titre de première auteure est partagé entre Beaulieu, C., & Nadeau, S.-E.

²Dans cet article, le genre masculin est utilisé afin de faciliter la lecture et n'a aucune intention discriminatoire.

Références

- Bisson, M. A., & Levine, T. R. (2009). Negotiating a friends with benefits relationship. *Archives of Sexual Behavior*, 38, 66-73.
- Bogle, K. A. (2007). *Hooking up: Sex, dating, and relationships on campus*. New York, NY: University Press.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 77-101.
- Cloutier, R., & Drapeau, S. (2008). *Psychologie de l'adolescence* (3e éd.). Montréal, Québec : Gaëtan Morin.
- Denzin, N. K., & Lincoln, Y. S. (1994). *Handbook of qualitative research*. Thousand Oaks, CA, : Sage Publications.
- Erlandsson, K., Jinghede Nordvall, C., Öhman, A., & Häggström-Nordin, E. (2013). Qualitative interviews with adolescents about "friends-with-benefits" relationships. *Public Health Nursing*, 30, 47-57.
- Fernet, M. (2005). *Amour, violence et adolescence*. Sainte-Foy, Québec: Presses de l'Université du Québec.
- Fielder, R. L., & Carey, M. P. (2010). Predictors and consequences of sexual "hookups" among college students: A short-term prospective study. *Archives of Sexual Behavior*, 39, 1105-1119.
- Halatsis, P., & Christakis, N. (2009). The challenge of sexual attraction within heterosexuals'cross-sex friendship. *Journal of Social and Personal Relationships*, 26, 919-937.
- Jackson, M. R. (2015). Resistance to qual/quant parity: Why the "paradigm" discussion can't be avoided. *Qualitative Psychology*, 2, 181-198.
- Josselson, R. (2013). *Interviewing for qualitative inquiry: A relational approach*. New York, NY: Guilford Press.
- Kazdin, A. E. (2003). *Research design in clinical psychology* (4th ed.). Needham Heights, MA: Allyn and Bacon.
- Knight, K. (2014). Communicative dilemmas in emerging adults' friends with benefits relationships: Challenges to relational talk. *Emerging Adulthood*, 2, 270-279.
- Lehmiller, J. J., VanderDrift, L. E., & Kelly, J. R. (2012). Sexual communication, satisfaction, and condom use behavior in friends with benefits and romantic partners. *Journal of Sex Research*, 51, 74-85.
- Manning, W. D., Giordano, P. C., & Longmore, M. A. (2006). Hooking up: The relationship contexts of "nonrelationship" sex. *Journal of Adolescent Research*, 21, 459-483.
- Mongeau, P. A., Knight, K., Williams, J., Eden, J., & Shaw, C. (2013). Identifying and explicating variation among friends with benefits relationships. *Journal of Sex Research*, 50, 37-47.
- Morrow, S. L. (2005). Quality and trustworthiness in qualitative research in counseling psychology. *Journal of Counseling Psychology*, 52, 250-260.
- Owen, J., & Fincham, F. D. (2011). Effects of gender and psychosocial factors on "friends with benefits" relationships among young adults. *Archives of Sexual Behavior*, 40, 311-320.
- Owen, J., Fincham, F. D., & Manthos, M. (2013). Friendship after a friends with benefits relationship: Deception, psychological functioning, and social connectedness. *Archives of Sexual Behavior*, 42, 1443-1449.
- Poisson, Y. (1983). L'approche qualitative et l'approche quantitative dans les recherches en éducation. *Revue des sciences de l'éducation*, 9, 369-378.
- Ponterotto, J. G. (2005). Qualitative research in counseling psychology: A primer on research paradigms and philosophy of science. *Journal of Counseling Psychology*, 52, 126-136.
- Quirk, K., Owen, J., & Fincham, F. (2014). Perceptions of partner's deception in friends with benefits relationships. *Journal of Sex & Marital Therapy*, 40, 43-57.
- Weaver, A. D., MacKeigan, K. L., & MacDonald, H. A. (2011). Experiences and perceptions of young adults in friends with benefits relationships: A qualitative study. *The Canadian Journal of Human Sexuality*, 20, 41-53.

- Wentland, J. J., & Reissing, E. D. (2011). Taking casual sex not too casually: Exploring definitions of casual sexual relationships. *The Canadian Journal of Human Sexuality*, 20, 75-91.
- Yin, R. K. (2011). *Qualitative research from start to finish*. New York, NY: Guilford Press.

Reçu le 9 juillet, 2015
Révisé le 25 septembre, 2015
Accepté le 8 novembre, 2015 ■

Long-Distance vs. Geographically-Close Relationships: The Role of Maintenance and Attachment Styles in Shaping Relationship Quality

HANNAH BRAZEAU & CHERYL HARASYMCHUK, PH. D.
Carleton University

This study examined the role of attachment styles and relationship maintenance of a geographically-close and long-distance relationships. It was hypothesized that people in long-distance relationships would engage in more security maintenance processes and fewer growth maintenance processes. This effect was hypothesized to be amplified for people who fear abandonment. A self-reported survey was completed by 200 undergraduate students in close relationships, 100 of which were in long-distance relationships. Contrary to predictions, people in long-distance relationships and who score high on fear of abandonment did not engage in more or less security maintenance or growth maintenance processes overall. The present study does provide insight into how long-distance relationships function in terms of their maintenance behaviours and attachment styles.

Keywords: long-distance relationships, geographically-close relationships, attachment style, relationship maintenance, growth-security framework

Cette étude investigate le rôle des styles d'attachement et du maintien d'une relation amoureuse à courte distance et à longue distance. Il est prédit que les individus dans une relation à longue distance adopteront d'avantages des comportements de sécurité et à l'inverse adopteront peu de comportements de développement. Cet effet serait amplifié chez les individus craignant l'abandon. Un rapport d'auto-évaluation a été complété par 200 étudiants du premier cycle en relation dont 100 étant dans une relation à longue distance. Contrairement aux prédictions, les individus dans une relation à longue distance et ayant une peur de l'abandon n'ont pas adopté plus de comportements de sécurité et moins de comportements de développement. Cette étude a tout de même permis d'éclaircir les comportements de maintien d'une relation amoureuse à longue distance et sur les styles d'attachement.

Mots-clés : relation à longue distance, relation à courte distance, styles d'attachement, comportements de sécurité, comportements de développement

Long-distance relationships (LDR) are becoming more prominent in our society as technological advances in communication (e.g., Skype, text messaging) have facilitated their maintenance (Pistole, Roberts, & Chapman, 2010). This type of relationship is especially common in first year university students separated from their partners due to university attendance (Stafford, 2005): in Canada, approximately one third of all LDR are maintained by young adults aged 20 to 24 (Statistics Canada, 2013). In recent years, due to the rising number of LDR, there has been an increase in the amount of research analyzing the

relational satisfaction and dynamics of such relationships. Despite this increase, minimal research has examined the maintenance processes that people in LDR use in order to reduce the effects of the unique challenges people in this type of relationship face.

What is a Long-Distance Relationship?

Researchers disagree about what distinguishes a LDR from a geographically-close relationship. Many researchers (Kelmer, Rhoades, Stanley, & Markman, 2013; Mietzner & Li-Wen, 2005) have defined a LDR according to what the U.S. Department of Transportation considers a long-distance trip. This definition states that a trip is considered long-distance when the person's residence is at least 50 miles

Correspondence concerning this article should be addressed to Hannah Brazeau, Carleton University, Department of Psychology, 550 Loeb Building, 1125 Colonel By Drive, Ottawa, ON, Canada, K1S 5B6 (e-mail: hannahbrazeau@cmail.carleton.ca).

(80.47 km; one-way) from their furthest destination. Therefore, by way of this definition, these researchers consider a relationship to be long-distance when the people involved live at least 80.47 km apart. However, most researchers (Merolla, 2012; Pistole et al., 2010; Roberts & Pistole, 2009) allow participants to self-define their relationships as long-distance based on the recommendations given by Stafford (2005). These studies generally include follow-up questions pertaining to the number of visits and distance between the partners in order to ensure that the self-definition of long-distance is not being over-generalized to include geographically-close relationships. Regardless of which definition is chosen, people in LDR are generally separated by some distance for long periods of time, but still manage to preserve their relationship.

Are Security Concerns Greater in Long-Distance Relationships?

It is a common belief that living in close proximity to one another is a fundamental aspect in maintaining a satisfying relationship. It is thought that satisfaction and security in a relationship are developed through verbal and non-verbal interactions that can only occur when the couple is face-to-face (Merolla, 2012). Contrary to this belief, previous research has found that break-up rates for people in LDR are equal to those of their geographically-close counterparts (Guldner & Swenson, 1995). However, there is evidence that certain stressors and day-to-day experiences are only experienced by people in LDR which may lead to chronic security concerns within this type of relationship.

Long-distance relationships are particularly characterized by a *separation-reunion cycle*, where the partners live in different locations and travel in order to be together for a limited amount of time (e.g., two days) before separating once again (Pistole, Roberts, & Mosko, 2010; Roberts & Pistole, 2009). This special dynamic, which varies from that of geographically-close relationships, may cause people in LDR to have unique experiences that can lead to chronic security concerns (Roberts & Pistole, 2009). Specifically, this dynamic creates a unique emotional climate where communication skills become an integral part of maintaining a sense of closeness.

Emotional climate. This separation-reunion cycle can cause emotional highs and lows as the couple attempts to maintain intimacy and relational

satisfaction from a distance (Groves & Horm-Wingerd, 1991). For instance, research has shown that LDR are associated with increased levels of depression symptoms when compared to geographically-close relationships (Guldner, 1996). In terms of reunions, even though they are seen as happy events, they are also associated with anxiety. Before the reunions occur, the people within LDR may hold high expectations, and the perceived need to meet these expectations during the reunion can cause anxiety. If these expectations are not met in the limited amount of time that they have together, a sense of disappointment may occur (Groves & Horm-Wingerd, 1991). Furthermore, the anticipated separation when together can be a source of stress and anxiety for both people involved (Pistole, Roberts, & Chapman, 2010). Unfortunately, these emotional highs and lows are a form of instability, which may result in feelings of chronic insecurity within the relationship.

Communication skills. Long-distance and geographically-close relationships also differ from one another in the sense that the increased distance between the relational partners in long-distance relationships limits the amount of face-to-face interactions the couple can engage in. Despite these limitations, research has identified some skills and behaviours that help people in LDR maintain a sense of closeness and security while separated from one another. For instance, Mietzner and Li-Wen (2005) found that many partners in LDR compensate for the distance by developing and increasing the quality of their communication skills. Their research showed that people in LDR, when compared to people in geographically-close relationships, tend to write to their partners more often and were more likely to discuss their relationship and future as a couple while on the phone and in person (Mietzner & Li-Wen, 2005). In an attempt to maintain security within their relationship, people in LDR attempt to avoid conflicts as much as possible (Pistole, Roberts, & Mosko, 2010). This may be done so that feelings of chronic insecurity are not displayed to their partner.

Despite the many differences between long-distance and geographically-close relationships, research indicates that the overall satisfaction and quality of their relationships do not differ even though people in LDR may be experiencing more chronic security concerns within their relationship (Guldner & Swenson, 1995; Roberts & Pistole, 2009). For this reason, it has been suggested that people in LDR

engage in different maintenance processes than people in geographically-close relationships that allow them to maintain relational satisfaction and security while at a distance (Pistole, Roberts, & Chapman, 2010). Previous research on the maintenance processes of people in LDR has mainly focused on security processes, but some scholars believe that these processes are just one general way to maintain relationships.

Growth-Security Framework of Relational Maintenance in Long-Distance Relationships

Gable and Reis (2001) proposed a growth-security framework in order to assess the different types of maintenance processes that people engage in while in a relationship. They arranged maintenance processes into two categories: growth maintenance processes and security maintenance processes. Growth maintenance processes are those that focus on obtaining desired positive outcomes by focusing on development and accomplishments. Thus, these processes focus on novel development, explorations, and growth that can lead to positive desired outcomes. For example, capitalization is often categorized as a growth maintenance process as it focuses on obtaining desired outcomes through communicating personal development and accomplishments with your partner. In contrast, security maintenance processes are those that focus on avoiding undesired negative outcomes by emphasizing security and safety. Specifically, these processes emphasize focusing on positive and familiar aspects or activities in the relationship to ensure that undesired negative outcomes are avoided. For example, viewing your partner as a safe haven is generally considered a security maintenance process as it focuses on avoiding undesired feelings by emphasizing the safety that their partner provides. The researchers who proposed this framework believed that it is a balance of these two categories of maintenance behaviours that lead to greater relational satisfaction while in a relationship (Gable & Reis, 2001).

Previous research on the maintenance processes of people in LDR has mainly focused on security processes. Thus, it is still unclear how much people in LDR engage in growth maintenance processes in order to maintain security in their relationships. In addition, it is not clear if people modify maintenance behaviours (i.e., growth and security) based on the type of relationship that they are in (i.e., long-distance vs. geographically close).

The present study aimed to examine engagement in security and growth maintenance processes in LDR and compare that to engagement in security and growth maintenance processes in geographically-close relationships. The underlying argument of this article is that situations that have more chronic security concerns (i.e., long distance relationships) will be associated with more security-focused maintenance processes and less growth-focused ones. Since LDR are marked by many unique experiences that can cause chronic security concerns, it was predicted that people in LDR would engage in more security processes than people in geographically-close relationships. In contrast, because of the lack of chronic security concerns, it was predicted that people in geographically-close relationships would engage in more growth processes than people in LDR. The underlying argument of this hypothesis was also extended to individual differences in chronic security concerns.

Individual Differences in Maintaining Long-Distance Relationships

Individual differences in how a person perceives, behaves, and experiences their relationship can cause chronic security concerns. Hazan and Shaver (1987) suggested that the attachment style of a person plays a crucial role in how they experience and behave in their relationships. The primary purpose of Bowlby's (1980) attachment research was to describe and explain the bond that an infant develops with their primary caregiver. He speculated that how a caregiver responds to a child's needs (i.e., hunger, comfort, safety) prompts the child to form either positive or negative internal working models of the self and others. A child would develop a specific attachment style based on these working models and that this attachment style would guide future patterns of expectations, desires, emotions, needs, and social behaviours (Mikulincer & Shaver, 2010).

It has been proposed that the connection that forms between romantic partners occurs through an attachment process much like the one that occurs between an infant and their primary caregiver (Brennan & Shaver, 1995; Hazan & Shaver, 1987; Kirkpatrick & Davis, 1994; Pistole, Roberts, & Chapman, 2010; Simpson, 1990). For this reason, Hazan and Shaver (1987) believed that adult attachment should be broken down into the same three

groups that infant attachment has been broken down into: secure attachment, avoidant attachment, and anxious/ambivalent attachment.

Securely attached people feel at ease with intimacy and autonomy, and tend to have more positive views and a higher regard for themselves and their partner (Bartholomew & Horowitz, 1991; Pistole, Roberts, & Chapman, 2010). Once in a romantic relationship, they report having higher levels of happiness, satisfaction, intimacy, trust, and commitment than people who display other attachment styles (Hazan & Shaver, 1987; Kirkpatrick & Davis, 1994). People who are securely attached form more stable and supportive relationships regardless of whether they are in a geographically-close or long-distance relationships (Simpson, 1990).

People who display an avoidant attachment style or a “fear of closeness” (Fraley, Waller, & Brennan, 2000) are characterized by their fear of intimacy and closeness (Hazan & Shaver, 1987). Once in a geographically-close relationship, people who fear closeness report having lower levels of satisfaction, intimacy, trust, and commitment when they are compared to those who are securely attached (Kirkpatrick & Davis, 1994), as they have difficulties trusting and depending on others (Simpson, 1990). While in a long-distant relationship, those who fear closeness tend to suppress intimacy and attachment through infrequent communication, ignoring their emotions and those of their partner, and prolonging separation (Pistole, Roberts, & Chapman, 2010; Roberts & Pistole, 2009). Therefore, regardless of the type of relationship that they are in, people who fear closeness form only emotionally distant relationships (Roberts & Pistole, 2009; Simpson, 1990).

In contrast, anxiously attached people or those who “fear of abandonment” (Fraley et al., 2000) are characterized by a need to have their partner close to them at all times as they believe that their partners are essential to their self-worth (Pistole, Roberts, & Chapman, 2010). These people desire their partners' reciprocation of emotions so much that they often become obsessive, over-disclose personal information, and experience frequent emotional highs and lows (Hazan & Shaver, 1987; Pistole, Roberts, & Chapman, 2010). Therefore, when in a geographically-close relationship, people who fear abandonment tend to report having more conflicts and uncertainties in their relationships as they are often disappointed by their partner's affections (Kirkpatrick & Davis, 1994;

Pistole, Roberts, & Chapman, 2010; Roberts & Pistole, 2009). While in a LDR, people who fear abandonment experience heightened emotional distresses and seek proximity to their partner at all times (Pistole, Roberts, & Chapman, 2010). This proximity seeking can promote positive affect and increased relationship satisfaction as it may be seen as a sign of commitment by their partner (Gable & Reis, 2001; Roberts & Pistole, 2009).

Overall, even though the chronic security concerns that usually underline LDR affect the amount and forms of maintenance processes that people in LDR can get engaged in, they are still able to maintain relational satisfaction and quality while at a distance (Guldner & Swenson, 1995; Roberts & Pistole, 2009). It has also been proposed that attachment style plays a major role in what a person expects from their relationships and how they behave and experience those relationships (Hazan & Shaver, 1987). Specifically, when in a long-distance relationship, people who fear abandonment experience heightened emotional distress and seek proximity to their partner at all times (Pistole, Roberts, & Chapman, 2010), which may be difficult due to the separation-reunion cycle. Since the underlying argument of this thesis is that situations which have more chronic security concerns will be associated with more security-restorative type maintenance processes, it was expected that people who fear abandonment would engage in more security and fewer growth processes overall. Furthermore, it was predicted that this effect would be heightened when those who fear abandonment were in a LDR.

Method

Participants and Procedure

For this study, 200 undergraduate students (79% female, $M_{age} = 19.35$, $SD_{age} = 1.86$, 69.7% Caucasian) were recruited from a Canadian university's participant pool. At the time of the study, all participants were currently involved in a romantic relationship ($M_{relationship\ length} = 23.2$ months), and to ensure consistency 100 of the participants were in geographically-close relationships, while 100 were in long-distance relationships¹. All of the students that completed the study were enrolled in first or second year Psychology courses. Each student was required to read over and agree to an informed consent before they were able to complete the 125-item self-report survey. This survey consisted of a demographic

questionnaire as well as nine other surveys that are described below. After the survey was completed, each participant read a written debriefing that outlined the purposes of the study. Once the debriefing had been read, each student was granted a 0.25% credit that was applied toward the class in which they were enrolled.

Measures

Growth Maintenance Processes. Participants were asked to provide ratings for a range of relationship processes that relate to obtaining desired positive outcomes by focusing on development and accomplishments.

Secure Base Characteristics Scale. Secure base refers to the support a person receives from their partner regarding their explorations, personal growth, and pursued goals that occur outside of their relationship. Since this relationship process focuses on the support received during time of exploration and development, it was considered a growth maintenance process for the purpose of this study. The *Secure Base Characteristics Scale* (Feeney & Thrush, 2010) is a 15-item self-report measure that contains three subscales measuring the partner's availability, interference, and encouragement during times of personal growth. For each item, participants were asked to rate how much they agreed with each statement about their partner on a 6-point Likert scale, where 1 = *disagree strongly*, 3 = *neutral/mixed*, and 6 = *agree strongly*. The reliability for this scale was $\alpha = .83$.

Capitalization Scale. The term capitalization refers to the communication of positive, personal events to another person. Since this relationship process focuses on obtaining desired outcomes through communicating personal development and accomplishments, it was considered a growth maintenance process for the purpose of this study. The *Capitalization Scale* (Gable, Reis, Impett & Asher, 2004) is a 12-item self-report measure that assesses how a person feels their partner responds to their positive events or news. Participants rated each item according to how likely their partner would respond in a certain way using a 7-point Likert scale, where 1 = *not at all* and 7 = *very true*. The *Capitalization Scale* has good reliability with $\alpha = .92$.

Engagement in Novel Activities. The novel activities subscale of the *Activities in Close Relationships Scale* developed by Harasymchuk and

Peetz (2013) was used to determine the frequency that participants engaged in novel activities with their partner (growth maintenance process). Participants were asked to rate each of the two items on a 7-point Likert scale, where 1 = *not at all*, 4 = *sometimes*, and 7 = *very often*.

Security Maintenance Processes. Participants were asked to complete numerous scales that measured engagement in relationship processes that emphasize avoiding undesired outcomes but focusing on security and safety.

Safe Haven Scale. Safe haven refers to the tendency of people to seek out their partner in times of distress (Heffernan, Fraley, Vicary, & Brunbaugh, 2012). Since this relationship process focuses on avoiding undesired feelings by focusing on the safety that their partner provides, this measure was deemed a security maintenance process for the purpose of this study. In order to measure this construct, a 3-item self-report survey was developed for this study. Participants were asked to rate each statement according to how often their partner responds to their distress in a certain way using a 7-point Likert scale, where 1 = *never* and 7 = *all the time*. This scale included items such as: "In times of need, my partner is there to support me". The *Safe Haven Scale* has excellent reliability, $\alpha = .96$.

Jealousy Scale. The *Jealousy Scale* developed by Pfeiffer and Wong (1989) was used to measure the jealousy of the participants. Since this relationship process focuses on feelings of relationship insecurity, it was deemed a security maintenance process for the purpose of this study (i.e., low levels indicate relationship security). This 24-item self-report measure ($M = 3.20$, $SD = 0.88$) contains three subscales (i.e., cognitive, emotional, and behavioural jealousy) each consisting of 8-items. The cognitive and behavioural jealousy subscales were measured using a 7-point Likert scale, where 1 = *never* and 7 = *all the time*; while the emotional jealousy subscale was measured using a 7-point Likert scale, where 1 = *very pleased*, 4 = *neutral*, and 7 = *very upset*. The *Jealousy Scale* has excellent reliability with $\alpha = .90$.

Engagement in Familiar Activities. The familiar activities subscale of the *Activities in Close Relationships Scale* developed by Harasymchuk and Peetz (2013) was used to determine the frequency that participants engaged in familiar activities with their partner (security maintenance process).

Participants were asked to rate each of the two items on a 7-point Likert scale, where 1 = *not at all*, 4 = *sometimes*, and 7 = *very often*.

Attachment Styles. *Experiences in Close Relationships-Revised Questionnaire* was used in order to assess adult attachment style (Fraley et al., 2000). This 36-item self-report measure contains two 18-item subscales which each assess a different dimension of attachment. The anxiety subscale measured the participants' tendencies towards anxious attachment while the avoidance subscale measured the participants' tendencies towards avoidant attachment. Participants were presented with statements and asked to rate how much they agreed with each statement using a 7-point Likert scale, where 1 = *strongly disagree* and 7 = *strongly agree*. The *Experiences in Close Relationships-Revised Questionnaire* has excellent reliability with $\alpha = .92$. Furthermore, the questionnaire also included measures assessing relationship satisfaction, conflict resolution, communication practises, and activity engagement.

Before the main analyses were conducted, the *Jealousy Scale* was reversed coded so that high scores in all scales deemed as security maintenance processes (i.e., *Jealousy Scale*, *Safe Haven Scale*, and familiar activity engagement) indicated higher engagement in

security-oriented activities. Subsequently, in order to ensure measurement consistency, all measures were standardized so that means and standard deviations were consistent across all scales. The means and standard deviations for all measures (prior to standardization) are outlined in Table 1. It should be noted that no data was excluded from the analyses as there was no major concerns present within the sample data.

The first hypothesis predicting that individuals in LDR would engage in more security maintenance processes than people in geographically-close relationships was tested with two multivariate analysis of variance (MANOVA). These MANOVAs analyzed the differences between relationship condition (long-distance vs. geographically-close) for engagement in security (i.e., jealousy, safe haven, and engagement in familiar activities) and growth maintenance processes (i.e., secure base, capitalization, and engagement in novel activities).

Before testing the hypothesis that people who fear abandonment would engage in more security processes and fewer growth processes, two relationship process composites were created: one for security and one for growth. These composites were used in order to develop a better understanding of which category of

Table 1

Mean, standard deviation and test statistic for all measures

Measures	Total	LDR	GCR	Min	Max
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>		
Growth processes	3.79 (0.99)	3.71 (1.10)	3.87 (0.88)		
Secure Base	4.15 (0.51)	4.09 (0.56)	4.20 (0.45)	1	6
Capitalization	2.96 (1.92)	2.69 (2.05)	3.22 (1.76)	1	7
Novel Activities	4.27 (1.39)	4.34 (1.46)	4.20 (1.34)	1	7
Security Processes	5.28 (0.812)	5.14 (0.88)	5.41 (0.73)		
Jealousy (reversed)	4.79 (0.89)	4.72 (1.02)	4.87 (0.73)	1	7
Safe Haven	6.16 (1.14)	5.98 (1.27)	6.33 (0.98)	1	7
Familiar Activities	4.87 (1.50)	4.74 (1.57)	5.00 (1.42)	1	7
Relationship Factors					
Satisfaction	4.11 (0.69)	3.99 (0.75)	4.22 (0.61)	1	5
Relationship Length ^a	23.2 (15.81)	25.24 (16.02)	21.71 (15.59)	3	96
Fear of Closeness	2.6 (1.07)	2.78 (1.06)	2.43 (1.06)	1	7
Fear of Abandonment	3.64 (1.17)	3.73 (1.14)	3.55 (1.19)	1	7

Note. ^a In months; LDR = long-distance relationship, GCR = geographically-close relationship.

LONG-DISTANCE VS. GEOGRAPHICALLY-CLOSE RELATIONSHIPS

maintenance processes are engaged in most often by each relationship condition. Each was calculated by averaging the means of all security processes measures (i.e., *Jealousy Scale*, *Safe Haven Scale*, and engagement in Familiar Activities), and averaging the means of all growth processes measures (*Secure Base Characteristics Scale*, *Capitalization Scale*, and engagement in novel activities). These composites were used instead of analyzing each measure separately.

Following the development of these composites, a series of Hayes and Preacher (2014) moderation models were conducted. The first of these models was conducted using fear of abandonment scores as the moderator between relationship condition (independent variable) and the security composite score (outcome). The second model was conducted using fear of abandonment scores as the moderator between relationship condition (independent variable) and the growth composite score (outcome).

Results

The present sample engaged in a variety of maintenance processes—both growth and security maintenance processes. Although, based on the direction of the means presented in Table 1, it appears that people in long-distance and geographically-close relationships reported engaging in more security processes than growth processes overall. The correlations between security processes, growth processes, relational satisfaction, relationship length, and the two attachment styles are outlined in Table 2. The correlations between security processes, growth processes, relational satisfaction, relationship length, and the two attachment styles separated by relationship condition are outlined in Table 3.

Table 2

Correlations between security processes, growth processes and relationship factors

	1	2	3	4
1. Security Processes	-			
2. Growth Processes	.72 *	-		
3. Relationship Length	-.09	-.03	-	
4. Fear of Closeness	-.48	-.45 *	-.03	-
5. Fear of Abandonment	.30 *	-.28 *	.02	.21 *

Note. * $p < .01$.

Analysis of Main Hypotheses

Long-Distance Relationships and Maintenance Processes. It was predicted that because of the stress invoked by chronic security concerns, people in LDR would engage in more security maintenance processes than people in geographically-close relationships. Whereas, people in geographically-close relationships would engage in more growth maintenance processes than people in LDR because of the lack of these chronic security concerns. Since security maintenance processes were evaluated with different measures, a MANOVA was conducted to test whether or not security maintenance processes were affected by the type of relationship reported by the participants. Contrary to the predictions, the results of the MANOVA analyses indicated that there was not a significant effect of relationship condition on engagement in security maintenance processes, $F(1, 180) = 1.72, p = .164, \Lambda = .97$, partial $\eta^2 = .03$. Specifically, these results indicated that people in LDR are not engaging in more security maintenance processes than people in geographically-close

Table 3

Correlations between security processes, growth processes and relationship factors separated by relationship condition

	1	2	3	4	5
1. Security Processes	-	.71 **	-.72	-.36 **	.38 **
2. Growth Processes	.72 **	-	-.17	-.27 **	-.43 **
3. Relationship Length	.03	.12	-	-.04	-.60
4. Fear of Closeness	-.56 **	-.60 **	-.08	-	.15
5. Fear of Abandonment	-.22 *	-.13	.10	.25 *	-

Note. * $p < .05$; ** $p < .01$; Condition: long-distance relationship in bottom, geographically-close relationship in top.

relationships. Furthermore, there was no significant effect of relationship condition on engagement in growth maintenance processes $F(1, 181) = 1.80, p = .150$; $\Lambda = .97$, partial $\eta^2 = .03$. Specifically, these results indicated that people in geographically-close relationships are not engaging in more growth maintenance processes than people in LDR. Overall, relationship condition was not a significant predictor of engagement in security or growth maintenance processes.

Attachment Fears and Maintenance Processes Engagement. It was predicted that people who fear abandonment would engage in more security processes and fewer growth processes, and that this effect would be amplified while in a LDR. The first moderation model (i.e., fear of abandonment scores as the moderator between relationship condition and the security composite score) conducted indicated that the overall model was significant, $F(3, 180) = 11.46, p < .001$, with 16% of the variance being accounted for by this set of predictors. In terms of predictors, fear of abandonment score, $b = -0.16, t(180) = -1.30, p = .212$, and relationship condition, $b = .31, t(180) = 1.00, p = .318$, were not significant predictors of engagement in security maintenance processes. Furthermore, the interaction of these predictors was not significant, $b = -0.03, t(180) = -0.43, p = .671$. Contrary to the hypothesis, these results indicate that fear of abandonment scores and relationship condition do not predict increased engagement in security maintenance processes.

The second moderation model (i.e., fear of abandonment scores as the moderator between relationship condition and the growth composite score) indicated that the overall model was significant, $F(3, 180) = 4.10, p = .010, R^2 = .06$, with 6.4% of the variance being accounted for by this set of predictors. In terms of predictors, fear of abandonment score, $b = 0.01, t(180) = 0.12, p = .901$, and relationship condition, $b = 0.50, t(180) = 1.34, p = .172$, were not significant predictors of engagement in growth processes. Furthermore, the interaction of these predictors was not significant, $b = -0.11, t(180) = -1.14, p = .257$. Specifically, fear of abandonment scores and relationship condition did not predict engagement in growth maintenance processes. Overall, the results from the two moderation analyses did not support this hypothesis as people who fear abandonment did not report engaging in significantly more security maintenance processes and fewer growth maintenance processes.

Discussion

LDR are unique in that partners are separated from each other, limiting the amount of face-to-face communication, shared free time, and physical intercourse they can engage in with one another. These limitations and the increased separation may cause chronic security concerns. Therefore it was expected that people in LDR might engage in different maintenance processes than people in geographically-close relationships in order to reduce these chronic feelings of insecurity. This was examined by analyzing the differences in relationship maintenance of geographically-close and long-distance relationships using the Gable and Reis (2001) growth-security framework; while also examining the role of attachment style in shaping these processes. The results of this study indicated that relationship condition and attachment style did not predict engagement in either growth or security maintenance processes. As a result, our hypotheses were not supported.

How do People in Long-Distance Relationships Manage their Chronic Security Concerns?

Contrary to the hypothesis, the present study found, while examining the security and growth maintenance processes, that individuals in LDR did not engage in significantly higher or lower security or growth processes when compared to people in geographically-close relationships. Though these results did not support the hypothesis, this pattern of findings could be explained by the average age of the participants. Considering these data were collected from an undergraduate population, it is possible that the novel and stimulating activities (i.e., growth processes) are being engaged in more frequently because this age group prioritizes these kinds of novel processes. Future research should investigate this line of research in more long-term relationships to see if this pattern is true for all relationships, or just newer relationships.

In light of these results, it is possible that the security maintenance processes measured in the current study do not reflect security processes that people in LDR engage in to reduce chronic security concerns. Therefore, future research should investigate other security-seeking processes or behaviours that might be used by people in LDR to reduce chronic security concerns (i.e., comfort and predictability).

How do People who Fear Abandonment Handle Chronic Security Concerns in a Long-Distance Relationship?

Attachment styles play a crucial role in how people experience and behave in their relationships (Hazan & Shaver, 1987). Thus, each attachment style should differ in terms of the degree of relationship involvement, relational satisfaction, self-confidence, reliance on others, and emotional expression that they require while in a romantic relationship. It was hypothesized that people who fear abandonment would engage in more security processes than growth processes overall, and that this effect would be amplified while they were in a LDR. Indeed, when faced with chronic security concerns, individuals who are sensitive to the possibility of negative outcomes—such as those who fear abandonment—attempt to avoid novel situations that may lead to these negative events and approach situations that are positive and familiar in order to emphasize security and safety (Gable & Reis, 2001). Contrary to the hypothesis, the results of the present study suggest that relationship condition and fear of abandonment do not predict engagement in security and growth maintenance processes. However, upon further reflection, it is possible that the selection of security processes included in this study may not adequately represent the types of security restorative processes that people who fear abandonment are engaging in to reduce chronic security concerns within their relationships. For instance, this study did not assess comfort and predictability, which may be primary focuses for individuals who fear abandonment while they are in a LDR.

Strengths, Limitations, and Future Directions

Despite many of the results suggesting findings contrary to the hypotheses, there were numerous strengths in the present study that should be considered when conducting future research with LDR. The first strength of the present study is the sample, as this style of relationship is especially common in first and second year university students. The use of a sample of first-year university students may make these results more applicable to a large proportion of LDR. The collection of even samples of participants from geographically-close and LDR was also a strength of the present study. These even samples minimized interpretation errors within the results. Another strength of the present study was the use of security and growth composites. The use of

these composites allowed a broad understanding of maintenance processes used by each relationship condition. This broad understanding will allow future research to examine each composite in more depth. Furthermore, the present study is one of the first studies to examine growth-maintenance processes within the context of LDR.

However, even though there were numerous strengths, the limitations of the present study should not be overlooked. Despite the sample being collected from an ideal population, there was an overwhelming majority (79%) of female participants in the sample. This most likely occurred because the sample was gathered from only first-year psychology courses where the majority of students are female. Another limitation of the present study was that the results were purely based on self-report surveys, where response biases can occur. This may explain why engagement in maintenance processes that are considered positive (i.e., safe haven) are being reported much more frequently than maintenance process that are considered negative (i.e., jealousy) by this sample.

Fortunately, there are many avenues for improvement and growth within the research area of LDR. Future research should consider other personality factors, such as consciousness, extraversion, and neuroticism, which may affect the maintenance processes of people in geographically-close and LDR. Also, other aspects of both types of relationships (i.e., joint assets, cheating behaviours, frequency of visits between long-distance partners) which may play a role in the commitment and relational satisfaction of the people involved may want to be considered. Overall, there are numerous avenues for future research as the maintenance processes and characteristics of people who are in long-distance relationships are not yet well understood.

The present study provides insight into how LDR function in terms of their maintenance behaviours and attachment styles. Although it was expected that people in long-distance and geographically-close relationships would maintain their relationships in very different ways, it appears as though there are more similarities in their maintenance activities than differences.

Notes

¹An independent samples t-test indicated that there was no significant difference of relationships satisfaction, $t(1, 186) = -1.85$, $p = .066$, between people in geographically-close relationships and people in long-distance relationships. This same analysis revealed no difference in relationship length, $t(1, 114) = 1.01$, $p = .315$, between the two relationship conditions.

²These results were not maintained when fear of closeness scores were controlled for.

References

- Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology*, 61, 226-244.
- Bowlby, J. (1980). *Attachment and loss (Vol. 3)*. New York, NY: Basic Books.
- Brennan, K. A., & Shaver, P. R. (1995). Dimensions of adult attachment, affect regulation, and romantic relationship functioning. *Personality and Social Psychology Bulletin*, 21, 267-283.
- Feeney, B. C., & Thrush, R. L. (2010). Relationship influences on exploration in adulthood: The characteristics and function of a secure base. *Journal of Social and Personal Relationship*, 27, 226-234.
- Fraley, R. C., Waller, N. G., & Brennan, K. A. (2000). An item response theory analysis of self-report measures of adult attachment. *Journal of Personality and Social Psychology*, 78, 350-365.
- Gable, S., & Reis, H. T. (2001). Appetitive and aversive social interaction. In J. H. Harvey & A. E. Wenzel (Eds.). *Close romantic relationship: Maintenance and enhancement* (pp. 169-194). Mahwah, NJ: Lawrence Erlbaum Associates.
- Gable, S. L., Reis, H. T., Impett, E., & Asher, E. R. (2004). What do you do when things go right? The intrapersonal and interpersonal benefits of sharing positive events. *Journal of Personality and Social Psychology*, 87, 228-245.
- Groves, M. M., & Horm-Wingerd, D. M. (1991). Commuter marriages: Personal, family, and career issues. *Sociology and Social Research*, 75, 212-216.
- Guldner, G. T. (1996). Long distance romantic relationship: Prevalence and separation-related symptoms in college students. *Journal of College Student Development*, 37, 289-296.
- Guldner, G. T., & Swenson, C. H. (1995). Time spent together and relationship quality: Long-distance relationships as a test case. *Journal of Social and Personal Relationships*, 12, 313-320.
- Harasymchuk, C., & Peetz, J. (2013). *Responses to relational boredom: Novel and familiar activities in close relationships*. Manuscript in preparation.
- Hayes, A. F., & Preacher, K. J. (2014). Statistical mediation analysis with a multicategorical independent variable. *British Journal of Mathematical and Statistical Psychology*, 67, 451-470.
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as attachment process. *Journal of Personality and Social Psychology*, 52, 511-524.
- Heffernan, M. E., Fraley, R. C., Vicary, A. M., & Brunbaugh, C. C. (2012). Attachment features and functions in romantic relationships. *Journal of Social and Personal Relationships*, 29, 671-693.
- Kelmer, G., Rhoades, G. K., Stanley, S., & Markman, H. J. (2013). Relationship quality, commitment, and stability in long-distance relationships. *Family Process*, 52, 257-270.
- Kirkpatrick, L. A., & Davis, K. E. (1994). Attachment style, gender, and relationship stability: A longitudinal analysis. *Journal of Personality and Social Psychology*, 66, 502-512.
- Merolla, A. J. (2012). Connecting here and there: A model of long-distance relationship maintenance. *Personal Relationships*, 15, 775-795.
- Mietzner, S., & Li-Wen, L. (2005). Would you do it again?: Relationship skills gained in a long-distance relationship. *College Student Journal*, 39, 192-200.
- Mikulincer, M., & Shaver, P. R. (2010). *Attachment in Adulthood: Structure, dynamic, and change*. New York, NY: Guilford Press.
- Pfeiffer, S. M., & Wong, P. T. (1989). Multidimensional jealousy. *Journal of Social and Personal Relationships*, 6, 181-196.
- Pistole, M. C., Roberts, A., & Chapman, M. L. (2010). Attachment, relationship maintenance, and stress in long distance and geographically close romantic relationships. *Journal of Social and Personal Relationships*, 27, 535-552.
- Pistole, M. C., Roberts, A., & Mosko, J. E. (2010). Commitment predictors: Long-distance versus geographically close relationships. *Journal of Counseling and Development*, 88, 146-153.
- Roberts, A., & Pistole, M. C. (2009). Long-distance and proximal romantic relationship satisfaction: Attachment and closeness predictors. *Journal of College Counseling*, 12, 5-17.

- Simpson, J. A. (1990). Influence of attachment styles on romantic relationships. *Journal of Personality and Social Psychology*, 59, 971-980.
- Stafford, L. (2005). *Maintaining long-distance and cross-residential relationships*. Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.
- Statistics Canada. (2013). *Living Apart Together* [Data file]. Retrieved from <http://www.statcan.gc.ca/daily-quotidien/130305/dq130305a-eng.htm>
-

Received June 10, 2015

Revision received December 5, 2015

Accepted January 11, 2016 ■

The Role of Religion as a Protective Factor for Worry

JOHN TODARO

University of Pennsylvania

Recently, there is an increasing interest in identifying potential protective factors against worry in the hopes of alleviating it. Religion has often been considered an important factor to study in the field of mental health given its universality and omnipresence in daily life. A growing body of research now suggests that religion may effectively act as a protective factor against worry. This study examined how time spent in religious activities, religious affiliation, and trust and mistrust in God are associated with trait and state worry levels in a religiously and demographically diverse sample of 72 participants. Following regression analysis, only mistrust in God, among our religious constructs, demonstrated a significant relationship with trait worry: higher mistrust in God predicted higher worry levels. Trust in God was found to correlate moderately with lower levels of state worry. Conversely, mistrust in God was found to correlate moderately with higher levels of trait worry. These findings suggest that certain religious behaviors can serve as protective factors for worry, although the effects may be modest.

Keywords: state worry, trait worry, religion, trust in God, mistrust in God

Récemment, il existe un intérêt croissant pour identifier les facteurs de protection potentiels contre l'inquiétude, dans le but de réduire ses effets. La religion est un facteur important dans le domaine de la santé mentale, due à son universalité et son omniprésence dans la vie de tous les jours. Plusieurs études suggèrent que la religion pourrait être un facteur de protection contre l'inquiétude. Cette étude examine en quoi le temps consacré à des activités religieuses, l'affiliation religieuse, la foi ou la non-foi en Dieu sont associés à divers niveaux de trait et d'état de l'inquiétude dans un groupe de 72 participants religieusement et démographiquement diversifié. Après les analyses de régression, seulement la non-foi en Dieu, parmi nos construits religieux, était positivement reliée avec l'inquiétude. En effet, un haut niveau de non-foi prédisait un haut niveau d'inquiétude. La foi en Dieu était corrélée modérément avec un bas niveau d'état d'inquiétude. À l'opposé, la non-foi était corrélée modérément avec un haut niveau de trait d'inquiétude. Ces résultats suggèrent que certains comportements religieux peuvent être des facteurs de protection contre l'inquiétude, même si leurs effets peuvent s'avérer modestes.

Mots-clés : état d'inquiétude, trait d'inquiétude, religion, foi en Dieu, non-foi en Dieu

Worry is a universal phenomenon that has been found to affect individuals in nearly every culture and society studied. Most individuals have experienced worry at some point, yet it is often not severe enough for them to seek clinical help (Dupuy, Beaudoin, Rhéaume, Ladouceur, & Dugas, 2001). Worry often registers modest, yet still disconcerting, levels of debilitation. Past researchers have found that even slight levels of worry can impair performance on moderately difficult tasks (Deffenbacher, 1978). In a

sample of undergraduate students, for instance, it was found that those with higher levels of state worry performed worse on a mock test than those with lower levels of worry (Deffenbacher, 1978). In more severe forms, worry can reach highly debilitating levels and is associated, in these cases, with serious problems of mental and physical health. Worry is, in fact, a core characteristic of generalized anxiety disorder (American Psychiatric Association, 2013) and has been linked to long-term physiological consequences such as cardiovascular disease (Brosschot & Thayer, 2004). Given its impairment and prevalence in non-clinical populations as well as its health significance in more severe worriers, researchers have sought to identify various factors that predict worry levels, including social, cultural, and economic factors

The author would like to thank Dr. Ayelet Ruscio for her guidance in data analysis and the Psychology Department at the University of Pennsylvania for funding. A special thank you to each member of the JIRIRI team for the guidance and all the support throughout the publication process. Please address all correspondence to John Torado (email: todaroj@sas.upenn).

(Schwartz & Melech, 2000). Recently, researchers have sought to isolate protective factors for worry in the hopes of alleviating it (Rosmarin, Krumrei, & Andersson, 2009; Schwartz & Melech, 2000). Considering the many positive traits that have been historically associated with religious adherence (Peterson, 2006; Stack, 1983), one such potential protective factor for worry is religion. Despite many past studies which have found a positive association between religion and mental health benefits, it remains unclear as to whether religion, and more specifically, which aspects of religion predict lower worry levels. The aim of the present study is to examine whether different characteristics of religious behavior and affiliation are associated with a reduction in individuals' experience of worry. Based on previous studies, three key religious constructs were identified as the most relevant for worry: time spent in religious activities, beliefs about the divine—namely, trust/mistrust in God—and religious affiliation.

Core Characteristics of Religion and their Association with Psychological Distress

Considering that religion is a defining attribute of a majority of the world's population and often shapes intergroup relations, personal identity, and behavior, elucidating the psychological consequences of religious behavior may have wide reaching implications for many individuals. A Pew Research Center poll (2015) found that nearly 85% of the global population belonged to some form of religious group. Another study showed that 82% described religion as an important part of their daily lives (Crabtree, 2010). In addition, religion has been shown to contribute to the development of individual identity by providing an interpretive appraisal of life events which promotes an associated identity. Indeed, Youniss, McLellan, Su, and Yates (1999) found that Catholic youth who volunteered in community service projects, adopted religious reasoning for their behavior thereby enhancing an identity formation.

Beyond its importance in identity formation and maintenance, there is evidence that religion can act broadly as a protective factor for life challenges. Studies have described the potential buffering effect religion has against anxiety (Soenke, Landau, & Greenberg, 2013) and the benefits religion provides as a coping mechanism to reduce anxiety in hospitalized individuals (Pargament, Koenig, Tarakeshwar, & Hahn, 2004). Overall, religion has been found to be generally beneficial for physical and mental health

(Koenig & Larson, 2001). Another study has concluded that religion is comforting, pain relieving, and makes life worth living (Stack, 1983). Although this viewpoint is widely adopted in psychology textbooks and has found ground in the field of positive psychology (Peterson, 2006), disagreement in the scientific community remains. Some researchers have found that religious individuals do not exhibit lower levels of psychological distress than their non-religious counterparts (Ross, 1990). The present research aims to clarify the ambiguity in the literature surrounding the effects of religious behavior on worry by differentiating which specific aspects of religion may serve as protective factors against worry. More specifically, the present research focuses on three core components of religion that may serve as protective factors: (1) religious activities, (2) religious affiliation, and (3) spiritual/personal religious beliefs.

In terms of religious activities, past studies have attempted to determine whether engaging in religious practices is associated with lower levels of worry. For example, three core religious practices were identified among Christians and Jews—frequency of prayer, attendance at religious services or sermons, and reading religious literature or listening to religious speakers. In this same study, researchers found that all three practices correlated with lower levels of worry (Rosmarin, Krumrei et al., 2009). With the aim of extending this research, we propose that in general, practicing one's religion will serve as a protective factor against worry.

For religious affiliation, the majority of past research has overwhelmingly focused on distinguishing psychological distress levels between them (McGowan, 2012; Rosmarin, Krumrei et al., 2009; Rosmarin, Pargament, & Mahoney, 2009; Ross, 1990) and often did not compare their results to non-religious individuals. These studies demonstrated that differences in worry levels between religious groups, such as Jews and Catholics, are often small to none. We theorized that religious groups, regardless of affiliation, share common elements which protect against worry, such as offering the benefits of a social support group—social support has been shown to protect against worry and depression (Anari, Tahmassian, & Fathabadi, 2011). Thus, in general, affiliated individuals, regardless of their specific religious group should be expected to have lower levels of worry compared to non-affiliated individuals.

Concerning spiritual/personal religious beliefs, research has shown that individuals' degree of personal

religious commitment correlates with lower levels of anxiety and depression (McGowan, 2012). Another study found that personal beliefs about the divine, in particular, the degree of trust and mistrust in God, correlate with worry levels (Rosmarin, Krumrei et al., 2009). Trust in God is a religious construct that encompasses the beliefs that God has one's best interests in mind and will take care of those interests (e.g., "God watches over me"). Trust in God involves three core beliefs about God or the Creator: (1) God is omniscient (e.g., knows about all affairs, including one's interests); (2) God is omnipotent (e.g., absolutely powerful, can help achieve one's interests); and (3) God is omnibenevolent (e.g., is just, merciful, and kind; is willing to help achieve one's interests). Mistrust in God involves the beliefs that God is not omniscient, omnipotent, or omnibenevolent (e.g., "God is ignorant of my needs"). In addition, mistrust in God concerns negative appraisals of God, such as hatefulness (e.g., "God hates me"). It was found that religious individuals with a higher trust in God showed lower levels of worry and those with a higher mistrust in God showed higher levels of worry. Building on the research of Rosmarin, Krumrei et al. (2009), we propose that trust/mistrust in God may be an important moderator for the extent to which engaging in religious practices or belonging to a religious affiliation can serve as protective factors against worry.

Present Study

Thus far, no single study has simultaneously investigated whether time spent in religious activities, religious affiliation, and trust/mistrust in God are equally important in predicting lower levels of worry. The present research investigates these components simultaneously in an attempt to further understand how religion can potentially protect against increased worry levels. Furthermore, few have directly analyzed the relationship between religion and worry (Rosmarin, Krumrei et al., 2009) and this study was limited in that they solely studied trait worry. Although trait measures are useful in capturing an individual's typical worry pattern, evidence suggests that state measurements may be a more accurate depiction of worry as an episode unfolds in real time. Indeed, a recent study has found that trait measures often fail to capture frequently changing levels of worry and hence are not accurate representations of worry as it actually occurs (Verkuil, Brosschot, & Thayer, 2007). We addressed this previous limitation in the present study by introducing a novel

smartphone application, which allowed us to study worry at the state level. The application signaled participants three times per day and asked a series of questions about their thought processes at that moment. In order to generalize our findings with past research, we also studied worry at the trait level.

Additionally, past studies have almost exclusively relied on self-report data in analyzing participants' time spent in religious activities as well as their reported levels of worry and/or psychological distress (Pargament et al., 2004; Rosmarin, Krumrei et al., 2009; Ross, 1990; Soenke et al., 2013). Self-report measures are problematic because they rely on participants' memory of events occurring days or weeks earlier and are, hence, subject to recall bias. We addressed this limitation by administering surveys every night for four nights so as to limit this bias.

Hypotheses

Based on previous literature and past limitations, we have identified three key hypotheses: (1) Building on previous studies documenting a negative relationship between religious activities and psychological distress (Mosher & Handal, 1997; Rosmarin, Krumrei et al., 2009), we expected that individuals who spent more time engaging in religious activities would report lower levels of both state and trait worry. (2) We hypothesized that religiously affiliated individuals would report lower levels of state and trait worry in comparison to their non-affiliated counterparts. (3) We predicted that for affiliated participants, being high in trust in God would relate to lower levels of worry and being high in mistrust in God would be related to higher levels of worry (see also Rosmarin, Krumrei et al., 2009). Additionally, we tested whether trust in God/mistrust in God could moderate the relationship between time spent in religious activities and worry levels as well as religious affiliation and worry levels. It was reasoned that individuals who engage in religious activities and/or belong to a religious affiliation may differ in their degrees of trust and mistrust in God, which may in turn affect the corresponding relationships with worry. For example, a believer who engages frequently in religious activities may not show a benefit from such practices if he or she has a high level of mistrust in God.

Method

Participants

Seventy-two participants were recruited from the Philadelphia community and from a private university located in the Philadelphia area. Participation was limited to those who were 18 or older, fluent in English, and had access to a smartphone running an Android operating system. Student participants ($n = 24$) were recruited through the Psychology Department's research participation website. Community participants ($n = 48$) were recruited through Craig's List advertisements and flyers posted in convenience stores and bus stops. The mean age of the total sample ($N = 72$) was 27.7 years ($SD = 10.21$) and the majority ($n = 40$) were female. The sample was racially diverse with the following representation: 16% Asian or Pacific Islander, 31% Black or African, 36% Caucasian, 14% Hispanic, and 3% who identified with another racial group. The majority of participants were religiously affiliated ($n = 48$). Of those who were affiliated, participants were 46% Protestant, 27% Catholic, 10% Jewish, and 17% Other (e.g., Muslim, Buddhist).

Of the 72 participants who completed trait questionnaires, 34 also completed daily measures as recorded by the smartphone application. The subsample that completed daily assessments (state measures) on their phones was smaller because participants often failed to attend an orientation session after completing online trait questionnaires or attended the session but were unsuccessful in downloading the application. The mean age of the subsample was 26.4 years ($SD = 11.92$) and the majority were female ($n = 18$). The sample was racially diverse with the following representation: 26% Asian or Pacific Islander, 24% Black or African, 35% Caucasian, 9% Hispanic, and 6% who identified with another racial group. The majority of participants who completed the daily measures were religiously affiliated ($n = 20$, 60%). Of those who were affiliated, 40% were Protestant, 30% Catholic, 10% Jewish, and 20% Other (e.g., Buddhist, Greek Orthodox). To determine if our subsample that participated in the daily measures was an unbiased subset of the total sample population, we compared trait religious activity and trait worry levels between the subsample and the total sample. The participants who completed daily measures as well as trait measures did not reliably differ on trait worry or engagement

in religious activity from those who only completed trait measures.

Trait Measures

Trait religious activity assessment. Participants reported the amount of time spent in the following religious activities in a typical week: attending a religious service, reading a holy book, and praying. Participants rated each type of activities separately. The amount of time, in minutes, spent in religious activities over the course of a typical week was combined into a total time spent in religious activities for each participant.

Trust in God/Mistrust in God Scale. *The Trust in God/Mistrust in God scale (TIGMIG)* assesses for both positive and negative core religious beliefs by measuring two subscales: trust in God (11 items-e.g., "God watches over me") and mistrust in God (13 items-e.g., "God is ignorant of my needs"). Items are rated on a 4-point Likert-type scale (0 = *not at all*, 4 = *very much*). To ensure that scale items were consistent with the religious values of Jews and Christians, the authors consulted three Jewish and three Christian authorities (Rosmarin, Krumrei et al., 2009). A brief version of this scale has also been shown to be valid in measuring core religious beliefs in a population of Persian Muslims (Hafizi, Rosmarin, & Koenig, 2014), suggesting the scale is generalizable beyond Judeo-Christian faiths. In the present study, participants who did not believe in God were encouraged to select the responses that felt most appropriate to them. Both subscales demonstrated adequate reliability in the current sample (trust in God $\alpha = .97$; mistrust in God $\alpha = .85$).

Religious affiliation assessment. Participants reported their religious affiliation using response options of Catholic, Jewish, Protestant, other, or none. Participants who reported a religious affiliation were grouped into "religiously affiliated" and those who reported "none" were grouped into "non-affiliated."

Trait worry assessment. Trait worry was assessed using the *Penn State Worry Questionnaire*, a 16-item measure of the respondent's typical level of worry (Meyer, Miller, Metzger, & Borkovec, 1990; PSWQ). The PSWQ is a widely used measure of trait worry (Wuthrich, Johnco, & Knight, 2014) which has demonstrated high internal consistency (Meyer et al., 1990). This measure demonstrated high internal consistency in the present sample ($\alpha = .93$).

Daily Measures

State worry assessment. Momentary worry was assessed via a smartphone application, Metus, that was designed to measure daily worry in persons' natural environment. Metus signaled participants three times per day at a random time during the morning, afternoon, and evening. At each signal, Metus initiated a survey asking a respondent "How much were you worrying?" in a particular moment. Respondents rated their worry levels on a 5-point Likert-type scale (1 = *not at all*, 5 = *very much*). The numerical values from each momentary assessment over the course of the four day study were combined into a mean worry level for each participant.

Daily religious activity assessment. Each night participants were asked to report the start and end times of any of the following religious activities that took place that day: attending a religious service, reading a holy book, and praying. Participants rated each type of activity separately. In addition, if participants had undertaken a given type of religious activity on multiple occasions (e.g., if they prayed more than once), they were instructed to report on what had the biggest impact on them. The amount of time, in minutes, spent each day in religious activities over the study period was combined into a total time for each participant.

Procedure

Prior to attending an orientation session in our laboratory, participants completed an online survey including their religious affiliation, a demographics questionnaire, the PSWQ, the TIGMIG scale, and time spent in religious activities in a typical week. After completing the online survey, participants were asked to sign up for an orientation session held in our laboratory. Orientation sessions were led by two

experimenters and conducted in small groups of no more than four participants, with separate groups held for student and community participants simply because of differing availabilities in participants' schedules. During the orientation session, participants were provided information about worry, received instructions for the study, and downloaded the Metus application onto their smartphones. Experimenters guided participants through a trial run using the application to ensure proper use and address any questions. The orientation session lasted 45 minutes. For the next four days, participants used Metus to report three times per day, and completed a survey, in which they reported religious activities that occurred that day, every evening.

A debriefing session was held seven days after the orientation session, during which Metus was removed from phones and participants were debriefed. Community participants received 40\$ after the debriefing session while student participants received four research participation credits toward their psychology course.

Results

Relationship between Trait Measures of Religious Activity and Worry

A total of 42 participants reported that they spent some amount of time in a religious activity during a typical week. Table 1 shows that, on average, participants reported spending more minutes per week praying than either reading a holy book or attending a religious service. In addition, a majority of the participants (65%) did not report any time spent attending a religious service or reading a holy book for a typical week. The distributions were positively skewed, with a minority of participants reporting many hours spent in religious activity. Of those who

Table 1
Time spent^a in religious activities over a typical week and 4-day study period

Religious activity	Typical Week			Study Period		
	<i>M (SD)</i>	Min	Max	<i>M (SD)</i>	Min	Max
Praying	152.21 (354.95)	0	2400	2.63 (5.97)	0	30
Attending	42.63 (100.49)	0	600	6.62 (23.56)	0	120
Reading	61.78 (190.08)	0	1500	5.83 (21.50)	0	120

Note. ^aTime spent in minutes; Attending = attending a religious service; Reading = reading a holy book.

RELIGION AS A PROTECTIVE FACTOR

Table 2

Correlations of religious measures with trait and daily worry

Religious measure	Worry measure	
	Trait (<i>n</i> = 72)	Daily (<i>n</i> = 34)
Religious activity		
Trait	-.24*	-.17
Daily	-.07	-.12
Religious belief		
Trust in God	-.08	-.28
Mistrust in God	.22	.17

Note. * $p < .05$.

reported religious activity, the median amount of minutes spent in each are as follows: prayer ($Mdn = 60$), attending religious service ($Mdn = 120$), and reading a holy book ($Mdn = 120$). Table 2 shows correlations of time participants spent in religious activity with worry levels. As hypothesized, participants who reportedly spent more time in religious activities in a typical week, showed lower levels of trait worry $r(70) = -.24$, $p = < 0.5$. The correlation with state worry (daily measure), was similar, but did not reach statistical significance in the smaller subsample for which this measure was available $r(32) = -.17$, $p = .334$.

Relationship between Daily Religious Activity and Worry

Table 1 shows time spent in religious activities over the four day duration of the study. Of the 34 participants who completed daily state worry measures, only 9 reported any type of daily religious activity. Participants reported spending the most

minutes attending a religious service, then reading a holy book, and finally, praying. Time estimates were far lower and distributions were less skewed in this daily subsample than in the other subsample, in which participants were asked for the amount of time typically spent in religious activities for a given week.

Religious activity, as measured by daily reports, shared small, marginally significant and non significant associations with trait worry $r = -.07$, $p > .05$ and daily worry $r = -.12$, $p > .05$.

Relationship between Religious Affiliation and Worry

Participants reporting an affiliation with a religious group (67%) were compared with participants reporting no religious affiliation (33%) on levels of trait and state worry (see Table 3). Trait worry, as measured by PSWQ scores, was not significantly higher for non-affiliated ($M = 56.91$, $SD = 10.95$) than religiously affiliated participants ($M = 54.02$, $SD = 14.28$), $t(69) = -0.62$, $p = .540$. Similarly, state worry, as measured by mean worry ratings submitted through the smartphone application, were comparable for non-affiliated ($M = 1.94$, $SD = .73$) and religiously affiliated ($M = 1.95$, $SD = .65$) participants, $t(31) = -1.50$, $p = .972$.

Relationship between Trust and Mistrust in God with Worry

Table 2 shows correlations of trust in God and mistrust in God with worry levels. The sample, on average, reported a trust in God score of ($M = 21.89$, $SD = 15.80$) and a mistrust in God score of ($M = 14.90$, $SD = 9.82$). Trust in God showed a negatively skewed distribution ($Mdn = 23$) with a minority of participants reporting very low trust in God scores. Mistrust in God showed a positively skewed distribution ($Mdn = 13$) with a minority of participants reporting very high scores for mistrust in God.

Table 3

Results of t-test for religious affiliation with trait and daily worry

Measure	Affiliated	Non-affiliated	<i>t</i> (df)	<i>p</i>
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)		
PSWQ	54.02 (14.28)	56.91 (10.95)	- 0.62 (69)	.54
Daily Worry	1.95 (0.65)	1.94 (0.73)	- 1.50 (31)	.97

Note. PSWQ = Penn State Worry Questionnaire.

Trust in God showed a moderate negative correlation with state worry but did not reach statistical significance $r(32) = -.28, p = .111$. The association with trait worry was small and non-significant $r(70) = -.08, p = .523$. Conversely, mistrust in God was moderately correlated with higher levels of trait worry and was marginally significant $r(70) = .22, p = .070$. The correlation with state worry did not reach statistical significance $r(32) = .17, p = .340$.

Additionally, a moderation analysis (using the PROCESS macro written by Hayes, (2012) was tested to investigate whether the association between time spent in religious activities and worry levels was moderated by the degree of trust and mistrust in God. The main effect interaction between trust in God and religious activity on the outcome variable trait worry showed a non-significant relationship, $\beta = -.04, t(66) = -1.21, p = .230, \Delta R^2 = .03$. The main effect interaction between trust in God and religious activity on the outcome variable state worry showed a non-significant relationship, $\beta = .04, t(29) = .43, p = .673, \Delta R^2 = .01$. In further analyzing the interaction, we looked at conditional effects of time spent in religious activities on trait worry at different values of the moderator. The interaction was found to be non-significant at both plus one and minus one standard deviation from the mean value.

To explore the interaction between mistrust in God and time spent in religious activities, we conducted a similar moderation analysis. A non-significant interaction was found between mistrust in God and religious activity on the outcome variable trait worry, $\beta = .04, t(66) = .75, p = .458, \Delta R^2 = .02$. A non-significant interaction was found between mistrust in God and religious activity on the outcome variable state worry, $\beta = -.05, t(29) = -.43, p = .673, \Delta R^2 = .01$. Similarly, neither side of the extremes, plus/minus one standard deviation from the mean, showed significant conditional effects when analyzed.

Additionally, we studied the degree to which trust in God and mistrust in God act as moderators between religious affiliation and worry levels. A non-significant relationship was found for the main effect—the interaction between trust in God and religious affiliation on trait worry, $\beta = -.04, t(66) = -.12, p = .901, \Delta R^2 = .00$. A non-significant relationship was found for the main effect when we analyzed the interaction between trust in God and religious affiliation on state worry level, $\beta = -.19, t(29) = -.80,$

$p = .432, \Delta R^2 = .06$. Similarly, the main effect results were not significant when we analyzed the interaction between mistrust in God and religious affiliation on trait worry, $\beta = .023, t(66) = .08, p = .934, \Delta R^2 = .00$. The main effect results were non-significant when we analyzed the interaction between mistrust in God and religious affiliation on state worry, $\beta = .07, t(29) = .19, p = .934, \Delta R^2 = .00$. Next, we analyzed the extent to which there were conditional effects of religious affiliation on state and trait worry at values of the moderator. It was found that for both mistrust and trust in God, there were no significant effects at either plus one or minus one standard deviation from the mean value.

Effect of Each Religious Component in Predicting Worry Levels

Lastly, a multiple regression analysis was run to predict trait and state worry levels from the following variables: time reported spent in religious activities in a typical week, time spent in religious activities over the 4-day study period, religious affiliation, and trust/mistrust in God. These variables overall did not predict with statistical significance trait worry levels, $F(5, 26) = 1.80, p = .148, R^2 = .26$. The only variable that was found statistically significant to the prediction was mistrust in God ($p < .05$). The unstandardized coefficient for mistrust in God was .52, ($p = .022$, see Table 4).

Table 4

Regression analysis of dependent variable trait worry

Independent variables	β	p
Religious activity: trait	-.08	.726
Religious activity: daily	-.23	.309
Mistrust in God	.46	.022
Trust in God	.24	.350
Religious Affiliation	.13	.560

Finally, a similar regression analysis was run to predict state worry levels from the following variables: time reported spent in religious activities in a typical week, time spent in religious activities over the 4-day study period, religious affiliation, and trust/mistrust in God. Results showed that these variables did not significantly predict state worry levels, $F(5, 26) = 1.03, p = .42, R^2 = .17$ (see Table 5).

RELIGION AS A PROTECTIVE FACTOR

Table 5

*Regression analysis of dependent variable
state worry*

Independent variables	β	p
Religious activity: trait	.06	.805
Religious activity: daily	-.26	.290
Mistrust in God	.07	.748
Trust in God	-.29	.283
Religious Affiliation	.30	.205

Discussion

The purpose of the present research was to investigate the relation between several religious factors—time spent in religious activities, religious affiliation, and trust/mistrust in God—and worry levels—trait and state worry—in a religiously and demographically diverse sample. First, we hypothesized that more time spent in religious activities would correlate with both lower state and trait levels of worry. Next, we hypothesized that individuals who were religiously affiliated (regardless of which affiliation) would report lower levels of state and trait worry in comparison to individuals who did not belong to a religious affiliation. Lastly, we predicted that higher trust in God would correlate with lower levels of state and trait worry. Conversely, we predicted that higher mistrust in God would correlate with higher levels of state and trait worry.

In general, individuals who reported more time in trait religious activities reported lower trait worry levels. With respect to daily experiences of religious activities as well as state and trait levels of worry, these two correlations were weak to moderate and not statistically significant. The difference in whether an individual belonged to a religious affiliation or was not affiliated, did not reliably associate with worry levels at either the state or trait level. Mistrust in God was moderately correlated with higher trait worry and demonstrated marginal statistical significance. Trust in God was moderately correlated with lower daily worry but failed to reach a statistically significant level. Additionally, trust or mistrust in God were not found to moderate a relation between religious affiliation or time spent in religious activities and worry levels (both when measured at the trait or daily experience level of analysis). Finally, a regression analysis

showed that only one independent variable, mistrust in God, added statistical significance to the prediction of trait worry levels. The results demonstrated that higher levels of mistrust in God predict higher levels of trait worry but not state worry. However, the overall model was non-significant, which means these results must be interpreted with caution.

Consistent with our hypothesis, participants who spent more time in religious activities reported lower levels of worry. These results are consistent with Rosmarin, Krumrei et al. (2009) findings that persons who report frequent engagement in religious activities also report moderately lower trait worry levels. Furthermore, these results help demonstrate the benefit of religious activities as a protective factor against worry. However, the correlations were weak to moderate, and the only one that was marginally statistically significant was between trait measures of religious activity and trait worry.

It was interesting to discover that individuals were far more likely to estimate high religious activity levels in a typical week than to do so in the daily survey. It is plausible that persons overstated the amount of time spent in religious activities in a typical week due to recall bias. For example, the majority of our sample (58%) reported spending some time in religious activities in a typical week, yet during the four-day study, slightly more than a quarter of participants (27%) reported any religious activities. In addition, we found that participants reported spending the most amount of time in a typical week praying. Yet, in the four-day subsample, praying was reported the least amount of time. Considering prayer is more flexible in terms of allotted time than, for example, attending a religious service, it is likely that individuals easily overestimated the amount of time they actually spent in prayer.

Another explanation for the disparity in these results could be the differing sampling periods for trait and daily religious activities. Our study was limited in that participants who completed daily measures were asked to report religious activities over the course of four days in comparison to seven days for trait religious activities. Thus, our daily sample may have been limited by a restriction of opportunities to engage in religious activities. In addition, the four-day study period was not necessarily conducted during the weekends. Considering most religious services occur during the weekend—such as mosque services on Friday, synagogue services on Saturday, and church

services on Sunday—it is advisable that future studies should ideally collect daily religious activity during a full seven-day period. Lastly, the statistical power was much lower for state worry than for trait worry analyses because the first subsample size was smaller (see Table 2).

We posited that religiously affiliated individuals, regardless of their faith, would be members of a social support community which could help reduce worry levels. Our analysis, however, did not support our hypothesis that religiously affiliated individuals would report lower worry levels than non-affiliated, and instead found that non-religiously affiliated persons reported nearly similar levels of worry as religiously affiliated individuals. This finding is in line with past research which showed that individuals belonging to a religious group did not report a statistically significant difference in psychological distress levels from their non-religious counterparts (Ross, 1990). What might account for the absence of a relationship between religious affiliation and worry? One possibility is that religious affiliation is a passive process which does not necessitate active engagement in a religious community. Another possibility is that religiously affiliated individuals may greatly differ in the importance of religious practices and beliefs in their lives. To assess this, we suggest that future research include a measure of religious motivation, such as the Duke University Religion Index (Koenig & Büssing, 2010), which measures religious commitment in beliefs and practices. It would allow researchers to identify the aspects which may be the most associated with worry in religiously affiliated individuals.

In line with our hypotheses, we found a negative correlation between trust in God and worry, and a positive correlation between mistrust in God and both state and trait worry. However, the correlations were weak to moderate, and the only relation that demonstrated marginal significance was the correlation between mistrust in God and trait worry. It is likely that having trust/mistrust in God is not a relevant or a valid construct for non-believers and that including these individuals in our sample distorted the results. However, when we reran the analysis using only participants who indicated a belief in God, the results were unchanged. Furthermore, past research, which exclusively studied religiously affiliated individuals, found similar correlations between trust in God and mistrust in God with trait worry as measured by the PSWQ (Rosmarin, Krumrei et al., 2009). There did exist a slight divergence in the correlational value

found in our trust in God and trait worry association in comparison with their study.

Contrary to our predictions, the present study indicates that positive religious beliefs did not show protective effects for state worry and that religious activities were only moderately correlated to state worry. What might account for a none to modest relationship? Regarding positive beliefs, it is plausible that individuals high in trust in God may hold other beliefs about the divine which could increase their worry levels. For example, it is somewhat common for religious individuals to believe that God punishes them for engaging in bad deeds. Anticipation of punishment, albeit perhaps righteous punishment, may raise worry and counteract some of the positive benefits trust in God confers. In addition, the worry reducing effects religious activities offer may only exist for a brief period of time. It is possible that praying in the morning may not lower worry levels over the course of the day, but could decrease worry levels for minutes or even a few hours after.

Future studies could examine this directly by analyzing the trajectory of momentary worry levels after engagement in religious activities. For example, when a respondent records a prayer session, the researcher could assess the participant's baseline worry once before engagement in prayer, once immediately after, and then assess every several minutes for an hour. This particular design would describe worry patterns after religious activities, but would require an event-contingent approach in which the participant initiates a signal immediately before and after the religious activity. Such a design has its inconveniences. For example, participants may not always remember or choose to initiate an assessment.

Conclusion

To the best of our knowledge, this was the first study to examine the relation between state worry and religious behavior. Additionally, this is the sole study to analyze simultaneously the core religious components Rosmarin, Krumrei et al. (2009) identified: time spent in religious activities, religious affiliation, and trust/mistrust in God and their effect on worry levels. Our findings demonstrated that mistrust in God and religious activities had modest effects on worry levels. Although more studies will be needed to continue to analyze these three core components of religious behavior, it is important to note that perhaps other less studied aspects of religious behavior can help protect

against worry levels as well. This study has laid a basis future researchers to examine state worry levels in relation to other religious factors which may serve protective functions. Along with religion, there exists many other potential protective factors for worry, such as social interaction, educational attainment, and physical activity. As worry will likely remain a significant psychological distress, it will remain imperative for researchers to study these other factors and their relation to state worry moving forward.

References

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.
- Anari, A., Tahmassian, K., & Fathabadi, M. (2011). Worry and social support in adolescence. *Journal of Iranian Psychologists*, 8, 27-37.
- Brosschot, J. F., & Thayer, J. F. (2004). Worry, perseverative thinking and health. In I. Nyklíček, L. Temoshok, & A. Vingerhoets (Eds.), *Emotional expression and health: Advances in theory, assessment, and clinical applications* (pp. 99-114). New York, NY: Brunner-Routledge.
- Crabtree, S. (2010, August 31). *Religiosity highest in world's poorest nations*. Retrieved from <http://www.gallup.com/poll/142727/religiosity-highest-world-poorest-nations.aspx>.
- Deffenbacher, J. L. (1978). Worry, emotionality, and task-generated interference in test anxiety: An empirical test of attentional theory. *Journal of Educational Psychology*, 70, 248-254.
- Dupuy, J., Beaudoin, S., Rhéaume, J., Ladouceur, R., & Dugas, M. J. (2001). Worry: Daily self-report in clinical and non-clinical populations. *Behaviour Research and Therapy*, 39, 1249-1255.
- Hafizi, S., Rosmarin, D. H., & Koenig, H. G. (2014). Brief trust/mistrust in god scale: Psychometric properties of the farsi version in muslims. *Mental Health, Religion & Culture*, 17, 415-420.
- Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling [White paper]. Retrieved from <http://www.afhayes.com/public/process2012.pdf>
- Koenig, H. G., & Büssing, A. (2010). The duke university religion index (DUREL): a five-item measure for use in epidemiological studies. *Religions*, 1, 78-85.
- Koenig, H. G., & Larson, D. B. (2001). Religion and mental health: Evidence for an association. *International Review of Psychiatry*, 13, 67-78.
- McGowan, J. C. (2012). *Religious affiliation and gender: Differences in the association between religiousness and psychological distress* (Doctoral dissertation). Retrieved from PsycNET. (Order No. AAI3494993).
- Meyer, T. J., Miller, M. L., Metzger, R. L., & Borkovec, T. D. (1990). Development and validation of the Penn State worry questionnaire. *Behaviour Research and Therapy*, 28, 487-495.
- Mosher, J. P., & Handal, P. J. (1997). The relationship between religion and psychological distress in adolescents. *Journal of Psychology and Theology*, 25, 449-457.
- Pargament, K. I., Koenig, H.G., Tarakeshwar, N., & Hahn, J. (2004). Religious coping methods as predictors of psychological, physical and spiritual outcomes among medically ill elderly patients: A two-year longitudinal study. *Journal of Health Psychology*, 9, 713-730.
- Peterson, C. (2006). *A primer in positive psychology*. New York, NY: Oxford University Press.
- Pew Research Center. (2015). *The Future of World Religions: Population Growth Projections, 2010-2050: Why Muslims are rising fastest and the unaffiliated are shrinking as a share of the world's population*.
- Rosmarin, D. H., Krumrei, E. J., & Andersson, G. (2009). Religion as a predictor of psychological distress in two religious communities. *Cognitive Behaviour Therapy*, 38, 54-64.
- Rosmarin, D. H., Pargament, K. I., & Mahoney, A. (2009). The role of religiousness in anxiety, depression, and happiness in a jewish community sample: A preliminary investigation. *Mental Health, Religion & Culture*, 12, 97-113.
- Ross, C. E. (1990). Religion and psychological distress. *Journal for the Scientific Study of Religion*, 29, 236-245.
- Schwartz, S. H., & Melech, G. (2000). National differences in micro and macro worry: Social, economic, and cultural explanations. In E. Diener, & E. M. Suh (Eds.), *Culture and subjective well-being* (pp. 219-256). Cambridge, MA: The MIT Press.

- Soenke, M., Landau, M. J., & Greenberg, J. (2013). Sacred armor: Religion's role as a buffer against the anxieties of life and the fear of death. In K. I. Pargament, J. J. Exline, & J. W. Jones (Eds.), *APA handbook of psychology, religion, and spirituality: Context, theory, and research* (vol 1, pp. 105-122). Washington, DC: American Psychological Association.
- Stack, S. (1983). The effect of religious commitment on suicide: A cross-national analysis. *Journal of Health and Social Behavior*, 24, 362-374.
- Verkuil, B., Brosschot, J. F., & Thayer, J. F. (2007). Capturing worry in daily life: Are trait questionnaires sufficient? *Behaviour Research and Therapy*, 45, 1835-1844.
- Wuthrich, V. M., Johnco, C., & Knight, A. (2014). Comparison of the Penn State worry questionnaire (PSWQ) and abbreviated version (PSWQ-A) in a clinical and non-clinical population of older adults. *Journal of Anxiety Disorders*, 28, 657-663.
- Youniss, J., McLellan, J. A., Su, Y., & Yates, M. (1999). The role of community service in identity development: Normative, unconventional, and deviant orientations. *Journal of Adolescent Research*, 14, 248-261.

Received May 25, 2015
 Revision received October 10, 2015
 Accepted November 28, 2015 ■

L'effet médiateur des rêves dysphoriques dans la relation entre une séparation maternelle à l'enfance et le développement du trouble de la personnalité limite à l'âge adulte

MARIE-MICHELLE B. DUHAIME
Université de Montréal

La littérature a établi que les enfants ayant vécu une séparation maternelle à l'enfance ont tendance à avoir plus de rêves dysphoriques. Il existe également une relation entre cet événement à l'enfance et le développement du trouble de la personnalité limite (TPL). De plus, les gens souffrant de TPL ont aussi tendance à avoir plus de rêves dysphoriques que le reste de la population. Un modèle à trois variables est donc proposé. Ce modèle suggère que la fréquence accrue de rêves dysphoriques est une variable médiatrice entre le fait de vivre une séparation maternelle à l'enfance et le développement du TPL. Ce modèle, s'il s'avère vrai, aura plusieurs impacts cliniques, fondamentaux et sociaux. Les limites du modèle et des propositions de recherches futures sont décrites dans l'article.

Mots-clés : trouble de la personnalité limite, rêves dysphoriques, séparation maternelle, régulation des émotions, cauchemars

It is established among the literature that children who experienced a maternal separation during childhood have more dysphoric dreams. There is a relationship between this separation during childhood and the development of the borderline personality disorder. Moreover, people suffering from borderline personality disorder have also more dysphoric dreams than the rest of the population. In this study, a three variable model is proposed. This model suggests that the high frequency of dysphoric dreams is a mediator variable between living a maternal separation during childhood and the development of borderline personality disorder. This model, if correct, will have many clinical, fundamental and social impacts. The limits of this model and leads for further research are described in the article.

Keywords: borderline personality disorder, dysphoric dreams, maternal separation, emotional regulation, nightmares

Stéphanie, 25 ans, est admise à l'urgence psychiatrique suite à une tentative de suicide. Le psychiatre de garde la questionne alors sur son historique en santé mentale. La jeune femme rapporte qu'il s'agit de sa troisième tentative de suicide en quatre ans. Elle dit se sentir comme une coquille vide et qu'elle tente de combler ce vide par la consommation d'alcool, de

multiples relations sexuelles et l'automutilation. Elle décrit son humeur allant de l'euphorie au désespoir parfois dans la même journée. Stéphanie ajoute qu'il est difficile pour elle de maintenir des relations interpersonnelles stables. En effet, elle est tenaillée par la peur de se retrouver seule, et selon elle, tout le monde finit par l'abandonner. La patiente mentionne que depuis quelques mois, elle a réduit ses portions de nourriture, car elle trouve qu'elle fait de l'embonpoint. De plus, il n'est pas rare qu'elle se réveille plusieurs fois par nuit. Les symptômes décrits par Stéphanie correspondent au trouble de la personnalité limite (TPL) tel que rapporté par le Diagnostic and Statistical Manual of Mental Disorder, 5e éd. (American Psychiatric Association, 2013; DSM-5).

Cet article a été écrit dans le cadre d'un cours, je tiens donc à remercier Elizaveta Solomonova pour l'opportunité et son soutien dans le processus de rédaction. Aussi, un remerciement spécial pour l'équipe du JIRIRI qui a su me diriger, me conseiller et m'encourager tout au long du processus de publication. Toute correspondance concernant cet article doit être adressée à Marie-Michelle B. Duhaime (courriel: mboudreau1188@gmail.com).

Officiellement, la prévalence du TPL est de 1,6%, mais elle serait estimée jusqu'à 5,9% de la population générale. De plus, tel qu'illustré précédemment, les comportements d'automutilation ainsi que les tentatives de suicide sont des symptômes caractéristiques du TPL. Malheureusement, jusqu'à 10% des gens qui en souffrent réussissent leur tentative de suicide (Lieb, Zanarini, Schmahl, Linehan, & Bohus, 2004). Un autre symptôme important, commun à la plupart d'entre eux, est une mauvaise qualité de sommeil (Simor & Horvath, 2013) ainsi qu'une fréquence accrue de rêves dysphoriques (Semiz, Basoglu, Ebrinc, & Cetin, 2008). Les rêves dysphoriques sont des rêves ayant une teneur émotionnelle négative, tels que les mauvais rêves et les cauchemars (Levin & Nielsen, 2007). Dans le cas des cauchemars, il s'agit de rêves qui suscitent des émotions négatives intenses menant ultimement au réveil du dormeur (Zadra & Donderi, 2000), tandis que les mauvais rêves sont des rêves à connotations négatives un peu moins intenses qui ne réveilleront pas le dormeur (Levin & Nielsen, 2007). La moitié des sujets souffrant de TPL souffrent aussi de parasomnies, plus précisément un trouble dans la fréquence de cauchemars, c'est-à-dire la survenue répétée de rêves effrayants provoquant des réveils (American Psychiatric Association, 2013). Certaines études démontrent le lien entre le développement du TPL et certaines expériences vécues à l'enfance. Un des événements vécus à l'enfance pouvant avoir un grand impact sur le développement psychologique d'un individu est le fait de vivre une séparation maternelle à l'enfance (Spitz, 1967).

Cet article a pour but de présenter un modèle théorique pouvant expliquer la relation entre le fait de vivre une séparation maternelle à l'enfance et le développement du TPL à l'âge adulte. La variable médiatrice proposée dans ce modèle est la présence accrue de rêves dysphoriques suite à la séparation. En effet, la littérature rapporte divers résultats quant aux relations entre ces trois variables, mais aucune étude n'a présenté de modèle unissant celles-ci. Dans cet ordre d'idée, cet article présente un modèle novateur en s'intéressant aux processus cognitifs inconscients comme élément clé dans l'étiologie de la maladie.

Le trouble de la personnalité limite et la séparation à l'enfance

Suite à de nombreuses études (Bowlby, 1969; Harlow, 1969; Spitz, 1967), il a été démontré que l'attachement et les soins donnés à l'enfant par la

figure maternelle jouent un rôle dans son développement psychologique. Dans cet article, le terme *figure maternelle* est défini comme étant n'importe quel rôle significatif auprès de l'enfant, généralement le donneur de soin principal, qu'il s'agisse du père, de la mère, d'un grand-parent, ou de toute autre personne importante pour l'enfant.

Selon la théorie de l'attachement (Bowlby, 1969), l'attachement à la figure maternelle sert de protection à l'enfant pour ensuite mieux explorer son environnement en toute confiance. En complément à cette théorie, Ainsworth (1979) ainsi que Main et Solomon (1986) ont établi la théorie de l'attachement selon quatre types de style d'attachement, soit sécurisant, évitant, ambivalent et désorganisé. L'un des fondements de la théorie de l'attachement de Ainsworth, est que le lien d'attachement est directement lié au concept de séparation (Reite & Capitanio, 1985). La séparation maternelle à l'enfance est définie comme étant toute séparation de plus d'un mois entre l'enfant et la figure maternelle avant que l'enfant n'atteigne l'âge de cinq ans (Crawford, Cohen, Chen, Anglin, & Ehrensaft, 2009; Csoka, Simor, Szabo, Kopp, & Bodizs, 2011). Après cet âge, une séparation est considérée davantage normale puisque l'enfant est généralement en âge d'entrer à l'école, d'aller au camp de jour, etc. Selon Reite et Capitanio (1985), une séparation entre l'enfant et la figure maternelle perturbe la relation d'attachement et semble avoir des impacts sur la santé physique et mentale de ces enfants.

Au-delà du style d'attachement, la séparation avec la figure maternelle a été fréquemment reliée au développement du TPL (Bandelow et al., 2005; Links, Steiner, Offord, & Eppel, 1988; Reich & Zanarini, 2001; Soloff & Millward, 1983). Bradley (1979) a démontré que les symptômes du TPL se résorbaient moins rapidement chez les sujets ayant vécu une séparation maternelle avant l'âge de 5 ans, ce qui suppose l'importance à long terme de la présence de la figure maternelle à l'enfance. Néanmoins, des résultats importants démontrent que ce ne sont pas toutes les séparations maternelles qui sont reliées au TPL. Effectivement, la cause de la séparation joue également un rôle (Crawford et al., 2009). L'étude démontre que les séparations volontaires (p. ex., abandon) étaient celles qui avaient une relation significative avec le TPL. Ces résultats supposent que ce n'est pas la séparation en soi qui serait la cause du TPL, mais qu'un autre facteur semble entrer en jeu. Cette autre variable pourrait aussi expliquer

l'amélioration significativement plus faible des symptômes du TPL chez les gens ayant vécu une séparation à l'enfance. Une hypothèse possible est la présence d'un processus sous-jacent qui continuerait d'agir inconsciemment sur la psyché de l'individu.

Une équipe de chercheurs a tenté d'explorer davantage la relation entre la séparation maternelle à l'enfance et le développement du TPL et du trouble de la personnalité schizotypique (Crawford et al., 2009). Dans le cas des sujets vivants avec un trouble de la personnalité schizotypique, une relation a été établie avec un tempérament colérique à l'enfance. Malgré le fait qu'aucune relation n'ait été établie avec le TPL, nous pouvons supposer que la séparation maternelle a un lien avec le TPL, mais que ce lien n'est pas direct. De manière plus précise, il s'agit de dire que la séparation maternelle vient provoquer chez l'enfant différents processus cognitifs qui eux mènent au TPL. Cette étude soutient ainsi la proposition qu'une troisième variable d'ordre cognitif joue un rôle dans la relation entre la séparation maternelle à l'enfance et le développement du TPL.

Limites de la littérature

Chaque étude présentée démontre que la période de l'enfance joue un rôle critique dans le développement vers l'âge adulte. Plusieurs études démontrent qu'une relation significative existe entre un événement stressant à l'enfance, telle qu'une séparation maternelle précoce, et le développement du TPL (Bandelow et al., 2005; Bradley, 1979; Links et al., 1988; Reich & Zanarini, 2001; Soloff & Millward, 1983).

Cependant, aucune étude n'explore les processus psychologiques cognitifs et inconscients comme variables pouvant expliquer la relation entre le fait de vivre une séparation maternelle à l'enfance et le développement du TPL. Cette explication permettrait de mieux comprendre pourquoi certains individus ayant vécu une séparation maternelle à l'enfance développeront un TPL tandis que d'autres ne le développeront pas. En effet, à ce jour, il reste difficile de déterminer pourquoi certains individus ayant été soumis aux mêmes facteurs de risques (p. ex., la séparation maternelle) développeront ou non un TPL. Les rêves dysphoriques sont une variable pertinente dans l'étiologie du TPL. Il s'agit de processus cognitifs inconscients présents chez l'ensemble de la population clinique et non clinique, soit un élément universel qui pourrait devenir une cible de traitement à

large spectre chez les individus présentant une fréquence accrue de ceux-ci. De plus, ajoutons qu'il est possible de supposer qu'une fréquence accrue de rêves dysphoriques a des impacts significatifs sur le sommeil de l'individu. Comme le sommeil est primordial dans le développement et la récupération (Bear, Connors, & Paradiso, 2007), de grands changements dans le sommeil pourraient mener à de graves conséquences sur la santé d'un individu.

Le modèle proposé dans cet article vient explorer la possibilité qu'une troisième variable joue le rôle de médiateur entre le fait de vivre une séparation à l'enfance et le développement du TPL à l'âge adulte et ainsi enrichir notre compréhension sur les déterminants déclencheurs du trouble. Nous proposons que la variable médiatrice, soit l'augmentation de la fréquence de rêves dysphoriques suite à la séparation maternelle, vienne préciser cette relation.

Les rêves dysphoriques et la régulation des émotions

Selon une étude de Cartwright, Agargun, Kirkby et Friedmann (2005), le contenu du rêve serait directement relié au vécu émotionnel du rêveur, et aurait donc pour fonction la régulation des émotions et le traitement des informations émotionnelles afin de s'adapter à la vie éveillée.

Une théorie de la fonction des rêves proposée est celle de Hartmann (1996) suggérant que le rêve contextualise l'émotion la plus intense dans une image centrale, un noyau affectif. Hartmann (1999) propose aussi que le cauchemar soit plus important que le rêve, car l'image centrale serait plus facilement identifiable et l'émotion, plus intense. De plus, comme les cauchemars ont un affect particulièrement négatif et intense, il serait plus facile pour l'individu de canaliser cette émotion en état de rêve qu'en état d'éveil. Lorsque cet individu sera confronté à cette émotion lors de sa vie éveillée, il sera donc plus propice à gérer la situation adéquatement. Cette étude supporte l'importance des rêves et des cauchemars dans la régulation des émotions lorsque ceux-ci ont une fréquence d'occurrence normale.

Une étude a exploré la possibilité qu'une relation existe entre la séparation maternelle à l'enfance et la présence de rêves dysphoriques (Csoka et al., 2011). Les résultats démontrent que les individus ayant vécu une séparation maternelle à l'enfance vivent davantage de rêves dysphoriques que les individus

n'ayant pas vécu de séparation à l'enfance, soit une fréquence 1,5 fois plus élevée. De plus, une recension de la littérature faite par Levin et Nielsen (2007) propose qu'un événement stressant à l'enfance, comme une séparation maternelle, puisse avoir des effets physiologiques sur l'amygdale et l'hippocampe, deux structures impliquées dans la production des cauchemars et dans la régulation des émotions. Il y aurait donc possiblement un lien étroit entre la séparation maternelle à l'enfance, une fréquence accrue de cauchemars et une atteinte au processus de régulation des émotions.

Selon les résultats d'une autre étude (Agargun et al., 2003), les sujets souffrant de trouble du cauchemar, caractérisé par une quantité anormale de cauchemars (American Psychiatric Association, 2013), avaient aussi une plus forte tendance à s'automutiler, avaient des antécédents de tentatives de suicide dans la dernière année et avaient spécifiquement un diagnostic de TPL.

Présentation du modèle

Les résultats présentés soutiennent une relation entre les trois variables d'intérêts: une séparation maternelle à l'enfance, une plus grande fréquence de rêves dysphoriques et le développement du TPL. Le modèle théorique proposé intègre les relations entre les variables en un seul modèle, afin d'expliquer le processus par lequel la séparation maternelle vient susciter un TPL chez certains individus par le biais d'une variable médiatrice, soit la présence accrue de rêves dysphoriques. Il est proposé que l'impact de la fréquence de ces rêves explique en partie pourquoi certains individus ayant vécu une séparation maternelle développeront un TPL, tandis que d'autres

ne le développeront pas. Il est important de spécifier que pour le modèle suivant, l'utilisation du terme « rêves dysphoriques » inclut les mauvais rêves et les cauchemars. À ce jour, la différence entre ces termes variant d'une étude à l'autre, il semblerait plus intégrateur de réunir les deux types de rêves sous une même appellation.

Les rêves dysphoriques comme médiateur entre la séparation maternelle à l'enfance et le développement du trouble de la personnalité limite

La littérature rapporte le rôle de régulateur émotionnel comme l'une des fonctions importantes des rêves, et plus précisément, le rôle adaptatif des rêves dysphoriques (Agargun et al., 2003). La présence de cauchemars chez un enfant ayant vécu une séparation maternelle peut être comprise comme un processus d'adaptation suite à cet événement stressant. La théorie de Hartmann (1999) présentée précédemment supporte cette réflexion: l'enfant apprend à gérer la situation via ses cauchemars afin de pouvoir appliquer ses apprentissages à la réalité. Par contre, si ses systèmes de régulation et d'adaptation ne fonctionnent pas normalement (p. ex., une fréquence accrue), l'individu pourrait vivre des problèmes émotionnels et adaptatifs, puisque le mécanisme en question ne serait pas en mesure de contextualiser l'affect négatif en un noyau central. Ces types de problèmes sont fréquents dans le TPL (American Psychiatric Association, 2013). En bref, les rêves dysphoriques aident à réguler les émotions et à s'adapter, mais s'il y a un déséquilibre dans la fréquence, ces deux fonctions sont mises en péril et peuvent mener l'enfant à développer des troubles associés, tel que le TPL. En résumé, un enfant vivant une séparation maternelle à l'enfance subit une

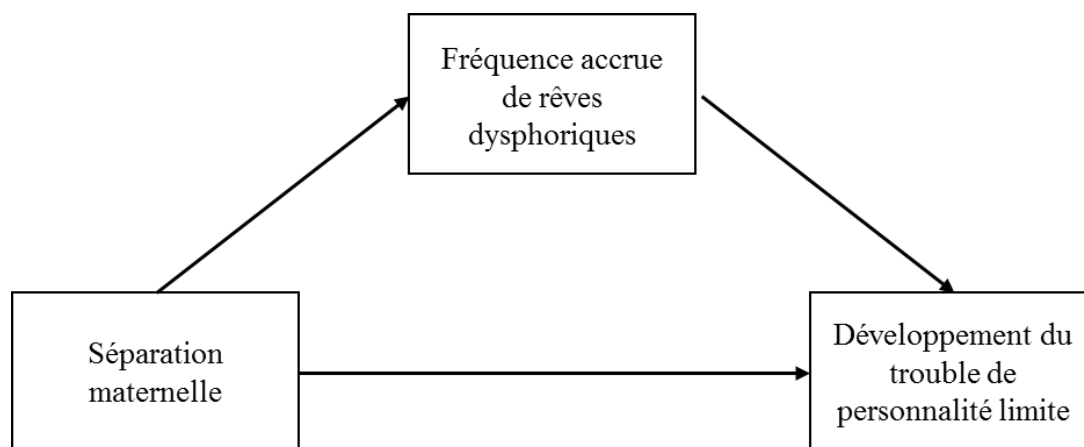


Figure 1. Modèle théorique de l'effet médiateur des rêves dysphoriques dans le développement du trouble de la personnalité limite suite à une séparation maternelle à l'enfance.

surcharge d'affects négatifs puisque celle-ci s'apparente à un traumatisme. Cette surcharge d'émotions amène inconsciemment l'enfant à vouloir réguler ses émotions afin de s'adapter à la situation. Les rêves dysphoriques, un processus cognitif inconscient, tenteront de permettre à l'enfant de palier cet évènement traumatisant grâce à deux fonctions proposées : la régulation émotionnelle et l'adaptation cognitive. Plus précisément, c'est avec une fréquence accrue de rêves dysphoriques que l'organisme tenterait de rétablir l'équilibre, vu la quantité importante d'affects négatifs à réguler. Dans le cas qui nous intéresse, les rêves dysphoriques ne parviennent pas à réguler correctement les émotions, puisque la fréquence accrue des rêves dysphoriques entraîne un bris dans le mécanisme normal de régulation, et par conséquent, l'enfant parvient difficilement à s'adapter à la situation. Suite à cette dysfonction, l'enfant grandit avec un mauvais système d'adaptation et de régulation des émotions, puis développe un TPL : un trouble caractérisé par une mauvaise capacité d'adaptation et de régulation des émotions.

Discussion

Implications cliniques et fondamentales

Établir que les rêves dysphoriques représentent une variable médiatrice dans le développement du TPL a beaucoup d'implications, tant au niveau de la recherche fondamentale qu'au niveau clinique. Dans le cas de la recherche, cette relation permet de mieux comprendre l'apparition du TPL, et pourquoi certains individus ayant un passé similaire ne développent pas le trouble. Comme les rêves dysphoriques semblent avoir un impact sur la régulation des émotions, il est possible qu'ils soient également en relation avec l'apparition d'autres troubles liés à la régulation des émotions, comme les troubles de l'humeur par exemple. En ce qui concerne les implications cliniques, le fait de connaître le lien entre les rêves dysphoriques et le TPL permet d'intégrer la gestion des cauchemars comme cible de traitement et ainsi d'augmenter l'efficacité des thérapies déjà offertes. En effet, il serait intéressant de considérer un aspect préventif. Par exemple, lorsqu'un enfant subit une séparation maternelle, le ou les parents pourraient par la suite être plus alertes aux rêves dysphoriques de leur enfant et ainsi intervenir plus rapidement. Une telle prévention pourrait permettre de diminuer la prévalence du TPL, en plus d'avoir un impact sur les coûts sociaux de ce trouble (p. ex., hospitalisation suite à une tentative de suicide).

Limites du modèle et orientations futures

Ce modèle a cependant plusieurs limites. Premièrement, le modèle présenté se concentre principalement sur les rêves dysphoriques, alors qu'il pourrait être avantageux de vérifier aussi l'impact des rêves réguliers, car ceux-ci semblent aussi avoir une fonction de régulateur émotionnel (Cartwright et al., 2005). Le modèle utilise les rêves dysphoriques puisque ceux-ci sont plus intenses émotionnellement, mais les rêves réguliers pourraient également avoir un impact, plus subtil, sur le développement du TPL. Dans un même ordre d'idées, il pourrait aussi être intéressant de différencier les mauvais rêves des cauchemars, puisqu'il existe une différence d'intensité émotionnelle entre les deux et ainsi différencier l'impact de chacun sur le développement du TPL. Deuxièmement, le modèle se base sur un processus cognitif inconscient dont il n'est pas toujours possible de se souvenir de ses rêves dysphoriques. Ce biais est d'autant plus présent chez les jeunes enfants, en plus d'être soumis à un biais de rappel rétrospectif, ce qui pourrait nuire aux résultats. Finalement, le modèle ne prend pas en considération les autres causes possibles du développement du TPL, comme une relation d'attachement insécure à l'enfance, la négligence (physique ou émotionnelle) et l'abus sexuel (Simor & Horvath, 2013). La séparation maternelle à l'enfance est une variable spécifique et il pourrait être intéressant de voir le modèle avec une variable plus large, telle qu'un évènement stressant à l'enfance, ce qui engloberait tous les termes mentionnés ci-haut.

Lors de futures recherches, il sera primordial de tester le modèle théorique afin de le valider. De plus, puisque plusieurs troubles s'accompagnent de symptômes relatifs à des troubles de sommeil ainsi qu'une fréquence accrue de rêves dysphoriques, il serait pertinent de comparer la fréquence accrue des rêves dysphoriques entre ces troubles et de l'analyser comme élément prépondérant dans l'étiologie de ces derniers.

Conclusion

La littérature a démontré qu'une relation existe entre une séparation maternelle à l'enfance et le TPL. Il semblerait qu'à la suite de cet évènement traumatisant, le corps régulerait la surcharge émotionnelle par le biais d'une fréquence accrue de rêves dysphoriques. Le modèle théorique propose donc de mettre en relation ces trois variables dans le but d'éclaircir le plus possible le rôle médiateur

qu'auraient les rêves dysphoriques entre la séparation maternelle et le TPL. Le modèle propose qu'une fréquence importante de rêves dysphoriques nuise au processus de régulation des émotions et serait ainsi, un facteur de risque possible du développement du TPL. En comblant les lacunes dans la littérature, le modèle permet de mieux comprendre le développement du TPL et ouvre la porte à des recherches futures sur le sujet. De plus, le fait de connaître les facteurs impliqués dans le développement du TPL permet aussi d'agir à titre préventif, c'est-à-dire avant que des dommages, parfois irréparables (p. ex., le suicide), affectent la vie de ces gens. Au niveau social, la prévention et le traitement précoce du TPL auront pour bénéfice de réduire les coûts relatifs aux comportements à risque souvent observés au sein du trouble. Finalement, au niveau clinique, le fait de mieux comprendre le développement du TPL assurera aussi de mieux orienter les traitements, en offrant des thérapies plus complètes et plus centrées sur la source du problème.

Références

- Agargun, M. Y., Kara, H., Ozer, O. A., Selvi, Y., Kiran, U., & Ozer, B. (2003). Clinical importance of nightmare disorder in patients with dissociative disorders. *Psychiatry and Clinical Neuroscience*, 57, 575-579.
- Ainsworth, M. D. (1979). Infant-mother attachment. *The American Psychologist*, 34, 932-937.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5^e éd.). Arlington, VA : American Psychiatric.
- Bandelow, B., Krause, J., Wedekind, D., Broocks, A., Hajak, G., & Ruther, E. (2005). Early traumatic life events, parental attitudes, family history, and birth risk factors in patients with borderline personality disorder and healthy controls. *Psychiatry Research*, 134, 169-179.
- Bear, M. F., Connors, B. W., & Paradiso, M. A. (2007). *Neurosciences, à la découverte du cerveau* (3^e éd.). Paris, France : Editions Pradel.
- Bowlby, J. (1969). *Attachment and loss: Vol. 1 Attachment* (2e éd.). New York, NY : Basic Books.
- Bradley, S. J. (1979). The relationship of early maternal separation to borderline personality in children and adolescents: A pilot study. *American Journal of Psychiatry*, 136, 424-426.
- Cartwright, R., Agargun, M. Y., Kirkby, J., & Friedmann, J. K. (2005). Relation of dreams to waking concerns. *Psychiatry Research*, 141, 261-270.
- Crawford, T. N., Cohen, P. R., Chen, H., Anglin, D. M., & Ehrensaft, M. (2009). Early maternal separation and the trajectory of borderline personality disorder symptoms. *Development and Psychopathology*, 21, 1013-1030.
- Csoka, S., Simor, P., Szabo, G., Kopp, M. S., & Bodizs, R. (2011). Early maternal separation, nightmares, and bad dreams: Results from the Hungarostudy epidemiological panel. *Attachment & Human Development*, 13, 125-140.
- Harlow, H. F. (1969). Age-mate or peer affectional system. Dans D. S. Lehrman (Ed.), *Advances in the study of behavior* (vol. 2, pp. 333-383). New York, NY : Academic Press.
- Hartmann, E. (1996). Outline for a theory on the nature and functions of dreaming. *Dreaming*, 6, 147-170.
- Hartmann, E. (1999). The nightmare is the most useful dream. *Sleep Hypnosis*, 1, 199-203.
- Levin, R., & Nielsen, T. A. (2007). Disturbed dreaming, posttraumatic stress disorder, and affect distress: A review and neurocognitive model. *Psychological Bulletin*, 133, 482-528.
- Lieb, K., Zanarini, M. C., Schmahl, C., Linehan, M. M., & Bohus, M. (2004). Borderline personality disorder. *The Lancet*, 364, 453-461.
- Links, P. S., Steiner, M., Offord, D. R., & Eppel, A. B. (1988). Characteristics of borderline personality disorder: A Canadian study. *Canadian Journal of Psychiatry*, 33, 336-340.
- Main, M., & Solomon, J. (1986). Discovery of an insecure-disorganized/disoriented attachment pattern. Dans T. B. Brazelton, & M. V. Yogman, *Affective development in infancy* (pp. 95-124). Westport, CT : Ablex.
- Reich, B., & Zanarini, M. C. (2001). Developmental aspects of borderline personality disorder. *Harvard Review of Psychiatry*, 9, 294-301.
- Reite, M., & Capitanio, J.P. (1985). On the nature of social separation and social attachment. Dans M. Reite & T. Fiel (Éds.), *The psychobiology of attachment and separation* (pp. 223-251). Orlando, FL : Academic Press.
- Semiz, U. B., Basoglu, C., Ebrinc, S., & Cetin, M. (2008). Nightmares disorder, dream anxiety, and subjective sleep quality in patients with borderline personality disorder. *Psychiatry and Clinical Neuroscience*, 62, 48-55.

- Simor, P., & Horvath, K. (2013). Altered sleep in borderline personality disorder in relation to the core dimensions of psychopathology. *Scandinavian Journal of Psychology*, 54, 300-312.
- Soloff, P. H., & Millward, J. W. (1983). Developmental histories of borderline patients. *Comprehensive Psychiatry*, 24, 574-588.
- Spitz, R. A. (1967). *Vom Säugling zum Kleinkind*. Stuttgart, Allemagne : Klett.
- Zadra, A., & Donderi, D. C. (2000). Nightmares and bad dreams: Their prevalence and relationship to well-being. *Journal of Abnormal Psychology*, 109, 273-281.

Reçu le 19 juin, 2015
Révisé le 8 janvier, 2015
Accepté le 23 janvier, 2016 ■

Impact of Group Identification Level and Group-Affirmation on the Evaluation of In-group Dissenter

EUNJOO JEONG, JUNGHYUN PARK, SEONYEONG KIM, JANE HAN, EUWON JOH, & DOYO CHOI
Sungkyunkwan University

The present research examined whether group-identification level and group-affirmation affect the evaluation of in-group dissenter. When faced with a dissenter who argues against the in-group norm, other group members with high group-identification level usually regard him as a threat. However, it was hypothesized that when group-affirmation is given, group members with a high identification level would no longer feel threatened by a dissenter and thereby evaluate the dissenter more favorably. To test this, the present study manipulated group-identification levels (high/low) and group-affirmation. The attitude toward the dissenter was then measured. Although the result did not support this hypothesis, the present study suggests a possible way to reduce unconditional exclusion towards the dissenter.

Keywords: dissenter, group identification, group-affirmation, threat, group

Cette recherche examine comment le niveau d'identification au groupe et d'affirmation de groupe affecte l'évaluation de la dissidence dans l'endogroupe. Quand les individus sont confrontés à la contestation d'un de leur membres, les autres membres du groupe ayant un niveau d'identification au groupe élevé perçoivent le membre dissident comme étant une menace. Cependant, il était prévu que lorsque l'affirmation de groupe est donnée, les membres du groupe avec un niveau d'identification élevé ne se sentiront pas menacés par le membre dissident et, de ce fait, évalue le membre dissident plus favorablement. Pour tester cela, la présente étude manipulait les niveaux d'identification au groupe (élevé/faible) et d'affirmation de groupe. L'attitude à l'égard du membre dissident a été mesurée par la suite. Bien que les résultats ne supportent pas l'hypothèse, la présente étude suggère des moyens de réduire l'exclusion inconditionnelle du membre dissident.

Mots-clés : membre dissident, identification au groupe, affirmation de groupe, menace, groupe

Who likes the dissenter? It's hard to like someone who says you're wrong, especially when everybody else agrees with you. Therefore, the dissenter is usually silenced, ignored, or even hated by the group. In the movie *12 Angry Men* (1957), an 18-year-old boy was sent before court, having been suspected of murdering his father. Without a second thought, most of the jury wished to convict him as guilty based solely on the nature of the crime. However, one juror

opposed the conviction, insisting that the boy might not be guilty and directed them to take a close look at any fact that suggested the boy's innocence. The angry jurors accepted his point and examined the facts closely without prejudice. When the final decision was announced, the boy was found to be not guilty. This story seems too dramatic and captivating to be true, but it was based on a true story. Furthermore, the main point here can be applied to everyday life: you sometimes need to listen to a dissenter, even though it opposes what your group thinks.

The authors would like to thank Young-jae Cha, M. A., for his guidance with the data analysis. Also the authors would like to thank the JIRIRI team (Marika and Frank) for valuable feedback and advice to improve the quality of the article. To contact the authors, please address any correspondence to Junghyun Park (email:pjh_312@naver.com) or Seonyeong Kim (email:eddie1489@naver.com).

Groups are maintained by people who support norms, values, and the purpose of the group. However, sometimes there are people in the group who do not agree with that group's norm (like the juror who

opposed to the jury). Those who go against the group's norm or prototype show dissent, deviance, difference and defiance (Jetten & Hornsey, 2011). Among these behaviors, dissenting can be defined as a minority group member exerting influence on the majority by expressing opposition towards the preexisting group norms or opinions (Jetten & Hornsey, 2014).

The movie scene mentioned above is an example of a wrong decision made by a group of overly confident people. When the group veers in the wrong direction, the dissenting member may question the direction of the group. This dissenter might, thereby, lead to reconsiderations in their decision and the various arguments. Along with this second-thought provoking role, the positive roles of dissenting were studied by many researchers (Gruenfeld, 1995; Nemeth, Brown, & Rogers, 2001; Nemeth & Kwan, 1985; Nemeth & Wachtler, 1983). Gruenfeld (1995) analyzed verbatim records and found that group decision-making was higher in integrative complexity when the group had a dissenter than when there was no dissenter. Listening to a dissenting opinion can be a good starting point which guides the groups to consider various viewpoints. Furthermore, the minority's opinion can suggest possible solutions that the majority may have missed (Nemeth & Wachtler, 1983) and provide conditions which make the majority think about a creative solution, differing from conventional thoughts (Nemeth et al., 2001; Nemeth & Kwan, 1985).

However, in spite of the positive influence the dissenter posits, a line of research found out that group members usually exclude or derogate the dissenter and put distance between them (e.g., Festinger, Pepitone, & Newcomb, 1952; Festinger & Thibaut, 1951). In fact, previous studies provide simplified results showing that the higher the group members' identification is, the more they derogate the dissenter. However, this study doesn't give insight about the circumstances under which highly identified group members may accept the dissenter's opinion.

Why does a high identifier reject dissenting opinions and what factor might guide the high identifier to support and accept dissenting opinions? Based on the Social Identification Theory (Jetten & Hornsey, 2011), it is inferred that high identifiers are unwilling to accept dissenting opinions because they are threatened by it, which contradicts the status quo of their group. If this is the case, there may be a way to buffer the high identifier's feeling of threat towards

the dissenter. Group-affirmation, a concept that comes from self-affirmation (e.g., Branscombe & Doosje, 2004), can be a way to reduce the threat caused by the dissenter toward the high identifier.

The present study aims to examine whether highly identified in-group members can accept dissenters under certain conditions; group-affirmation being one of those conditions. The study has practical and theoretical implications in that it provides broad insights into which conditions will make in-group members accept and support dissenting opinions, which is essential to the development of the group.

Group Identification

Being in a group has cognitive, affective and motivational influences on self-concept. It also serves as a basis for self-identity. However, it is important to point out that not all groups are the basis for identity (Jetten & Hornsey, 2011). When one's notion of membership in a particular group that one considers as valuable becomes salient, the self-representation changes. In other words, the locus of self-definition changes from "I" to "we". This accompanies changes in the self-concept and the reference frame to evaluate self-worth (Brewer & Gardner, 1996). This is defined as group identification which is one of the factors that influence how in-group members evaluate the dissenter.

Group Identification and Evaluation of the In-Group Dissenter

As it can be seen in the norm formation literature (Sherif, 1936) and conformity phenomenon literature (Asch, 1956), the group pressures its members to adopt its attitudes or values. However, when a group member disagrees with the group's norms, the other group members exclude or derogate that dissenter (e.g., Festinger et al., 1952; Festinger & Thibaut, 1951). Social identity theory (Tajfel & Turner, 1979) gives insight into how the group will treat the dissenting behavior. According to this theory, a high identifier's self-concept is closely bound to their group. When evaluating the self, these high identifiers evaluate themselves based on their group's characteristics rather than their own, unique self-characteristics (Hogg, 2001; Turner, 1999; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987).

Moreover, when it comes to evaluating in-group members, high identifiers maintain a positive social identity by evaluating the other group members based

on how much they correspond with the group's typicality and by excluding those who are atypical (Marques & Paez, 1994; Schmitt & Branscombe, 2001). To these high identifiers, criticism towards their group is as threatening as criticism towards oneself (Thai, Barlow, & Hornsey, 2014). Therefore, people who have high group identification will perceive criticism towards their group as more threatening than people who have low group identification. For example, when an in-group dissenter expresses an opinion such as "it's wrong, we need change", it would make high identifiers ostracize or derogate the dissenter, in order to protect their social identity from threats. Consistent with this, previous studies indicate that the higher the group member's identification is, the more they evaluate in-group dissenters negatively and distance themselves from these people (e.g., Abrams, Marques, Bown, & Henson, 2000; Marques, Abrams, Paez, & Martinez-Taboada, 1998; Marques & Yzerbyt, 1988).

This does not mean that the group always rejects the dissenter. Although less attention has been given to the situation when the group members accept the dissenter, research indicates that in-group members could accept a dissenter's opinion, and in doing so, improve the group's success (Kelley & Shapiro, 1954). Beyond this research, the present study examines the condition in which the high identifiers accept dissenting, even if there is no explicit benefit to the group. If people who highly identify with their group derogate the dissenter mainly because the dissenting opinion is perceived as a threat, methods that lessen the threat can be used to reduce derogation of the dissenter. Self-affirmation could be an effective buffer against the threat of the dissenter.

Self-Affirmation and its Effect in the Group

People are motivated to maintain a positive self-concept (e.g., Greenberg et al., 1992; Taylor & Brown, 1988; Tesser, 1988). This motivation is more salient when one's positive self-concept is threatened. People use various psychological defense mechanisms when they perceive that their self-concept is threatened. For instance, they deny the validity of threatening information or devalue the information source. These defense mechanisms are functional in that they help to maintain the positive self-concept of the group, but people do not always hide behind these illusions.

Self-affirmation theory (Steele, 1988) postulates that when an important aspect of the self is affirmed, people do not avoid the threat, but accept the threat and learn from it. Steele refers to self-affirmation as maintaining or restoring a general positive self-view from a threat, by affirming other important aspects of their self-concept that were not threatened. By doing so, it buffers against the threat to self and retains psychological resources from dealing with the threat (Steele & Liu, 1983). Whereas the psychological defense mechanisms respond directly to the threatening information, the self-affirmation serves the purpose of maintaining an integrated self-concept by extending an important aspect of the self, unrelated to the threat. Therefore, self-affirmation can make people accept threatening information in a receptive manner without distortion or misinterpretation (Cohen, Aronson, & Steele, 2000; Correll, Spencer, & Zanna, 2004; Reed & Aspinwall, 1998; Sherman, Nelson, & Steele, 2000).

Traditionally, self-affirmation has been studied at the individual level, but there has been an increasing number of studies dealing with self-affirmation at the group level (e.g., Čehajić-Clancy, Effron, Halperin, Liberman, & Ross, 2011; Derks, van Laar, & Ellemers, 2009; Sherman & Kim, 2005; Sherman, Kinias, Major, Kim, & Prenovost, 2007). According to social identity theory (Tajfel & Turner, 1986), a group member's self is closely related to their social identity, which comes from a sense of belonging to the group. Consequently, highly identifying in-group members are more biased to enhance their group in order to protect their own social identity (Castano, Yzerbyt, Bourguignon, & Seron, 2002). Recent research has found that self-affirmation suppressed group enhancing biases after a failure or success of a sports team (Sherman & Kim, 2005; Sherman et al., 2007). Additionally, other research found that self-affirmation made highly patriotic people less defensive towards information which harms their patriotic beliefs (Adams, Tormala, & O'Brien, 2006; Čehajić-Clancy et al., 2011, Cohen et al., 2007). This research suggests that when social identity is threatened, self-affirmation can reduce group-enhancing biases.

Group-Affirmation and Evaluation of the In-Group Dissenter

While self-affirmation focuses on affirming the positive aspects of individual self and enhances self-identity, group-affirmation lets group members focus

on the positive aspects of the group and, therefore, enhances social identity (Branscombe & Doosje, 2004). As mentioned earlier, when people are faced with a crime their nation committed in the past, they emphasize positive behaviors done to the victimized nation rather than focus on the wrong doing. This allows them to successfully cope with the threat, while maintaining their social identity (Doosje, Branscombe, Spears, & Manstead, 1998). Research on group-affirmation found similar outcomes with self-affirmation (e.g., Sherman et al., 2007). However, the effects of group-affirmation are determined by how much individuals identify themselves with their group. Previous studies on group-affirmation and in-group identification suggested that group-affirmation is more effective than self-affirmation only among members with high identification (Derks et al., 2009). Since the present study focuses on the acceptance of threats among high identifiers whose social identity became salient, rather than self-affirmation, group-affirmation might be more appropriate for reducing the threat caused by dissenting.

According to Sherman et al. (2007), group-affirmation can make the high identifiers open to the threatening information about their group by affirming the important values of the group. Expanding this context, the present study predicts that group-affirmation can allow the high identifiers to have a more receptive and open mind towards the in-group dissenter.

Hypothesis

Previous studies show that evaluation of the in-group dissenter can vary based on identification level. In the present study, we predicted that people who highly identify with the group would evaluate the dissenter favorably if the group is affirmed, while their counterparts (non-affirmed group) would negatively evaluate the dissenter. As mentioned in the literature, high identifiers should evaluate the dissenter more negatively because the opinions expressed by these individuals are seen as a threatening. This is because they evaluate themselves based on the group's characteristics. However, if it is possible to secure a positive value through group-affirmation, high identifiers should be more receptive and open to criticism. On the other hand, the group's identity should not be important for low identifiers, so the in-group dissenter should not threaten them, and there should be no effect of group affirmation on evaluating the dissenter. To summarize, the effect of

identification on evaluating the dissenter should be moderated by group-affirmation. Specifically, in a high identification condition, people who received group-affirmation will evaluate the in-group dissenter more positively than people who do not receive it. In contrast, in a low identification condition, group-affirmation should not make a difference in the evaluation of the in-group dissenter.

Method

Participants

Participants were 96 undergraduate students from a university in South Korea. However, two participants (both female) were excluded from the analysis because they failed to understand the procedure of the experiment. Therefore, a total of 94 participants' data (female $n = 57$) were used in analysis. Participants' age ranged from 18 to 30 years ($M = 21.78$, $SD = 2.36$).

Procedure and Measures

Participants were invited to the laboratory in groups of five. Among them, one person was an experimental confederate, which was not known to the other participants. As a cover, participants were told that this experiment was about the in-group decision making process. Participants were informed that they would work as a team in the human resource department and were going to do a personnel selection task.

Group Identification Manipulation

First, the group identification level was manipulated using a team forming procedure; we referred to Jans, Postmes, and Van der Zee (2012) and Zdaniuk and Levine (2001). In order to create a high group identification condition, participants were seated closely at adjoining tables and were asked to wear "personnel department team 3" name tags on their chest. After putting on the name tags, the self-introductory session began. They were instructed to introduce themselves as a member of "personnel department team 3". Then as a team, they had to discuss what two group colors they were going to choose. These two colors were used to color their logo. Each member colored their parts with their team colors and colored their logo as a group on one piece of paper. In this way, participants represented themselves as a member of the group and made their own contribution to develop a shared representation of

the whole group. On the other hand, in the low group identification condition, participants were seated at distant and separated tables, and were asked to wear name tags which had assigned initials, without a team name. Then, they introduced themselves as the individually assigned initials (e.g., “I’m team member A/B/C”). Then they were instructed to color the logo with two assigned colors, as an individual, without having a group discussion.

Group-Affirmation

Group-affirmation was manipulated by giving positive feedback (McQueen & Klein, 2006). The positive feedback affirmed the skill level of the group (e.g., “All members have completed the coloring task in a conscientious manner”). Participants were then asked to evaluate potential hires for their company individually. In the task, the target’s qualifications and their qualification scores were presented and participants simply selected one target according to their team’s personnel selection norm. Through this task, participants internalized the in-group norm. Before moving on to the actual group decision making task, which was not performed, participants had time to share their answers to the practice task. Again, the manipulation of group-affirmation was reinforced by the experimenter giving positive feedback on the team’s “earnest” manner.

Dissenting

While participants were sharing their answers, the experimenter left the laboratory, telling the participants that he would bring the material for the following task. Then, the confederate gave a dissenting opinion to the other participants at the preordained phase of the group discussion. He mentioned that although he followed the group norm in the practice task, the team’s personnel selection norm seemed unreasonable and he thought that they should consider other qualifications as well. The content, as well as the language of the statement, was held constant, and criticized the irrational aspect of the discussion process (“While I was doing the task, our team’s standard seemed unreasonable. Wouldn’t it be better to consider other factors together?”). Right after the confederate made his dissenting point, the experimenter came back.

Filling in Questionnaires and Debriefing

The participants were instructed to sit separately at distantly allocated tables at the back of the laboratory,

then the experimenter handed out a survey to the participants. They were then instructed to assess every member in the team except themselves. They started with the assessment survey of participant A (the dissenter). They were instructed to fill out the survey to measure the dependent variable. The evaluations of the dissenter’s intention served as the dependent variable. In order to measure this, two items were developed. One is “This group member is making an effort to guide our team to a better way”, and the other is “This group member is working hard for our team” (9-point Likert measure system). After all the participants completed their questionnaires, the experimenter announced that there would be no actual group decision making task, debriefed, and thanked them for their participation.

Results

The dependent measure of the evaluation of the in-group dissenter was obtained by averaging scores of the two items measuring the attitude towards the dissenter $r_{\text{between items}}(92) = .81, p < .001$. The data were analyzed using a 2 x 2 ANOVA (group-identification level: high vs. low X group-affirmation vs. control). A two-way ANOVA revealed no significant interaction between group-identification level and group-affirmation, $F(1, 90) = .19, p > .05$. Also, there were no main effects of the identification manipulation nor group-affirmation manipulation ($F < 1$). See Table 1 and Table 2.

Discussion

In this study, we examined the conditions under which dissenters can be evaluated less negatively despite the presence and the influence of high members. This negative evaluation can be explained

Table 1

Descriptive data: mean and standard deviation of each condition

Identification	Affirmation	<i>M</i> (<i>SD</i>)	<i>n</i>
Low Identification	Non-Affirmation	6.67 (1.36)	23
	Affirmation	6.34 (1.49)	25
High Identification	Non-Affirmation	6.70 (1.77)	23
	Affirmation	6.54 (1.20)	23

GROUP IDENTIFICATION, GROUP-AFFIRMATION AND DISSENTERS

Table 2

ANOVA on evaluation of ingroup dissenter's intention

	<i>df</i>	<i>F</i>	η^2	<i>p</i>
Group identification (A)	1	0.14	.002	.711
Group-affirmation (B)	1	0.64	.007	.425
A x B	1	0.09	.001	.765
Error	90	(2.16)		

Note. Number in the parenthesis is the mean squared error.

by these high identifying members trying to ostracize dissenters in their group. We investigated the possibility of group-affirmation as a way of preventing high identifiers from excluding the dissenters from the group. We postulated that group-affirmation, playing the role of a buffer, would moderate the effect of high identification on negative evaluation of the dissenter. Although the results did not support this hypothesis, the question that this research casts has theoretical and practical implications as explained below.

Theoretical and Practical Implications

In the present study, an attempt was made to establish a theoretical links between two major theories of social psychology: Social Identification Theory and Self-affirmation. These two theories have been studied in two separate literature. However, it was inferred that there are some points where both can interact. As social identification is about social self and self-affirmation is about integrity of the self, they can overlap in certain cases. It was postulated that by focusing on group-affirmation, we found the case in which a negative effect of high identification might be reduced, as a result of this overlapping.

The present research explored a possible way to reduce the unconditional exclusion toward the dissenter's opinion. Frequently, dissenters' opinions, which can be helpful for the in-group, are seen as threats. It is ironic that individuals with high levels of group identification, meaning those who identify the most with their group, tend to attempt the most to "protect" the in-group from these otherwise insightful opinions. As a result, we expect the present research to make a contribution not only to group-affirmation theory, but also to in-group dissenter theory.

Limitations and Future Research

Despite the numerous implications of the present study, it also has some limitations that cannot be overlooked. First, the experimental manipulation was not effective. Although the present study manipulated group-affirmation by complimenting the task on the group, it may have been meaningless to the participants. Considering that group-affirmation should influence in an important manner self-concept, the method used could have not reached this effect. In other words, a more robust method in affecting the integrity of social identity in participants is needed.

Second, there is a possibility that the independent variables in the present study could have affected each other, thus resulting in cofounded variables. That is, group affirmation may have interacted with the level of in-group identification. When given group affirmation, participants in the low group identification condition could have put more meaning on being a member of the affirmed group, consequently identifying themselves more strongly with the group.

Third, the present study was conducted with ad hoc lab groups, therefore participants may have undergone some difficulty in strongly identifying themselves with the ad hoc group even after manipulation. Participants were recruited individually and assigned to a team when entering the laboratory. With short periods of interaction and mere manipulations, it may have been insufficient for participants to strongly identify themselves with the group.

Lastly, it should be noted that the participants of the present study were primarily undergraduate students in a laboratory setting, which could limit the external validity of the results. For instances, participants who were mainly undergraduate students might have a less integrated identity or self-concept. Better results could be drawn from a more general population.

Conclusion

For future research, a more sophisticated experimental setting is needed to test the provided explanation of a potential interaction effect between in-group identification and group-affirmation. We recommend for future research to be cautious of the effectiveness of group-affirmation and identification manipulations and to consider potential cofounded variables when interpreting their results. With a more

methodologically refined experiment, we hope to draw more meaningful conclusion on this research question.

References

- Abrams, D., Marques, J. M., Bown, N., & Henson, M. (2000). Pro-norm and anti-norm deviance within and between groups. *Journal of Personality and Social Psychology*, 78, 906-912.
- Adams, G., Tormala, T. T., & O'Brien, L. T. (2006). The effect of self-affirmation on perception of racism. *Journal of Experimental Social Psychology*, 42, 616-626.
- Asch, S. E. (1956). Studies of independence and conformity: I. A minority of one against a unanimous majority. *Psychological Monographs: General and Applied*, 70, 1-70.
- Branscombe, N. R., & Doosje, B. (2004). *Collective guilt: International perspectives*. Cambridge, UK: Cambridge University Press
- Brewer, M. B., & Gardner, W. (1996). Who is this "we"? Levels of collective identity and self representations. *Journal of Personality and Social Psychology*, 71(1), 83-93.
- Castano, E., Yzerbyt, V., Bourguignon, D., & Seron, E. (2002). Who may enter? The impact of in-group identification on in-group/out-group categorization. *Journal of Experimental Social Psychology*, 38, 315-322.
- Čehajić-Clancy, S., Effron, D. A., Halperin, E., Liberman, V., & Ross, L. D. (2011). Affirmation, acknowledgment of in-group responsibility, group-based guilt, and support for reparative measures. *Journal of Personality and Social Psychology*, 101, 256-270.
- Cohen, G. L., Aronson, J., & Steele, C. M. (2000). When beliefs yield to evidence: Reducing biased evaluation by affirming the self. *Personality and Social Psychology Bulletin*, 26, 1151-1164.
- Cohen, G. L., Sherman, D. K., Bastardi, A., Hsu, L., McGoey, M., & Ross, L. (2007). Bridging the partisan divide: Self-affirmation reduces ideological closed-mindedness and inflexibility in negotiation. *Journal of Personality and Social Psychology*, 93, 415-430.
- Correll, J., Spencer, S. J., & Zanna, M. P. (2004). An affirmed self and an open mind: Self-affirmation and sensitivity to argument strength. *Journal of Experimental Social Psychology*, 40, 350-356.
- Derks, B., Van Laar, C., & Ellemers, N. (2009). Working for the self or working for the group: How self-versus group affirmation affects collective behavior in low-status groups. *Journal of Personality and Social Psychology*, 96, 183-202.
- Doosje, B., Branscombe, N. R., Spears, R., & Manstead, A. S. (1998). Guilty by association: When one's group has a negative history. *Journal of Personality and Social Psychology*, 75, 872-886.
- Festinger, L., Pepitone, A., & Newcomb, T. (1952). Some consequences of de-individuation in a group. *The Journal of Abnormal and Social Psychology*, 47, 382-389.
- Festinger, L., & Thibaut, J. (1951). Interpersonal communication in small groups. *The Journal of Abnormal and Social Psychology*, 46, 92-99.
- Fonda, H. J., Lumet, S. (Director), & Rose, R. (Producers). (1957). *12 Angry Men* [Motion picture]. United States: United Artists.
- Greenberg, J., Solomon, S., Pyszczynski, T., Rosenblatt, A., Burling, J., Lyon, D., ... Pinel, E. (1992). Why do people need self-esteem? Converging evidence that self-esteem serves an anxiety-buffering function. *Journal of Personality and Social Psychology*, 63, 913-922.
- Gruenfeld, D. H. (1995). Status, ideology, and integrative complexity on the U.S. Supreme Court: Rethinking the politics of political decision making. *Journal of Personality and Social Psychology*, 68, 5-20.
- Hogg, M. A. (2001). A social identity theory of leadership. *Personality and Social Psychology Review*, 5, 184-200.
- Jans, L., Postmes, T., & Van der Zee, K. I. (2012). Sharing differences: The inductive route to social identity formation. *Journal of Experimental Social Psychology*, 48, 1145-1149.
- Jetten, J., & Hornsey, M. J. (2011). *Rebels in groups: Dissent, deviance, difference, and defiance*. Oxford, UK: John Wiley & Sons.
- Jetten, J., & Hornsey, M. J. (2014). Deviance and dissent in groups. *Annual Review of Psychology*, 65, 461-485.
- Kelley, H. H., & Shapiro, M. M. (1954). An experiment on conformity to group norms where conformity is detrimental to group achievement. *American Sociological Review*, 19, 667-677.
- Marques, J., Abrams, D., Paez, D., & Martinez-Taboada, C. (1998). The role of categorization and in-group norms in judgments of groups and their members. *Journal of Personality and Social Psychology*, 75, 976.

GROUP IDENTIFICATION, GROUP-AFFIRMATION AND DISSENTERS

- Marques, J. M., & Paez, D. (1994). The "black sheep effect": Social categorization, rejection of ingroup deviates, and perception of group variability. *European Review of Social Psychology*, 5, 37-68.
- Marques, J. M., & Yzerbyt, V. Y. (1988). The black sheep effect: Judgmental extremity towards ingroup members in inter and intragroup situations. *European Journal of Social Psychology*, 18, 287-292.
- McQueen, A., & Klein, W. M. (2006). Experimental manipulations of self-affirmation: A systematic review. *Self and Identity*, 5, 289-354.
- Nemeth, C., Brown, K., & Rogers, J. (2001). Devil's advocate versus authentic dissent: Stimulating quantity and quality. *European Journal of Social Psychology*, 31, 707-720.
- Nemeth, C. J., & Kwan, J. L. (1985). Originality of word associations as a function of majority vs. minority influence. *Social Psychology Quarterly*, 48, 277-282.
- Nemeth, C. J., & Wachtler, J. (1983). Creative problem solving as a result of majority vs. minority influence. *European Journal of Social Psychology*, 13, 45-55.
- Reed, M. B., & Aspinwall, L. G. (1998). Self-affirmation reduces biased processing of health-risk information. *Motivation and Emotion*, 22, 99-132.
- Schmitt, M. T., & Branscombe, N. R. (2001). The good, the bad, and the manly: Threats to one's prototypicality and evaluations of fellow in-group members. *Journal of Experimental Social Psychology*, 37, 510-517.
- Sherif, M. (1936). *The psychology of social norms*. Oxford, UK: Harper.
- Sherman, D. K., & Kim, H. S. (2005). Is there an "I" in "team"? The role of the self in self-affirmation theory 93 group-serving judgments. *Journal of Personality and Social Psychology*, 88, 108-120.
- Sherman, D. K., Kinias, Z., Major, B., Kim, H. S., & Prenovost, M. (2007). The group as a resource: Reducing biased attributions for group success and failure via group affirmation. *Personality and Social Psychology Bulletin*, 33, 1100-1112.
- Sherman, D. A., Nelson, L. D., & Steele, C. M. (2000). Do messages about health risks threaten the self? Increasing the acceptance of threatening health messages via self-affirmation. *Personality and Social Psychology Bulletin*, 26, 1046-1058.
- Steele, C. M. (1988). The psychology of self-affirmation: Sustaining the integrity of the self. *Advances in Experimental Social Psychology*, 21, 261-302.
- Steele, C. M., & Liu, T. J. (1983). Dissonance processes as self-affirmation. *Journal of Personality and Social Psychology*, 45, 5-19.
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. Austin & S. Worchel (Éds), *The social psychology of intergroup relations*, (pp. 33-48). Pacific Grove, CA: Brooks/Cole.
- Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behavior. In W. G. Austin, & S. Worchel (Éds.), *Psychology of intergroup relations*-(pp.7-24). Lanham, MD: Burnham Inc Pub.
- Taylor, S. E., & Brown, J. D. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin*, 103, 193-210.
- Tesser, A. (1988). Toward a self-evaluation maintenance model of social behavior. *Advances in Experimental Social Psychology*, 21, 181-228.
- Thai, M., Barlow, F. K., & Hornsey, M. J. (2014). (Deviant) friends with benefits: The impact of group boundary permeability on minority group members' responses to ethnic deviance. *Social Psychological and Personality Science*, 5, 360-368.
- Turner, J. C. (1999). Some current issues in research on social identity and self-categorization theories. In N. Ellemers, R. Spears, & B. Doosje (Eds), *Social identity* (pp.6-34). Oxford, UK: Blackwell.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Cambridge, MA: Basil Blackwell.
- Zdaniuk, B., & Levine, J. M. (2001). Group loyalty: Impact of members' identification and contributions. *Journal of Experimental Social Psychology*, 37, 502-509.

Received July 15, 2015

Revision received September 16, 2015

Accepted March 12, 2016 ■

Équipe éditoriale / Editorial Board 2015-2016



(de gauche à droite en commençant par la rangée arrière / from left to right, starting from the last row)

Mathilde Pouliot, Carolanne Labonté, Marie-Michelle Blouin, Julie Ouerfelli-Éthier, Céline El-Soueidi, Jessie Philippo, Roxane de la Sablonnière, Diana Cárdenas, Simon Dubé, Syrine Kharrat, Camille Bourdeau, Catherine Whitehead, Nada Kadhim, Laura French Bourgeois, Mathieu Caron-Diotte, (absents/missing : Mélissa Baril-Desrochers, Alex Fernet Brochu, Simone Gamm, Anne Gendreau. Marika Handfield, Frank Kachanoff, Audrey Murray, Mathieu Pelletier-Dumas, David Phaneuf, Luis-Manuel Vacaflor).

Merci à tous nos commanditaires pour leur appui !



Faites bonne impression !

Profitez des conseils de nos experts afin de réduire vos coûts d'impression et de conception. Voici les services offerts:

- conception graphique | infographie | affiches grand format
- Impression couleur et N/B (numérique et offset) | reliure de tout genre
- pliage | laminage | adressage | assemblage (mécanique ou manuel)
- mise sous enveloppe | préparation postale et mise à la poste

 Service d'impression

www.sium.umontreal.ca

Université de Montréal

Faculté des arts et des sciences
Département de psychologie

Université  de Montréal



L'AMNÉSIQUE
R E C R U T E !

QU'ATTENDEZ-VOUS?
AMNESIQUE@AGEEPUM.CA



Laboratoire sur les changements sociaux et l'identité
Social Change and Identity Laboratory

Université  de Montréal