JIRIRI

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

Volume 6, Hiver 2013 / Winter 2013

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Mission

Le *Journal sur l'identité, les relations interpersonnelles et les relations intergroupes* (JIRIRI) est une revue scientifique internationale publiée annuellement à l'hiver. 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.

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

Tout étudiant du premier cycle en psychologie ou dans un domaine connexe désirant approfondir et faire connaître ses idées reliées aux thèmes de l'identité, des relations interpersonnelles ou des relations intergroupes est donc invité à soumettre un article. Le JIRIRI publie des articles théoriques et empiriques.

Processus de révision

La rédactrice en chef effectue une première sélection des articles et conserve ceux qui correspondent à la mission du JIRIRI. Le processus d'évaluation est géré par la rédactrice en chef, le chef d'édition et les rédacteurs adjoints.

Une fois soumis, l'article est envoyé à quatre étudiants de premier cycle et à un étudiant des cycles supérieurs pour évaluation. Les évaluations sont effectuées de manière anonyme. L'équipe éditoriale est responsable de souligner les critiques les plus importantes et de donner la décision concernant la publication de l'article. L'article peut être accepté, accepté avec révisions mineures, rejeté avec invitation à réviser l'article et à le soumettre à nouveau ou il peut être rejeté.

L'auteur apporte alors les modifications suggérées par le comité de rédaction. Le processus de révision et de correction se poursuit ainsi jusqu'à ce que l'article soit jugé satisfaisant pour publication.

Pour soumettre un article ou pour s'impliquer au sein du JIRIRI

Tout étudiant de premier cycle qui souhaite soumettre un article, ou tout étudiant de premier cycle et des cycles supérieurs qui souhaite s'impliquer dans le processus de révision est invité à nous contacter à l'adresse suivante : jiriri@umontreal.ca.
Pour de plus amples renseignements, n'hésitez pas à consulter notre site Internet au www.jiriri.org.

Consignes pour la soumission d'un article

Les étudiants de premier cycle de toute université sont invités à soumettre leur article en français ou en anglais.

Dans sa lettre à la rédactrice en chef, l'auteur qui soumet un article devra confirmer qu'il est présentement étudiant au premier cycle et que son article n'a pas déjà été publié ou soumis pour publication. Il est impossible de soumettre un article au JIRIRI en tant que premier auteur si le baccalauréat a été complété plus de six mois avant la soumission de l'article. 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.

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 **5 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.**

Adresse postale

Journal sur l'identité, les relations interpersonnelles et les relations intergroupes (JIRIRI)
a/s de Roxane de la Sablonnière, Ph.D.
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Mission

The *Journal of Interpersonal Relations, Intergroup Relations and Identity* (JIRIRI) is an international scientific journal published annually each winter. 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.

Any undergraduate student in psychology or a related field, eager to share his or her ideas pertaining to identity and/or social interactions, and is willing to expand upon them, is therefore invited to submit an article. The JIRIRI publishes both theoretical and empirical articles.

Review Process

The Editor in Chief makes a preliminary selection of the articles and retains those that comply with the JIRIRI's mission. The Editor in Chief, the Managing Editor and the Associate Editors oversee the review process of the articles.

Once received, an article is then forwarded to four undergraduate students and one graduate student. All reviews are done anonymously. The editorial board is responsible for highlighting the most important comments and deciding whether the article is suitable for publication or not based on the reviewers' recommendations. The article may be accepted as is, accepted with minor modifications, rejected with the invitation to resubmit, or it may be rejected.

The author then carries out the modifications that are considered necessary by the review committee. This review and correction process continues until the article is judged to be ready for publication.

To submit an article or to participate in the JIRIRI

Any undergraduate student interested in submitting an article, 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.org.

Guidelines for submitting an article

Undergraduate students of all universities are invited to submit their article in French or in English.

In his/her letter to the Editor in Chief, the author submitting an article must confirm that he/she is an undergraduate student and that his/her article has neither been published nor submitted for publication elsewhere. It is not possible to be the first author of an article in the JIRIRI if one's undergraduate degree was completed more than six months prior to the submission of the article. An undergraduate student may submit an article that he/she has co-written with a professor or a graduate student only if he/she is first author.

The cover page must include the title of the article 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.**

Postal Address

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Remerciements

Nous tenons d'abord à remercier le Département de psychologie de l'Université de Montréal et son Directeur, Monsieur Serge Larochelle ainsi que l'Association étudiante de psychologie de l'Université de Montréal (AGÉÉPUM), Monsieur Gyslain Giguère et les membres du comité organisateur de la 7ᵉ 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. De même, nous tenons à souligner la contribution financière 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) qui ont lu attentivement et annoté les épreuves de notre revue scientifique.

Sur une note un peu plus personnelle, nous tenons à remercier Roxane de la Sablonnière pour son appui continuel et pour cette idée novatrice qui, depuis six ans, 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 Émilie Auger, Laura French Bourgeois, Melissa Stawski, Anne Gendreau et Mariam Najih, les rédactrices 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 the psychology student council (AGÉÉPUM) as well as Mr. Gyslain Giguère and the members of the organizing committee of the 7ᵗʰ 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. We would also like to acknowledge the financial contribution from 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 would not have existed 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* who attentively proof-read several versions of our scientific journal.

Finally, on a more personal note, our heartfelt thanks goes to Dr. de la Sablonnière for her continuous support and for her innovative ideas which, for the past six years, have 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 Émilie Auger, Laura French Bourgeois, Melissa Stawski, Anne Gendreau and Mariam Najih, the previous Editors in Chief, who frequently offered guidance.

Éditorial

MARIE-JOSÉE LECLERC
Université de Montréal
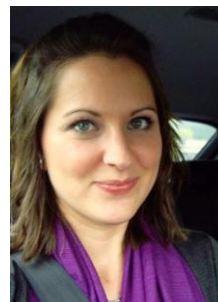
C'est avec un immense honneur et beaucoup de fierté que je vous présente la sixième édition du *Journal sur l'identité, les relations interpersonnelles et les relations intergroupes* (JIRIRI)!

La qualité et la diversité des manuscrits qui y sont publiés soulignent d'une part les efforts des auteurs, et d'autre part, tout le travail accompli par les membres du comité éditorial ainsi que les collaborateurs. Ceux-ci, qui représentent le fonctionnement essentiel du JIRIRI, peuvent acquérir une meilleure connaissance du processus de publication d'une revue scientifique avec comité de lecture. Au fil des ans, l'équipe du JIRIRI s'est grandement élargie, pour ainsi permettre à plus de deux cent collaborateurs provenant de plus de 70 universités de quinze pays différents, de vivre ce processus.

Cette année, le JIRIRI a connu une augmentation des soumissions provenant d'étudiants à l'international à l'aide de la promotion réalisée par les collaborateurs, mais surtout par l'énergie déployée par l'équipe du JIRIRI depuis les six dernières années. Le nombre d'articles soumis au JIRIRI a doublé, et un nombre grandissant de résultats empiriques y sont publiés.

Dans le cadre de la publication du volume 6 du JIRIRI, nous avons reçu des manuscrits provenant du Canada, des États-Unis, de l'Irlande, du Cameroun, et du Mexique. Il est encourageant de voir le JIRIRI rayonner à l'international. Ceci témoigne de l'intérêt, de la motivation, ainsi que de la curiosité scientifique des étudiants au baccalauréat en psychologie à travers le monde.

Pour le volume 6 – Hiver 2013 du *Journal sur l'identité, les relations interpersonnelles et les relations intergroupes* (JIRIRI), un total de seize articles a été soumis. Certains manuscrits ont été rejetés, mais un nombre important d'articles sont demeurés dans la course jusqu'à la fin, obligeant la tenue d'une sélection finale en comité. Seuls les articles de qualité supérieure ont été retenus, témoignant que la rigueur scientifique demeure au cœur de la mission du JIRIRI. C'est ainsi que la rédactrice adjointe séniore Roxane de la Sablonnière, le chef d'édition Mathieu Caron-Diotte, les rédactrices adjointes Meagan Beaudin et Sarah Gaham, les éditeurs consultants Diana Cárdenas, Thomas Marsh, Mathieu Pelletier-Dumas et Melissa Stawski, ainsi que moi-même, ont dû départager les manuscrits restants afin d'en conserver huit pour la publication finale. Conséquemment, le taux de rejet des articles pour le volume 6 – Hiver 2013 s'établit à 50 %.

Nous avons été impressionnés par la qualité des articles soumis et tenons à souligner le travail, la persévérance et la contribution des auteurs, incluant ceux qui n'ont pas été publiés dans le JIRIRI cette année.

Je tiens à remercier tous les collaborateurs qui nous ont donné, une fois de plus, énormément de leur temps afin que les auteurs puissent obtenir le maximum de rétroaction. Merci également à toute l'équipe éditoriale qui, tout au long de ce parcours, est demeurée engagée et dévouée. Sans toute cette belle équipe, l'esprit du JIRIRI ne serait pas le même!

Editorial

MARIE-JOSÉE LECLERC
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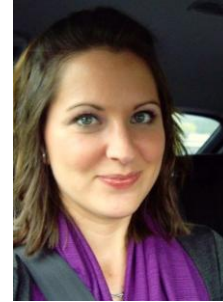
It is with great pride and honour that I present the sixth volume of the *Journal of Interpersonal Relations, Intergroup Relations and Identity* (JIRIRI)!

The quality and diversity of the published manuscripts demonstrate the efforts of the authors, as well as the work done by members of the editorial board and reviewers. The authors and the reviewers, who both are essential to the functioning of the JIRIRI, each gain a better understanding of the publishing process for peer-reviewed scientific journals. Over the years, the JIRIRI team has greatly expanded; allowing the involvement of more than two hundred reviewers from more than 70 universities across fifteen countries.

Thanks to the promotional efforts of our members over the past few years, there was an increase in submissions for Volume 6 from students outside of North America. The number of articles submitted has doubled, and a growing number of empirical articles have been published.

This year, we received articles from Canada, the USA, Ireland, Cameroon and Mexico. It is encouraging to see that the JIRIRI is receiving international recognition. This demonstrates the interest, motivation and intellectual curiosity of undergraduate psychology students from around the globe.

For Volume 6 - Winter 2013 of the *Journal of Interpersonal Relations, Intergroup Relations and Identity*, a total of sixteen articles were submitted.

Though some manuscripts were rejected, a significant number were revised through the peer-review process, with the final selection of articles to be performed by the editorial committee. The Senior Associate Editor Roxane de la Sablonnière, the Managing Editor Mathieu Caron-Diotte, the Associate Editors Meagan Beaudin and Sarah Gaham, the Consulting Editors, Diana Cárdenas, Thomas Marsh, Mathieu Pelletier-Dumas and Melissa Stawski and I selected eight of the remaining manuscripts for publication. Only the highest quality papers were selected, indicating that scientific rigor remains at the heart of the mission of the JIRIRI. Consequently, the rejection rate of articles for Volume 6 - Winter 2013 was 50%.

Overall, we were impressed by the quality of the submitted articles and would like to acknowledge the hard work, perseverance and contribution of all the authors, including those who were not published in the JIRIRI this year.

I would like to thank all the reviewers who gave us, once again, their time so that authors could receive the maximum amount of feedback. My gratitude extends to the editorial board whom, throughout the entire process, remained committed and devoted. Without this great team, the spirit of the JIRIRI would not be the same!

Lettre de la rédactrice adjointe séniore / Letter from the Senior Associate Editor

ROXANE DE LA SABLONNIÈRE, PH.D.
Université de Montréal

Comme à chaque année, je suis étonnée par la qualité du travail et le professionnalisme des membres impliqués dans l'équipe du *Journal sur l'identité, les relations intergroupes et les relations interpersonnelles* (JIRIRI). Toute l'équipe éditoriale, les évaluateurs, les auteurs et tous nos collaborateurs ont travaillé de concert pour remplir de manière exceptionnelle la mission du JIRIRI. La mission du JIRIRI est de donner l'opportunité aux étudiants du baccalauréat de suivre toutes les étapes du processus de publication scientifique avec un comité de lecture. Non seulement l'équipe du JIRIRI s'élargit à toutes les années, mais elle a le souci d'améliorer la qualité de chacun des articles publiés, et de ce fait, de peaufiner le processus d'évaluation par les pairs afin de le rendre plus efficace. Cette année, nous avions trois buts principaux : 1) améliorer nos lettres d'édition afin de mieux guider les auteurs dans leur processus de révision, 2) réduire les délais à chacune des étapes du processus, et 3) augmenter la visibilité internationale du JIRIRI. Vous constaterez que ces trois buts ont été accomplis avec succès. En effet, tous les articles publiés sont d'une qualité exceptionnelle. De même, plus d'une centaine d'étudiants issus de plus de 15 pays différents et de 72 universités différentes ont participé activement à la mission du JIRIRI. Grâce au JIRIRI, nous avons accès aux idées brillantes de jeunes étudiants et étudiantes qui ont normalement peu d'opportunités de présenter leurs idées au monde scientifique. En outre, nous encourageons les étudiants à travers le monde à s'engager dans la recherche pour permettre de diversifier les populations étudiées en psychologie. Il est clair que tous les étudiants et les étudiantes de l'équipe du JIRIRI croient, tout comme moi, que c'est avec les idées que l'on change le monde.

Every year, I am taken aback by the quality of work and the professionalism of the members of our *Journal of Interpersonal Relations, Intergroup Relations and Identity* (JIRIRI) team. The editing crew, the evaluators, the authors and our collaborators have worked together to fulfill the JIRIRI mission in an outstanding manner. The JIRIRI's mission is to give the opportunity to undergraduate students to take part in every step of the scientific peer-review process. Not only does the JIRIRI team expand annually, but moreover, the quality of the articles increases with each and every publication. As such, our team has refined the peer-review process in order to increase our efficiency. This year, we had three primary goals: 1) to improve our editorial letters in order to better guide the authors in the revision process, 2) to reduce the delays at each step of the process, and 3) to increase the international visibility of the JIRIRI. Each of these goals was accomplished successfully. All of the published articles are of an exceptional quality and this year, over a hundred students across over 15 different countries and 72 universities actively participated in the JIRIRI mission. Through the JIRIRI we can access the brilliant ideas of young students who have few opportunities to present their ideas to the scientific world. Further, we can encourage people from all around the globe to engage in research that will help diversify the populations studied in psychology. It is clear that all of the students in the JIRIRI team believe, as I do, that it is with ideas that we can change the world.

Processus de révision par les pairs

Le JIRIRI a mis au point un processus de révision par un comité de pairs qui est adapté aux étudiants universitaires de premier cycle. Chaque membre de l'équipe 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 la *rédactrice en chef*, qui assure le bon déroulement du processus de révision et de publication en respectant l'échéancier. Les tâches du *chef d'édition* consistent à mettre à jour les documents du JIRIRI, à participer au processus d'évaluation d'articles et à faire la supervision de la mise en page. Ensuite, les *rédacteurs adjoints* sont responsables du processus de révision et de publication d'une partie des articles soumis. Puis, 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.

Le processus d'évaluation des articles se déroule en trois étapes. La rédactrice en chef amorce le processus en effectuant une sélection parmi les articles soumis, puis envoie ces articles aux rédacteurs adjoints. Ceux-ci s'assurent que tous les manuscrits font d'abord l'objet d'une évaluation par quatre *évaluateurs*, trois étudiants de premier cycle, et un *évaluateur invité,* un étudiant des 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 objective des critiques par le biais d'une *lettre d'édition*. Ensuite, les *éditeurs consultants*, des étudiants des 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., qui agit à titre de *rédactrice adjointe séniore*, supervise, en collaboration avec la rédactrice en chef, tout le processus. Suite à une nouvelle soumission de l'article par l'auteur, de nouveaux tours d'évaluation se déroulent selon le même principe jusqu'au moment où l'article est convenable pour publication. Plus le processus de révision avance, plus les modifications exigées deviennent spécifiques et détaillées. Ainsi, le premier tour vise principalement 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 s'assure d'offrir de l'aide et du soutien aux auteurs. C'est grâce à la collaboration de tous que le JIRIRI atteint ses objectifs.

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 the JIRIRI's documents, participating in the review process of some articles and supervising the page layout of the articles. The *Associate Editors* are responsible for the review and publication process of some of the submitted articles. Furthermore, the *Communications Director* promotes and finds financing for the JIRIRI, by submitting grant application that allow for the publication and expansion of the JIRIRI.

The review process has three parts. The Editor in Chief begins the process by selecting the most eligible articles from those submitted, and sending such articles on to the Associate Editors. They ensure that all articles are reviewed by four undergraduate *reviewers* and one experienced *guest reviewer*, a graduate student. Following their evaluations, a member of the editorial board compiles the reviewers' comments and provides an objective summary of the criticism to the author of the article in an *Editor's Letter*. In addition, the *Consulting Editors*, graduate students or students who have finished their undergraduate degree, each review all of the editor's letters to provide guidance to the authors and the editor in charge of the paper. The entire process is supervised by the *Senior Associate Editor*, Roxane de la Sablonnière, Ph.D., in collaboration with the Editor in Chief. Repeated evaluations of the peer-reviewed and adapted article are performed until the article is considered acceptable for publication. As the review process moves from the first review to the last review, the comments and modifications required become more precise and detailed. The beginning of the review process focuses on the overall scientific contribution of the paper, with subsequent evaluations aimed at improving more precise and detailed aspects; such as statistical analysis. Throughout the entire process, the team is readily available to offer help and support to the authors. It is thanks to the collaboration of the entire team that the JIRIRI has been able to reach its' goals.

Attitudes towards Volunteerism and Individuals with Disabilities in High School Students as a Function of Educational System in South Korea

HEE KYUNG BAEK & CHERYL L. DICKTER, PH.D.
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Volunteerism has positive effects for both society and the individuals who engage in volunteering. Numerous studies have focused on the positive relationship between adolescents' volunteering experiences and their psychological and social development, while other studies have assessed the positive attitudinal changes of adolescent volunteers in frequent contact with individuals with disabilities. However, few studies have focused on the role of education on students' perceptions of individuals with disabilities. The present study investigated the volunteering experiences of students enrolled in American and Korean educational system schools in South Korea. Results revealed that the American-system students volunteered more often and had more positive attitudes about volunteerism compared to Korean-system students. In addition, American-system students with more positive attitudes about volunteerism had more positive perceptions of individuals with disabilities. There was no relationship in Korean-system students between these two variables. Cross-cultural findings and implications for education and social policy are discussed.

Keywords: disability, education, extracurricular activity, perception of disability, volunteerism

Le bénévolat a un impact positif autant pour la société que pour les individus qui aident les autres. Plusieurs études se sont concentrées sur les liens positifs entre les expériences de bénévolat à l'adolescence et le développement psychologique et social, alors que d'autres ont évalué le changement positif d'attitude envers les personnes handicapées au moyen de contacts fréquents. Cependant, peu d'études se sont concentrées sur le rôle de l'éducation sur la perception des étudiants envers les personnes handicapées. Cette étude a investigué les expériences de bénévolat des étudiants fréquentant un système d'éducation américain et coréen en Corée du Sud. Les résultats ont démontré que les étudiants du système américain font davantage de bénévolat, ont une attitude plus positive envers leur expérience et une perception plus positive des personnes handicapées que les étudiants du système coréen. Les résultats interculturels et les implications concernant des politiques sociales et d'éducation sont discutés.

Mots-clés : handicap, éducation, activités parascolaires, perception du handicap, bénévolat

Volunteerism has positive effects for both society and the individuals who serve their society without compensation. Individuals who engage in volunteer work are empowered by taking part in pro-social tasks, building relationships with communities, and obtaining new knowledge and skills that bring various psychological and social gains (Wilson, 2000).

Additionally, high school students who volunteer develop pro-social attitudes and empathy for others (Atkins, Hart, & Donnelly, 2005). In the United States, about 38% of the American youth population engages in community service as a part of the school activity or as a requirement (Grimm, Dietz, Foster-Bey, Reingold, & Nesbit, 2006). This is in part due to there being more secondary schools adopting service-learning programs each year as an educational reform strategy to assist students to achieve important educational goals (Fox, Machtmes, Tassin, & Hebert, 2010).

An important strength of volunteerism is the effect that volunteering with different populations can have on the perceptions of marginalized groups (Fichten,

Schipper, & Cutler, 2005). For example, research has demonstrated that the more exposure and contact non-disabled students have with disabled students, the better the communication between these two groups (McDuffie, Mastropieri, & Scruggs, 2009). As students gain confidence through interactions with individuals with disabilities, they gain knowledge about disabilities and become more conscious about societal issues and disadvantages that people with disabilities may experience (Rillotta & Nettelbeck, 2007). Their recognition of similarities between individuals with and without disabilities ultimately leads to more socially accepting attitudes and more positive perceptions of individuals with disabilities (Cook & Semmel, 1999; Maras & Brown, 2000).

Although American students are often involved with volunteer opportunities and interactions with individuals with disabilities, which can positively affect their perceptions of disadvantaged groups, students in other countries are exposed to fewer volunteer opportunities (Larson, 2001) and thus, differ in the number of interactions with individuals with disabilities. For example, high school students in East Asian countries, such as South Korea, are given less opportunities to engage in extracurricular activities in general, which may be because Korean students have much less free time for outside activities than American students (Larson & Verma, 1999). Although South Korea has one of the highest education participation rates in the world, its strong focus on coursework and test preparation often leads other school activities and extracurricular activities to be ignored (Yoon, 2009). In fact, Korean students spend a weekly average of 15 hours 52 minutes studying after school, compared to American students' average of 3 hours 40 minutes (Hwang, 2001). Additionally, over 70% of Korean parents spend 7% (4.1% in public and 3% in private institutions) of the Gross Domestic Product (GDP) on education for their children (OECD, 2001). Due to an emphasis on the traditional fact-learning and rote-learning atmosphere created by this examination culture, Korean students' time for extracurricular activities such as volunteering is limited (Ihm, 2007).

Although differences in the focus of Korean and American education systems suggest that differences may exist in the time spent volunteering between students in the two systems, there is no research, to our knowledge, examining the difference of volunteerism's prevalence between these two educational systems. Thus, the first goal of the current study was to examine whether volunteerism is in fact more prevalent among students from high schools using the American system rather than the Korean system. In order to control for general differences that exist between the U.S. and South Korea, students from American-system and Korean-system schools in South Korea were selected for this study. Our first hypothesis was that students in the Korean education system spend less time volunteering than students in the American system. This hypothesis is based on the difference in the cultures of education between the American-system and Korean-system. That is, the American education system places a greater value on volunteerism than the Korean education system. Additionally, American-system students have more time to spend on extracurricular activities compared to Korean-system students (Larson & Verma, 1999).

The second goal of the study was to examine whether, due to differences between the two education systems, there would be differences in how important volunteerism was viewed. Because of the greater focus in the American-system schools on volunteerism, our second hypothesis was that American-system students in South Korea would value volunteerism more than Korean-system students in South Korea.

A third goal of the current study was to determine if differences in volunteering experiences would lead to differences in perceptions of individuals with disabilities. It was expected that, because volunteering helps high school students develop pro-social attitudes and empathy (Atkins et al., 2005), students who had a volunteering experience would have more positive perceptions of individuals with disabilities than those without volunteering experience. Thus, it was hypothesized that students who indicated having at least one volunteering experience would have more positive attitudes towards individuals with disabilities than those who had never volunteered. Furthermore, if the first two hypotheses were supported, we expected to find that American-system students would have more positive perceptions of individuals with disabilities than Korean-system students.

Finally, we sought to explore whether perceptions of individuals with disabilities would be moderated by the interaction between the importance of volunteerism and the school system. Specifically, due to a greater emphasis on community service in the American system than in the Korean system, it was expected that the relationship between importance of volunteerism and perceptions of individuals would be stronger in the American-system students than the

Korean-system students. The current study was designed to test these hypotheses and therefore focuses on how education systems may shape experiences with and attitudes towards volunteerism as well as perceptions of individuals with disabilities.

Method

Participants

The participants in this study were 90 high school students (52 males) from three different schools located in South Korea. The schools represented two different education systems: Korean and American. The Korean system was represented with 50 (26 males) participants from one Korean public school, Apgujung High School, in which students with Korean citizenships are enrolled. The American system had a total of 40 (26 males) participants from Handong International School (HIS) and Seoul Foreign School (SFS). At the American system schools, students had U.S. or other country citizenships or permanent residency or had lived abroad for 5 or more years. The age of student participants ranged from 15 to 20 ($M = 17.92$, $SD = 0.89$). All participants were given either a bakery or Starbucks coupon as compensation for their participation. All procedures were approved by the necessary Protection of Human Subjects Committees and informed consent was obtained from each participant. The students over 18 confirmed and signed for their voluntary participation. For students under 18, each received a confirmation from an academic advisor for one's participation, which is in line with ethics guidelines in South Korea.

Materials and Procedure

All research material was presented in both English and Korean and administered by a college student bilingual in both languages. A questionnaire was constructed to analyze participants' extra-curricular participation and perceptions of individuals with disabilities. There were several scales given to the participants. First, participants were asked about their experiences with volunteerism, in which they indicated if they had volunteered during the past or present year in a community engagement setting and, if they had, how frequently they volunteered (1 = *never* to 6 = *daily*). Second, participants ranked how important they considered volunteerism to be (1 = *not at all important* to 5 = *extremely important*), which served as a measure of the perception of the importance of volunteerism.

Third, 20 questions from the Attitudes Towards Individuals with Disabilities Scale developed by Goreczny, Bender, Caruso and Feinstein (2011; α = .88) were used to measure perceptions of individuals with disabilities. Specifically, questions regarding participants' beliefs and attitudes about the capability and competence of individuals with disabilities to perform activities associated with daily living were selected. Participants indicated their agreement with 20 statements about individuals with disabilities such as "persons with disabilities are capable of living a normal life" on a scale from 1 (*strongly agree*) to 7 (*strongly disagree*). Higher scores on this scale indicated more negative perceptions of individuals with disabilities. Finally, participants were asked to report their gender, age, school information, as well as the number of family members or friends with disabilities and the type(s) of disability, if applicable. After the questionnaires were completed, participants were debriefed, given their compensation, and dismissed.

Results

Analyses were conducted with 50 Korean-system students and 40 American-system students ($N = 90$). To examine whether there was a difference in volunteering experiences between the participants in the American system compared with the Korean system, Chi-square analyses were conducted. Results revealed that, in support of the first hypothesis, the frequency of students who reported volunteering compared to those who did not volunteer was statistically significantly different between the two groups, such that 92.50% of American-system participants volunteered, while only 50.00% of Korean-system participants volunteered, $\chi^2(1, 90) = 18.73$, $p < .001$. Among the students who volunteered, results revealed that students in the American system ($M = 3.15$, $SD = 1.10$) reported a higher number of volunteering activities than the Korean-system participants ($M = 1.60$, $SD = 0.67$), $t(88) = 8.25$, $p < .001$.

To test the second hypothesis that individual differences in the perception of the importance of volunteerism would differ between the two groups, an independent t-test was conducted. In support of this hypothesis, American-system participants ($M = 3.83$, $SD = 0.59$) placed more importance on volunteerism than the Korean-system group ($M = 3.32$, $SD = 0.77$), $t(88) = 3.42$, $p = .001$.

Next, we examined whether differences would exist in perceptions of individuals with disabilities

between those who volunteered and those who did not volunteer by performing an independent *t*-test with the Attitudes Towards Individuals with Disabilities Scale as the dependent variable. Although American-system and Korean-system students who volunteered (*M* = 3.25, *SD* = 0.44) had a more positive perception of individuals with disabilities than those who did not volunteer (*M* = 3.35, *SD* = 0.45), this difference was small and failed to reach statistical significance, *t*(88) = 0.96, *p* = .338. Similarly, there was no statistically significant difference in perceptions of individuals with disabilities between American-system and Korean-system participants, *t*(88) = -0.05, *p* = .591. Thus, the third hypothesis was not supported.

However, results did reveal that the perceptions of individuals with disabilities was related to importance of volunteerism, *r* = -.39, *p* < .001 (Table 1), such that the higher the importance of volunteerism, the more positive the students' perceptions of individuals with disabilities (note that higher scores in voluntarism mean more negative view towards voluntarism). To test whether the relationship between importance of volunteerism and perceptions of individuals with disabilities would be moderated by the school system, a multiple regression analysis was conducted. A regression was conducted predicting perceptions of individuals with disabilities from importance of volunteerism and school system in the first step. On the second step, the interaction between these two variables, with dummy-coded school system and mean-centered importance of volunteerism were entered. Results indicated that the regression model with the interaction was statistically significant, *F*(3, 85) = 6.15, *p* = .001, R^2 = .16 (see Table 2). As demonstrated in Figure 1, the breakdown of the interaction revealed that, for the American-system students, importance of volunteerism was a statistically significant predictor of attitudes towards individuals with disabilities (simple slope = -0.31, *t*(85) = -4.08, *p* < .001); (Cohen, Cohen, West, & Aiken, 2003). For Korean-system students, however-er, the relationship between these variables was not statistically significant (simple slope = -0.14, *t*(85) =

-1.21, *p* = .231). The results of this analysis suggest that the attitudes of the American-system students to-wards volunteerism are predictive of their attitudes towards individuals with disabilities. On the other hand, this relationship does not exist for Korean-system students, who volunteer less than those in the American-system.

Discussion

The current study explored the important issue of perceptions of people with disabilities, which is an area of research that has received limited empirical attention and has the propensity to inform future poli-cy decisions. More specifically, this work was de-signed to examine how experiences with and attitudes towards volunteering relate to perceptions of individu-als with disabilities in students from Korean and American education systems in South Korea. Our findings offer interesting insight into how important educational-level variables can shape students' per-ceptions of individuals with disabilities. First, we hy-pothesized that there would be differences in volun-teering experiences between Korean-system and American-system students. This hypothesis was sup-ported in that more American-system students report-ed having a volunteering experience than Korean-system students; Additionally, American-system stu-dents reported more volunteering experiences than Korean-system students. Second, we hypothesized that volunteerism would be viewed as less important by students in the Korean-system compared with Ameri-can-system students. Indeed, results demonstrated that American-system students valued volunteerism more than Korean-system students. These two findings are likely due to the greater focus on volunteerism in the American school system and the greater time Ameri-can-system students spend on extracurricular activi-ties, compared to Korean-system students (Larson & Verma, 1999). Furthermore, due to the larger amount of coursework and greater focus on test preparation in the Korean system compared to the American system (Kwak, 2004), as well as the reliance on private

Table 1

Descriptive Statistics and Correlations Between Variables

Variables	*M* (*SD*)	Correlations		
		1	2	3
1. Volunteerism importance	3.54 (0.74)	-		
2. Frequency of volunteerism	2.29 (1.17)	.41**	-	
3. Perceptions of individuals with disabilities	3.28 (0.44)	-.39**	-.10	-

Note. ** *p* < .001.

Table 2

Summary of Multiple Regression Analysis Predicting Attitudes Towards Individuals With Disabilities From Importance of Volunteerism (N = 90)

	B	SE	β
Step 1			
Importance of Volunteerism	-.25	.06	-.43
School	-.08	.09	-.09
Step 2			
Importance of Volunteerism	.04	.24	.06
School	-.06	.10	-.07
Importance x School	-.17	.14	-.50*

Note. For Step 1, $R^2 = .16$ ($p < .001$); $\Delta R^2 = .02$ ($p = .001$) for Step 2.

lessons and tutoring for several hours per week (Hwang, 2001; Kwak, 2004), it is also likely that Korean-system students simply have less time for volunteerism in the local community than American-system students.

Our third hypothesis, that those with a volunteering experience would have more positive views of individuals with disabilities, was not supported. Our results indicate, rather, that the American-system students who valued community service highly were more likely to perceive individuals with disabilities positively than the American-system students who valued volunteerism less. Korean students' perceptions of individuals with disabilities, however, were unaffected by how strongly they valued volunteerism,

Figure 1. Perceptions of individuals with disabilities as a function of the importance of volunteerism and the school system.
Lower scores on the Perceptions of Individuals with Disabilities Scale indicate more favorable attitudes.

most likely due to limited variability and frequency in their volunteering experiences. These results suggest that unequal educational emphasis on the importance of volunteerism between the American system and the Korean system may create a difference in students' exposure to various types of activities (Eitle & Eitle, 2002; McNeal, 1999). Thus, it appears that instilling a social norm that community service is valued as well as providing opportunities for volunteerism can lead to more positive perceptions of individuals with disabilities.

The different rates of inclusion of individuals with disabilities in the respective school systems may also have affected the relationships between volunteerism and perceptions of individuals with disabilities between the two education systems. American-system schools serve many more individuals with disabilities in secondary schools under the Individuals with Disabilities Education Act (IDEA; United States Department of Education, 2009) while less individuals with disabilities are served under the Korean education system (Korean Ministry of Health and Welfare, 2008). Students' participation in school-based volunteerism opportunities provides them opportunities to associate with peers different from those they encounter at home and in the classroom (Darling, Cadwell, & Smith, 2005) and therefore learn social acceptance and positive peer attitudes toward individuals with disabilities (Cook & Semmel, 1999; Maras & Brown, 2000). These findings may indicate that American-system students' attitudes towards individuals with disabilities are more likely to be changed for the better as the emphasis on volunteerism increases. As the difference between the two school systems lies in the relationship between importance of volunteerism and perceptions of individuals with disabilities, it does not appear that simple exposure to individuals with disabilities leads
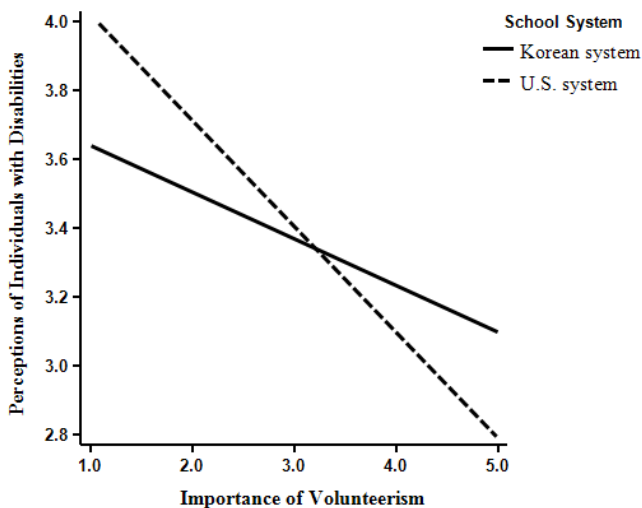
to differences in perception. Thus, the current results suggest that although familiarity with individuals with disabilities does not correspond to attitude change towards the groups, the degree to which individuals place importance on volunteerism is associated with more positive views of individuals with disabilities, but only in the American system sample.

Limitations

The results of the current study should be interpreted with caution, however, as there may be additional personality variables that are responsible for the relationship between importance of volunteerism and perceptions of individuals with disabilities in the American-system sample. Because this relationship was not found with the Korean-system sample, we believe this is unlikely, but the current study was not experimental in nature and thus future research should continue to explore this issue.

Future research should also continue to investigate individual differences in the need to engage in extracurricular activities, and how this may vary based on the education system and other cultural and social influences. The difference in volunteering experience between American and Korean system students is most likely due to the differences in the philosophies between the school systems; This conclusion should be interpreted with caution, however, as we did not use a validated scale to measure participants' volunteering experience or the importance of volunteerism.

Conclusion

The findings of the current study can have important implications for policy decisions regarding the implementation of volunteerism programs. Given that previous work demonstrate the positive psychological and social impacts that volunteerism can have on individuals (Atkins et al., 2005; Wilson, 2000), and the positive perceptions that placing importance on volunteerism could potentially lead to, this work suggests that encouraging volunteerism among high school students, at least those in American school systems, can have potentially positive impacts on how individuals with disabilities are perceived. Future work should continue to examine whether importance of volunteerism is related to positive attitudes towards other disadvantaged groups, rather than just individuals with disabilities.

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Motivations to Use Facebook for New Relationships Predicts Poorer Well-Being among Extraverts but Better Well-Being among Introverts

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The use of social networking websites such as Facebook has burgeoned in recent years, especially among university students. We examined the associations of university students' well-being with their reasons for using Facebook—focusing on motivations relevant to new relationships—and the ways in which these associations depend on their introversion vs. extraversion. Sixty undergraduate students reported their motivations for using Facebook, extraversion, self-esteem, and college adjustment. As hypothesized, the associations of participants' well-being with their motivations to use Facebook for new relationships differed for extraverts and introverts: Stronger motivations to use Facebook to meet new people and enhance social inclusion predicted lower well-being among extraverts but higher well-being among introverts.

Keywords: facebook, internet, well-being, extraversion, introversion

L'utilisation de sites de réseaux sociaux tels que Facebook a explosée dans les dernières années, surtout parmi les étudiants universitaires. Nous avons examiné les liens entre le bien-être des étudiants universitaires et leurs raisons d'utiliser Facebook – en mettant l'accent sur les motivations concernant de nouvelles relations. Soixante étudiants au baccalauréat ont rapporté leurs motivations à utiliser Facebook, leur degré d'extraversion, d'estime de soi, et d'adaptation à l'université. Tel que prédit, les liens entre le bien-être des participants et leurs motivations à utiliser Facebook pour de nouvelles relations n'étaient pas les mêmes chez les extravertis et les introvertis. En effet, les fortes motivations à utiliser Facebook pour rencontrer de nouvelles personnes et augmenter l'inclusion sociale ont prédit un plus faible bien-être chez les extravertis, mais un plus fort bien-être chez les introvertis.

Mots-clés : facebook, internet, bien-être, extraversion, introversion

Internet use has increased dramatically over the last decade. The Internet is highly addictive and its use affects the user's interpersonal communication and behaviour, self-concept, and psychological well-being (Harman, Hansen, Cochran, & Lindsey, 2005; Kraut, Scherlis, Mukhopadhyay, Manning, & Kiesler, 1996; Niemz, Griffiths, & Banyard, 2005). University students in the Western world are at high risk of Internet addiction because the Internet is easily accessible to them (Niemz et al., 2005). Social networking sites are some of the most popular websites on the Internet (Spraggins, 2011). According to Kim, LaRose, and Peng (2009), the most popular websites among university students are Facebook, MySpace and You-Tube, all of which are social networking sites that encourage social online activity. The average university student spends between thirty minutes and two hours on Facebook each day (Ellison, Steinfield, & Lampe, 2007; Kalpidou, Costin, & Morris, 2011; Raacke & Bonds-Raacke, 2008; Sheldon, 2008). Although Facebook found its roots in this population, it has since developed an expanded target group. People of all ages and walks of life are using Facebook and other social networking sites.

Developing one's personality is a preoccupation among university students (Figueroa-Sarriera, 1991; Kandell, 1998), and social networking sites allow their users to convey their personality however they wish. Users can highlight some aspects of their personality and censor others. Indeed, a key motive for

participating in social networking sites is impression management, which cannot be achieved to the same extent in face-to-face social interactions (Kramer & Winter, 2008). In short, online social networking has become an essential part of most university students' social development (Schwartz, 2011). In light of the amount of time university students spend on Facebook and the amount of influence it has on their personality development and psychological adjustment, motivations for Facebook use and their associations with psychological well-being among university students is a topic that deserves further research and has implications for larger populations (Stefanone, Lackaff, & Rosen, 2011; Wilson, Fornasier, & White, 2010).

Contradictory Evidence Regarding the Association of Facebook Use with Well-Being

There are two conflicting hypotheses in the existing literature regarding the association between Facebook use and psychological well-being, and each of these conflicting hypotheses has received some empirical support. The first is the displacement hypothesis. The displacement hypothesis states that time spent in online social interaction—which may well be used to meet new people and to enhance one's inclusion in those new relationships—displaces time spent in more beneficial face-to-face social interaction with established-relationship partners (Bonetti, Campbell, & Gilmore, 2010; Kraut et al., 1998; Nie, Hillygus, & Erbring, 2002). This decrease in real-life interaction leads to a decline in one's social support network, including one's relationship with family (Bremer & Rauch, 1998; Harman et al., 2005; Kraut et al., 1998). Moreover, online social interaction does not adequately compensate for this loss in social support. The emotional connection experienced in face-to-face social interaction is lacking during interactions on social networking sites (Joinson, 2001; Moody, 2001; Niemz et al., 2005).

Several studies have supported the displacement hypothesis by indicating that Facebook use predicts decreased well-being, including lower self-esteem and life satisfaction, as well as higher loneliness and depression (Huang, 2010; Rohall & Cotton, 2002; Stieger & Burger, 2010; Valkenburg, Peter, & Schouten, 2006; Wilson et al., 2010). For example, in a study of students' communication with their parents while at university, students who communicated with their parents by phone had more satisfying relationships with their parents than those who communicated with their parents over social networking sites. Those who used

social networking as their primary method of communication also experienced more anxiety, conflict, loneliness, and poorer overall adjustment to university (Gentzler, Oberhause, Westerman, & Nadorff, 2011). Similarly, other research found that having more Facebook friends predicts lower well-being (Schwartz, 2011; Kalpidou et al., 2011).

The second of the two conflicting hypotheses, regarding the association of Facebook use and psychological well-being, is the stimulation hypothesis. The stimulation hypothesis states that using social networking websites stimulates interaction with established relationship partners, thereby enhancing the quality of those relationships and one's overall well-being (Bryant, Sanders-Jackson, & Smallwood, 2006; Kalpidou et al., 2011; Morahan-Martin & Schumacher, 2003; Valkenburg & Peter, 2007).

Several studies have supported the stimulation hypothesis by indicating that Facebook use predicts increased well-being, including lower social anxiety and higher self-esteem, at least under some circumstances (Harman et al., 2005; Kraut et al., 2002; McKenna & Bargh, 2000; Shaw & Grant, 2002). For example, Valkenburg and colleagues (2006) reported that the more adolescents used social network sites, the more feedback they received from others. Positive feedback, in turn, improved self-esteem. Similarly, other research has found that using the Internet to communicate and maintain previously established relationships was associated with a higher self-esteem, a greater sense of community, and better adaptation to college life (Ellison et al., 2007; Madge, Meek, Wellens, & Hooley, 2009; Pempek, Yermolayeva, & Carvert, 2009; Sheldon, 2008; Weiser, 2001).

The two existing theories explaining the associations of online social networking and well-being—the displacement hypothesis and the stimulation hypothesis—are most relevant to motivations related to using social networking as a means to maintaining established relationships. That is, they posit that online social networking either takes away from or adds to time spent communicating with established relationship partners and that this, in turn, negatively or positively affects well-being, respectively. However, people are also motivated to use Facebook and other social networking sites as a means to meet new people (Sheldon, 2008). Previous research has largely neglected the role of motivations for using Facebook to establish new relationships and to feel included in those new relationships in predicting well-being. The

primary goal of the present research is to fill this gap in the existing literature by examining the circumstances under which motivations for using Facebook to develop new relationships predict decreased well-being, and the circumstances under which they predict increased well-being.

The Association of Motivations for Using Facebook for New Relationships with Well-Being Depends on the User's Personality

There is reason to suggest that the association of using Facebook for new relationships with well-being depends on the Facebook user's extent of extraversion vs. introversion. Whereas extraverts tend to prefer to spend more time in highly stimulating face-to-face social interactions, introverts usually prefer to spend more time alone and in less-stimulating situations (Hamburger & Ben-Artzi, 2000; Hardie & Tee, 2007). For instance, in one study, participants indicated their willingness to participate in a 20-30 min group discussion with three other people whom the participants did not know (Snyder & Gangestad, 1982). Participants who scored high on extraversion were much more willing to take part in this social situation than their counterparts who scored high on introversion.

Given that extraverts tend to enjoy face-to-face social interactions, we expected that the motivations for using Facebook for new relationships would be associated with decreased well-being among extraverts. Face-to-face social interaction tends to satisfy extraverts' social needs better than online interaction (Amiel & Sargent, 2004; Landers & Lounsbury, 2004), yet extraverts tend to spend more time on social networking sites and try to have more Facebook friends than introverts (Wilson et al., 2010). Given that extraverts are especially likely to have their social needs adequately met in person with established relationship partners, using Facebook for new relationships may not only be unnecessary for extraverts, but may also detract them from their more-fulfilling face-to-face encounters with others. In other words, the displacement hypothesis seems especially relevant to extraverts: To the extent they use Facebook to establish and benefit from new relationships, extraverts will have less time to devote to established relationships, thus their overall well-being will suffer.

In contrast, because introverts tend to prefer less stimulating types of social interaction, we expected that the motivations for using Facebook for new relationships would be associated with increased well-being among introverts. Social networking allows introverts to meet their social needs in a more comfortable, less stimulating environment. Given that introverts may not have their social needs adequately met in person with established relationship partners because of their desire to avoid overly stimulating social environments, using Facebook for new relationships may provide a way in which introverts can meet their social needs. In other words, a variant of the stimulation hypothesis—but one that focuses on stimulating the formation of new relationships rather than the growth of established relationships—seems especially relevant to introverts. To the extent they use Facebook to establish and benefit from new relationships, introverts will experience a richer social network and their overall well-being will benefit.

We summarize our expectations regarding the differential association of people's motivations to use Facebook for new relationships and their well-being for extraverts and introverts in the following hypothesis: the association of people's motivation to use Facebook (a) to meet new people and (b) to increase their social inclusion with their well-being depends on their level of introversion/extraversion, such that stronger motives to use Facebook to meet people and to increase social inclusion are associated with poorer well-being among extraverts but with better well-being among introverts. To test this hypothesis, a correlational study was performed with sixty undergraduate university students.

Method

Participants

Sixty undergraduate university students attending a Christian liberal arts and sciences university in Canada were recruited to participate in this study. Participants were enrolled in either their first (50%) or second year (48%) of university (2% did not report their year of study). The mean age of the sample was 19.5 years ($SD = 6.4$). The sample was predominantly female (62% female, 38% male), Canadian (93% Canadian, 7% other), and Caucasian (96% Caucasian, 2% Asian, 2% Middle-Eastern).

Procedure

Upon their arrival to the study session, participants provided informed consent for their participation. They then completed a paper-and-pencil survey

containing the measures described below. The measures were counterbalanced using partial counterbalancing techniques to account for possible sequence effects. Participants' responses remained anonymous.

Materials

In the present work, we examined two measures of university students' psychological well-being. We analyzed how these well-being measures are related to their motivations to use Facebook for new relationships and their extent of extraversion vs. introversion. Participants reported their (a) motivations for using Facebook including two motivations most relevant to new relationships and three motivations less relevant to new relationships, (b) introversion/extraversion, and (c) well-being as operationalized by self-esteem and college adjustment.

Motivations for Using Facebook. Participants reported their reasons for using Facebook via the Five Motives Scale for Facebook Use (Peter, Valkenburg, & Schouten, 2006). Two of these motivations are especially relevant to using Facebook for new relationships. These are the motivations to meet new people (2 items; e.g., "I make new friends because of Facebook"; $r = .58$) and to enhance one's social inclusion in these new relationships and the Facebook community more broadly (3 items; e.g., "I am a member of something because I use Facebook"; $\alpha = .60$). The other three motivations within the scale are less relevant to using Facebook for new relationships. These include motives of entertainment (6 items; e.g., "I spend time on Facebook because I enjoy it"; $\alpha = .85$), maintaining established relationships (3 items; e.g., "I use Facebook to speak with my friends from real life"; $\alpha = .75$), and social compensation (3 items; e.g., I feel less shy when I am on Facebook"; $\alpha = .85$). Participants rated each item on a 7-point scale (1 = *strongly disagree / this is not me* to 7 = *strongly agree / this is me*). In this study, we will focus on the two motivations concerning the use of Facebook for new relationships (i.e., motivation to meet new people and to enhance one's social inclusion in new relationships and the Facebook community).

Introversion/Extraversion. Participants reported their introversion/extraversion via the Gray-Wheelwrights Jungian Type Survey (Davis & Mattoon, 2006). Of the full scale's 81 items, the applicable 34 items were used (e.g., "In general company do you like to [a] Listen or [b] Talk", "In viewing a problem, do you [a] First seek a background of expe-

rience or [b] First appraise the particular time-place-person"; $\alpha = .79$). Items were scored such that higher numbers indicate greater extraversion.

Well-Being. In the present work, we examined two indirect measures of university students' psychological well-being: self-esteem and college adjustment. Prior research has examined the association of Facebook use with both self-esteem and college adjustment and has shown these constructs to be valid conceptualizations of well-being (Gentzler et al., 2011; Huang, 2010; Rohall & Cotton, 2002; Stieger & Burger, 2010; Valkenburg et al., 2006; Wilson et al., 2010).

Self-Esteem. Participants reported their self-esteem via the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965; 10 items; e.g., "I feel that I am a person of worth, at least on an equal basis with others"; $\alpha = .92$). Participants rated each item on a 4-point scale (1 = *strongly disagree* to 4 = *strongly agree*). High self-esteem has been shown to predict several important general life outcomes, including higher life satisfaction, more positive affect, and better physical health (Robins, Hendin, & Trzesniewski, 2001).

College Adjustment. Participants reported their adjustment to college via the Student Adaptation to College Questionnaire (SACQ; Baker & Siryk, 1998). The SACQ includes four subscales. The academic adjustment subscale assesses participants' coping abilities in the face of the educational requirements of university (12 items; e.g., "I find academic work to be difficult"; $\alpha = .79$). The social adjustment subscale assesses participants' ability to cope with the social demands in university (14 items; e.g., "I am meeting people and making friends at my university"; $\alpha = .88$). The personal-emotional subscale assesses how participants have adjusted psychologically and physically to university (23 items; e.g., "I feel tired a lot lately"; $\alpha = .84$). Finally, the institutional attachment subscale assesses how satisfied participants are with the university they attend (16 items; e.g., "I expect to finish my bachelor's degree at this university"; $\alpha = .85$). Participants rated each item on a 9-point scale (1 = *does not apply to me at all* to 9 = *applies very closely to me*). Because the subscales did not vary from each other enough to justify treating each subscale as a separate variable (overall $\alpha = .89$), we averaged the subscale scores to create a total college adjustment score. Good college adjustment has been shown to predict important outcomes that are relevant to university students, including lower drop-out rates, decreased

likelihood of seeking psychological services, and higher grade point averages (Baker & Siryk, 1984).

Results

We analyzed the data in three steps. First, we screened the data for missing values, outliers, and significant departures from normality. Second, we calculated descriptive statistics, including means and standard deviations for all study variables and correlations between each pair of variables. Third, we conducted a series of multiple regression analyses to examine whether participants' introversion/extraversion moderates the association of participants' motives for using Facebook with their well-being.

Preliminary Analyses

One participant did not answer one item on the college adjustment scale and four participants did not answer one item each on the extraversion scale. To account for this missing data, we calculated the total college adjustment score for the participant who did not answer one of the college adjustment scale items by averaging her responses to the remaining items. We also calculated the extraversion score for the four participants who did not answer one of the extraversion items by weighting the 33 items they did answer slightly heavier to compensate for the item they did not answer.

Preliminary analyses revealed that the motivation to use Facebook to meet people statistically significantly departed from normality at the .001 alpha level, which is the alpha level that Tabachnick and Fidell (2013) suggest for evaluating normality in small to moderate samples. Specifically, the motivation to use Facebook to meet people was positively skewed, $z = .41$, $p < .001$. We square root transformed this variable to achieve greater normality. After the transformation, this variable exhibited neither significant skewness nor significant kurtosis. We conducted all subsequent analyses using both the non-transformed and the transformed versions of the motivation to use Facebook to meet new people variable. Because all patterns of significance were identical regardless of whether the non-transformed or transformed version was used, and to simplify interpretation of our moderational hypothesis, we report the results of the analyses using the non-transformed version below.

We identified one univariate outlier on the motivation to use Facebook for social inclusion variable but no multivariate outliers at the .001 alpha level, which is the alpha level that Tabachnick and Fidell (2013) suggest for identifying outliers. To reduce the impact of the outlier, we changed the raw score of this outlier from its original value of 6.33 to 5.67, which is one unit larger than the next most extreme score on this scale (Tabachnick & Fidell, 2013). We conducted all subsequent analyses using both the original and the modified score of this outlier. Because all patterns of significance were identical regardless of whether the original or modified score was used, we report the results of analyses using the original score below. We report skewness and kurtosis statistics for all study variables in Table 1.

Descriptive Analyses

Means and standard deviations of all study variables and correlations of all pairs of variables are presented in Table 1. Most relevant to the current investigation is that neither self-esteem nor college adjustment were significantly correlated with the motivation to use Facebook to meet new people or the motivation to use Facebook to enhance one's social inclusion—the two predictors named in our hypothesis. However, the association of these two predictors with well-being may be moderated by introversion/extraversion as we hypothesized. We examine this possibility next.

Multiple Regression Analyses

Predicting Well-Being from the Meeting People Motive and Introversion/Extraversion. As stated in our hypothesis, we predicted that the association of participants' motivation to use Facebook to meet new people with their well-being depends on their level of introversion/extraversion, such that a stronger motive to use Facebook to meet people is associated with poorer well-being among extraverts but with better well-being among introverts. To test this portion of our hypothesis, we conducted two multiple regression analyses predicting participants' self-esteem and college adjustment, from their meeting people motive, extraversion, and the meeting people motive × extraversion interaction term. All variables were standardized ($M = 0$, $SD = 1$) before analysis (to create Figures 1 and 2, in which the outcome variables are presented in their raw metric, we re-ran the analyses with the outcome variables in their raw metric).

Table 1

Summary of Intercorrelations, Means, Standard Deviations, Skewness and Kurtosis of Study Variables

Variable	1	2	3	4	5	6	7	8
1. Meeting people motivation	—							
2. Social inclusion motivation	.28*	—						
3. Entertainment motivation	.24†	.56***	—					
4. Maintaining relationships motivation	-.14	.15	.47***	—				
5. Social compensation motivation	.35**	.41**	.50***	.20	—			
6. Extraversion	.12	.13	.25†	.09	.03	—		
7. Self-esteem	-.04	-.22	.17	.22†	-.13	.21	—	
8. College adjustment	.10	-.03	.18	.13	.08	.15	.54***	—
M	2.03	2.61	3.81	5.34	2.67	19.45	3.14	6.38
SD	1.32	1.09	1.37	1.32	1.36	5.69	0.60	0.90
Skewness	1.28	0.32	0.03	-1.00	0.73	-0.66	-0.56	-0.59
Kurtosis	0.73	-0.24	-0.77	0.81	-0.38	0.48	-0.19	0.09

Note. Motivations for using Facebook were assessed on a scale ranging from 1 to 7, extraversion was assessed with 34 forced-choice items, self-esteem was assessed on a scale ranging from 1 to 4, and college adjustment was assessed on a scale ranging from 1 to 9. † $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

As illustrated in Figure 1 Panel A, the analysis predicting participants' self-esteem revealed a significant interaction between the meeting people motive and extraversion, $β = -.44$, $t(56) = -2.60$, $p = .012$. This interaction indicates that the association of the meeting people motive for using Facebook with self-esteem depends on participants' level of introversion/extraversion, supporting our hypothesis. To explore the nature of this interaction, we conducted simple effects tests (Aiken & West, 1991) for participants high (1 *SD* above the mean) and low (1 *SD* below the mean) in extraversion. Among extraverts, a stronger motive to use Facebook to meet new people predicted lower self-esteem, $β = -.40$, $t(56) = -2.22$, $p = .030$ (see the dotted line). Among introverts, in contrast, a stronger motive to use Facebook to meet new people predicted marginally higher self-esteem, $β = .48$, $t(56) = 1.98$, $p = .053$ (see the solid line). Therefore, the association of the social inclusion motive and self-esteem differs significantly between extraverts and introverts in the hypothesized manner. Furthermore, this association is statistically significantly negative for extraverts and marginally positive for introverts.
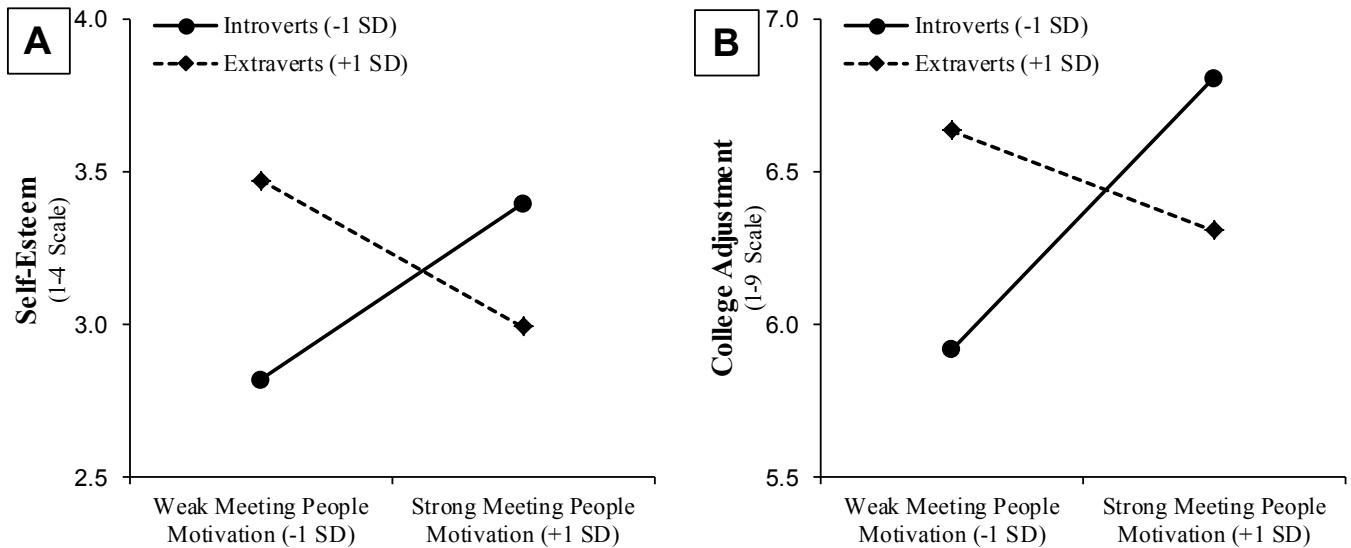
Figure 1. Predicting self-esteem (Panel A) and college adjustment (Panel B) from the meeting people motivation for using Facebook and introversion/extraversion.

As illustrated in Figure 1 Panel B, the analysis predicting participants' college adjustment revealed a marginally statistically significant interaction between the meeting people motive and extraversion, $\beta = -.34$, $t(56) = -1.93$, $p = .058$. This suggests that the association between the meeting people motive for using Facebook with college adjustment may depend on participants' level of introversion/extraversion, supporting our hypothesis. To explore the nature of this marginal interaction, we conducted simple effects tests (Aiken & West, 1991) for participants high (1 SD above the mean) and low (1 SD below the mean) in extraversion. The simple effect for extraverts was not statistically significantly different from zero, $\beta = -.18$, $t(56) = -0.98$, $p = .332$. Among introverts, however, a stronger motive to use Facebook to make new friends predicted marginally higher self-esteem, $\beta = .49$, $t(56) = 1.97$, $p = .054$ (see the solid line). Therefore, the association of the meeting people motive and college adjustment marginally differs between extraverts and introverts in the hypothesized manner. Furthermore, this association is marginally positive for introverts, although it is not significantly different from zero for extraverts. The portion of our hypothesis regarding the motivation to use Facebook to meet new people was supported by both measures of well-being, although the critical test for college adjustment was only marginally significant.

Predicting Well-Being from the Social Inclusion Motive and Introversion/Extraversion. We also predicted that the association of participants' motivation to use Facebook to increase their social inclusion with their well-being depends on their level of introversion/extraversion, such that a stronger motive to use Facebook to increase social inclusion is associated with poorer well-being among extraverts but with better well-being among introverts. To test this portion of our hypothesis, we conducted two multiple regression analyses predicting participants' self-esteem and college adjustment, from their social inclusion motive, extraversion, and the social inclusion motive × extraversion interaction term. All variables were standardized ($M = 0$, $SD = 1$) before analysis.

As illustrated in Figure 2 Panel A, the analysis predicting participants' self-esteem revealed a statistically significant interaction between the social inclusion motive and extraversion, $\beta = -.33$, $t(56) = -3.01$, $p = .004$. This indicates that the association between the social inclusion motive for using Facebook and self-esteem depends on the participants' level of introversion/extraversion, supporting our hypothesis. To explore the nature of this interaction, we conducted simple effects tests (Aiken & West, 1991) for participants high (1 SD above the mean) and low (1 SD below the mean) in extraversion. Among extraverts, a stronger motive to use Facebook to increase social inclusion predicted lower self-esteem, $\beta = -.58$, $t(56) = -3.59$, $p = .001$ (see the dotted line). The simple effect for introverts was not statistically significantly different from zero, $\beta = .08$, $t(56) = 0.50$, $p = .625$. Therefore, the association of the social inclusion motive and self-esteem differs significantly between extraverts and introverts in the hypothesized manner. Furthermore, this association is statistically
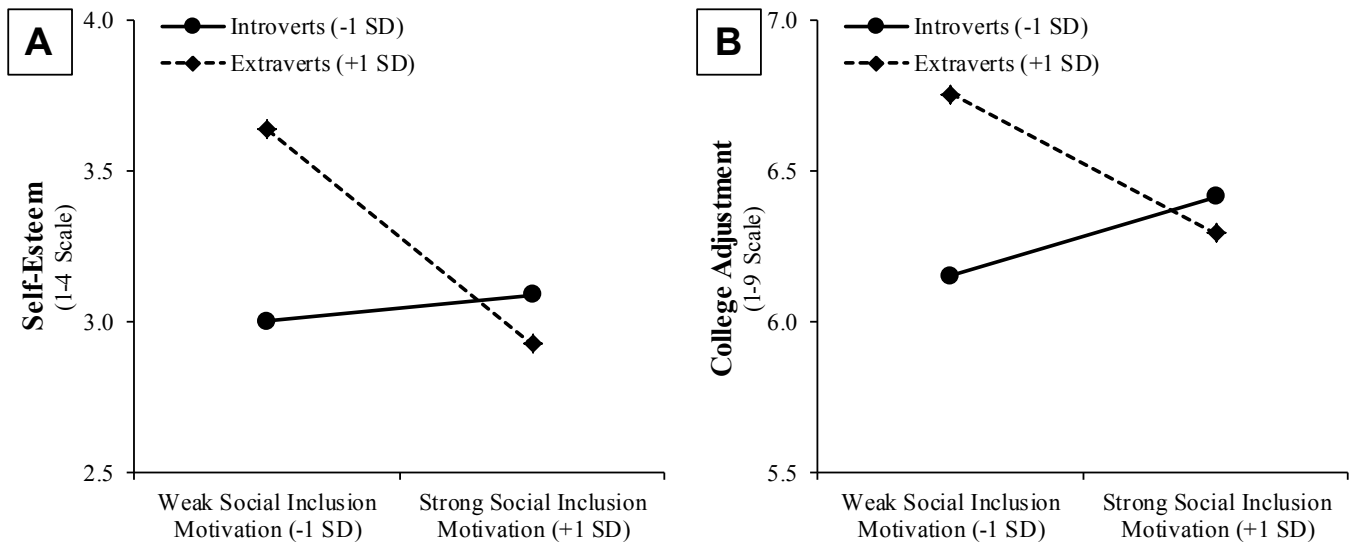
Figure 2. Predicting self-esteem (Panel A) and college adjustment (Panel B) from the social inclusion motivation for using Facebook and introversion/extraversion.

significantly negative for extraverts, although it is not statistically significantly different from zero for introverts.

As illustrated in Figure 2 Panel B, the analysis predicting participants' college adjustment revealed a marginally statistically significant interaction between the social inclusion motive and extraversion, $\beta = -.20$, $t(56) = -1.70$, $p = .095$. This suggests that the association of the social inclusion motive for using Facebook with college adjustment may depend on participants' level of introversion/extraversion, supporting our hypothesis. To explore the nature of this marginal interaction, we conducted simple effects tests (Aiken & West, 1991) for participants high (1 SD above the mean) and low (1 SD below the mean) in extraversion. Neither simple effect was statistically significantly different from zero, $\beta = -.25$, $t(56) = -1.42$, $p = .161$ and $\beta = .16$, $t(56) = 0.88$, $p = .397$, for both extraverts and introverts. Therefore, the association of the social inclusion motive and college adjustment differs significantly between extraverts and introverts in the hypothesized manner. However, this association is not statistically significantly different from zero for extraverts or for introverts. In sum, the portion of our hypothesis regarding the motivation to use Facebook to increase social inclusion was partially supported for both measures of well-being, although the critical test for college adjustment was only marginally significant.

Predicting Well-Being from Other Motives and Introversion/Extraversion. As explained in the Introduction, the primary goal of our work is to examine reasons for using Facebook that are relevant to the establishment of new relationships (i.e., the meeting people motive) and to the benefit of having new relationships (i.e., the social inclusion motive). However, we conducted six additional multiple regression analyses predicting participants' self-esteem and college adjustment, from their entertainment, maintaining relationships, and social compensation motives, extraversion and the corresponding motive × extraversion interaction term. All variables were standardized ($M = 0$, $SD = 1$) before analysis. None of the six interactions between the motives and extraversion approached statistical significance, ps > .14. Therefore, the associations of well-being with motivations for using Facebook for entertainment, maintaining relationships, or social compensation—all of which are not relevant to using Facebook for new relationships—did not depend on participants' level of introversion/extraversion.

Discussion

We investigated the associations of people's motivations for using Facebook with their well-being and, most importantly, how these associations differ for extraverts and introverts. We predicted that the association of people's motivation to use Facebook to meet new people and to increase their social inclusion with their well-being depends on their level of introversion/extraversion. It is to the extent that stronger motives to use Facebook to meet people and to increase social inclusion are associated with poorer well-being among extraverts, but with better well-being among introverts. Overall, the results supported our hypothesis. We discovered that the associations of using Facebook to meet new people and to enhance one's social inclusion with both self-esteem and college adjustment were in the opposite direction for extraverts and introverts. Our results suggest that extraverts who use Facebook to meet new people or to enhance their social inclusion tend to have lower self-esteem and poorer adjustment to college. Conversely, introverts who use Facebook to meet new people or to enhance their social inclusion tend to have higher self-esteem and better adjustment to college.

Limitations and Strengths

This research is limited by the size and nature of its participant sample. Specifically, the relatively small sample size, especially for conducting tests of a moderating hypothesis, such as ours, presents the possibility of Type II errors. That is, we may not have detected associations among variables that actually exist due to lack of statistical power. Thus, if a larger sample had been examined, at least some of the marginal interaction effects and some of the nonsignificant and marginal simple effects may have been statistically significant. In addition, we limited our investigation to first and second year university students. Kalpidou et al. (2011) found that third and fourth year university students exhibited different associations between Facebook use and psychological well-being than first and second year students did. Students in secondary education also frequently use online social networking sites. Thus, the conclusions of our work may be strengthened by examining third and fourth year university students, secondary education students or university-aged students who do not attend university.

This work also has several strengths. Specifically, our results help clarify the contradictory results of prior research examining Facebook use and

psychological well-being. Our findings suggest that the displacement hypothesis, which states that time online takes away from more beneficial face-to-face social interactions with established relationship partners, is most applicable for extraverts who thrive on face-to-face interaction (Nie et al., 2002). However, a variant of the stimulation hypothesis, which states that time online incites the creation of new relationships, is more applicable for introverts who do not always feel comfortable in stimulating social interactions (Pempek et al., 2009). Thus, by examining reasons for using Facebook that are most relevant to new relationships, the present research not only fills a gap in the existing literature, but also helps explain the conflicting results of prior work.

Broader Implications and Directions for Future Research

Because not two individuals are exactly alike, the link between people's use of Facebook and their well-being varies from person to person. Social networking sites such as Facebook are designed with a target profile in mind that attempts to consider the majority of the population. Some individuals may fit closely with that profile, but others may vary drastically from it. Much of the past research on the effects of Facebook reported results for the population at large, failing to examine the potential moderating role of an individual's personality. Our work has important implications for the millions of Facebook users. Specifically, extraverted individuals should be wary of overusing Facebook. To the extent they use Facebook to establish new relationships, they will have less time to spend in the face-to-face social situations they find most fulfilling. Introverted individuals, in contrast, should use Facebook more freely, as a means to establish new relationships and to maintain old ones. To the extent introverts use Facebook to establish new relationships, they will be able to create additional social connections in a situation they find more comfortable.

Further exploration should be made into the impact of other aspects of personality as potential moderating variables on the effects of Facebook on well-being. For example, traits that are related to—but are more specific than— introversion/extraversion might yield similar or even stronger results than the findings of the present research. These personality traits might include the tendency to experience loneliness and social anxiety (e.g., Russell, Peplau, & Cutrona, 1980). If future research finds that using Facebook for new rela-

tionships predicts enhanced well-being among the chronically lonely and socially anxious, perhaps interventions aimed at reducing loneliness and social anxiety should employ online social networking activities aimed at establishing new relationships. Future research should also explore whether our findings can be generalized to the use of other social networking sites, such as Twitter or Tumblr, that seem to promote surface social contact as well as other forms of technology designed to promote more in-depth online social connection and communication, such as Skype and instant messaging. To the extent that methods of online communication, such as Skype and instant messaging, help people maintain established relationships and provide a more stimulating situation than social networking sites do, such as Facebook, using them may predict enhanced well-being among extraverts. If future research supports this idea, perhaps introverts should spend more time on social networking sites to establish new relationships, whereas extraverts should spend more time using other forms of online communication to maintain established ones.

Future research should examine different populations that use Facebook for specific reasons related to their position in society. For example, among individuals who have recently moved to different cities or schools, it may be that using Facebook to meet new people would be beneficial for their well-being regardless of personality. Similarly, a population that is socially isolated—paediatric inpatients or the elderly in long-term care—may experience increased well-being because their face-to-face social interaction is circumstantially limited.

Conclusion

Social networking use among university students is an underexplored, yet important, topic for research that has implications for the general population. This study contributes to the scope of research on social networking, and helps explain the contradictory evidence in support of conflicting theories regarding the association of Facebook use with well-being. Specifically, our work identified extraversion vs. introversion as the key to explaining the circumstances under which using Facebook for new relationships predicts poorer or better well-being. To the extent they use Facebook to meet new people and to enhance their social inclusion, extraverts experienced poorer well-being whereas introverts experienced better well-being. Our research shows that, by adjusting their use of Facebook for new relationships in opposite directions, both

extraverts and introverts can meet their social needs in a manner that fits their personality and, thereby, can experience higher self-esteem and better college adjustment.

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Behavioural Self-Soothing as a Mediator of Romantic Attachment and Non-Suicidal Self-Injury

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Romantic attachment is experienced differently by individuals because of variations in their attachment relationship histories. Compared to attachment security, insecurity best predicts the use of maladaptive emotion regulation strategies such as engaging in risky or problem behaviours to cope with distress (Cooper, Shaver, & Collins, 1998). However, few empirical works have been conducted on the relation between romantic attachment and risky behaviours such as non-suicidal self-injury (NSSI; Kimball & Diddams, 2007). The aim of the current study is to assess the mediational role of behavioural self-soothing, an emotion regulating strategy, on romantic attachment and NSSI in young adults. Participants consisted of 1055 university students in a romantic relationship, ranging in age from 17-25 years old. Results showed that insecure romantic attachment was linked to fewer behavioural self-soothing skills, which in turn resulted in more NSSI behaviours, confirming our mediational model. Differences among men and women are discussed.

Keywords: attachment anxiety, attachment avoidance, behavioural self-soothing, non-suicidal self-injury, romantic attachment

L'attachement amoureux diffère selon les individus, en raison de leur historique relationnel d'attachement respectif. En comparaison à un attachement sécurisant, l'insécurité permet de mieux prédire l'utilisation de stratégies inadaptées de régulation des émotions, comme l'utilisation de comportements à risque pour gérer le stress (Cooper, Shaver, & Collins, 1998). Toutefois, peu d'études empiriques ont étudié la relation entre l'attachement amoureux et les comportements à risque, comme les comportements auto-blessants (Kimball & Diddams, 2007). Cette étude a comme but d'évaluer l'auto-apaisement comportemental, une stratégie de régulation des émotions, comme médiateur de la relation entre l'attachement amoureux et les comportements auto-blessants chez les jeunes adultes. L'échantillon était constitué de 1055 étudiants universitaires engagés dans une relation amoureuse et âgés de 17 à 25 ans. Les résultats ont démontré que l'attachement amoureux insécurisant était lié à moins d'auto-apaisement comportemental. Puis, celui-ci était associé à plus de comportements auto-blessants. Les différences homme-femmes sont également discutées.

Mots-clés : attachement anxieux, attachement évitant, auto-apaisement comportemental, comportements auto-blessants, attachement amoureux

Non-suicidal self-injury (NSSI) refers to the direct and deliberate destruction of one's own body tissue in the absence of suicidal intent, a behaviour that is not socially sanctioned within one's culture (Favazza, 1998; Nock & Favazza, 2009). This behaviour consists of cutting, pin-scratching, carving, burning and self-hitting, but can also include other forms of self-injury (Nixon & Heath, 2009). The present study will focus uniquely on NSSI behaviour, which subsists within the range of deliberate self-harm (DSH), a broader category including multiple types of self-harm

behaviour with or without the presence of suicidal intent (Nixon & Heath, 2009).

Prevalence of NSSI varies considerably within the literature due to the lack of nationally representative studies conducted on NSSI thoughts and behaviours (Rodham & Hawton, 2009), lack of definitional consensus, and variability in the sample (Nixon & Heath, 2009). According to international data, approximately 15-20% of adolescents from community samples (Heath, Schaub, Holly, & Nixon, 2009) and 20-38% of American college and university students (Gratz, Conrad, & Roemer, 2002; Polk & Liss, 2007) stated that they had engaged in self-injury behaviours at least

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once in their lives. These elevated rates have spurred interest in the study of explanatory risk factors and contributing variables to better understand NSSI behaviours. The goal of the present study is to expand existing knowledge by measuring the mediating effect of behavioural self-soothing on romantic attachment and NSSI behaviours. We will specifically assess the presence of NSSI behaviour taking place at least once in the past six months.

Romantic Attachment, Behavioural Self-Soothing and NSSI: Theoretical Relationships

Bowlby (1969, 1982) suggested that in childhood, attachment is an innate behavioural system that promotes safety and survival by encouraging proximity, a "felt security" between the infant and their primary caregiver when the latter is perceived as accessible and responsive under conditions of danger or threat. The child can then learn to adopt secure patterns of attachment. However, if the child fails to receive a sense of security, there is a resulting lack of distress relief, and the child then learns that distressing emotions cannot be successfully regulated. As a result, insecure patterns of attachment are adopted (Cooper et al., 1998). Internal working models are developed in childhood and operate as cognitive filters that allow the regulation and understanding of attachment-related behaviours of others and the self (Collins & Read, 1994). They may be considered as guiding all relationships in one similar way, or, as most evidence suggests, as guiding specific relationships in unique and different ways (Caron, Lafontaine, Bureau, Levesque, & Johnson, 2012).

There are many types of attachment figures in adulthood (i.e., parents, friends and romantic partners). Some theorists conceptualize attachment in terms of one general overarching style of relating to and bonding with the significant others in our lives. This generalist approach can be referred to as general adult attachment (Caron et al., 2012). Many researchers categorize current general adult attachment styles in adulthood either as secure, avoidant or anxious (Feeney, Noller, & Hanrahan, 1994). In contrast, many theorists contend that attachment bonds develop in a context-specific manner, and that we develop attachment orientations unique to the relationship experiences we share with others (Caron et al., 2012). Theorists and researchers began to specifically focus on the study of adult romantic attachment, as it was proposed that individuals' romantic partners become each other's primary attachment figure and, consequently, the romantic relationship becomes the most important relationship in adulthood (Hazan & Shaver, 1987). Most researchers currently agree to conceptualize romantic attachment as a two-dimensional model: *attachment anxiety* and *attachment avoidance* (Mikulincer & Goodman, 2006). While romantic attachment anxiety is characterized by worries about the relationship, a great need for closeness, and fear of being rejected, attachment avoidance can be defined by an inclination to emotionally distance themselves from others and be compulsively self-reliant (Mikulincer, Shaver, & Pereg, 2003). People who have secure romantic patterns of attachment (i.e., low on the attachment anxiety and the attachment avoidance dimensions) are defined by a positive sense of security, comfort with closeness, an ability to rely on support seeking, and constructive means of coping with stress (Brennan, Clark, & Shaver, 1998).

Individuals associated with romantic attachment security are thought to use constructive and adaptive emotion regulation strategies (e.g., managing the experience, beneficial support-seeking and constructive problem-solving strategies) (Mikulincer et al., 2003). Emotion or affect regulation strategies are known as the processes by which we influence the emotions we have, when we have them, and how we experience and express them (Gross, 1998). There exist many behavioural strategies to regulate emotion, such as self-soothing, social referencing, withdrawal, and self-distraction with objects (Diener, Mangelsdorf, McHale, & Frosch, 2002). Although there are a number of strategies to regulate emotion, the present research focuses on the study of behavioural self-soothing since previous research demonstrates the importance of the relation between attachment insecurity and the lack of self-soothing capabilities (Shaver & Mikulincer, 2002). When it comes to individuals associated with romantic attachment insecurity (both attachment anxiety and attachment avoidance) they fail to learn how to cope and self-soothe in effective or beneficial ways, and thus each employ distinct secondary affect regulation strategies that are maladaptive and unreliable (Shaver & Mikulincer, 2002).

The first set of strategies consists of energetic, insistent attempts to attain proximity, support, and love when one believes that the assessment of proximity seeking is a worthwhile option. These are referred to as *hyperactivating strategies* (Cassidy & Kobak, 1988). These strategies are characteristic of people who are associated with romantic attachment anxiety and who, consequently, have intense negative

emotional responses, ruminate on possible threats, and seek more support than partners are willing or able to give (Lopez & Brennan, 2000). Thus, there is a real lack of capacity or a belief of inability to self-soothe (Lopez & Brennan, 2000; Mallinckrodt & Wei, 2005; Mikulincer et al., 2003). The lack of self-soothing skills may therefore be an imperative explanatory variable (i.e., mediator) between romantic attachment anxiety and the use of NSSI behaviours, given that individuals associated with the attachment anxiety dimension are more likely to report lower self-soothing capabilities and more negative emotional reactions, which in turn may lead to the use of NSSI behaviours.

When one believes that the assessment of proximity seeking is not a viable option, a second set of affect regulation strategies is used to deactivate proximity seeking, to inhibit needs for others, and to support oneself (Mikulincer et al., 2003). These are known as *deactivating strategies* (Cassidy & Kobak, 1988) and are characteristic of people who are associated with romantic attachment avoidance. They include diverted attention to events that are viewed as threatening, and suppression of unwanted aversive memories from attachment-related thoughts and emotions (Mallinckrodt & Wei, 2005). Therefore, behavioural self-soothing may be an explanatory variable (i.e., mediator) between romantic attachment avoidance and NSSI behaviours, given that NSSI may be used as a way to remove one's self from an emotional or cognitive experience (Prinstein, Guerry, Browne, & Rancourt, 2009). Thus, NSSI would be a behavioural manifestation of their deactivating strategies.

This being said, attachment theory provides a good explanatory framework for NSSI behaviours: Individuals with insecure attachment (e.g., romantic partners) are more likely to engage in NSSI because both insecure attachment (Mikulincer et al., 2003) and NSSI (Suyemoto, 1998) are associated with the failure to use adaptive self-regulation strategies, such as self-soothing. As such, researchers hypothesise that individuals engage in NSSI as an approach for reducing negative stimulus such as negative emotional states (Briere & Gil, 1998; Chapman, Gratz, & Brown, 2006; Klonsky, 2007, 2009; Nock & Prinstein, 2004, 2005) and can be used in order to escape from a disturbing affective or cognitive experience (Prinstein et al., 2009).

Romantic Attachment, Behavioural Self-Soothing and NSSI: Empirical Relationships

The above-mentioned theoretical relations have formed the backdrop for emerging research examining links between romantic attachment, affect regulation, and NSSI. Mikulincer and Shaver (2007) made an extensive compilation of research demonstrating the link between romantic attachment and emotion regulation. Results showed that individuals associated with romantic attachment security are more likely than those associated with romantic attachment anxiety or avoidance to have developed a vast repertoire of self-soothing skills to calm themselves. Thus, secure individuals use strategies learned from security-providing attachment figures or turn to constructive alternatives rather than ruminating or catastrophizing (Mikulincer & Shaver, 2007)

Second, until now, only two studies have tested the relation between romantic attachment and self-injury behaviours. Fung (2008) specifically studied deliberate self-harm (DSH) in relation to adult romantic attachment, caregiver experience, and anger expression of 40 adult DSH patients and 52 matched non-DSH control subjects. Results demonstrated that the majority (n = 35) of self-harming patients had higher levels of romantic attachment anxiety. Also, analyses of the difference in attachment anxiety and attachment avoidance subscales demonstrated that DSH patients differed significantly from non-DSH patients solely for the measure of attachment anxiety. Similar results were obtained in a second study that used a non-clinical sample. Researchers studied the influence of romantic attachment and victimization of intimate partner violence on reports of NSSI behaviours in a sample of 537 young adults from a university setting (Levesque, Lafontaine, Bureau, Cloutier, & Dandurand, 2010). These researchers demonstrated that romantic attachment anxiety was linked to greater amounts of NSSI thoughts in men and women, and NSSI behaviours in women. However, romantic attachment avoidance was not associated with NSSI thoughts or behaviours in men or women, which, similarly to Fung's (2008) study, demonstrates to be inconsistent with the theoretical underpinnings of NSSI.

Third, many studies have demonstrated a strong link between maladaptive or dysfunctional emotion regulation skills and NSSI behaviours. Klonsky (2007) demonstrated, in an elaborate review of the existing evidence, that affect regulation is the primary function of NSSI behaviours for adolescents, young adults, and

adults. The results from eighteen studies using a variety of methods provide considerable evidence suggesting that negative affect precedes NSSI and a relief of this negative affect is present after NSSI behaviour.

Finally, Kimball and Diddams (2007) conducted a study demonstrating that affect regulation is a significant mediator of the relation between general adult attachment insecurity (i.e., avoidant and anxious styles of attachment) and deliberate self-harm from a university sample composed of 216 individuals. This study is, to our knowledge, the first to suggest the existence of a link between attachment insecurity and NSSI behaviours through emotion regulation strategies, specifically behavioural self-soothing.

The Current Study

Given that previous literature suggests theoretical and empirical links between romantic attachment, behavioural self-soothing and NSSI, the current study sought to replicate and broaden existing findings—including the examination of both direct and indirect associations among these variables—in a considerably large community sample of young adults.

The above literature review brings to light a number of limitations of current NSSI research. First, the study of deliberate self-harm behaviours limits our understanding of the motivation behind the behaviour, due to the fact that deliberate self-harm does not specify if there is or isn't presence of suicidal intent. Thus, studying NSSI offers additional information on the act itself by narrowing the studied construct. Second, given the lack of literature and NSSI's alarming prevalence in community and university samples, the present study aims to explore NSSI in a non-clinical sample to obtain results that are representative of the general population of young adults. Third, previous researchers focused their investigation on general adult attachment in relation to NSSI, even though romantic attachment has been shown to be the most important attachment model in young adulthood (Mikulincer & Goodman, 2006). Fourth, given the multitude of emotion regulation strategies, the focus on the study of behavioural self-soothing permits a better definition of the studied construct. As mentioned above, the existing literature indicates an important link between attachment insecurity and the lack of self-soothing capabilities, thus meriting further research (Shaver & Mikulincer, 2002). Finally, there is currently no study that sets out how the relation between romantic attachment and the development of NSSI may be explained by behavioural self-soothing, which seems to be a robust theoretical underpinning of this association. The current study will address these limitations by examining the following direct and indirect links.

We hypothesise that romantic attachment insecurity, i.e., both attachment anxiety and attachment avoidance, will predict fewer behavioural self-soothing skills. Additionally, we hypothesise that romantic attachment insecurity will positively predict the presence of NSSI behaviour taking place at least once in the past six months in our sample. Also, we hypothesise that fewer behavioural self-soothing skills will predict the presence of NSSI behaviours in young adults. Moreover, early theoretical models lead us to hypothesise that behavioural self-soothing will mediate the relationship between romantic attachment insecurity and the presence of NSSI behaviours. Finally, although no specific hypotheses were postulated, the effect of gender on this mediation model is also examined with an exploratory purpose.
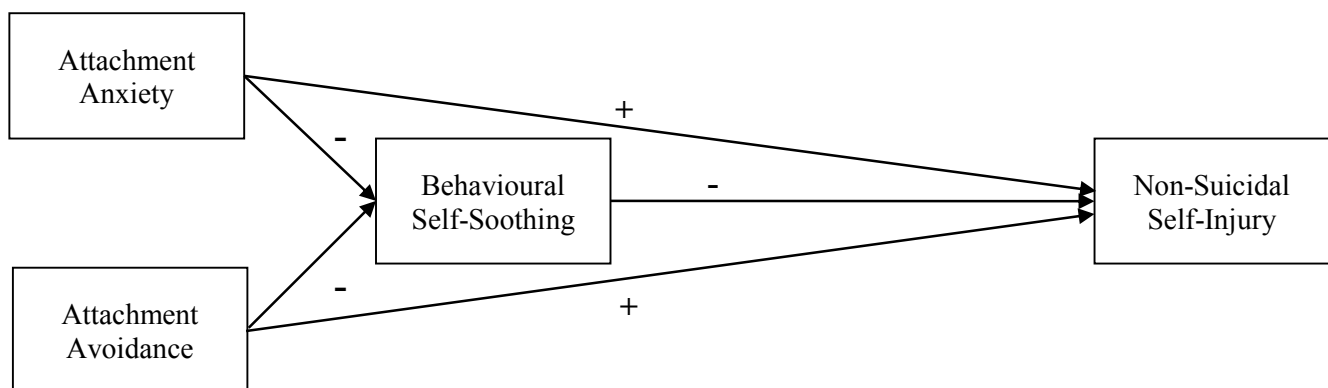
Figure 1. Hypothesised mediation model relating romantic attachment insecurity (attachment anxiety and attachment avoidance), behavioural self-soothing and non-suicial self-injury (NSSI).

Method

Participants

The total sample was composed of 1055 students enrolled in an introductory experimental psychology course, including 855 females and 200 males between the ages of 17 and 25 years old (M = 19.54; SD = 1.64). All participants were involved in a romantic relationship. The sample included Anglophone (70.8%) and Francophone (29.2%) participants. The average duration of the romantic relationship was 1.42 years (SD = 1.47) and participants self-identified as: Caucasian (81.8%), Black (4.2%), Asian (5.6%), Hispanic (1.2%) and other racial background (7.2%). The majority of respondents were not cohabiting with their partner (87.3%), were heterosexual (94.9%), and did not have children (79.9%).

Procedure

This study was approved by the University of Ottawa's (Ontario, Canada) institutional review board. Participants were advised of the voluntary nature of the study, and all those who completed the online questionnaire were assumed to have given informed consent. The respondents were informed that they may choose to withdraw at any point without consequence and were provided all the needed information to access the secure encrypted Internet link (Survey Monkey). Each participant received two additional percentage points towards their respective final grade for the course and their anonymity was ensured with the allocation of a coded five-digit number. The questionnaires were offered in either English or French and included a list of psychological resources.[1]

Measures

Romantic Attachment. The *Experience in Close Relationships questionnaire* (ECR; Brennan et al., 1998) is a 36-item measure of adult romantic attachment which is comprised of an 18-item attachment anxiety scale and an 18-item attachment avoidance scale. Participants attributed to each item a score that best represented their feelings in close relationships on a Likert scale ranging from (1) *strongly disagree* to (7)

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[1] This study is a continuation of Levesque et al. (2010) study. We have used the same methodology, and added a considerable amount of new participants (i.e., 512 participants) to their sample and tested a new comprehensive model.

strongly agree. An elevated mean score on each respective dimension suggested either higher anxiety or avoidance, and the total mean score ranged between 1 and 7 on each subscale. In the current sample, Cronbach's alpha was .93 for both the anxiety and avoidance dimensions as compared to Brennan et al. (1998) results which he reported as .91 and .94, respectively. Attachment dimensions have shown to be reliable in both internal consistency and temporal stability (Alonso-Arbiol, Balluerka, & Shaver, 2007; Lafontaine & Lussier, 2003).

Behavioural Self-Soothing. The *Personal and Relationships Profile* (PRP; Straus, Hamby, Boney-McCoy, & Sugarman, 2007/1999; Straus & Mouradian, 1999) is a measure designed for research on partner violence. It was developed to assess both individual-level personal characteristics and relationship-level variables. The respondents were assessed on a 4-point Likert scale ranging from (1) *strongly agree* to (4) *strongly disagree*. Behavioural self-soothing was evaluated with the item "*There is nothing I can do to control my feelings when my partner hassles me*". Thus, measuring the ability of one to regulate and control his or her feelings when placed in a distressed situation with their romantic partner.

Non-Suicidal Self-Injury. Finally, the *Ottawa Self-Injury Inventory* (OSI; Cloutier & Nixon, 2003) was used to assess NSSI thoughts and behaviours. The OSI is a self-report instrument that measures past and present NSSI behaviours, the underlying objective of engaging in this behaviour, and NSSI thoughts. In the current study, only NSSI behaviours that took place in the last six months were evaluated. The presence of this behaviour taking place at least once in the past six months was assessed with the question "*How often in the past 6 months have you actually injured yourself without the intention to kill yourself?*"

Results

Preliminary Analyses

An evaluation of missing data using Little's MCAR test revealed that the data may be assumed missing completely at random ($c^2(3)$ = 4.43, p > .05) and that there were no variables with more than five percent missing data. We used the Expectation Maximization (EM) method in order to estimate missing values. Mahalanobis distance analysis was carried out, and no multivariate outliers were identified.

Table 1

Descriptive Statistics and Intercorrelations Between Non-Suicidal Self-Injury (NSSI), Romantic Attachment Insecurity (Anxiety and Avoidance) and Behavioural Self-Soothing

	M	SD	1	2	3	4
1. The presence of NSSI behaviour at least once in the past 6 months	0.09	0.28	-	.17***	.14***	-.13***
2. Attachment anxiety	3.30	1.14		-	.31***	-.28***
3. Attachment avoidance	2.50	1.05			-	-.23***
4. Behavioural self-soothing	3.04	0.73				-

Note. Mean scores were computed on a dichotomous scale for NSSI behaviour, on a 7-point scale for romantic attachment and on 4-point scale for behavioural self-soothing.

*** $p < .001$.

Descriptive Statistics

From the sample of 1055 participants, 8.50% ($n = 90$) reported having engaged in NSSI behaviours at least once in the past six months. Of this number, 22.20% ($n = 20$) were male and 77.80% ($n = 70$) were female. The sample of 1055 participants completed all of the above-mentioned questionnaires. Therefore the following analyses have taken into account the full sample. We examined means, standard deviations and Pearson correlations to evaluate and assess their mutual relationship (Table 1). The results indicated that the presence of NSSI was associated with attachment anxiety ($r = .17$, $p < .001$) and with attachment avoidance ($r = .14$, $p < .001$). The presence of NSSI was negatively associated with behavioural self-soothing ($r = -.13$, $p < .001$). Attachment anxiety was positively correlated with attachment avoidance ($r = .31$, $p < .001$), and was negatively correlated to behavioural self-soothing ($r = -.28$, $p < .001$). Attachment avoidance was also negatively correlated to behavioural self-soothing ($r = -.23$, $p < .001$).[2]

Mediation Analysis

A model examining the degree to which behavioural self-soothing mediates the relation of romantic attachment and NSSI behaviours was tested (Figure 1). As recommended by Preacher and Hayes (2008), bias corrected (BC) confidence interval was used with the bootstrapping (5000 samples) method in order to obtain more powerful confidence interval (CI) limits for indirect effects. This is a nonparametric resampling procedure that estimates properties of estimators based on samples drawn from the original observations, even

when the underlying distribution is unknown and may not be normally distributed (Bollen & Stine, 1990). We used Mplus (Muthén & Muthén, 2011) to conduct the main mediation model analysis. This method permits us to include multiple independent variables to predict dichotomous dependant variables. Results show that both attachment anxiety and attachment avoidance are linked to fewer behavioural self-soothing skills. Also, direct effects of romantic attachment on the presence of NSSI behaviours are statistically significant. Additionally, the presence of less behavioural self-soothing competencies predicts the presence of NSSI behaviours. Finally, behavioural self-soothing does partially mediate the effect of romantic attachment, for both attachment anxiety and attachment avoidance, on NSSI behaviours. As a supplementary analysis, the mediation model was tested for women and men separately. Results indicated that, for men, only attachment anxiety and attachment avoidance are linked to fewer behavioural self-soothing skills. No other links proved to be statistically significant. For women, however, results proved to repeat identical patterns, all direct and indirect effects were the same, as demonstrated with our overall sample (see Table 3 for all direct and indirect effects).

Discussion

The primary objective of the current study was to demonstrate that behavioural self-soothing serves a mediating role in the relation between romantic attachment and NSSI behaviours in young adults. Despite important theoretical suggestion, no research has yet examined these contributing factors in one comprehensive model. Hence, this study helps advance knowledge about the role NSSI behaviours play in young adults' romantic relationships.

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[2] It is worth noting that the attachment anxiety dimension and the attachment avoidance dimension have been demonstrated to be slightly correlated (Cameron, Finnegan, & Morry, 2012).

Table 2

Direct and Indirect Effects of Romantic Attachment Insecurity (Anxiety and Avoidance) on Non-Suicidal Self-Injury (NSSI) Through Behavioural Self-Soothing for Overall Sample (N = 1055)

	Estimate	*SE*	BC 95% CI	
			Lower	Upper
1. Direct effect of attachment anxiety on NSSI	0.20***	0.06	0.09	0.32
2. Direct effect of attachment avoidance on NSSI	0.14*	0.06	0.03	0.26
3. Direct effect of attachment anxiety on behavioural self-soothing	-0.15***	0.02	-0.19	-0.11
4. Direct effect of attachment avoidance on behavioural self-soothing	-0.11***	0.02	-0.16	-0.06
5. Direct effect of behavioural self-soothing on NSSI	-0.19*	0.08	-0.34	-0.02
6. Indirect effect of behavioural self-soothing on the link between attachment anxiety and NSSI	0.03*	0.01	0.00	0.05
7. Indirect effect of behavioural self-soothing on the link between attachment avoidance and NSSI	0.02*	0.01	0.00	0.05

Note. *p < .05, ***p < .001.

Results showed that individuals that are anxiously or avoidantly attached were significantly more likely to use NSSI behaviours in the current overall sample. As in previous research, romantic attachment anxiety has been consistently linked to NSSI in both clinical (Fung, 2008) and community samples (Levesque et al., 2010). Although contradicting past findings (Fung, 2008; Levesque et al., 2010), theoretical evidence supports the relation between romantic attachment avoidance and NSSI, and there is some empirical evidence that may help explain this significant link. Cooper et al. (1998) demonstrated that adolescents characterized by general attachment avoidance, lacking adaptive emotion regulation skills, were more motivated to engage in problem behaviour (e.g., substance abuse, sexual behaviour, and delinquency) to cope with dis-

tress, but lacked the necessary social skills to do so in these types of highly peer-involved behaviours (Cooper et al., 1998). Given that NSSI behaviours are most commonly described as a solitary activity that few adolescents report disclosing to anyone (Lofthouse & Katz, 2009), NSSI behaviours may be used by avoidant adolescents in order to regulate emotional distress. Further research is needed to understand the motivations to use NSSI in individuals associated with romantic attachment avoidance.

Our results also confirm that romantic attachment insecurity, characterized in our study by attachment anxiety and attachment avoidance, does predict the use of fewer self-soothing skills in young adults. Therefore, insecurely attached participants were less

Table 3

Direct and Indirect Effects of Romantic Attachment Insecurity (Anxiety and Avoidance) on Non-Suicidal Self-Injury (NSSI) Through Behavioural Self-Soothing for Men and Women

	Men (*n* = 200)				Women (*n* = 855)			
	Estimate	*SE*	BC 95% CI		Estimate	*SE*	BC 95% CI	
			Lower	Upper			Lower	Upper
1. Direct effect of attachment anxiety on NSSI	0.04	0.12	-0.19	0.28	0.26***	0.07	0.11	0.40
2. Direct effect of attachment avoidance on NSSI	0.07	0.15	-0.21	0.36	0.15*	0.07	0.01	0.27
3. Direct effect of attachment anxiety on behavioural self-soothing	-0.11***	0.05	-0.2	-0.02	-0.15***	0.02	-0.19	-0.10
4. Direct effect of attachment avoidance on behavioural self-soothing	-0.20*	0.06	-0.31	-0.09	-0.10***	0.03	-0.15	-0.04
5. Direct effect of behavioural self-soothing on NSSI	-0.25	0.17	-0.56	0.12	-0.19*	0.09	-0.37	0.00
6. Indirect effect of behavioural self-soothing on the link between attachment anxiety and NSSI	0.03	0.03	-0.01	0.10	0.03*	0.01	0.00	0.06
7. Indirect effect of behavioural self-soothing on the link between attachment avoidance and NSSI	0.05	0.04	-0.02	0.14	0.02*	0.01	0.00	0.04

Note. *p < .05, ***p < .001.

able to control their feelings when their partner hassled them. As mentioned in the introduction, there is ample support for these results in existing theoretical (Suyemoto, 1998) and empirical evidence (Mikulincer & Shaver, 2007). Moreover, fewer behavioural self-soothing skills predicted the use of NSSI behaviour at least once in the previous six months. An individual lacking behavioural self-soothing skills, an important emotion regulation skill, will consequently lack the ability to regulate their emotions in an adaptive way (Suyemoto, 1998). Consequently, they are more likely to turn to maladaptive behaviours such as NSSI to regulate their distress. Therefore, it is primarily used as a maladaptive affect regulation strategy (Linehan, 1993).

More importantly the results confirm our main hypothesis that behavioural self-soothing mediates insecure romantic attachment and NSSI behaviours in our overall sample. These findings are consistent with results from Kimball and Diddams' (2007) study showing that affect regulation mediates the relation between general adult attachment insecurity and deliberate self-harm in college students. Even though it was not hypothesized, no such mediation was found in men from our study. Therefore, the explanatory path leading to the development of NSSI behaviours seems to be different in men and women. Results may be attributable to the fact that men who use NSSI behaviours may use different types of maladaptive emotion regulation skills, instead of self-soothing. In fact, men have been shown to use different types of emotion regulation strategies than women. Barrett, Lane, Sechrest and Schwartz (2000) suggest that men are more likely to engage in automatic non-conscious emotion regulation. This may be defined as a tendency to automatically correct both positive and negative moods towards a neutral baseline (Larsen & Prizmic, 2008). Thus, we may postulate that a deficiency in automatic non-conscious emotion regulation skills may be an explanatory variable linking attachment insecurity to NSSI behaviours in men rather than behavioural self-soothing. Further research is needed to better understand which emotion regulation strategies mediate the relationship between attachment and NSSI behaviours for men.

These results may have clinical implications in the sense that attachment insecurity seems to be linked to deficiencies in self-soothing skills. In this case, deficiencies in emotion regulation, specifically behavioural self-soothing, are possible risk factors, and thus, indicators of NSSI behaviours, especially in women.

These facets should be considered as important targets in the prevention and treatment of NSSI behaviours in young adults. Understanding the roles that attachment anxiety and attachment avoidance play in the prediction of self-soothing capabilities and NSSI helps enrich our comprehension of treatment strategies that apply to self-harm. Although this study demonstrates an important contribution to the field, continued research evaluating properties of NSSI as well as other important risk factors are necessary in the development of additional intervention strategies for young adults.

Limitations

Despite these important findings, we would like to acknowledge this study's limitations. First, the sample consisted solely of undergraduate students, and thus may not be representative of the general population of young adults. Second, the use of questionnaires may lead to errors related to memory or social desirability reasons. Third, the allocation of a course credit for the completion of the study may have led to a selection bias. However, the size of the sample recruited for this study should ensure that, to a large degree, sample variance should be relatively similar to population variance, thus strengthening the generalization of findings. The fact that this study's results also fit well within the scientific literature also serves to strengthen external validity. Fourth, the current study measures a number of constructs at a given moment and does not offer either retrospective or longitudinal data points, which would allow for the verification of causal effects. Finally, the use of a single item to measure behavioural self-soothing likely represents the biggest threat to internal validity. That being said, the strong association between the item and the other variables indicates a clear relationship that merits further attention.

Conclusion

In conclusion, the current research demonstrates the importance of understanding the underlying mechanisms of the relation between romantic attachment and NSSI. This study is the first to demonstrate that not only romantic attachment anxiety but also attachment avoidance does predict the presence of NSSI behaviours in young adults, and that behavioural self-soothing mediates these relationships for women. Imperative theoretical evidence supports these explanatory links, and thus this study is an innovative addition

to the comprehension of NSSI. New findings suggesting that endogenous opioids have an important role in NSSI may be particularly useful for conceptualizing integrative models. Although the present study demonstrates the importance of behavioural self-soothing for young adults living with NSSI, a new literature review on the subject (Bresin & Gordon, 2013) hypothesises that the endogenous opioid system mediates the affect regulation effects of NSSI. Future studies could extend existing research by studying behavioural self-soothing as a possible mediator of the association between neurofunctioning and NSSI. Thus far, most research focuses on the effects of social influences on NSSI. However, the growing importance of such neurobiological models of NSSI (Sher & Stanley, 2009) brings to light the need for more comprehensive models integrating brain and endocrinal functioning, diverse social relationships, as well as self-regulation functions.

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Effet de la force illocutoire et de l'adhésion aux stéréotypes des rôles sexuels sur l'issue d'une conversation galante initiée par une femme

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Cette étude reprend l'expérience d'Agnoletti et Defferard (2004). Ces auteurs affirment que dans les situations de première rencontre galante, l'issue de la conversation est indépendante de l'activation des stéréotypes des rôles sexuels. Reprenant leur dispositif méthodologique, la présente recherche postule que la symétrie entre la force illocutoire caractérisant le propos de l'initiatrice d'une conversation galante et l'adhésion de sa cible aux stéréotypes des rôles sexuels détermine l'issue d'une rencontre galante initiée par un personnage féminin. Cette prédiction, qui constitue son apport théorique, repose sur la prise en compte simultanée de la force illocutoire de l'initiatrice de la conversation et de l'adhésion du personnage qui reçoit la proposition galante aux stéréotypes des rôles sexuels. Cette thèse, qui fait un emprunt au lien théorique établi entre la similarité attitudinale et l'attraction, est soutenue par les données collectées auprès d'un échantillon de 352 participants des deux sexes, âgés de 19 à 25 ans.

Mots-clés : script interlocutoire, force illocutoire, première rencontre galante, conversation galante, stéréotypes sexuels

This study mirrors Agnoletti and Defferard's (2004) experiment. These authors assert that in chivalrous first encounters, the conversation's outcome is independent of the activation of sex role stereotypes. Emulating their methodological plan, this present research postulates that the concordance between the illocutionary leverage that characterizes the words of the chivalrous conversation initiator and her target's accession to sex role stereotypes determines the outcome of a chivalrous encounter initiated by a female person. This prediction, which establishes its theoretical contribution, rests on the simultaneous consideration of the initiator's illocutionary leverage on the conversation and the accession to sex role stereotypes of the person who receives the chivalrous proposition. This thesis, which borrows the established theoretical link between correspondence of attitude and attraction, is supported by collected data among a sample of 352 participants of both genders, aged between 19 and 25 years old.

Keywords: interlocutory script, illocutionary strength, chivalrous first encounter, chivalrous conversation, sexual stereotypes

Les humains ont un besoin inhérent de contact. Chez les personnes des deux sexes, ce besoin est comblé grâce aux relations interpersonnelles, dont les relations romantiques, objet de cette étude. S'engager avec une autre personne dans une relation romantique est non seulement un aspect important du cycle individuel de vie dans pratiquement toutes les cultures, mais aussi un élément vital dans le processus d'évolution de

l'humanité (de Andrade & Wachelke, 2011). Selon Rose et Frieze (1989), ce type de relation est régi par des règles sociales qui prescrivent les comportements attendus de chacun des partenaires. Ces auteurs, qui s'appuient sur des guides de la drague rédigés à la fin de la décennie 1980, indiquent que l'on s'attend à ce que l'homme prenne une position proactive dominante, consistant à initier la relation, à diriger les échanges avec sa partenaire et à prendre des initiatives sur le plan sexuel. En revanche, on attend de celle-ci qu'elle assume un rôle subordonné et passif (Byrne & Findlay, 2004). Si elle désire faire part de son intérêt à un homme, il lui est conseillé d'utiliser une influence indirecte et des stratégies passives, parce que les hommes sont intimidés par des femmes fortes (McGraw, 2005). Ces rôles stéréotypés, qu'Eaton et

Rose (2011) considèrent comme des « normes traditionnelles » régissant les relations homme/femme, ont-ils encore cours aujourd'hui? Autrement dit, les progrès réalisés par les femmes dans tous les domaines de la vie publique ont-ils amené les hommes et les femmes à adopter des pratiques égalitaires dans le domaine des relations romantiques, ou celles-ci sont-elles toujours régies par les stéréotypes sexuels, comme le suggèrent les guides de la drague rédigés dans les années 2000? La présente recherche, qui se focalise sur l'initiation des relations romantiques par les personnes du sexe féminin, veut répondre à ces questions. Elle se préoccupe de savoir comment les individus réagiront à l'égard de l'initiatrice d'une relation, qui se comporte en accord ou en désaccord avec les rôles stéréotypes liés au genre.

Rencontre galante et scripts interlocutoires

Selon Agnoletti et Defferard (2004), la rencontre galante se déroule suivant un enchaînement de conduites organisé autour de trois scènes. La première est la scène de l'effet. Elle se fonde sur la perception de la personne de sexe opposé et les conséquences de cette vision. La seconde est la scène de l'échange ou de la conversation galante. Elle consiste en un échange langagier entre les deux personnes. La troisième est la scène du franchissement, où les partenaires passent à l'acte, au travers de baisers ou de caresses par exemple. Pour ces auteurs, cette dernière scène n'est acquise que dans le cas où il existe un accord entre les partenaires de l'échange. Or, celui-ci n'est pas automatique. Il est sous-tendu, au cours de la scène de l'échange, par une négociation verbale dont le résultat n'est pas toujours favorable. En fait, les enchaînements verbaux (ou scripts interlocutoires) possibles de l'échange langagier entre les deux partenaires sont de quatre ordres.

Le premier enchaînement est de type « Prendre la Ligne/Maintenir la Ligne » (PL/ML). C'est un échange débouchant sur une issue favorable. En effet, « Prendre la ligne » et « Maintenir la ligne » se rapportent à des attitudes favorables, au fait de poursuivre l'échange ou de s'y engager de manière favorable. Dans les details : le Sujet 1 engage l'échange; le Sujet 2 répond favorablement à l'invitation; et le Sujet 1 reprend la parole pour poursuivre favorablement l'échange.

Le deuxième enchaînement est de type « Ne pas Prendre la Ligne/Maintenir la Ligne » (Nég. PL/ML). Cet échange débouche sur une issue défavorable. En effet, le Sujet 1 engage l'échange; le Sujet 2 ne répond pas favorablement à l'invitation; et le Sujet 1 essaie de relancer l'échange pour le convaincre de l'accepter.

Le troisième enchaînement est de type « Ne pas Prendre la Ligne/Fermer la Ligne » (Nég. PL/FL). C'est un échange débouchant sur une issue défavorable. En effet, les expressions « Ne pas Prendre la ligne » et « Fermer la ligne » indiquent une rupture de l'échange et/ou une volonté claire de ne pas entrer dans l'interaction. Ainsi, le Sujet 1 engage l'échange; le Sujet 2 ne répond pas favorablement à l'invitation; et le Sujet 1 ne relance pas l'échange.

Le quatrième enchaînement est de type « Maintenir la Ligne/Fermer la Ligne » (ML/FL). Il débouche sur une issue défavorable. Dans les détails, le Sujet 1 engage l'échange; le Sujet 2 répond favorablement à son invitation; mais le Sujet 1 ne relance pas l'échange. Ce script interlocutoire est atypique, parce qu'en principe, une réponse favorable de la personne sollicitée devrait amener le demandeur à poursuivre l'échange langagier sur la même lancée. Or, dans ce cas, il en est autrement, puisque l'initiateur de la conversation y met un terme, alors que son interlocuteur est favorable à une poursuite de l'échange.

Ces différents enchaînements verbaux indiquent qu'une conversation galante peut avoir soit une issue favorable, soit une issue défavorable. Dès lors, on peut s'interroger sur les facteurs qui conditionnent cette issue. Cette interrogation se focalise, en particulier, sur le cas des femmes qui initient la conversation galante pour deux raisons. La première est relative au fait que les relations romantiques sont influencées par les stéréotypes des rôles sexuels. Or, ces attitudes et croyances relatives à la masculinité et la féminité les considèrent comme des personnes passives, donc moins susceptibles de prendre des initiatives que leurs homologues de sexe masculin (Hamilton & Armstrong, 2009; Ronen, 2010). Il est donc intéressant d'analyser les réactions qu'elles pourraient susciter chez les hommes dans le cas où elles sortiraient de ce rôle stéréotypé. La seconde découle des données collectées par Agnoletti et Defferard (2004). En effet, la conclusion à laquelle aboutit leur étude, qui porte autant sur les hommes que sur les femmes, est que la réussite d'une conversation galante dépend de la force illocutoire utilisée par la personne qui engage l'échange. Cette force fait référence à l'intonation qui caractérise le propos d'une personne qui s'exprime verbalement. Elle peut être forte ou faible. Elle a la première caractéristique lorsque l'individu s'exprime

avec assurance et aplomb. En revanche, elle a la seconde caractéristique lorsque le propos du locuteur est hésitant.

Pour ce qui concerne spécifiquement les hommes, les résultats d'Agnoletti et Defferard (2004) sont en accord autant avec l'hypothèse de la force illocutoire qu'avec celle des stéréotypes des rôles sexuels. En effet, ils indiquent que l'initiateur d'une conversation galante doit s'y prendre avec aplomb s'il veut aboutir à une issue favorable (script PL/ML). En revanche, les données recueillies auprès des participantes sont en accord avec l'hypothèse de la force illocutoire, et en contradiction avec l'hypothèse des stéréotypes des rôles sexuels. Ils suggèrent que les femmes doivent également prendre une position proactive dominante si elles veulent réussir la conversation qu'elles initient. Ces résultats en rupture avec ce qui est généralement observé dans ce domaine (Laner & Ventrone, 2000; Rose & Frieze, 1989; Sarch, 1993) suscitent des interrogations qui poussent à analyser le protocole de ces auteurs. Dans cette optique, la critique que l'on peut émettre à son encontre est qu'elle ne contrôle pas l'effet de l'adhésion des participants aux stéréotypes sexuels sur l'issue d'une conversation galante. De ce fait, on n'a pas l'assurance que cette variable n'a pas agi comme facteur secondaire.

La recherche d'Agnoletti et Defferard (2004) se situe dans le schéma consistant à opposer l'approche explicative par la force illocutoire de l'initiateur de la conversation galante (forte versus faible) à l'approche explicative par les stéréotypes des rôles sexuels (en accord versus en contradiction avec ces stéréotypes). Concrètement, elle pose le problème de savoir si les rôles associés à l'appartenance sexuelle, c'est-à-dire aux attributs masculins et féminins, sont de nature à déterminer une rencontre galante ou si celle-ci se produit selon des ajustements interlocutoires n'ayant aucun lien avec le genre des personnages? La littérature spécialisée apporte jusqu'alors deux principales réponses à cette question. Celles-ci sont exclusives l'une de l'autre, d'où leurs lacunes que la présente recherche se donne pour objectif de combler, en proposant une troisième réponse. Elles sont présentées tour à tour.

Explication 1 : lien entre la force illocutoire de l'initiatrice et l'issue d'une rencontre galante

La réponse que proposent Agnoletti et Defferard (2004) au problème de l'effet des rôles sexuels sur l'issue d'une conversation galante est en contradiction avec les stéréotypes des rôles sexuels. Elle indique que

les enchaînements interlocutoires traduisent l'attitude des individus face à la poursuite de la rencontre et ne dépendent pas des stéréotypes des rôles sexuels.

En appui à cette conception, les données empiriques recueillies par Agnoletti et Defferard (2002; 2004) ne soutiennent pas l'hypothèse que l'issue d'une rencontre galante sera favorable dans les cas où les hommes engageront l'échange avec une force illocutoire forte et les femmes s'y prendront avec une force illocutoire faible. En revanche, ils apportent un soutien à la thèse que le degré de force illocutoire caractérisant le propos de l'initiateur de l'échange n'est pas associé à un modèle de traits stéréotypés. La raison est que les personnages impliqués dans la conversation préfèrent activer un script favorisant une issue de rencontre galante.

En somme, Agnoletti et Defferard (2004) pensent qu'une première rencontre galante a plus de chance d'aboutir à une issue favorable si la femme qui engage l'échange parle avec une force illocutoire élevée. Cela signifie qu'elle occupe une place énonciative identique à celle des personnes de sexe masculin. En revanche, ils estiment que la rencontre a peu de chance d'être couronnée de succès si elle est engagée par une femme qui s'exprime avec un degré de force illocutoire faible. Ainsi, pour aboutir à une issue favorable, une femme qui initie une conversation galante doit s'exprimer comme le ferait un homme, et non comme une femme « typique ».

Explication 2 : lien entre stéréotypes des rôles sexuels et issue d'une conversation galante

Contrairement à ce qui précède, Byrne et Findlay (2004) affirment que l'adhésion aux rôles sexuels prescrits culturellement crée une impression favorable au cours des premières rencontres galantes entre personnes des deux sexes. Ces auteurs indiquent que l'utilisation de ces rôles aux premiers stades d'une relation romantique s'illustre par le fort stéréotypage sexuel observé dans les scripts de première rencontre galante. Les scripts sont des guides collectivement partagés, opérant au sein d'une société. Ils prescrivent les comportements appropriés, et permettent aux individus de prédire la manière dont les autres pourraient se comporter dans une situation particulière.

Dans le domaine des relations romantiques, des études révèlent que les scripts sont à la fois formels et routiniers. En effet, d'après Laner et Ventrone (2000), les comportements des personnes qui y sont

impliquées sont fortement guidés par les rôles sexuels socialement définis. Ainsi, lorsque ces auteurs demandent aux participants de décrire les comportements typiques qu'on observe au cours d'une première rencontre galante, ceux-ci s'accordent sur le fait que les hommes prennent une position proactive dominante. Leurs stratégies d'approche sont directes, non seulement dans l'initiation des relations, mais aussi dans le domaine des interactions physiques et sexuelles (de Andrade & Wachelke, 2011; de Graaf, van de Schoot, Woertman, Hawk, & Meeus, 2012). En revanche, les femmes préfèrent les approches plus indirectes comme de subtils messages non verbaux ou le flirt (Goodboy & Brann, 2010). Ce type d'approche correspond à leur rôle sexuel « traditionnel », qui se caractérise par la dépendance et la passivité (Byrne & Findlay, 2004). Il en découle qu'on attend d'elles de simples réponses aux initiatives prises par leur partenaire (Ronen, 2010).

Selon Sarch (1993), même si les hommes sont les plus susceptibles d'initier les relations romantiques, il arrive que les femmes assument ce rôle. Dans cette situation, elles s'attendent par la suite à ce que les hommes assurent un rôle plus actif au fur et à mesure que la relation évolue. Cet auteur indique que les participantes de son étude s'accordent unanimement sur le fait que dans une relation galante, c'est à la personne de sexe masculin de jouer le rôle de locomotive. Cette conception s'explique également par le fait que les hommes sont moins susceptibles d'être attirés par des femmes qui leur font la cour, parce qu'ils se sentent émasculés par cette prise d'initiative de la part d'une femme (Doyle, 2002). Pour Byrne et Findlay (2004), même si cette suggestion d'émasculation apparaît extrême, il demeure que dans les situations où c'est une femme qui initie la rencontre galante, les hommes peuvent se sentir menacés et impuissants. La conséquence de cette perte de pouvoir est une perception moins positive des initiatrices. Celle-ci dissuade même les femmes ayant des tendances féministes, pourtant adeptes de l'égalité hommes/femmes dans pratiquement tous les domaines de la vie (Bogle, 2008; England, Shafer, & Fogarty, 2008).

Les rôles sexuels ont une importance sociale telle que malgré l'évolution des sociétés en général, et les progrès des femmes dans la sphère publique en particulier, les observations faites par les chercheurs depuis les années 1960 sont toujours valides (Eaton & Rose, 2011). Ces auteurs expliquent cette situation par quatre raisons. Tout d'abord, les hommes et les femmes ne sont toujours pas égaux dans la société,

puisque les femmes sont généralement sous-représentées dans les plus hautes sphères de décision. Ensuite, les stéréotypes et les scripts culturels basés sur le genre sont persistants parce qu'ils jouent un rôle social et cognitif en fournissant un arrière-fond familier aux partenaires potentiels. De même, suivre les normes culturelles est un moyen de montrer à son partenaire que l'on respecte les traditions sociétales. Enfin, ces normes permettent de réduire l'incertitude sur la relation et le partenaire, et donnent aux individus un véhicule commun pour la synchronisation interpersonnelle dans une situation caractérisée par l'ambiguïté.

Explication 3 : effet combiné de la force illocutoire et des stéréotypes des rôles sexuels : pour la coopération de deux explications mutuellement exclusives

La présente recherche constate que les deux explications précédentes mettent l'accent soit sur la force illocutoire de l'initiatrice de la conversation galante, soit sur les stéréotypes des rôles sexuels. Elle propose que prises isolément, celles-ci n'expliquent pas forcément l'issue d'une conversation galante. En fait, on peut estimer qu'elles ne s'inscrivent pas dans la dynamique interactive qui caractérise toute conversation en général, et une conversation galante en particulier. En effet, comme le montrent les enchaînements interlocutoires enregistrés dans une conversation galante, on relève un échange langagier entre les deux personnes, dont l'une initie la conversation par une proposition galante (elle prend la ligne), et l'autre réagit à cette proposition en acquiesçant (elle maintient la ligne) ou en déclinant l'offre (elle ferme la ligne).

Contrairement aux deux approches précédentes, la position défendue dans cette étude est celle de la prise en compte simultanée de la force illocutoire de l'initiatrice de la conversation galante et de l'adhésion de la cible aux stéréotypes des rôles sexuels. Cette thèse fait un emprunt au lien théorique établi entre la similarité attitudinale et l'attraction (Aikins, Simon, & Prinstein, 2010; Ireland et al., 2010). En effet, selon Vangelisti (2012), la littérature relative aux déterminants du choix des partenaires révèle que les gens préfèrent les personnes qui leur ressemblent. Dans cette perspective, on peut suggérer que la similarité entre l'approche de l'initiatrice et la position de sa cible à l'égard des rôles sexuels est un déterminant de l'issue de la conversation galante. Ainsi, le fait pour l'initiatrice de parler avec une force illocutoire forte ou faible n'aurait pas d'effet spécifique en soi, comme l'affirment Agnoletti et Defferard (2004). De même,

l'adhésion ou non de la cible aux stéréotypes des rôles sexuels n'est pas en soi un élément prédictif de l'issue de la conversation galante. Pour la présente recherche, c'est la combinaison de ces deux éléments qui détermine cette issue. Dans cette optique, on analyse la symétrie (ou l'accord) entre la manière dont la proposition de l'initiatrice est formulée (avec ou sans aplomb) et la position de la cible à l'égard des stéréotypes des rôles sexuels (pour ou contre une position proactive des femmes).

Il découle de ce qui précède que la proposition faite ici consiste à considérer les deux explications précédentes non pas comme des thèses concurrentes, ou exclusives l'une de l'autre, mais comme des explications coopérantes. Il s'agit donc de dépasser la position dichotomique opposant la force illocutoire de l'initiateur de la conversation galante à l'adhésion de sa cible aux stéréotypes sexuels, en considérant qu'elles interagissent. À notre connaissance, cette approche reste à ce jour inexplorée. Cette voie, qui constitue l'apport théorique de cette recherche, fonde l'hypothèse formulée en réponse à la question posée plus haut : *la symétrie entre la force illocutoire qui caractérise le propos de l'initiatrice d'une conversation galante et l'adhésion de sa cible aux stéréotypes des rôles sexuels détermine l'issue d'une rencontre galante initiée par un personnage de sexe féminin.*

Méthode

Participants

Les instruments de collecte des données ont été distribués à 352 étudiants (182 hommes et 170 femmes) inscrits en cycle de Licence de Langues Étrangères Appliquées à l'Université de Dschang (Cameroun). Ils ont entre 19 et 25 ans (âge moyen : 22,7 ans) et sont tous célibataires. Ils ont marqué leur accord pour participer à l'étude.

Matériel

Les participants sont catégorisés en deux groupes, suivant leur adhésion aux stéréotypes des rôles sexuels. Cette catégorisation a été effectuée grâce à l'échelle *Old-Fashioned Sexism* (alpha de Cronbach = .94). Cette échelle, conçue par Rombough et Ventimiglia (1981), comporte 20 affirmations pour lesquelles les participants doivent déterminer leur position sur une échelle de Likert en cinq points, allant de *1 (fortement en désaccord)* à *5 (fortement en ac-*

cord). Elle porte autant sur la place de la femme dans le milieu professionnel que sur son rôle dans la vie de couple. Par exemple, l'item 15 présente l'affirmation ci-après : « *Women should have the same sexual freedom as men* » (les femmes devraient avoir la même liberté sexuelle que les hommes). Cette échelle a été préférée à l'échelle *Neosexism* de Tougas, Brown, Beaton et Joly (1995), en raison du fait que cette dernière s'intéresse principalement à la place de la femme dans le monde du travail. Or, la présente recherche porte sur les relations interpersonnelles hommes/femmes.

Pour appréhender les scripts interlocutoires de la première rencontre galante, les vignettes conçues par Agnoletti et Defferard (2004) ont été utilisées. La procédure expérimentale présente cet instrument et les modalités de son administration.

Procédure

La présente recherche reprend, dans ses grandes articulations, la procédure mise au point par Agnoletti et Defferard (2004). Ainsi, on présente aux participants une planche mettant en scène deux personnages de sexe opposé dans une première rencontre galante initiée par le personnage de sexe féminin. Celle-ci est introduite par un énoncé qui situe le contexte de la situation et donne la consigne aux participants : « Mademoiselle F. croise Monsieur P. et le trouve bien à son goût. Elle l'aborde. Poursuivez dans les bulles 3 et 4 l'échange commencé en 2. » Quatre vignettes illustrent la chronologie de la rencontre. Dans la première, le personnage de sexe féminin interpelle le personnage de sexe masculin. Dans la seconde, elle amorce le dialogue. Dans les troisième et quatrième, chacun des deux personnages s'exprime à tour de rôle. La tâche des participants consiste à poursuivre, dans les vignettes 3 et 4, l'échange initié dans les vignettes 1 et 2.

L'expérience d'Agnoletti et Defferard (2004) repose sur deux types de variables indépendantes : les variables intra-vignettes relatives à l'expression faciale et l'énonciation des personnages; et la variable sexe des participants. En accord avec le double codage de Paivio (1986), les premières mettent en cohérence l'expression faciale des personnages et l'état psychologique dans lequel ils se trouvent. Ce codage prend en considération les aspects verbaux et graphiques dans la représentation et le traitement des objets. Un personnage s'exprimant avec hésitation est illustré avec des sourcils descendants, de la sueur autour du

front, et une expression générale caractéristique d'un manque d'aplomb. En revanche, un sujet plus sûr de lui a le visage qui exprime la satisfaction, avec des sourcils relevés et une allure générale traduisant l'audace et la confiance en soi. L'expression générale des personnages est en accord avec la force illocutoire qui transparaît dans leurs propos. Ainsi, les propos du personnage qui manque d'assurance sont illustrés par des petits caractères, plusieurs points de suspension, et la présence de nombreux « heu… » qui traduisent son hésitation. En revanche, les propos du personnage qui s'exprime avec assurance sont transcrits par de gros caractères, énoncés avec un débit régulier et une intonation sûre qui se matérialisent par des points d'exclamation et l'absence du moindre signe d'hésitation. La variable genre des personnages est exprimée grâce aux représentations graphiques conventionnelles du sexe. L'homme est vêtu d'un polo, une veste et un pantalon. Il a les cheveux courts et tient une mallette dans sa main gauche. La femme porte une robe, des boucles d'oreille, des chaussures à talons, un sac en bandoulière sur son épaule droite et un cartable dans la main gauche.

En prenant en compte la force illocutoire qui caractérise le propos du personnage qui engage l'échange (forte ou faible), on obtient deux situations expérimentales. Chacune d'elles est présentée sur une planche. Elles mettent en scène une rencontre galante initiée par une personne de sexe féminin. Dans l'une, l'initiatrice engage la conversation avec une forte force illocutoire, c'est-à-dire qu'elle s'y prend avec aplomb. Dans l'autre, son propos a une faible force énonciative, puisqu'il est hésitant et peu assuré. Ainsi, les participants remplissent deux planches constituées chacune de quatre vignettes.

Aux variables indépendantes tirées de l'expérience d'Agnoletti et Defferard (2004), la présente recherche en ajoute une supplémentaire : la symétrie entre la force illocutoire qui caractérise le propos de l'initiatrice de la conversation galante et l'adhésion de sa cible aux stéréotypes des rôles sexuels. Cette variable additionnelle est considérée ici comme le déterminant de l'issue de la conversation galante. Elle est appréhendée à partir de deux paramètres : le résultat du participant à l'échelle *Old-Fashioned Sexism*, qui détermine son adhésion ou non aux stéréotypes des rôles sexuels, et la force illocutoire de l'initiatrice de la conversation galante. Ainsi, en prenant en compte ces deux éléments, on obtient les combinaisons ci-après :

Situation de symétrie : le participant adhère aux stéréotypes des rôles sexuels et il est confronté à la situation où le degré de force illocutoire de l'initiatrice de la conversation galante est faible (conforme aux stéréotypes des rôles sexuels); ou le participant n'adhère pas aux stéréotypes des rôles sexuels et il est confronté à la situation où le degré de force illocutoire de l'initiatrice de la conversation galante est fort (non conforme aux stéréotypes des rôles sexuels);

Situation d'asymétrie : le participant adhère aux stéréotypes des rôles sexuels et il est confronté à la situation où le degré de force illocutoire de l'initiatrice de la conversation galante est fort (non conforme aux stéréotypes des rôles sexuels); ou le participant n'adhère pas aux stéréotypes des rôles sexuels et il est confronté à la situation où le degré de force illocutoire de l'initiatrice de la conversation galante est faible (conforme aux stéréotypes des rôles sexuels).

Le script interlocutoire comme variable observée

Selon Agnoletti et Defferard (2004), l'appréhension de la variable dépendante « scripts interlocutoires » se rapporte aux différents enchaînements conversationnels produits par les participants. Ces auteurs indiquent que la mesure de cette variable se fait par le biais d'une analyse de contenu des enchaînements observés. Dans cette perspective, ils s'intéressent au contenu des réponses des participants dans les bulles 3 et 4, de manière à identifier des conduites possibles, et parmi elles, celles dont l'apparition est plus ou moins probable. Il ressort de cette opération que des conduites favorables et défavorables aux deuxième et troisième tours de parole sont identifiées. Celles-ci se présentent comme une acceptation ou un refus de l'échange initié. Ainsi, conformément au codage effectué par Agnoletti et Defferard (2002), on distingue les différents enchaînements interlocutoires présentés plus haut. Ceux-ci se caractérisent par le fait qu'ils rendent compte d'une relation interpersonnelle initiée, maintenue ou fermée. En se situant dans la perspective de la technologie des communications téléphoniques, les auteurs parlent de lignes pouvant être prises, maintenues, rejetées ou fermées.

Résultats

L'expérience réalisée dans la présente étude a pour but de mettre à l'épreuve l'hypothèse ci-après : *la symétrie entre la force illocutoire qui caractérise le propos de l'initiatrice d'une conversation galante et*

Tableau 1

Répartition générale des fréquences d'apparition des suites interlocutoires en situation de symétrie entre la force illocutoire de l'initiatrice et l'adhésion de sa cible aux stéréotypes des rôles sexuels

Suites interlocutoires	Participants qui adhèrent aux stéréotypes des rôles sexuels	Participants qui n'adhèrent pas aux stéréotypes des rôles sexuels	Résidus standardisés	Total
1. PL/ML	107 (88,43 %)	67 (72,04 %)	2.38	174 (81,30 %)
2. Nég. PL/ML	3 (2,48 %)	12 (12,90 %)	1.15	15 (7,01 %)
3. Nég. PL/FL	11 (9,09 %)	14 (15,05 %)	0.38	25 (11,69 %)
4. Total	121 (56,54%)	93 (43,46 %)	-	214 (100 %)

Note. $\chi^2 (2, 214) = 27.71, p < .05$.

l'adhésion de sa cible aux stéréotypes des rôles sexuels détermine l'issue d'une rencontre galante initiée par un personnage de sexe féminin. Les résultats présentés dans les tableaux 1 et 2 rendent compte de la répartition globale des scripts interlocutoires de première rencontre galante produits par les participants, respectivement dans les deux situations expérimentales.

Répartition globale des scripts interlocutoires produits par les participants

Les résultats présentés dans le tableau 1 indiquent que, dans la situation de symétrie, la proportion des participants qui adoptent un script interlocutoire varie en fonction de leur adhésion aux stéréotypes des rôles sexuels ($\chi^2 (2, 214) = 27.71$, $p < .05$). Il en est de même dans le tableau 2, puisqu'on observe que dans la situation d'asymétrie, la proportion des participants qui adoptent un script interlocutoire nég. PL/ML varie en fonction de leur adhésion aux stéréotypes des rôles sexuels ($\chi^2 (2, 138) = 12.25$, $p < .05$). Dans les détails, on relève que :

Script interlocutoire « *Prendre la Ligne/ Maintenir la Ligne* » (PL/ML). Dans la condition symétrie, le script PL/ML est plus fréquent chez les participants qui adhèrent aux stéréotypes sexuels (88,43 %) que chez ceux qui n'y adhèrent pas (72,04 %) (résidu standardisé = 2.38, $p < .05$). Dans la condition asymétrie, la fréquence du script PL/ML ne varie pas en fonction de l'adhésion (20,93 %) ou de la non adhésion (28,85 %) des participants aux stéréotypes sexuels (résidu standardisé = 0.58, $p > .05$).

Script interlocutoire « *Ne pas Prendre la Ligne/ Maintenir la Ligne* » (Nég. PL/ML). Lorsqu'il y a symétrie entre la force illocutoire de l'initiatrice et l'adhésion de sa cible aux stéréotypes des rôles sexuels, la fréquence du script Nég. PL/ML ne varie pas en fonction de l'adhésion des participants aux stéréotypes sexuels. En effet, malgré le fait qu'une plus faible proportion de participants ait sélectionné ce script (2,48 %) dans la situation d'adhésion aux stéréotypes sexuels que dans celle sans adhésion (12,90 %), cette différence n'est pas statistiquement significative (résidu standardisé = 1.15, $p > .05$).

Tableau 2

Répartition générale des fréquences d'apparition des suites interlocutoires en situation d'asymétrie entre la force illocutoire de l'initiatrice et l'adhésion de sa cible aux stéréotypes des rôles sexuels

Suites interlocutoires	Participants qui adhèrent aux stéréotypes des rôles sexuels	Participants qui n'adhèrent pas aux stéréotypes des rôles sexuels	Résidus standardisés	Total
1. PL/ML	18 (20,93 %)	15 (28,85 %)	0.58	33 (23,91 %)
2. Nég. PL/ML	52 (60,47 %)	16 (30,77 %)	2.23	68 (49,28 %)
3. Nég. PL/FL	16 (18,61%)	21 (40,39 %)	1.74	37 (26,81 %)
4. Total	86 (62,32 %)	52 (37,68 %)	-	138 (100 %)

Note. $\chi^2 (2, 138) = 12.25, p < .05$.

À l'opposé, lorsqu'il y a asymétrie entre la force illocutoire de l'initiatrice et l'adhésion de sa cible aux stéréotypes des rôles sexuels, la fréquence du script nég. PL/ML fluctue en fonction de l'adhésion des participants aux stéréotypes sexuels. En effet, dans la situation d'adhésion aux stéréotypes, 60,47 % des participants suivent un script nég. PL/ML, alors que dans la situation où il n'y a pas d'adhésion, cette proportion chute à 30,77 % (résidu standardisé = 2.23, $p < .05$).

Script interlocutoire « *Ne pas Prendre la Ligne/Fermer la Ligne* » (Nég. PL/FL). Le ratio de participants ayant émis un script Nég. PL/FL dans la condition symétrie ne diffère pas en fonction de l'adhésion des participants aux stéréotypes sexuels (résidu standardisé = 0.38, $p < .05$). Les analyses indiquent que 9,09 % des participants ont produit ce script dans la condition adhésion aux stéréotypes, alors que cette proportion est de 15,05 % dans la condition sans adhésion.

La même conclusion peut être tirée à partir des résultats obtenus dans la condition « asymétrie ». En effet, les analyses révèlent que la fréquence d'émission du script nég. PL/FL ne varie pas en fonction de l'adhésion des participants aux stéréotypes sexuels (résidu standardisé = 1.74, $p < .05$). On observe que dans le cas où les participants adhèrent aux stéréotypes, 18,61 % d'entre eux émettent un script Nég. PL/FL, alors que lorsqu'ils n'y adhèrent pas, ce ratio est de 40,39 %.

Script interlocutoire « *Prendre la Ligne/Fermer la Ligne* » (PL/FL). Ce script n'a pas été observé. La raison en est qu'il est atypique, parce qu'en principe, une réponse favorable à une invitation devrait amener le demandeur à poursuivre sur sa lancée initiale. Mais, dans ce cas, l'acquiescement de la personne sollicitée n'est suivi d'aucun effet, parce que le demandeur met lui-même un terme à la conversation. Cela est clairement inattendu. Ce résultat est en accord avec les données collectées par Agnoletti et Defferard (2004).

Discussion

L'hypothèse mise à l'épreuve dans la présente recherche est la suivante : la symétrie entre la force illocutoire qui caractérise le propos de l'initiatrice d'une conversation galante et l'adhésion de sa cible aux stéréotypes des rôles sexuels déterminent l'issue d'une rencontre galante initiée par un personnage de sexe féminin. Les données collectées apportent un soutien à cette prédiction. En effet, dans la situation de symé-

trie, la proportion des participants qui adoptent un script interlocutoire varie en fonction de leur adhésion aux stéréotypes des rôles sexuels ($\chi^2 (2, 214) = 27.71$, $p < .05$). Il en est de même dans la situation d'asymétrie, où on observe que la proportion des participants qui adoptent un script interlocutoire Nég. PL/ML varie en fonction de leur adhésion aux stéréotypes des rôles sexuels ($\chi^2 (2, 138) = 12.25$, $p < .05$). Malgré la différence entre la formulation des scripts interlocutoires PL/ML et Nég. PL/ML dans les deux situations expérimentales, on ne peut spécifier si ces différences sont significatives. La raison en est que cette différence n'a pas été évaluée à l'aide d'une analyse statistique. On peut cependant retenir que les observations faites ne confirment pas la thèse que dans une situation de rencontre galante, il n'y a pas activation des stéréotypes des rôles sexuels (Agnoletti & Defferard, 2004).

D'après Goodboy et Brann (2010), les communications romantiques sont une forme d'auto-promotion, utilisant à la fois les canaux verbaux et non verbaux. Sur ce point, il existe des différences basées sur le genre, à la fois sur les comportements non verbaux et les expressions verbales. Par exemple, les hommes utilisent des tactiques d'approche verbales directes, tandis que les femmes utilisent plus des tactiques non verbales ou indirectes. Autrement dit, les hommes sont explicites dans leur approche, tandis que les femmes préfèrent des approches implicites. Ces approches, conformes aux rôles sexuels, sont des comportements attendus par les récepteurs qui adhèrent aux stéréotypes des rôles sexuels. Ainsi, les initiatrices qui engagent la conversation avec un degré de force illocutoire faible (conforme aux rôles sexuels) génèrent une perception positive chez les personnes qui adhèrent aux stéréotypes des rôles sexuels. Les données observées vont dans ce sens, avec une proportion observée de 88,43 % de scripts PL/ML.

Il découle de ce qui précède que les scripts interlocutoires de première rencontre galante initiée par un personnage de sexe féminin sont déterminés par la sensibilité des récepteurs à la similarité entre leur propre conception des relations interpersonnelles homme/femme et l'approche qu'utilise l'initiatrice. En effet, les données collectées soutiennent l'association entre la similarité attitudinale et l'attraction (Aikins, Simon, & Prinstein, 2010; Vangelisti, 2012). Ce lien est moins dû au fait que les gens sont attirés par les personnes qui leur ressemblent qu'au fait qu'ils manifestent de la répulsion pour les personnes dissimilaires. En appui à cette idée, Ireland et al. (2010) affirment que la similarité interpersonnelle, du point de

vue des valeurs, intérêts et traits de personnalité, joue un rôle important dans le développement des relations romantiques. À titre illustratif, ces auteurs indiquent que deux personnes qui se rencontrent et coordonnent automatiquement leurs gestes de la main, leur posture ou leur regard, sont plus susceptibles de s'aimer et de se comprendre mutuellement.

En somme, les résultats de la présente étude s'opposent à la thèse que les individus se comportent suivant un traitement de la situation eu égard à des modèles de négociation verbale connus (Agnoletti & Defferard, 2004). Ils montrent plutôt que ceux-ci privilégient un traitement cognitif de la situation, consistant à projeter leur propre perception de la situation sur le personnage de même sexe présent dans la vignette. Il en résulte que les scripts interlocutoires de première rencontre galante qu'ils produisent sont compréhensibles non seulement à partir de leur perception des relations homme/femme, mais aussi suivant le type d'amorce que l'initiatrice de la conversation galante utilise.

Il découle de ce qui précède que l'apport théorique de cette recherche réside dans le fait qu'elle met en commun deux explications jusqu'alors contradictoires de l'issue d'une rencontre galante, en insistant sur le fait que celle-ci rend compte d'un processus psychosocial impliquant deux parties. La première initie la conversation en utilisant une stratégie d'approche affirmative ou hésitante. La seconde a des attentes de rôles en accord ou non avec les scripts socialement définis. Elle agit en fonction du lien entre ses attentes de rôles et la force illocutoire qui caractérise le propos de l'initiateur de l'échange. Si ses attentes de rôles sont en accord avec les stéréotypes des rôles sexuels, elle sera sensible à une approche hésitante. En revanche, si ses attentes de rôles sont en désaccord avec ces stéréotypes, elle sera favorable à la demande d'un initiateur utilisant une force illocutoire élevée.

Quelle est l'incidence de ces observations pour l'initiation des relations romantiques? Contrairement à ce que soutiennent Byrne et Findlay (2004), pour créer une impression favorable chez les hommes qu'elles abordent, il ne suffit pas pour les femmes d'être conformes aux rôles sexuels. Une approche en accord avec ces rôles a plus de chance de succès auprès des hommes en accord avec ceux-ci. De même, une femme qui se montrerait affirmative et résolue aurait plus de chance de séduire un homme qui considère qu'une femme peut occuper une position proactive dominante. Ainsi, les cibles avec lesquelles la probabi-

lité de réussite est la plus élevée sont celles qui présentent une certaine similarité avec l'initiatrice (Ireland et al., 2010).

Limites

La limite principale de cette étude réside dans le fait que l'analyse statistique des données collectées ne comporte pas une régression logistique. Celle-ci aurait permis de déterminer si la symétrie/asymétrie entre la force illocutoire caractérisant le propos de l'initiatrice et l'adhésion des participants aux stéréotypes des rôles sexuels a une influence significative sur la variance des scripts interlocutoires produits par les participants. En somme, ce type d'analyse aurait permis d'évaluer si la symétrie entre la force illocutoire de l'initiatrice et l'adhésion de sa cible aux stéréotypes des rôles sexuels modère la relation entre l'adhésion aux stéréotypes sexuels et le succès d'une première rencontre galante. De même, la présente recherche, qui utilise des vignettes comme instrument de collecte de données, a une seconde limite évidente : l'écart entre les situations expérimentales présentées aux participants et la situation concrète, telle qu'elle se déroulerait dans la réalité. Ainsi, il n'est pas évident qu'on obtiendrait des scripts interlocutoires similaires si les personnes interrogées faisaient face à une situation réelle. Ensuite, on notera aisément que la rencontre étudiée se situe dans la perspective de l'orientation hétérosexuelle, puisque les deux personnages impliqués sont un homme et une femme. On peut douter du fait que ces résultats puissent s'appliquer aux rencontres entre homosexuels, ce d'autant plus que le rôle des stéréotypes sexuels y serait probablement neutralisé. Enfin, cette étude ne prend pas en compte l'initiation des relations romantiques sur les sites de rencontre sur internet. Or, dans la perspective des travaux de Finkel, Eastwick, Karney, Reis, & Sprecher (2012), il pourrait y avoir une différence entre les rencontres via le web et les rencontres conventionnelles.

Orientations futures

Il est possible que le contexte social dans lequel cette duplication de l'expérience d'Agnoletti et Defferard (2004) a été faite soit responsable de certaines tendances observées. En effet, les relations homme/femme sont parfois appréhendées différemment en fonction des sociétés, certaines pouvant être plus restrictives sur la proactivité des femmes que d'autres. Ainsi, en accord avec Agnoletti et Defferard (2004), on pourrait, dans une étude future, analyser les

variations d'interaction liées au genre, entre deux populations issues de deux cultures distinctes. Ensuite, dans le sillage des recherches de Finkel et al. (2012), on peut conduire une étude pour savoir si les stéréotypes des rôles sexuels jouent un rôle déterminant sur l'initiation des relations romantiques via internet. On pourrait ainsi répondre à la question de savoir si les « normes traditionnelles » régissant les relations homme/femme dans le monde réel ont cours dans le monde virtuel. Enfin, dans la perspective d'Eaton et Rose (2011), on peut mener une recherche pour savoir si le sexisme aversif n'est pas responsable du fait que l'acceptation des comportements égalitaires dans le domaine des relations romantiques est très loin d'être aussi importante que l'acceptation des restrictions comportementales basées sur le genre. En effet, sur ce point, la recherche ne fournit, jusqu'alors, aucune information significative.

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Effects of Appearance-Related Social Comparisons to a Hypothetical Roommate in Undergraduate Women

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Upward appearance-related social comparisons occur when an individual compares him- or herself to someone believed to be thinner and more attractive. Past research supports that these comparisons result in a decrease in mood and body satisfaction, as well as an increase in thoughts of dieting and exercising. The present study looked at the effects that appearance-related social comparisons to a hypothetical roommate have on 145 undergraduate females. Surveys were administered to address mood, body image satisfaction, eating, and exercise habits of the participants before and after meeting their roommate. Participants received a photo of either an underweight, thin, fit, or overweight roommate. Results support the idea that making an appearance-related social comparison to a roommate, regardless of body type, affectes participants' desire to change eating and exercise habits. These findings suggest that comparisons to a roommate may result in positive outcomes for undergraduate women.

Keywords: social comparison, body dissatisfaction, roommate, women

La comparaison sociale ascendante se produit lors d'une comparaison à une personne perçue comme plus mince et attrayante. Des recherches antérieures soutiennent qu'elle produit une baisse d'humeur, de satisfaction corporelle, ainsi qu'une augmentation de pensées reliées aux régimes et à l'exercice. La présente étude examine les effets des comparaisons sociales en lien avec l'apparence d'un colocataire hypothétique sur 145 femmes de premier cycle. Des questionnaires concernant l'humeur, la satisfaction de l'image corporelle, l'alimentation et l'exercice des participantes furent administrés avant et après la rencontre avec le colocataire. Les participantes reçurent une photo d'un colocataire en sous poids, mince, en forme, ou en surpoids. Les résultats confirment qu'une comparaison sociale liée à l'apparence d'un colocataire, indépendamment du type corporel, peut influencer le désir de changer les habitudes alimentaires et l'exercice. Ces résultats suggèrent que les comparaisons à un colocataire peuvent entrainer des résultats positifs pour les femmes de premier cycle.

Mots-clés : comparaison sociale, insatisfaction corporelle, colocataire, femmes

Sociocultural pressures to be thin magnify a woman's preoccupation with her body and physical appearance (Fitzsimmons-Craft, 2011). Women are constantly exposed to media, whether through television or magazines, that feature thin models (Krones, Stice, Batres, & Orjada, 2005). The thin and slender body type has become the standard of beauty that women strive for, yet few can achieve (Lin & Kulik, 2002), because the thin-ideal woman portrayed in the media is typically 15% below the average weight of women (Hawkins & Richards, 2004). Constant exposure to such media causes women to internalize the thin ideal, and become increasingly dissatisfied with their own bodies when such a body type is unattainable (Krones et al., 2005; Leahey, Crowther, & Mickelson, 2007). Rodin, Silberstein, and Striegel-Moore (1984) have coined the term "normative discontent" describing the commonality of women who are unhappy about their physical appearance and become preoccupied with their weight and body shape. The present study will extend previous research on this topic by examining situations in which such discontent may arise in college women.

Background

Body dissatisfaction and preoccupation with weight and shape are especially common in a college setting and have been reported in about 80% of college women (Fitzsimmons-Craft, 2011). Because body dissatisfaction is considered a risk factor for eating disorders in college (Fitzsimmons-Craft, 2011; Stice, 2002), the present study focuses on undergraduate college women. In college, women often base their self-concept on their physical appearance (Bailey & Ricciardelli, 2010; Fitzsimmons-Craft, 2011; Striegel-Moore, Silberstein, & Rodin, 1986). Consequently, women frequently make appearance-related social comparisons (Myers & Crowther, 2009) to assess their weight and shape (Wasilenko, Kulik, & Wanic, 2007). Being surrounded by and interacting with women, a college setting provides an environment where women can frequently make appearance-related comparisons (Lindner & Hughes, 2008).

Social comparison theory (Festinger, 1954) is relevant here because it describes the process people use to compare themselves to similar others in order to gain information about themselves. By making appearance-related social comparisons, women are able to subjectively assess their personal appearance and level of attractiveness (Striegel-Moore et al., 1986). Festinger (1954) distinguished two types of social comparisons. An upward comparison is made with someone believed to be better off, and a downward comparison is made with someone believed to be worse off (Festinger, 1954). Researchers have shown that upward appearance-related social comparisons are associated with negative effects such as an increase in body dissatisfaction and negative affect, decrease in self-esteem and positive affect, and increase in disordered eating behaviors (Leahey, Crowther, & Ciesla, 2011; Lindner & Hughes, 2008; Myers & Crowther, 2009; Stormer & Thompson, 1996; Strahan, Wilson, Cressman, & Buote, 2006; Thompson, Coovert, & Stormer, 1999; Thornton & Maurice, 1999). The present study will include both types of comparisons.

Because college women often make appearance-related social comparisons (Lindner & Hughes, 2008), they begin to realize that there is a discrepancy between what they look like and the thin ideal they want to look like, further increasing body dissatisfaction (Fitzsimmons-Craft, 2011; Harrison, 2001; McKinley & Hyde, 1996). Self-discrepancy theory (Higgins, 1987) suggests that discrepancies occur when an individual does not meet an important standard (e.g., thin-ideal body type). When a discrepancy occurs, the individual feels distress and engages in behaviors that will reduce the discrepancy (Harrison, 2001). Attempting to reduce this discrepancy can lead women to engage in restrained eating, excessive exercise, or develop other disordered eating habits (Fitzsimmons-Craft, 2011; Harrison, 2001). Activating self-discrepancies through appearance-related social comparisons could be further explained by the tendency of women to objectify themselves and other women (Fitzsimmons-Craft, 2011).

Objectification theory (Fredrickson & Roberts, 1997) explains that a woman's body is treated as an object to be looked at and that her body defines who she is as a person. Women learn to objectify themselves through self-objectification, in which they take on an observer's view of their own body. Self-objectification manifests in the act of body surveillance, or constant checking and monitoring of one's body in order to compare oneself to a thin ideal (Fredrickson & Roberts, 1997; McKinley & Hyde, 1996). McKinley and Hyde (1996) proposed that by engaging in constant body surveillance, women realize there is a discrepancy between their own body and those of ideal others, further increasing the likelihood of making appearance-related social comparisons. Thus, appearance-related social comparisons, self-discrepancies, and self-objectification are thought to work together to increase body dissatisfaction and thin-ideal internalization (Fitzsimmons-Craft, 2011; Fredrickson & Roberts, 1997; Lindner, Tantleff-Dunn, & Jentsch, 2012).

Ample research provides support for the negative effects of appearance-related social comparisons to thin-ideal women in the media (Irving, 1990; Stice, Schupak-Neuberg, Shaw, & Stein, 1994; Stice & Shaw, 1994). For example, Hawkins and Richards (2004) found that women who were exposed to thin-ideal media images showed an increase in body dissatisfaction and negative mood states compared to those in the control group. Furthermore, Irving (1990) experimentally manipulated exposure to the thin ideal and found that participants who viewed images of thin models reported lower levels of self-esteem and body satisfaction than participants who viewed images of overweight models or no models.

Social Comparisons to Peers

Research provides support that women will compare themselves to thin-ideal peers as much as they

compare themselves to thin-ideal women in the media (Strahan et al., 2006). In the current study, participants compared themselves to a hypothetical roommate. A roommate comparison target was chosen because appearance-related social comparisons with peers, rather than media images, are more frequent due to daily interactions (Wasilenko et al., 2007). Additionally, roommates are important figures to undergraduate women in college, yet have received little attention in the literature. According to Festinger (1954), individuals are more likely to make comparisons to similar others to gain the most accurate information about themselves. Cash, Cash, and Butters (1983) noted that participants are more likely to compare themselves to attractive similar others than to attractive dissimilar others, such as professional models. According to Krones et al. (2005), comparing oneself to an attractive peer might make the thin ideal more attainable than comparing oneself to a professional model.

To date, there has been little research conducted on the effects of appearance-related social comparisons to peers. In one study, Lin and Kulik (2002) experimentally manipulated exposure to a thin or overweight peer to look at the effects of social comparisons on body satisfaction. In their design, participants compared themselves to a peer in a context of a dating game. They found that participants who compared themselves with a thin peer showed an increase in body dissatisfaction, yet comparison to an overweight peer had no statistically significant effect. Similarly, Krones et al. (2005) exposed participants to a thin-ideal peer or an average size peer with whom they would be competing for a potential date. Their results indicated that comparison to the thin-ideal peer statistically significantly increased participants' body dissatisfaction.

Current Study

The nature of the social comparisons in the Krones et al. (2005) and Lin and Kulik (2002) studies were competitive, meaning that participants were essentially competing with a peer for a date. In the current study, the nature of the social comparisons was cooperative because the hypothetical roommate would become the participant's friend and living partner. To our knowledge, no studies have manipulated roommate body type to consider the effects of appearance-related social comparisons to a roommate. The present study will add to the literature by examining the possible effects of appearance-related social comparisons to roommates with different body types such as under-

weight, thin, fit, or overweight. It was believed that roommate body type would have an effect on the mood, desire to change eating and exercise habits, and body image satisfaction of the participant.

As previously mentioned, upward appearance-related social comparisons, as opposed to downward comparisons, are associated with negative mood and body dissatisfaction (e.g., Leahey et al., 2007). If a discrepancy occurs when making the comparison, then an individual will engage in behaviors to reduce that discrepancy (Harrison, 2001). Because the present study deals with a range of possible comparisons, separate hypotheses were generated for upward and downward comparisons, as different results were expected. It was hypothesized that participants exposed to an underweight, thin, or fit peer would make an upward appearance-related social comparison. As a result, they would experience a decrease in mood and body image satisfaction, and indicate a positive change in eating and exercise habits. For participants exposed to an overweight roommate, it was hypothesized that they would make a downward appearance-related social comparison. Thus, participants with an overweight roommate would experience an increase in mood and body image satisfaction, and indicate a positive change in eating and exercise habits.

Method

Participants and Procedure

Participants ($N = 150$) were recruited from various dormitory residences from the University of Iowa. Participants were all females, ages 18-23 ($M = 19.2$, $SD = 1.1$). The majority of the participants identified themselves as Caucasian ($n = 120$). Five participants were excluded from data analysis because they did not complete the second half of the survey needed to measure changes in the dependent variables. A total of 145 participants were included in the final data analysis. All participants gave informed consent prior to beginning the study. Participants completed the survey packet and demographics questionnaire.

Materials

The survey packet contained questions that assessed mood, eating and exercise habits, and body image satisfaction. The packet was put together in the following order: first survey, picture of hypothetical

roommate, second survey. The packet was a self-report instrument and was kept short in order to recruit participants to the study. For this purpose, commonly used scales for body dissatisfaction and eating disorder symptomatology (e.g., Drive for Thinness, Eating Disorder Inventory) were not included in this study.

Specific survey questions were chosen and grouped in clusters based on mood, body image satisfaction, eating habits, and exercise habits. The composite scores for each dependent variable were computed by summing the responses from the individual questions in that category to create a reliable measure. In the reliability analysis using Cronbach's alpha, the mood questions (3 items; $\alpha = .92$), eating related questions (3 items; $\alpha = .81$), exercise related questions (3 items; $\alpha = .86$), and body image satisfaction questions (3 items; $\alpha = .94$) were found to be reliable.

Each question was rated on a 5-point Likert scale (1 = *strongly agree* to 5 = *strongly disagree*). An example of a mood-related question is "What kind of mood are you in *right* now?" An example of a body image-related question is "I see myself as someone who is…" with a response given on a Likert scale indicating 1 = *overweight* to 5 = *underweight*. An example of an eating-related question is "I would like to eat healthier (e.g., more fruits and veggies, drink more water)." Finally, an example of an exercise-related question is "I would like to be more active and get in shape." Following the first survey, a description and photo of an underweight roommate, thin roommate, fit roommate or overweight roommate was presented. Each packet only displayed one image of a hypothetical roommate, so each participant only viewed one roommate body type. After the presentation of the photo, a manipulation check was included that asked the participant to "Rate your new roommate's physical appearance" on a Likert scale ranging from 1 = *overweight* to 5 = *underweight*. Then, the second survey featured the same mood, eating, exercise and body image related questions as previously described. Finally, a demographics page was included to assess the participants' age, height, weight, year in school, and ethnicity. Height and weight was reported and used to calculate the participants' BMI (Body Mass Index; National Heart Lung and Blood Institute, 2012) as an objective measure of body type.

Research Design

The independent variable, which was the roommate's body type, has four levels: underweight, thin,

fit, and overweight. The dependent variables include changes in mood, changes in eating and exercise habits, and satisfaction with body image. Each dependent variable was measured before and after seeing a photo of a hypothetical roommate. An increase in scores from the first (before photos shown) to the second (after photos shown) survey indicates a positive mood, a desire to positively change eating and exercise habits, and satisfaction with one's body image. A positive change in eating and exercise habits refers to the participants wanting to engage in more health conscious behaviors such as eating more fruits and vegetables, and exercising multiple times a week. A decrease in scores from the first to the second survey indicates a negative mood, a desire to negatively change eating and exercise habits, and dissatisfaction with one's body image. A negative change in eating and exercise habits refers to the participants wanting to engage in more unhealthy behaviors such as frequently eating fast food and not exercising multiple times a week. Analysis consisted of repeated measure MANOVA. Assumptions for MANOVA were not violated.

Results

A manipulation check was included after participants viewed a photo of their hypothetical roommate to confirm that they believed she was underweight, thin, fit, or overweight. Participants perceived the underweight roommate as underweight (96% agreement). Participants perceived the thin roommate as nearly underweight (95% agreement). Participants perceived the fit roommate as fit (86% agreement). Finally, participants perceived the overweight roommate as overweight (96% agreement). Participants' responses indicate that they classified their hypothetical roommate as intended by the researcher.

A repeated measure multivariate analysis of variance (MANOVA) was conducted to compare the effect of roommate body type on participants' change in mood, desire to change eating and exercise habits, and body image satisfaction. The MANOVA revealed that across the dependent variables, there was a statistically significant main effect of change in responses from the first survey (before photo) to the second survey (after photo), Wilk's Lambda = .97, $F(1, 141) = 4.10$, $p = .046$. However, there was no statistically significant interaction found between the roommate body type and time of measure, Wilk's Lambda = .97, $F(1, 141) = 1.47$, $p = .225$, indicating that the roommate conditions did not differ from each other. The

Table 1
Summary of Mean Scores for All Roommate Conditions Across Each Dependent Variable From the First Survey to the Second Survey (With Standard Deviations in Parentheses)

	Mood		Eating		Exercise		Body Image	
	1st Survey	2nd Survey	1st Survey	2nd Survey	1st Survey	2nd Survey	1st Survey	2nd Survey
Roommate	*M (SD)*	*M (SD)*	*M (SD)*	*M (SD)*	*M (SD)*	*M (SD)*	*M (SD)*	*M (SD)*
Underweight	11.25 (1.94)	11.39 (2.01)	11.07 (1.59)	10.86 (1.51)	12.07 (1.68)	12.29 (1.84)	7.68 (1.70)	7.93 (1.90)
Thin	11.13 (2.24)	11.37 (2.19)	10.77 (1.93)	11.08 (1.77)	11.42 (1.93)	11.70 (1.99)	7.82 (1.56)	7.96 (1.49)
Fit	11.64 (1.54)	11.12 (1.91)	10.93 (1.56)	11.21 (1.79)	11.86 (1.76)	12.00 (1.47)	7.86 (1.43)	7.75 (1.53)
Overweight	11.21 (2.24)	11.07 (2.37)	9.62 (1.90)	9.97 (1.82)	11.10 (1.70)	11.55 (1.82)	7.52 (2.01)	7.48 (1.98)

Note. Participants in each roommate condition are as follows: underweight ($n = 28$), thin ($n = 60$), fit ($n = 28$) and overweight ($n = 29$).

two-way interaction between time of measure, dependent variable, and roommate condition was not statistically significant, Wilk's Lamda = .929, $F(1, 141) = 1.16$, $p = .318$. A detailed look at the responses from participants in each roommate condition is shown in Table 1.

To uncover which dependent variable statistically significantly differed from the first to the second survey, repeated measures *t* tests were conducted. A Bonferroni correction was applied to correct for the multiple *t* tests, changing the alpha level from .05 to .0125 (Norusis, 2008). It was found that the desire to positively change exercise habits was statistically significantly different from the first survey to the second survey across all roommate body type conditions, $t(144) = -2.60$, $p = .010$. Additionally, analysis revealed a marginally statistically significant positive change in eating habits from the first survey to the second one across all roommate body type conditions, $t(144) = -1.76$, $p = .081$. Change in mood from the first survey to the second survey was not statistically significant across all roommate body type conditions, $t(144) = 0.07$, $p = .942$. Change in body image satisfaction from the first survey to the second survey was also not statistically significant across all roommate

Table 2
Summary of Means and Standard Deviations for Responses on Mood, Eating, Exercise and Body Image Variables From First to Second Survey Across All Roommate Conditions

Variables	First Survey		Second Survey	
	M	*SD*	*M*	*SD*
Mood	11.27	2.05	11.26	2.12
Eating	10.63	1.85	10.84	1.78
Exercise	11.57	1.82	11.84	1.84
Body Image	7.74	1.65	7.82	1.68

Note. A higher score from first to second survey indicates a better mood, positive change in eating and exercise habits, and satisfaction with body image. $N = 145$.

body type conditions, $t(144) = -1.24$, $p = .215$. Summary of the responses on each dependent variable across all roommate body type conditions are shown in Table 2.

Discussion

The present study tested whether appearance-related social comparisons to a roommate would have an effect on undergraduate women's mood, desire to change eating or exercise habits, and body image satisfaction. The results reveal that participants' showed a statistically significant change in responses from the first survey to the second survey. Specifically, participants expressed a desire to engage in more health conscious exercise habits. Contrary to the hypothesis, this was seen for participants' with an underweight roommate, thin roommate, fit roommate, and overweight roommate. Because the statistically significant positive change occurred in all roommate conditions, roommate body type did not have a differential effect on a participant's desire to change their exercise habits.

In between the first and second survey, participants viewed a photo of a hypothetical roommate. The present findings indicate that comparison to a roommate, regardless of the roommate's body type, results in a desire for positive behavioral changes such as a desire to exercise more frequently. These findings shed light on important considerations for the field. First, comparisons to various body types may have similar effects in undergraduate women, but for different reasons. For example, participants in all roommate conditions expressed a desire to engage in more exercise. For those participants with an underweight, thin, or fit roommate, this desire may be attributed to wanting to look like their roommate, because undergraduate women are influenced by sociocultural pressures to be thin (Fitzsimmons-Craft, 2011; Striegel-Moore et al., 1986). In line with self-discrepancy

theory, participants were made aware that their body did not look like their roommate's body after viewing the roommate photo. To reduce the discrepancy, participants indicated a desire to exercise more in hopes of attaining a thinner body type (Fitzsimmons-Craft, 2011; Harrison, 2001). This explanation is consistent with the desire to be thin among undergraduate women (Fitzsimmons-Craft, 2011).

For those participants with an overweight roommate, the desire to engage in more exercise may be attributed to not wanting to look like their roommate. For example, Wasilenko et al. (2007) observed the effects of social comparisons to a fit or unfit peer in a college recreation center. It was found that women exercised for a longer time when an unfit peer was within their view, suggesting they were motivated to avoid looking like the unfit peer (Wasilenko et al., 2007). Perhaps appearance-related social comparisons to an overweight roommate increase salience of the thin ideal by reminding the woman of what not to become (e.g., overweight).

Second, undergraduate women make appearance-related social comparisons to their roommates. Unlike most studies on appearance-related social comparisons (e.g., Lin & Kulik, 2002), the present study used a roommate as a comparison target. Previous research on appearance-related social comparisons required participants to compete with a thin or attractive peer for a hypothetical date (Krones et al., 2005; Lin & Kulik, 2002). This scenario is potentially threatening to the participant, who risks losing a dating partner on the basis of her looks and body type (Lin & Kulik, 2002). Such instances may require a woman to critically compare herself to the other, resulting in a pattern of decreased mood and body satisfaction that is seen within the appearance-related social comparison literature. In the present study, however, participants were presented with a hypothetical roommate who they would be living with. Sharing an apartment or dorm room does not require one female to win over the other, allowing for a non-competitive scenario. The findings indicate that comparisons to a roommate can lead to positive changes in participants, such as a desire to eat healthier or exercise more. Thus, the effects of appearance-related social comparisons may depend on who the comparison target is. The importance of these findings is that appearance-related social comparisons to a roommate may lead to positive outcomes in undergraduate women, not negative consequences that are traditionally seen with comparisons to other peers or women in the media (e.g., Irving, 1990). It appears that comparisons to a roommate are not detrimental to undergraduate women, yet comparisons to other peers are, as shown by the available literature. The present study adds to the area of appearance-related social comparisons by suggesting that comparisons to roommates may have positive outcomes for undergraduate women.

In light of these findings, it is important to consider their importance to the area of eating pathology in undergraduate women. Because the negative consequences that are typically associated with appearance-related social comparisons have been shown to lead to disordered eating (Stice et al., 1994), insight into lessening or eliminating these negative consequences may help the young women who are at risk. Further examination of appearance-related social comparisons to roommates is warranted, as well as addressing various body types in such comparisons.

Limitations

This research has some limitations. First, the stimuli set used for the hypothetical roommates was not standardized. Although the images intended to portray a different body type, which is an important feature of the study, the face and clothing varied for each roommate. Therefore, it is possible that participants reacted to features other than body type when making an appearance-related social comparison. Additionally, it is possible that the roommate photos did not effectively distinguish between the different body types. Although the manipulation check confirmed that participants believed their hypothetical roommate was underweight, thin, fit, or overweight, the participants may have used other characteristics of the roommate's photo in their comparison. This limitation may explain why there was no interaction involving roommate body type found during analysis. Lin and Kulik (2002) used computer software in their experiment to create images of a thin and overweight peer that had an identical face. This technique controlled for the possible confound of facial attractiveness and should be considered in future research. Second, the sample used in this study was undergraduate college women so the results may not be generalized to other populations. However, because college-aged women display high rates of body dissatisfaction and are likely to engage in social comparisons, studying this group is justified. A final limitation of the study is that the survey did not explicitly ask participants if they felt better off, or worse off, in appearance compared to their roommate. Although participants indicated their level of

happiness with their physical appearance, this information is not enough to conclude whether an upward or downward comparison occurred. A possible survey item to include in future studies is "I have a better body shape compared to my roommate," with responses given on a Likert-type scale that ranges from agree to disagree. Including this measure would provide insight into the direction of the appearance-related social comparison and help explain why participants in all roommate conditions expressed a desire to positively change their exercise habits.

Future Directions

As indicated by the present findings, appearance-related social comparisons to a roommate may result in positive outcomes for undergraduate women. Future studies should investigate this unique interpersonal relationship to understand the differences between comparisons made to roommates and comparisons made to other types of peers. Also, the degree to which undergraduate women rely on body type in appearance-related social comparisons to roommates versus comparisons to other types of peers should be addressed. Although unpredicted, roommate body type did not influence participants' responses from the first to the second survey on any of the dependent variables. The area of appearance-related social comparisons to roommates is largely unexplored, and comparison targets used in previous studies do not vary in body type. Therefore, no conclusion can be drawn as to why roommate body type had no apparent impact. One explanation is that comparing oneself to a roommate does not impose threat or competition. As previously explained, this type of comparison target may result in less critical social comparisons. Since no differences between participants were found across the roommate conditions in the present study, replication of these results would provide support that participants focus less on body type when making an appearance-related social comparison to a roommate. Additionally, future researchers should use various body type photos, rather than concentrating only on the thin ideal, so that they don't mistakenly believe the changes observed are unique to a single body type.

Conclusion

Research on social comparisons and body dissatisfaction has focused on comparisons to thin peers or thin women in the media. The purpose of this study was to examine the effects that occur from appearance -related social comparisons to a roommate. Roommates are an important figure in a college environment, yet have received little attention in the literature. In the present study, we exposed participants to roommates with different body types, which allowed for manipulation of the roommate's physical appearance. Using a wide range of body types was an important feature of the study. Since roommates in university housing can be any shape or size, the manipulation of roommate body type represented a real world occurrence for undergraduate women. Although roommate body type did not have an effect on the participants' responses, results indicated that comparisons to a roommate could result in positive outcomes for undergraduate women. We suggest that the effects of appearance-related social comparisons depend on who the comparison target is. In contrast to previous social comparison research, our roommate comparison target was presented in a non-competitive scenario. Thus, we did not see the pattern of a decrease in mood and body satisfaction that is reported within appearance-related social comparison literature. This unique roommate relationship warrants further research as appearance-related social comparisons to roommates may benefit young college females.

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Commitment: The Key to Women Staying in Abusive Relationships

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Much of the previous research examining why some women choose to remain in abusive relationships suggests that women remain with an abusive spouse for a number of reasons, many of which place blame on themselves or their partner instead of the situation (Eckstein, 2011). While personal and contextual reasons for remaining in a relationship are important, we argue that factors such as the commitment process may be the most difficult to overcome once a woman makes the decision to leave the relationship. Cialdini's (2009) influence principle of commitment and consistency suggests that once a decision is made, people will typically do whatever they can to remain consistent with that decision. In the case of women in abusive relationships, abuse may not begin until the relationship has lasted for years. Implications for commitment and consistency in abusive relationships will be discussed, as well as proposed mechanisms such as the Foot-in-the-Door effect and cognitive dissonance.

Keywords: domestic violence, commitment, consistency, cognitive dissonance, foot-in-the-door

Les recherches examinant les raisons qui motivent une femme à demeurer dans une relation abusive suggèrent souvent que le choix de rester avec un conjoint violent est influencé par, notamment, le blâme que porte la femme sur elle-même ou sur le conjoint plutôt que sur la situation (Eckstein, 2011). Bien que les facteurs de motivation personnels et contextuels soient importants, nous soutenons que ceux liés au processus d'engagement sont les plus difficiles à surmonter suite à la décision de quitter une relation marquée par la violence. Les principes d'engagement et de consistance de Cialdini (2009) suggèrent que, suite à une décision, les gens tenteront de maintenir la consistance en lien avec celle-ci. Dans le cas de la violence conjugale, les abus peuvent se manifester plusieurs années après le début de la relation. Les implications ainsi que des mécanismes tels que le « pied-dans-la-porte » et la dissonance cognitive seront discutés.

Mots-clés : violence conjugale, engagement, consistance, dissonance cognitive, pied-dans-la-porte

Domestic Violence Statistics (2012) indicates that at least one in three women report becoming the victim of some type of abuse during their lifetime. Furthermore, domestic violence is the number one cause of women's injuries throughout the United States (Domestic Violence Statistics, 2012). Research conducted by Enander (2010) suggests that domestic violence survivors have trouble understanding why they and other victims of abuse stay in abusive relationships for so long. Owing to the prevalence of abuse in today's society it begs the question, why do so many women find it difficult to leave their abusive

relationships? Commitment to the abuser and consistency within the relationship are potential answers that could be studied by psychologists and other social scientists as a means to understand this societal problem.

The initial commitment to a relationship may lead a woman to ignore and/or discount the first signs of abuse, and subsequently she may be more likely to stay in the relationship with continuing abuse because of her initial commitment to the relationship (Rusbult & Martz, 1995). In the present paper, we propose that the initial commitment and the motivation to maintain consistency between individuals' attitudes and behaviors (cf. Fishbein & Ajzen, 2010) may perpetuate this process and explain why some women choose to remain in abusive relationships, even though they know it is unhealthy. Cialdini (2009) has proposed the role of commitment and consistency in dysfunctional relationships in his book, *Influence: Science and Practice*.

However, he proposed it in an anecdotal manner as a means to illustrate the commitment and consistency-process. In this paper, we expand on this anecdote, focus specifically on domestic violence, and make theoretical and conceptual linkages using existing relevant research to transform this anecdote into a potential moderator explaining why women find it so difficult to leave abusive relationships. In accomplishing this goal, specific commitment and consistency based phenomena including the Foot-in-the-Door effect and cognitive dissonance will be discussed in depth.

Domestic Violence in Romantic Relationships

Why do women stay in abusive relationships? Research has focused on some interpersonal aspects of their relationship and how these factors may impact their decision to stay. For example, according to Herbert, Silver, and Ellard (1991), women in violent romantic relationships focus on the positive interpersonal aspects (i.e., love for their partner) of the relationship instead of the negative (i.e., abuse from their partner) in order to cope with their relationship. In support of this thinking, a study conducted by Eckstein (2011) also found that domestic violence victims tend to focus on positive aspects of the relationship or even made excuses for why abuse was prevalent within the relationship. Also, these women may make interpersonal comparisons such as comparing their situation to women who experience more abuse than they do (Herbert, Silver, & Ellard, 1991). This could lead them to be somewhat thankful that their relationship is not as bad as they think it could be and also may increase their positive view of their own relationship (Herbert, Silver, & Ellard, 1991). Furthermore, research suggests that women attributing domestic violence as their partner's fault rather than their own are more likely to leave the relationship (Truman-Schram, Cann, Calhoun, & Vanwallendael, 2000) while those blaming themselves for the abuse are more likely to stay in abusive relationships (Patzel, 2006). Patzel (2006) also reported that reasons why women stay in abusive relationships include loving their abuser and having difficulty labeling the acts as abuse. Thus, attributions of blame and other personal factors may force the typical abused woman to cope with her abusive spouse rather than leave the relationship.

In addition to examining personal factors, previous research suggests that the characteristics of the relationship (i.e., interpersonal factors) play a key role in explaining why women stay in abusive relationships. Gelles (1976) reported that the frequency and intensity of abuse throughout the relationship influence a woman's decision to stay or leave. Women were more likely to leave if the violence was more intense (i.e., being shot at, choked, or struck with object other than hand) or if violent acts occurred frequently (i.e., weekly or daily; Gelles, 1976). Also, Schutte, Malouff, and Doyle (1988) found that the number of relationship separations (i.e., temporary break-ups) predicted women's likelihood of leaving their abusive spouse as more separations were linked to an increased rate of leaving. On the other hand, Rusbult and Martz (1995) found that women with a stronger commitment to an abusive relationship tended to be less educated, had less financial resources and had children with the abusive spouse, or had been involved with the relationship for an extended period of time, suggesting that characteristics of the victim and the situation also play a role. Research suggests that women who fulfill a traditional gender role are more likely to be committed to abusive relationships (Stuve, 1998; Truman-Schram et al., 2000). This could be explained by the fact that those women consider a relationship with a man as a vital part of their existence as a woman (Truman-Schram et al., 2000). Furthermore, there may be children involved and, owing to the traditional roles they fulfill, these abused women may not have an income stream should they leave the relationship (Stuve, 1998). In sum, if a woman believes she should be part of a traditional, intimate relationship with her partner, she may develop a deeper sense of commitment to him because it is important to her traditional gender role.

As reviewed above, previous research has done an extensive job at uncovering personal, interpersonal and contextual reasons for women staying in abusive relationships, but few, if any, have explained the mechanism behind the development of their commitment. Specifically, the above research focuses on the personal (e.g., traditional gender role and level of education of the victim), interpersonal (e.g., love for a partner or social comparison) and situational (e.g., frequency and intensity of abuse, the victim's financial situation, and having children with the abuser) aspects of abusive relationships. While each of the reasons reported above as explanations to why women stay in abusive relationships is important, we argue that other aspects of the context or situation an abused woman finds herself in (e.g., using behavior from a previous situation as a guide to how to behave in a current situation) might contribute to her commitment to the abusive relationship, though she may not explicitly be aware of them. According to Anderson and Saunders (2003), many scholars believe that women

who have previously been exposed to abuse were more likely to stay with an abusive spouse. A study conducted by Rusbult and Martz (1995) reported that women with a stronger commitment to the relationship had been involved with the relationship for an extended period of time and were more likely to return to their abusive partner instead of ultimately ending the relationship. These results suggest that commitment and consistency to abusive relationships are important underpinnings of the reason why women stay in these relationships. However, we argue that the socio-psychological process through which commitment within an abusive relationship occurs has yet to be thoroughly studied. By interpreting abusive relationships through the lens of the social influence principle of commitment and consistency, we seek to increase our understanding of the socio-psychological factors that may cause a woman to stay with a violent partner. Specifically, we seek to examine the common situations abused women find themselves in and how these situations make it difficult to leave the relationship. We take the perspective that the general tendency for individuals to want to be (and be seen) as committed and consistent in their behaviors across situations may lead to commitment to a relationship, even if it is a bad one.

Commitment and Consistency as the Key

Cialdini (2009) defines commitment and consistency as the act of making a choice and encountering internal and external pressure to act in a manner consistent with an individuals' commitment. In other words, once we make a decision we will typically act in a manner that makes our actions remain consistent with that decision. Importantly, this tendency to want to maintain consistency with previous commitments is a general one that applies to many individuals and across many situations (we do not like to be perceived as "flip-floppers" or as people who say one thing but do another). An example illustrating how commitment and consistency might apply to women in abusive relationships can be seen in research conducted by Gryl, Stith, and Bird (1991). It indicates that women often first encounter relationship abuse during their high school years. Women that are exposed to abuse as early as high school may become accustomed to abuse and feel that it is acceptable during marriage, according to Truman-Schram et al. (2000). Furthermore, 30% of women in a sample aged 18-25 stated that they had experienced abuse during a previous relationship (Truman-Schram et al., 2000). The implication is that additional experiences of abuse may be tolerated or

become more normal to women because of previous experiences and commitment to relationships in which abuse occurred. Developing this feeling of consistency and normalization of abuse may transfer to many different situations, which may include, but are not limited to, consistently ending up in violent relationships or simply developing a ambivalent attitude towards abuse in general (Wood, 2001).

This paper will mainly focus on abused women's consistency of accepting abuse within a relationship as a means to further explain why she stays in the relationship. The foot-in-the-door (FITD) effect (Freedman & Fraser, 1966) and cognitive dissonance theory (Festinger & Carlsmith, 1959) provide two mechanisms for how commitment and consistency may cause an abused woman to remain in an unhealthy relationship. Therefore, we will review the literature on the FITD and cognitive dissonance theory and tie these two commitment and consistency phenomena to abusive relationships. Specifically, we argue that the principle of commitment and consistency is useful in understanding why women stay in abusive relationships through (1) escalating commitments – in particular tolerating escalating severity of abuse (via a FITD process); and (2) the tendency to avoid or to try to reduce feelings of dissonance (arousal) when our attitudes do not match our behaviors (via a cognitive dissonance mechanism).

Foot-in-the-Door Effect

The principle of commitment and consistency is demonstrated by the foot-in-the-door effect. According to Freedman and Fraser (1966), the FITD effect occurs when someone who complies with a small, initial request becomes more likely to comply with a second, larger request in the future. Although complying with the larger, "target" request may not be something they intended to do in the beginning—indeed people in the control condition that only received the larger target request mostly refused to comply—the need to remain consistent from one request to the next can influence individuals who complied with the initial request into complying with the final request (see Cialdini & Guadagno, 2004, for a review). The study conducted by Freedman and Fraser (1966) demonstrated the FITD effect at work with Californian housewives. Experimenters contacted these women over the phone and asked initial questions pertaining to their household cleaning items. Three days later, participants were contacted with a request to allow multiple men in their house for a two-hour inventory

of their cabinets and storage spaces. Freedman and Fraser found that those who agreed to the initial request were significantly more likely to comply with the second, much larger request three days later relative to those who did not answer those initial questions. An increased rate of compliance in the FITD condition can be explained by the principle of commitment and consistency. Participants who agreed to the initial request may experience some internal pressures to make their actions remain consistent when confronted with the second, somewhat preposterous request. Freedman and Fraser explained this with self-perception theory (Bem, 1967), which states that people look to their prior behavior to infer their current attitude. This is the widely accepted explanation of the FITD and it has been replicated across many contexts (Burger, 1999). Thus, applied to the FITD effect, self-perception theory predicts that people who agree with the larger, target request that follows the initial request do so because through agreeing with the initial request they come to infer they are the kind of person who agrees to requests on the particular topic in question (e.g., helping the homeless, promoting cancer prevention). Thus, the initial request may seem small, but saying yes to it leads people to infer their attitude toward the topic of the initial request from their agreement with the initial request.

The FITD effect and self-perception theory can be applied to abusive relationships by considering why a woman chooses to stay with an abusive male partner. Perhaps abuse slowly begins years into the relationship after she has already developed a strong sense of love and commitment to the man and relationship. There may be children involved, increasing the commitment. The woman may endure initial, slight acts of abuse, which will eventually lead to slowly escalating violence in the future (Griffing et al., 2002). For example, the abuse may begin with an intense verbal dispute, something that would not give a woman reason to leave her spouse. Over time, the verbal disputes could escalate to the extent that her partner or spouse proceeds with physical abuse. Eventually, she may find herself in a position where she should abandon the relationship, but instead chooses to stay because of the factors reviewed above and a positive attitude toward the relationship inferred by her past actions. Specifically, her previous choice to stay in the abusive relationship while the abusive acts were "minor" have lead her to develop an attitude towards the relationship that does not include the option of leaving. According to the commitment and consistency principle and self-perception theory, deciding to stay in the young rela-

tionship will lead her to stay in the future because she believes she is the type of person that is consistent with her prior actions. As a result, leaving the relationship now is not an option because she has been committed for an extended period of time and ending the relationship would be inconsistent with her prior behavior. Her initial, minor exposure to abuse in the relationship that gradually worsened makes her a prime target for the FITD effect and inferring a more positive attitude than objectively called for toward the relationship owing to self-perception theory. Thus, she is more likely to rationalize extreme acts of abuse because they gradually increased in frequency and severity.

Cognitive Dissonance Theory

The principle of commitment and consistency is also apparent in the theory of cognitive dissonance (Festinger & Carlsmith, 1959). According to Festinger and Carlsmith, cognitive dissonance occurs when an individual experiences discrepancies between his actions and attitudes. An individual experiencing dissonance will make any attempt necessary to reduce or prevent the psychological discomfort caused by the cognitive dissonance, whether it be through modifying his or her attitudes or avoiding situations that may lead to increased dissonance. A study conducted by Festinger and Carlsmith (1959) illustrates cognitive dissonance in a sample of college students. Each participant was required to perform a series of monotonous tasks for an extended period of time. Once they completed the task, an experimenter asked them to tell the next participant that the study was not boring, but was, in fact, enjoyable. Some participants were given one dollar (insufficient external justification) for this deed, while others were given twenty dollars (sufficient external justification). Although each student experienced dissonance upon the request of the experimenter, those who were given twenty dollars experienced less dissonance because that amount of money was high enough for them to justify the deception over the entertainment level of the experiment. Students who were given one dollar where not able to make justifications based on earnings, but instead changed their attitude about the study in order to reduce dissonance. Therefore, those participants who were paid one dollar reported the task as genuinely being more entertaining than those who gained twenty dollars.

In examining the reasons for women remaining with abusive partners, cognitive dissonance theory can

be quite useful. Women in abusive relationships may experience high levels of dissonance resulting from their negative attitude towards the abuse in the relationship and their inability to leave the relationship. If they feel "trapped" in the relationship, they may be inclined to change their negative attitude pertaining to the relationship or the abuse, whether they know it or not. While changing their attitude to be more positive towards the relationship and the abuse will reduce any experienced dissonance, a newly positive outlook on abuse could be more dangerous - leaving the relationship may become more difficult if the abused woman has a positive outlook on the relationship and/or abuse. Once the woman commits to an attitude change that results in her adopting positive feelings towards the abusive relationship, she will continue to have those positive emotions due to the human nature of wanting to remain consistent with our thoughts and actions, therefore reducing dissonance. For example, a woman who gradually becomes exposed to violence may justify the abuse as much as necessary to make it seem less dangerous. These justifications may lead her to unknowingly change her attitude of abuse over time. Eventually, her experienced dissonance will be at a minimum because her actions and attitudes have become consistent – she remains in the abusive relationship while developing a progressively more positive outlook on the relationship. This does not mean she thinks abuse is acceptable and wishes to be in a violent relationship, rather she feels most comfortable within the relationship whenever her cognitive dissonance is at a minimum.

Leaving the Relationship

Much research has focused on reasons for a woman remaining in a relationship with an abusive partner, but few, if any, plans for leaving the relationship have been proposed. We argue that the processes described above can also be applied to leaving an abusive relationship. Wuest and Merritt-Gray (1999) concluded that leaving the relationship does not usually occur in one step, but rather a progression of steps beginning with a decision to resist abuse to finally leaving the relationship for good. By starting with a series of small steps that lead to the ultimate decision of breaking away from an abuser, a woman is in fact applying the same method that could have gotten her into the violent relationship in the first place – consistency as reflected by the FITD effect. Each additional step she is able to complete would make turning back more difficult because having inconsistent actions is something most people tend to avoid (Cialdini, 2009).

Women who find themselves in a relationship that shows any basic signs of a future filled with domestic violence should try their hardest to leave the relationship early. As previous research shows, the longer the abusive relationship develops the stronger the commitment the woman seems to have to the relationship (Truman-Schram et al., 2000).

Any woman wanting to leave an abusive relationship may want to abandon their partner immediately, but the best route may be for her to take it one step at a time. In doing so she will be utilizing the principle of commitment and consistency through the foot-in-the-door mechanism. Initially, a woman may want to see a therapist or counselor in order to map out her escape plan. The therapist can provide further aid by setting the woman up with the appropriate person to activate a restraining order and connecting her with networks for abused women. A legal restraining order will help the woman counteract any feelings of commitment that may remain for the man or relationship. Once she removes any possessions from the abuser's house, she may want to move in with a close friend, relative, or shelter in a location undisclosed to her abuser. This new situation will likely provide her with a sense of security that is necessary for her to continue on a path of consistency that moves away from her previous relationship and out of the grasp of her abuser. After a sufficient amount of time, she will find moving out on her own easier and will be more comfortable living on her own or with any children she may have. Taking this route may also make leaving her spouse easier on her children because they will gradually see him less and less (justice system willing).

Discussion

In this paper, we argued that, in addition to already well known factors affecting women in abusive relationships (Anderson & Saunders, 2003), commitment and consistency is a component of both the continuation of an abusive relationship as well as a woman's final escape. Given the high prevalence of abuse in relationships, we urge researchers and practitioners to consider consistency as one aspect of domestic violence. While one limitation of this theory is that it still needs to be tested, we assert that the principle of commitment and consistency is an important variable that, once supported by future research, will provide intervention and relief efforts with a new perspective for aiding abused women.

Abusive relationships are extremely dangerous for women (and any children involved) who are unable to discern an escape route (Anderson & Saunders, 2003). Once an individual falls prey to the commitment and consistency principle in an abusive relationship or any other context, deflecting its influence is not easy. Perhaps the best way to decrease the number of abusive relationships is by educating women before they find themselves trapped in one. If more women knew about the factors—including social influence, the scientific study of the influence of external factors on individuals' attitudes and behavior—that may lead one to become trapped in a violent relationship by their own consistency, they would be able to avoid such factors and place themselves in positions that are not favorable to abuse. According to Cialdini (2009), the best way to evade the power of commitment and consistency is to trust one's gut, and if something does not feel right, be cautious or avoid the person or situation that is producing the discomfort. Other research suggests that making people aware of their susceptibility to influence can reduce its impact (Sagarin, Cialdini, Rice, & Serna, 2002).

Limitations and Future Directions

In order to better protect women in our society, future studies should examine any factors that may make women more susceptible to abuse, as well as factors that may contribute to a woman's decision to leave or stay. Perhaps the only way to understand why some women choose to remain with an abusive spouse is by comparing women in different relationships (abusive vs. non-abusive). Such studies should measure personality variables such as preference for consistency (Guadagno & Cialdini, 2010).

According to Guadagno, Asher, Demaine, and Cialdini (2001), the Preference for Consistency (PFC) Scale measures an individual's desire to remain consistent. Thus, individuals with a high preference for consistency make every attempt to create consistency between their attitudes and actions where an individual scoring low on the PFC Scale may be more unpredictable from one situation to the next. Perhaps women with a higher preference for consistency tend to stay in abusive relationships more than women with a lower preference for consistency, as these women may be more susceptible to the FITD effect and also more likely to be bothered by dissonance should there be a discrepancy between their attitudes and behaviors. Future research should examine this question.

Furthermore, social efforts should be made to teach people, particularly those vulnerable to abusive relationships, about the disadvantages of consistency in certain contexts. While generally, consistency with one's prior attitudes and behaviors is seen as an admirable quality (Guadagno & Cialdini, 2010), this is not likely the case for women in or at risk for abusive relationships. Thus, domestic violence preventions, interventions, and education should all include the pertinent components on self-perception theory (Bem, 1967), the FITD (Freedman & Fraser, 1966) and cognitive dissonance theory (Festinger & Carlsmith, 1959) so that at-risk women are well armed with social influence to avoid or escape abusive relationships.

Finally, this review focused on the most common type of domestic violence in which the woman is the target of the abuse and the man is the abuser. Thus, our analysis may not generalize to homosexual relationships or relationships in which the woman is the abuser (see Renzetti & Miley, 1996). Before these alternate scenarios can be considered, the hypotheses generated in this review need to be applied to heterosexual relationships in which the man is the abuser. Once support is found for the role of commitment and consistency in extending the duration of a dysfunctional relationship such as an abusive relationship, then less common relationships can be considered.

In conclusion, we have reviewed an important societal problem through the lens of the social influence processes of commitment and consistency (Cialdini, 2009). With this new perspective on a common source of dysfunction in relationships, we encourage other researchers to empirically examine the role of commitment and consistency in women's choice to stay in an abusive relationship and the role it also may play in her ultimate departure. Perhaps in doing so, we can develop interventions aimed at shattering the abused woman's feelings of commitment to the relationship and allow her and any children involved to live a better life.

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The Implications that a Co-Constitution of Mind and Modern Western Culture May Have for Health: An Evaluation of the Concept of Control

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A fundamental tenet of cultural psychology is the co-constitution of mind and culture. This essay undertakes to elucidate the implications for health that such a tenet has within our modern Western culture, through an evaluation of the concept of control. A sociological account of our individualist, capitalist and consumerist culture is proffered, outlining the fluid nature of what has been termed "liquid modernity" and the implications this has for one's identity. In particular, the role that control may play in the etiology or exacerbation of depression, anorexia nervosa and health outcome discrepancies across the social hierarchy – known as the "status syndrome". Contemporary Western culture may be seen to have a largely deleterious effect on health: It may contribute to depression and anorexia albeit having a positive effect on the health of those at the top of the social hierarchy through its propagation of the status syndrome.

Keywords: culture, identity, depression, status syndrome, anorexia nervosa

Un principe fondamental en psychologie culturelle est la fusion entre esprit et culture. Cet essai tente de soutirer les impacts potentiels qu'un tel principe peut avoir au sein d'une société occidentale moderne, et ce à travers l'évaluation du concept de contrôle. Un inventaire sociologique de notre culture individualiste, capitaliste et consommatrice est offerte, dépeignant la nature fluide de ce qui a été conceptualisé comme étant de la « modernité liquide » ainsi que ses implications sur l'identité. Notamment, le rôle du contrôle dans l'étiologie ou l'expression de la dépression, l'anorexie mentale et autres conséquences dû à une hiérarchie sociale : le syndrome du statut. La culture occidentale contemporaine semble avoir des effets corrupteurs sur la santé : elle contribue potentiellement à la dépression et à l'anorexie, bien qu'elle ait une influence positive sur la santé des individus hautement classés dans la hiérarchie sociale à travers la diffusion du syndrome du statut.

Mots-clés : culture, identité, dépression, syndrome du statut, anorexie

"People are the same wherever you go" sing Paul McCartney and Stevie Wonder in their song "Ebony and Ivory". Shweder (1990) posits that this line sums up a core assumption within general psychology. Namely, that there is an innate and universal processing mechanisms inherent in human beings. Cultural psychology refutes this, asserting that humans, including such processing mechanisms, are indelibly linked to, and shaped by, their sociocultural environments. Indeed, cultural psychology is premised on this, "the principal of intentional or constituted worlds", which asserts that humans and sociocultural environments "interpenetrate each other's identity and cannot be analytically disjoined" (Shweder, 1990, p. 1). In an attempt to address invalid generalisations about purportedly universal human psychological functioning based on one particular population, namely the contemporary Western White middle class, the theorizing of this principal has tended to focus on cultures outside this population (Shweder & Sullivan, 1993).

Going against this trend and aiming to supplement it, the present undertaking endeavours to delineate the implications that this co-constitution of mind and culture has for health within our Western modern, "first world" culture. It aims to do so through an examination of the concept of control that pervades this culture. Therein, it proffers an atypical verification of

the co-constitution of mind and culture. Thus, this discussion extends beyond prior literature which has tended to be strictly delimited by a particular paradigm; either mainstream clinical psychology or cultural psychology (MacLachlan, 1997). In contrast, the current undertaking serves to instantiate the relational metatheoretical principals which emphasize the inter-related and interdependent nature of cultural psychology and clinical psychology (Overton, 2007; Overton & Ennis, 2006; Ryder, Ban, & Chentsova-Dutton, 2011). This means that concepts such as that of control exist not only at, for instance, the psychological level investigated within clinical psychology but also at other levels of analysis, such as the sociocultural. In order to illustrate this transmission across the levels of analysis, the pertinent characteristics of this modern culture and their effect on one's identity will be discussed, followed by an explanation of the implications this may have for health. The current endeavour is likely to be better served by an in-depth analysis of a limited number of exemplars of control rather than a gleaning over of many. Hence, this explanation of health ramifications will centre on the role of control in depression, anorexia nervosa and in fostering health outcome discrepancies across the social hierarchy, known as the "status syndrome" (Marmot, 2004).

"Liquid Modern" Culture and Identity

Sociologist Zygmunt Bauman (2000) terms our modern Western culture "liquid modernity". "Liquid" referring to the fluid, continually changing quality that characterizes the individualist, consumerist and capitalist move of contemporary Western culture away from the more static, institutionalized and collective culture of preceding decades. Bauman explains that in these preceding Panoptical times (following from Bentham's Panopticon, epochs in which there was a reachable and knowable observer or authority), such as the Victorian era, there was a mutual engagement between the observer and the observed in society. This is embodied in the central role that work played in people's lives: Work was fundamental to one's identity since it was a means of fulfilment (Baumeister, 1987). For instance, a wealthy patron would commission a piece of work which served as an outlet for the creativity and passion of the craftsman. In our Post-Panoptical age, however, this mutual engagement between authority and citizens has ceased. The authority is now unreachable and fluid as in the case of the "absentee landlords" of modern day globalization. Or, as Harris (1981) affirms, in the case of the increasingly impersonal relations that now characterise producer

-consumer relations. This engenders apathy in both parties owing to the lack of ongoing social bonds, which adds to the cumulative effect of contemporary culture described by Drucker as "no more salvation by society" (Bauman, 2000, p. 30). Gilles Lipovetsky (2005) explicates this further, asserting that this tide of modernity has resulted in the dismantling of the normative and protective collective networks and institutions which were previously central to people's identity (see also Baumeister, 1987; Danziger, 1997). Jung surmised that the modern day failure and abandonment of religion, for instance, deprives the individual access to the fixed answers to problems interpreting the self, as well as the secure moral base which religion offers (Jung, 1971).

Braverman (1974) presents the modern day division of labour as further evidence of this dismantling of protective societal institutions. He explains that in modernity each worker's job has become so repetitive that it has become meaningless. They cannot identify or take pleasure in the finished good. What's more, they cannot garner, as they once did, a sense of fulfilment from their work, something which has ramifications for their identity. These ramifications are constituted by a shift in motivation. Namely, from an intrinsic motivation to perform well, gain satisfaction and, indeed, fulfilment to a purely extrinsic motivation. As such, in modernity, one's potential in work is conceived of in terms of advancement or prestige. Furthermore, as Baumeister comments, fulfilment "for many seems to be a matter of pleasant sensations… (and of) hedonistic self indulgence" (Baumeister, 1987, p.6), something which is exacerbated by the individualist and consumerist ideals of contemporary culture and is almost the antithesis to the sense of fulfilment rooted in community and dialogical, collective identity which prevailed in bygone eras.

Thus, in our liquid modernity, without the bedrock of the protective societal networks and collective institutions which characterised previous epochs, individualism has come to be pervasive. This is evident in the shift towards a more self-orientated and individualised conception of identity. As such, the responsibility for success or failure and health or illness now lies solely with the individual.

Depression

It is due to this individualism that contemporary Western culture may be seen to shape and reinforce an external conceptualisation of mental ill-health, one

of the most ubiquitous examples being that of depression (Leader, 2009). Modern Western culture may be seen to foster a conception of depression as a biomedical disease. That is, as something external to the sufferer that needs to be controlled. This objectification of depression may be exacerbated by the consumerist underpinnings of our contemporary Western culture, in which patients may be encouraged to become passive recipients and consumers of healthcare: exerting control over their condition through the use of medications (Aujoulat, Marcolongo, Bonadiman, & Deccache, 2008; Livingston, 2004). As Cleland (1987) asserts, this is evidenced in the occurrence of social iatrogenesis in modern Western societies. This describes the process through which Western biomedicine fosters a morbid society preoccupied with disease which, in turn, encourages people to become consumers of curative and preventative medicine. However, in a attempt to combat and move beyond such passive patient roles, health care providers are now increasingly employing patient care models focused on 'activating' patients to become more responsible for their health care and more knowledgeable about, and committed to, their treatment (for e.g., Steele's model of patient empowerment: Steele, Blackwell, Gutman, & Jackson, 1987; numerous models of patient coping: Schmitz, Saile, & Nilges, 1996; Turk & Rudy, 1990; see also Aujoulat, d'Hoore, & Deccache, 2007).

This instantiates a vital addendum for this theoretical discussion in its entirety; namely, that the intention is not to posit that cultural factors penetrates uniformly and unaltered to the individual mind, as an initial reading of social iatrogenesis or indeed cultural psychology might suggest. Rather, the present undertaking presupposes that we are not such 'cultural dopes' (e.g., Danziger, 1997) in that, following the tenets of Shweder's conception of cultural psychology (e.g., Shweder, 1990), we actively interpret and modulate culture prior to identifying with or internalising aspects of it. This occurs not only on an individual level but also, for instance, through theoretical models of patient care.

Although the patient care models described above endeavour to oppose and repudiate cultural factors, such as social iatrogenesis, which encourage the passive patient role, several theorists argue that they fall short in this regard and do not adequately empower patients due to their inherent emphasis on an offensive effort to maintain a high level of illness control (Aujoulat, Marcolongo, Bonadiman, & Deccache, 2008; Salmon & Hall, 2003; Tilden, Charman, Shar-

ples, & Fosbury, 2005). These models encourage patients to master medical knowledge relevant to their illness in order to exert and maintain control over the symptomatology associated with their illness. In the case of chronic ill-health, which often includes depression (e.g, Constantino, Lembke, Fischer, & Arnow, 2006; Kocsis et al., 2003), this truculent and persistent attempt at bolstering control has been shown to have adverse implications for patient outcomes and adjustment; being related to decreased functioning, social interaction and support seeking as well as adherence to medical recommendations. Most pertinent in the present context is the convergent conclusion reached by several researchers; that these deleterious consequences are related to the objectification of illness that is a concomitant of the offensive pursuit of control which characterizes many of these models (Aujoulat et al., 2008; Salmon et al., 2003; Tilden et al., 2005). Hence, whilst contemporary biomedical models of patient care attempt to curtail sociocultural factors, which encourage a passive patient role, these models are often unsuccessful and may inadvertently contribute to an objectified conception of disease, including depression.

The individualism and concomitant individualised conception of identity that characterise liquid modern culture may be seen to also contribute to an objectified conceptualisation of depression. This centres on the notion that, as explicated above, the responsibility for health lies solely with the individual. Hence, there may be a pressure to view depression in an objectified, biomedical manner and as something under one's own control: Depression is seen as a medical disease to be treated in a congruently medical fashion, namely with anti-depressants.

Anti-stigma organisations, such as the National Alliance for the Mentally Ill (NAMI), also contribute to this, positing that a biomedical conceptualisation of mental illness serves to reduce the stigma that sufferers encounter. In line with this, their informational brochure begins "Like diabetes and heart disease, major depression is a serious medical illness that is quite common" (NAMI, 2002, p. 3). Likening depression to these largely biological ailments (not to mention terming it a 'medical illness') propagates a view of depression as an objective biomedical condition and thus condones a congruent, purely medical treatment. Moreover, pharmaceutical companies such as Zoloft, often present only the neurobiological etiological mechanisms to consumers, and insurance companies urge patients to first consult general practitioners if they

feel they may be experiencing depression. This is more likely to result in the cheapest treatment option of anti-depressants compared with seeing a psychiatrist or psychologist, who is more likely to advocate for more costly psychotherapeutic interventions. Thus, this would cut down the costs of the insurance company (Goldstein & Rosselli, 2003), but also implicitly endorsing the control of depression through medication.

The discourse utilized by organisations such as NAMI and Zooloft resonates with phrases like 'suffering from a depression' and 'struck by a depression' which permeate modern discourse. This appears to substantiate the impact that this objectification has on the individual's conceptualisation of depression and therefore (since the two are interrelated; e.g., Gammell & Stoppard, 1999) treatment outcomes. This impact is further evidenced by the fact that in 1997 patients suffering through depression were 4.8 times more likely to be prescribed an antidepressant than in 1987 (Olfson et al., 2002). Further, there was a 10.9% decrease in the percentage of patients who received psychotherapy to treat their depression during the same period (Wyatt & Livson, 1994). Thus, although following the tenets of cultural psychology—specifically, the existential uncertainty principal—individuals within a culture are 'active agents' in their meaning making, interpretation and identification with aspects of their culture (e.g., Shweder, 1990). Thus, modern Western culture, overall, appears to be shaping the individual's conceptualisation of depression. Namely, shaping it through endorsing an objectified, biomedical conception of the disorder.

One might argue (as for e.g., NAMI, 2002 does) that this external and objectified conceptualisation of depression may be adaptive in that it reduces the potential threat to the self by placing depression outside the subject, much akin to the disembodiment of limbs which are afflicted with chronic pain. These patients often replace possessive adjectives with definite articles - referring to afflicted limbs as 'the leg' or 'the back' (MacLachlan, 2004). However, while rehabilitation in chronic pain is related to when the offending limb is reintegrated into the self concept (once again becoming 'my hands' versus 'the hands'; MacLachlan, 2004), this is not the case with depression, when it is conceptualised as external to the sufferer. At no point in such interventions is the patient encouraged to incorporate their depression as part of them. Rather, viewing depression as exogenous facilitates the biomedical approach, i.e., physicians treating an

'it' rather than a 'you' (MacLachlan, 2004). While this may be helpful for surgeons or immunologists, excising a tumour or fighting a bacterial infection, it may not be as adaptive as in the case of chronic pain but may, in fact, be ill founded in the case of depression (Anderson, 1993).

Psychiatrist Gordon Livingston contends that this objectification of depression and truculent attempt at bolstering control is counterproductive to overcoming the experience of depression. Rather, he asserts that empowerment of patients is paramount, in which depression is conceptualised as part of their own experience, as opposed to an external pathogen or disease which invades the body (Livingston, 2004). Gullestad, a psychoanalyst, expresses this concisely in her recommendation that patients be encouraged to "own his/her affective state… (such that the) feeling of hopelessness can be integrated into the individual's self representation - as part of the me experience" (Gullestad, 2003, p. 4). As alluded to earlier, research into chronic illness (ill-health which persists for 6 months or longer) substantiates this with patients who accept the uncontrollability inherent in such ill-health as opposed to those to truculently attempting to bolster control, progressing to an acceptance of the 'ill' aspects of the self and significantly greater adjustment outcomes (Adams, Pill, & Jones, 1997; Aujoulat et al., 2007; Shapiro, Astin, Shapiro, Robitshek, & Shapiro, 2011; Tilden et al., 2005).

Psychological research similarly validates this assertion. Several researchers contend that the objectification of depression reduces patients' beliefs regarding their ability to help themselves as well as their general health seeking behaviour (Keen, 2000; Szasz, 1961). In a prospective study of women diagnosed with depression, Gammell and Stoppard (1999) found that a biomedical conceptualisation of depression does not allow individuals to take control of their life situation, decreasing help-seeking behaviours and fostering their view of depression as something over which they had little power, controlled only by their medication (see Sayce, 2000, for a review of similar findings). Thus, Western cultural ideals may be seen to propagate an objectification of depression, as something over which one must forcibly exert control, oftentimes through medication. This, however, may ultimately be disempowering and, therefore, a deficient and counterproductive treatment for this now endemic (e.g., World Health Organisation, 2012) phenomenon.

Furthermore, when the objectified conception of depression as something which one should control (e.g., Leader, 2009) is coupled with the individualism and "dominating ideal of happy life'" (Gullestad, 2003, p. 7) that pervade contemporary Western culture, depression is seen, perhaps, as a failure. That is, firstly a failure of the individual sufferer to capitalise on the opportunities available to him or her, which our liquid modernity espouse as the source of happiness (Bauman, 2000). Secondly, a failure to maintain control which individualist and consumerist Western culture offers through anti-depressant medications (Leader, 2009). As a result, sadness and mourning have come to be seen as neither 'normal' nor healthy but rather as abnormal phenomena (Gullestad, 2003). This has a deleterious effect for two reasons. Firstly, sadness is indeed 'normal' and, what's more, mourning may be essential for healthy grieving (Freud, 1917; Maples, 1998). Secondly, it fosters the understanding of health as a dichotomy and not, as it rightly is, a continuum (MacLachlan, 1997). From this stems a certain stigma and shame with falling into the "ill" category (e.g., Maples, 1998), which further exacerbates depression.

An alternative argument could be made that the increased incidence of depression over the last few years (e.g., WHO, 2012) is the cause of the rise in anti-depressant prescription, rather than liquid modern and biomedical-endorsing cultures. This is being based on the fact that these are legitimate, or simply ubiquitous, treatment methods. The debate on anti-depressants is vast and intricate to the extent that a valid discussion is beyond the scope of the current undertaking. That said, given that it underscores some of the arguments presented here, it seems germane enough to necessitate a brief discussion. It appears to me that, at present, the evidence against anti-depressants as a valid treatment method is growing at a far greater rate than that which endorses them and that an increasing number of researchers in the area are concluding that they are not an adequate way of addressing depression (Lesch, 2004; Silberg, Maes, & Eaves, 2010; see also Fournier et al., 2010 for a meta-analysis of anti-depressant efficacy). Darian Leader, for instance, points out that the empirical research affirming the efficacy of anti-depressants (based on the elucidation of the biological underpinnings of the disorder) receives an inordinate amount of funding relative to that which investigates the efficacy of psychotherapeutic interventions, owing to the support of the pharmaceutical industry (Leader, 2009). Further, many theorists refute such research in favour of the view that biologi-

cal underpinnings are not causal but rather the embodiment or result of broader psychological or psychosocial issues (Leonard & Myint, 2009; Ströhle & Holsboer, 2003; Wolkowitz, Burke, Epel, & Reus 2009). This rebuke of overly reductionist theorizing is expressed concisely by statistician Lee Cronbach. He refers to researchers who are determined to find unidirectional causal relationships which they view as perfectly adequate, thereby neglecting our subjective experience of the world, as "…Flat Earth folk (who) seek to bury any complex hypothesis with an empirical bulldozer" (Cronbach, 1982, p. 70). Thus, it seems prudent to suggest that the sharp rise in the prescription of anti-depressants may not be fully accounted for by the increase in incidence of depression since it's clear that there are a number of researchers and practitioners who question the legitimacy of their use as a treatment method. This, I would suggest, appears to bolster the role that modern Western culture may play in the proliferation of antidepressants and the concomitant biomedical conceptualisation of depression.

And so, through the Western consumerist and individualist cultural ideals and endorsement of the biomedical model, individuals suffering through depression may be seen to have taken on a passive role and thus lack the empowerment that may be vital for treatment. When one couples this with mourning and sadness oftentimes being socially unacceptable in contemporary Western culture, one can see how this cultural context may contribute to rise of depression to the title of second greatest contributor to the 'global burden of disease' (e.g., WHO, 2012).

Anorexia Nervosa

Western culture's individualism, such that it deems all success or failure the sole product of one's ability to capitalize, or not, on the opportunities available in one's environment, may exert influence over not only a person's ability to rise from 'rags to riches' but also their health, as seen above in relation to depression. In conjunction with other facets of our modern culture, this individualism may also be seen to contribute to another form of ill-health, namely anorexia nervosa. Here an addendum is necessary: I do not wish to posit that culture is the sole determinant of eating disorders, rather that it may be one of a number of etiological factors or perhaps a factor that exacerbates the suffering of those experiencing an eating disorder.

Consultant psychiatrist Aisling Campbell asserts that both empirical research (e.g., Surgenor, Horn, &

Hudson, 2003; Tiggemann & Raven, 1998) and her own clinical experience concur in suggesting that anorexia nervosa may result from a need to control some aspect of one's experience (Campbell, 2008). Indeed, when one considers the criteria for the diagnosis of the disorder, it is apparent that a need for control may contribute to some or all of these characteristics: less than 85% of normal/expected weight; intense fear of weight gain; inaccurate view or experience of body shape; disturbance to the normal rhythm of the menstrual cycle (American Psychiatric Association, 2000). This is particularly relevant when other areas of an individual's life seem uncontrollable, for example, following the collapse of a relationship or career.

The account of Aine Crowley, an artist who previously experienced anorexia, harrowingly substantiates this through the diary entries she kept during that period of her life (Crowley, 2008). During her first year of art college she explains that she was determined "to prove to myself and others that I was not wasting my time in art college". And so she began to work ferociously at her studies in order to achieve this and to gain control of her life. However, her new work ethic resulted in her beginning to skip meals and lose weight, culminating in a diagnosis of anorexia nervous. At first, she refused to face her diagnosis, insisting she "had this overwhelming feeling of control over everything…I was being independent I didn't need anyone to nurse me" (Crowley, 2008, p. 148). Nearly a year later, however, the opposite was the case: "I've no control over anything anymore. Even my health isn't in my hands" (Crowley, 2008, p. 161). Here we see how the individualistic cultural ideals of control and success may pressure an individual to achieve these ideals in their own lives. Such control, however, may not be beneficial but, as in this case, spurious and destructive.

Bordo (1993) delineates the nuances of this relationship between anorexia and the ideals that contemporary culture fosters. She points out that one must look not only at the cultural ideal of control but also the circumscribing manner in which feminity is constructed in contemporary discourses and hence the effect it may have on the identity of the modern woman. In the nineteenth century, feminity was constructed through certain personality traits or behaviours, namely delicacy, sexual passivity and capricious emotionality. With the advent of the television and movie industries in the twentieth century, however, the construction of feminity has come to be prescribed more and more through visual means. In our image-obsessed culture, feminity is now primarily constructed not through personality characteristics but bodily discourse: images stipulating the clothing, body shape and facial expressions that constitute the "modern woman" (Bordo, 1993).

This 'modern woman' is, as Bordo describes, "a double bind": a construction that affirms contradictorily ideals and directives (Bordo, 1993, p. 313). This contradiction comprises, on the one hand, the domestic conception of feminity that our modern Western culture still endorses. That is, a robust sexual division of labour in which women are confined to the home and have fewer chances to aqcuire more prostegious positions in the workplace. On the other hand, in order to legitimize their access to the modern professional arena, women must also master the 'masculine' values of that arena–discipline, emotional reservedness and control.

In line with both the theorizing of Campbell (2008) and firsthand account of Crowley (2008), Bordo (1993) affirms that anorexia often evolves from a relatively benign attempt at self-control, such as dieting. However, this conventional feminine practice may be stretched beyond convention with a discovery of what it feels like to crave and need but yet, through staunchness of will, to 'triumph' over such need. What ensues is the experience of the traditionally 'masculine' values of self-control, expertise and power which now pervade the construction of the modern woman. In the case of anorexia nervosa, this experience is intoxicating and habit-forming to a life threatening extent. Resonating with the sentiment expressed by Aine Crowley (2008), above, another past sufferer of anorexia Aimee Liu, describes the experience as follows: " I need nothing and no one else…I will be master of my own body, if nothing else, I vow" (Liu, 1979, p. 123). Bordo (1993) asserts that this experience is so affecting because, in conjunction, the ideal of slenderness and concomitant exercise and diet regimens offer the insidious illusion of meeting, thorough the body, the contradictory demands of the 'double bind' modern construction of feminity. The attempt at reconciling these incongruent demands of the modern definition of feminity is indeed an illusion since feminity and masculinity have, arguably, always been constructed through a process of mutual exclusion. The modern woman can, and should, exercise the historically male characteristics of control and power. However, when such virtues are forced beyond healthy practice (perhaps attempting to validate entry to the historically patriarchal professional arena) and circumscribed by

impossible ideals of slenderness, it's clear that this 'androgynous' feminity is not a viable possibility for the self.

This modern construction of feminity is, as Brodo describes it, "a parody" (Brodo, 1993, p. 316). However, she explains that in our image-obsessed, contemporary culture we find it increasingly difficult to differentiate between parodies and possibilities for the self (Brodo, 1993). This is harrowingly evidenced in the case of anorexia nervosa. Here, explored as a possibility for the self, the parody exposes itself, becoming "a war that tears the subject in two…a battle between the male and female sides of the self" (Brodo, 1993, p. 316). Anorexia nervosa poignantly demonstrates how liquid modern cultural ideals, particularly of control and the circumscribing modern construction of feminity, may affect an individual's sense of identity, shaping their behaviour and experience to such an extent that they foster ill-health, sometimes to a life threatening degree.

The Status Syndrome

That said, perhaps it may be argued that these individualist cultural ideals of controlling ones destiny, through capitalising on the fact that health or illness is the sole responsibility of the individual, may be beneficial beyond the 'rags to riches' procurement of wealth. Most notably, these ideals have been found to promote health and even extend life, through what Sir Michael Marmot, epidemiologist, terms the status syndrome (Marmot, 2004). Status refers to the outcome of an evaluation that produces differences in respect and prominence (Keltner, Gruenfeld, & Anderson, 2003) and status syndrome to the discrepancies in health outcomes that result from status differentials. Controlling for wealth, it has been demonstrated that people of even marginally higher status live significantly longer than those below them (Marmot, 2004). This includes winners versus nominees of both Academy Awards (Redelmeier & Singh, 2001) and Nobel Prizes (Rablen & Oswald, 2008).

This is further validated by the findings of the Whitehall studies, which examined the relationship between the status differentials and health outcomes of British civil servants (Marmot, 2004). In one of the studies, which examined the relationship over a 25 year period, status was statistically significantly related to morbidity in old age, such that those higher in status live longer and vice versa (Marmot & Shipley, 1996). Mental health is also affected: The reviews of

Ghaed and Gallo (2007) and Wolff, Subramanian, Acevedo-Garcia, Weber and Kawachi (2010) both found that increased status leads to a decrease in psychosocial problems, including depression and anxiety. Marmot explains that this effect of status is due to "how much control you have over your life – and the opportunities you have" (Marmot, 2004, p. 2) and the concomitant effect this may have on one's identity: The experience of exerting control of the environment alters one's perception of oneself (Infurna, Gerstorf, Ram, Schupp, & Wagner, 2011).

This sense of control is almost precisely what the abovementioned Western individualist ideals affirm. Therefore, we may infer that these ideals play at least some role in the propagation of the status syndrome. Johnson and Krueger (2005) provide a specific example of the effect of control on physical health amongst monozygotic twins. They found that those twins who shared low income environments also shared health problems, such as heart disease and diabetes. These health problems are shown to be reduced through the alleviation of poverty and concomitant stressors. However, the findings indicate that a comparable reduction in health problems may be achieved through an increased perception of control over one's environment.

Similar to its precursor status, control has been shown to affect both physical and mental health. The research of Arslan, Dilmaç and Hamarta (2009) demonstrates that, amongst university students, stress and anxiety levels are related to the degree of control which the students feel they have over their environment and life events. More specifically, those with a greater sense of control experience less stress and anxiety and vice versa. Numerous studies assert that a similar correlation exists between control and depression (see Gray-Stanley et al., 2010; Hartley, Vance, Elliott, Cuckler, & Berry, 2008; Jones & Riazi, 2011). In line with the assertions made by Marmot (2004), this further substantiates the degree to which one's sense of control may impact upon one's health.

There is a caveat regarding this beneficial impact of Western individualism that I feel should be highlighted. Namely the fact that the inverse is true: People at the bottom of the social status ladder experience ill-health as well as a lack of control (Marmot, 2004). Marmot is optimistic despite this, however. He states that he cannot envisage a society where all are equal, asserting that "all societies will have social rankings; ergo all societies will have

health gradients" (Marmot, 2004, p. 25). Marmot (2004) is optimistic based on the fact that life expectancy across all gradients is increasing, therefore today's bottom social groups could, in the future, have the same health benefits as today's top social groups (Drever & Whitehead, 1997). The extent to which one subscribes to this is a personal matter, which I will not stray into since it is beyond the remit of the present undertaking. What is relevant, nonetheless, is that modern Western cultural ideals of control and individualism affect health through the propagation of the status syndrome.

An argument against the causal role of culture in fostering the status syndrome, and thus a necessary addendum here, is its postulated biological underpinnings - which may be interpreted by some as causal. This centres on the notion that the increased control that those of higher status experience is accompanied by a sense of increased power (an individual's relative capacity to modify others' states by providing or withholding resources or administering punishments; Keltner et al., 2003). The review of Keltner et al. (2003) delineates how research has found that increased power is associated with increased activity within the dopaminergic, reward system of the brain (left frontal cortex and mesolimbic region) and concomitant inhibition of cortisol and norepinephrine systems (right frontal cortex and septohippocampal region), which control the vigilant attention and stress systems.

Thus, increased status and concomitants of control and power produces reward rich environments and freedom, characterised by approach related behaviour of attention to rewards and positive affect. On the other hand, a decrease in status results attentional resources being taken up by a hyper-alertness to possible threats. This manifests in chronic hyper-vigilance and inhibition-related behaviours of social constraint that, in sum, often lead to negative emotional states. This, when taken with coherent findings of status/ dominance related health benefits within primates (e.g., Sapolsky, 2005), may imply that we seek out higher status for the rewards imbued by control and power concomitants, as a adaptive mechanism which may contribute, or have contributed, to our evolutionary fitness.

Therefore it may be argued that biological or evolutionary factors contribute to the status syndrome as opposed to Western culture. It would seem more prudent to me, however, to infer that this serves instead to implicate Engel's biopsychosocial model (Engel,

1977). That is, interactions between biology and culture are moderated by an individual's perception and identification with aspects of their culture, and, thus, this produces ramifications for the health of that individual. The neurobiological underpinnings of power may not, therefore, be responsible for us seeking, and indeed revering, status. Rather, they may be concomitants or effects of sociocultural forces. Thus, this may serve as evidence for a plausible addendum to the tenet of cultural psychology that mind and culture are inextricably tied, as it appears that it is not just culture and mind that co-constitute each other but rather it seems that culture, mind and neurobiology are intricately intertwined.

Conclusion

The present review sought to verify a central premise within cultural psychology, that human beings and sociocultural factors co-construct one another, as well as to delineate the implications this premise has for health. In particular, it endeavoured to examine the role that the concept of control may play—through a co-constitution of mind and Western individualist, capitalist and liquid modern culture—in depression, anorexia nervosa and the status syndrome. The salient characteristics of this culture were explicated, amounting to an elucidation of how it has come to shape the currently pervasive sense of identity, nowadays notably more individualized and self-orientated than that which prevailed in bygone eras. Liquid modern culture was evidenced to contribute to an objectified biomedical conception of depression, whereby it is viewed as akin to an external virus or bacterium, which infiltrates the individual leading to depression. The ramifications that this conceptualisation has for patients experiencing depression were then delineated. These illustrate that such a conceptualisation ultimately encourages the patient to be passive in their treatment, relying on pharmacological agents in order to exert control over their condition, as opposed to being active and empowered, which research often affirms is related to overcoming depression. It was then demonstrated that the modern Western cultural ideal of control may be seen to contribute to or exacerbate anorexia nervosa; An effect shown to be further compounded by the contradictory ideals and directives that characterize the construction of the modern women which pervade our liquid modern culture. Lastly it was illustrated that modern Western culture may be seen to have positive effects on health through what is termed the status syndrome, which refers to the significantly better health outcomes

enjoyed by those higher up the social hierarchy. These health benefits were shown to not be accounted for by the concomitant wealth and access to healthcare which those of higher status hold, but rather the increased sense of control they experience, as well as neurobiological factors.

Thus, this review has illustrated that the co-constitution of mind and liquid modern Western culture may be seen to have observable, robust and potent implications for health through the concept of control that it propagates. This discussion therefore also serves to advocate for renewed and greater consideration of cultural factors in health care provision and health policy formation. At a more theoretical level, this review illustrates how the concept of control transcends the level of analysis; for instance, from the neurobiological underpinnings of the status syndrome, to the psychological manifestations in anorexia, and to the sociological facets of liquid modern culture. Moreover, this transmission across levels substantiates not only the co-constitution of mind and culture, but also the interconnectedness of cultural and clinical psychology, which previous work typically characterizes as distinct and unrelated fields (Ryder et al., 2011).

In sum, through an examination of the concept of control, it was shown that this co-constitution of mind and culture has largely adverse implications for health. Thus, I concur with Shweder (2000) in not subscribing to the notion of "our (Westerners) moral superiority over all the rest" (Shweder, 2000, p. 4). We may, at times, like to think of ourselves as an utopian, "first world" culture, one that propels people to uplift themselves. It seems, however, that there is, perhaps, a startling underbelly to our Western culture, that may foster deleterious health implications and to which, in the current author's opinion, theorists, health-care providers and policy makers must not fail to attend.

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Students' Perception on Parental and Teachers' Influences on their Learning: A Gender Comparison

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This study aimed at discussing gender differences in contemporary undergraduate students' perceptions of the characteristics that distinguish good and bad teachers. Students' perceptions of parental conducts and attitudes that impact their learning process were also investigated. Semantic networks were used as data collection method. Participants were a group of undergraduate students (56 males and 329 females) who were exposed to a set of four stimuli related to teachers' and parents' behaviors. Participants were asked to define each stimulus with at least five words. Results showed gender similarities regarding the social representation of parenting and teaching. A consensus between genders was found on parental practices that contributed to learning, defined primarily as giving support. Gender differences were also identified. When compared to males, women perceived fairness as a more significant trait in teachers. Also, females perceived parental demands as one of the main factors that obstructed their learning. Implications are discussed.

Keywords: gender differences, parenting, teaching, learning, undergraduate students

Cet article traite des différences de genre chez les étudiants sur la définition d'un bon ou d'un mauvais enseignant, ainsi que sur les conduites et attitudes parentales qui améliorent ou entravent le processus d'apprentissage. Pour la collecte de données, des réseaux sémantiques ont été utilisés en exposant à un groupe d'étudiants universitaires (56 hommes et 329 femmes) quatre stimuli associés aux comportements des enseignants et des parents et l'impact sur l'apprentissage. Les participants ont ensuite écrit cinq mots décrivant chaque catégorie. Bien que les résultats démontrent une représentation sociale similaire entre les genres concernant la parentalité et l'enseignement, les femmes ont davantage mentionné la justice chez l'enseignant. De plus, elles ont perçu les demandes parentales comme un des obstacles principaux à leur apprentissage. Un consensus entre les genres a été observé quant aux pratiques parentales contribuant à l'apprentissage, défini avant tout par l'apport de soutien. Les implications sont examinées.

Mots-clés : différences de genre, parentalité, enseignement, apprentissage, étudiants de premier cycle

A gradual shift in the goals of higher education has been observed over the past few years. For example, greater globalization (Díez, 2009), technological innovations and an overabundance of information (Pozo, 2006) have required universities to employ educators that adjust to the rapid change in society whilst pursuing the promotion of scientific knowledge and social development.

Higher education has become one of the cornerstones for the construction of a knowledge-based society (Gómez, 2009) and is considered a means for social improvement (Toledo, 2011). The role of education in promoting social well-being is evident through the various international programs that use educational intervention as a tool for social advancement. Programs such as the United Nations Development Programme (UNDP, 2013) and the International Education Indicators Project (INES) of the Organization for Economic Co-operation and Development (OECD, 2013), highlight that proper education can lead to social development. In this context, contemporary higher education teachers are required to contribute by enhancing their students' adaptability to new situations, improve their critical thinking and problem-solving strategies, and as well, to foster their creativity (Quiroga, 2008; Ruiz, 2008).

Educators are encouraged to promote the use of cognitive and metacognitive strategies (Tobón, 2008) and to empower undergraduate students with the ability to develop their own set of competencies according to their own professional and personal goals (Daniels, 2003). To succeed in developing these competencies in students, teachers would need to consider the elements that promote an adequate and active learning process in undergraduates. However, given the multi-dimensionality of variables involved in the learning process, teachers may not be the only ones accountable for responding to the multiple demands of these new educational responsibilities.

Current research findings show that parental involvement, expectations, and support may influence students' academic work (Espitia & Montes, 2009; Sánchez & Valdés, 2011; Shah & Gardner, 2008). Furthermore, teachers' practices such as the promotion of a high self-esteem, enthusiasm for academic tasks, and the positive perception of others may also influence students' academic work (Beltrán, 2005; Mares, Martínez, & Rojo, 2009). Therefore, it is important to properly assess the influences of parents and teachers on the learning process of undergraduate students in order to reach the educational goals that have been set by our current *Zeitgeist.*

To adequately study the influences of parents and teachers in the learning process of undergraduates, it is important to consider other intervening variables. Namely, researchers should take into account the social influences that impact the learning process of the new generation of undergraduate students, known as Generation Y or Millenials (Feixa, 2008). Generations were defined as groups of people born on a particular date that share cultural, economic, political, and historical influences (Boschman, 2008). Studies on generations have shown differences in the learning environment of the current and past generations of undergraduates.

Social interaction in a group fosters shared cognitions between its members that consolidate their social reality (Mora, 2002; Vaca, Chaparro, & Pérez, 2006). Consequently, perceptions of the elements that impact learning could be different between current and past generations. Such changes might differentiate the way in which undergraduates of the present generation perceive, understand, and define their reality, from previous cohorts of undergraduates. It is also important to consider the fact that behavioral responses are partially influenced by what the stimulus signifies or means

to the person (Osgood, Suci, & Tannenbaum, 1957). It is plausible that changes in current undergraduates' perceptions impact on their learning behavior (Cuesta, Ibáñez, Tagliabue, & Zangaro, 2008). Thus, it is evident that it is necessary to study the influences that known mediating learning variables, such as teaching and parenting, have on the learning process of the contemporary cohort of undergraduate students.

In addition, it is crucial to consider *gender* when assessing parents' and teachers' influences on the learning process of undergraduate students. Various gender differences have been identified in previous studies concerning: undergraduate students' learning process (Anzarin & Zeynali, 2012; Cheng, Liu, Chen, Shih, & Chang, 2012; Jacobsson, 2008), their selection of different types of academic programs (Wiseman, 2011), their perceptions regarding parental supervision (Fulton & Turner, 2008), and how they use digital tools to fulfill their learning tasks (Hilbert, 2011). Given these findings, it is possible that gender may influence students' perceptions of how their parents and teachers impact on their learning. Thus, the research question guiding this study was: Are there any gender differences in the perceptions of Generation Y undergraduates regarding the influences that parenting and teaching have on their learning process?

Furthermore, innovation in the approaches used to investigate educational topics could help lead educational change in the upcoming years. Thus, it is necessary to explore new research tools and methods in order to broaden and update our knowledge of education and learning. With this knowledge, educational experts will be able to gain insight on the guidelines for educational improvement (Fullan, 2011). Policy makers will have greater specificity and precision when identifying particular instructional strategies to approach current educational objectives, and allow for changes in modern practices. Given that undergraduate students from the same generation have shared perceptions, the influences that stimulate or hinder their learning process can be the subject of an innovative analysis that reconstructs their socially shared perceptions (Reyes-Lagunes, 1993).

Parenting

Parental roles such as protection, providing opportunities for social interaction, and education are supplemented by educational institutions. Nonetheless, parental influences still impact students' learning attitudes towards their schoolwork (Sánchez & Valdés,

2011). Researchers have identified that parental influences have a greater impact on academic performance and learning when compared to demographic, economic, or communitarian variables (Atta & Jamil, 2012; Topor, Keane, Shelton, & Calkins, 2010).

Higher academic performance, better time management, and study habits (Espitia & Montes, 2009) have been associated to parents' participation (Valdés & Urías, 2010), the interest they convey to their offspring, the amenities available at home to complete academic work (Sánchez, Valdés, Reyes, & Carlos, 2010), and parental aspirations regarding education (Sphera, Wentzel, & Matto, 2009). Likewise, high parental expectations lead students to reach higher levels of education, achieve higher scores on standardized tests (Espitia & Montes, 2009; Sánchez & Valdés, 2011; Shah & Gardner, 2008), and also appear to dampen the negative influence that teachers' low expectations have on students' academic achievement (Yamamoto & Holloway, 2010).

According to Riso (2009), parenting styles are bidimensional. The acceptance/sensibility dimension is characterized by loving and tolerant parents that establish clear rules and foster high self-esteem and critical judgment. Research has found that such autonomy-oriented parenting style is positively correlated to students' levels of intrinsic motivation, abilities to handle pressure, and solve problems (Shah & Gardner, 2008), and higher academic engagement and self-efficacy (Weihua & Williams, 2010). On the contrary, the demand/control dimension of parenting represents a repressive style in which parents exert restrictions and excessive supervision that hinder personal autonomy, spontaneity and creativity. An excessively controlling parenting style and the use of punishments or threats inhibit students' intrinsic motivation to study and learn (Weihua & Williams, 2010).

Teaching

Teachers have gradually abandoned traditional instructional frameworks that encourage them to simply present and explain the course content to students (Gutiérrez, 2003; Klingler & Vadillo, 2004). Such traditional approach reduces the students' role in their learning process to the passive reception of information. Teachers are now required to become learning mediators (Vygotsky, 1978) that promote reflection, discussion, and cognitive reorganization. In order to become learning mediators, it is recommended that teachers select, organize and properly manage the course content (Gutiérrez, 2003).

In addition, teachers may have to use innovative strategies to meet the demands of a new generation of students. For instance, since this generation has grown up in a fully globalized world (Boschman, 2008; Keene & Handrich, 2011), and is educated, multicultural, and tech savvy, they prefer new technologies, such as mobiles and other electronic instruments (Cuesta et al., 2008; Duart, 2010), over traditional books. Teachers should take this into consideration to promote effective learning.

Moreover, teachers' performance could benefit from the development of their own professional competencies, such as judging what students should know about a subject or discipline (Irigoin, 2002; Senior, 2004), converting knowledge into action (Senior, 2004), motivating continuous improvement and ethical commitment (Tobón, 2008), and teaching their pupils to "learn how to learn", as well as working individually and collaboratively (Boschman, 2008; Cabrero, 2007; Robinson, 2008). Current students believe that education should be more practical than theoretical, and in general, have different demands than previous generations (Cuesta et al., 2008). Thus, teachers require new strategies and approaches to fulfill their responsibility as learning mediators.

Gender Differences

Present-day students share traits and common practices (Dávila, 2006; Posnick-Goodwin, 2011; Tapscott, 2009). Although their shared social environment promotes strong social representations (Tsoukalas, 2006), the impact of gender on this group fosters differences between males and females in their learning processes. Research in countries such as Belgium, Holland, France, Spain and the United States has demonstrated the existence of a gender-related digital gap in relation to the use of digital information and communication technologies (ICTs) (Broos, 2005; Faurie, Almudever, & Hajjar, 2004; García, Gros, & Escofet, 2012; Meelissen & Drent, 2008; Sánchez-Franco, 2006; Vekiri & Chronaki, 2008). Female undergraduate students are more likely to use computers to pursue the resolution of academic tasks and to study, while male students make use of ICTs for these same objectives and also for recreational purposes (Hilbert, 2011; Imhof, Vollmeyer, & Beierlein, 2006).

Gender differences in the learning process are not limited to the digital gap. A study conducted in the United States by Fulton and Turner (2008) with college students showed that parents' degree of involvement in school related tasks predicts academic achievement for both males and females, but parental supervision was found to predict perceptions of control only for females. Moreover, a study on Hong Kong students' reported that female students perceive their universities as more supportive in regards of their academic adjustment, while male students perceive more support in their social and psychological adjustment (Yau & Cheng, 2012).

Additionally, as postmodernist women started attending college, marked gender differences in educational settings arose. While college men mainly opt for technology-related programs, women tend to select programs that lead to employment in schools, health sciences, and care services (García et al., 2012; Jacobsson, 2008). Geist and King (2008) suggest that this may be explained by gender differences on reasoning, thinking, and learning.

Also, results from a US survey reported that women consistently outperform men in higher education enrollment and completion, and tend to value college more than men because of its intrinsic benefits (success, intellectual growth, and emotional development; Wiseman, 2011). Nonetheless, women also leave academia in greater numbers than men (from 72% to 37% during their studies), due to unappealing academic careers, disproportionate impediments, great sacrifices, and the belief that gender will work against them (Rice, 2012). Thus, given the existence of these educational gender differences, it is possible that there are also gender dissimilarities in undergraduates' conceptions on parenting, teaching, and learning.

Semantic Networks

Semantic networks were initially developed by M. Ross Quillian in the early 1960s as a method for modeling the structure and storing process of human knowledge. Semantic networks were further featured in the spreading-activation theory of semantic processing (Collins & Loftus, 1975). This theory proposed that long-term memory contains interconnected units of information, and particularly, the semantic memory is organized as a network in which single units are aligned by semantic similarity. Thus, the more properties two concepts share, the closer they are within the network. Knowledge derived from the un-

derstanding of the relationships between different elements (Griffiths, Steyvers, & Tenenbaum, 2007) and their meaning (Vivas, 2010) may be accessed through the collection of concepts associated with a word or phenomenon of interest (Salas-Menotti, 2008; Vivas, Comesaña, & Vivas, 2007).

The semantic network of a concept is a product of the reconstructive process in which a set of words is chosen from cognitive structures in the memory by a subjective assessment of objects and events (Reyes-Lagunes, 1993; Rigault, 2004). An interpretation of the semantic networks of a group may reconstruct their shared social reality of a particular topic (Aguilera, 2010; Hardy, 1998) since the information organized in memory is dynamic, changing, and particularly susceptible to social influences (Batista, Pimentel, & Vera, 2005; Cabalín & Navarro, 2008; Salas-Menotti, 2008). Therefore, social representations can be studied by analyzing their semantic networks (Di Giacomo in Mora, 2002). Tsoukalas (2006) ascertains that the analysis of semantic networks allows for the identification of a representation's internal organization and nucleus.

Method

The present study adopted a qualitative focus and the purpose was to understand the impact that gender has on Generation Y students' shared perceptions of the influences that teachers and parents have on their learning. By achieving this, it was possible to identify elements that could help higher education institutions foster effective learning among their alumni through proper parental and teaching practices, thus reaching the new educational goals for this century (Fullan, 2011).

Participants

Participants were selected from all the undergraduate students enrolled in the spring 2012 semester at a private university in northern Mexico. A total of 485 participants were selected through convenience sampling (56 males and 329 females, whose ages ranged from 17 to 31 years, with a median and mode of 21 years).

One participant was 31 years old at the time that the study was conducted. Although an age of 31 years might appear to be an extreme value, the date of birth for this particular participant was close to the

definition of Generation Y given by Hewitt, Pijanowski, Tavano and Denny (2012), which conceptualizes the generation as people who were born after 1982. Furthermore, this participant formed part of this predetermined group and shared a common background with the rest of participants.

The sample size was determined by the availability of large groups of students with similar backgrounds, instructors, and courses. The inclusion criteria were: being an undergraduate student at the sampled university, being over 17 years old, and being actively enrolled in undergraduate level courses.

The different subsample size between males and females did not affect the semantic networks comparisons, as a minimum of 50 participants are required to correctly apply this technique. Given this consideration, the exploratory nature of this study, and the fact that the participants belonged to the same university, classes, and social background, it was possible to compare the two subsamples in this study with sufficient validity (Reyes-Lagunes, 1993).

Research Approach

This was a qualitative study that explored the mental representations of undergraduate students and their psychological significance. Psychological significance is an essential element of cognitive organization that integrates affectivity and knowledge. It creates a subjective code of reaction that reflects the way in which a person perceives the world (Szalay & Bryson, 1973) and behaves (Szalay & Bryson, 1974). Mental representations can be stored verbally (linguistically) and analogically (pictorially) (López & Minervino, 2007; Schunk, 2008), and represent data richer in its qualitative characteristics (connotations, semantic categories, and emotional components, among others) than in its quantitative aspects.

The natural semantic networks technique was used in this study based on the reconstructive process in which a set of words are selected by the memory from an individual's cognitive structure (Batista et al., 2005; Cabalín & Navarro, 2008; Figueroa, González, & Solís, 1981). Information is organized in the semantic memory (Valdez, 1998) as a result of a subjective evaluation of objects, events, and concepts (Reyes-Lagunes, 1993; Rigault, 2004). Therefore, this technique allows the examination of the definition that a person gives to a certain word-stimulus (e.g., apple, which is a common example of word-stimulus used to explain the process to participants when applying this technique). This technique is performed by asking a person to list several defining words that allude to a stimulus, and then rank them into an ordinal set that indicates the level of importance that each word has regarding the definition of that stimulus (e.g., participants might list the defining words red, delicious, juicy, fruit, temptation, Adam, Eve, to define the word-stimulus apple, and rank juicy as the first word, Eve as the second word, etc.).

The defining words that appear as a response to the word-stimulus represent both the knowledge and understanding of a concept (Batista et al., 2005; Cabalín & Navarro, 2008; Cervantes, 2007). It also represents a cognitive map based on logical and analogical associations about such concept (Vivas et al., 2007). Moreover, these defining words, as well as the position that each word occupies in the rank, allow for a glimpse into the individual's scale of values and perceptions of the stimulus (Griffiths et al., 2007; Vivas et al., 2007; Zermeño, Arellano, & Ramírez, 2005). When all the defining words used by a group to define a particular word are joined and weighted based on their ordinal position, the information that results permits an evaluation of the social definition of a particular concept, object, or event (Reyes-Lagunes, 1993).

Procedure

For this study, four word-stimuli were designed and randomly presented to the subjects. Although single words are commonly used, short phrases can also be valid stimuli (Reyes-Lagunes, 1993). These stimuli were designed to trigger responses related to the positive and negative impact that parenting and teaching have on students' learning outcomes. The stimuli were: *characteristics of best teachers*, *characteristics of worst teachers, conducts and attitudes of your parents that have contributed to your learning,* and *conducts and attitudes of your parents that have obstructed your learning*.

Participants were asked to define each stimulus with clarity and precision, by writing down at least five simple words that they thought conveyed each stimulus' meaning. After doing this, participants were asked to establish a hierarchy for all of the defining words based on their relevance to the stimulus (Reyes-Lagunes, 1993). They started by assigning number 1 to the most relevant word, and so on, until reaching the least relevant word.

Analysis

The data consisted of the defining words, their frequencies (the number of times that a defining word was written by different subjects), and hierarchies for each stimulus. Similar words and concepts were merged, as long as their differences were circumscribed to variations in grammar and spelling mistakes. By doing this, we determined the network size (NS), which was the total different words captured for each single stimulus.

Word frequencies were weighted according to their hierarchical (1-10) position so that higher numbers represented stimuli that were more closely related to the stimulus. This change was done by multiplying by ten the word frequencies assigned with number one in the hierarchy. For the second position, frequencies were multiplied by nine, and so on, until reaching the tenth position, which was multiplied by one. These weighted frequencies were added up to obtain the semantic weight for each defining word.

All defining words and their weighted frequencies were arranged into a bar graph for each stimulus. A cutting point was assigned to the last defining word where a considerable decrease occurred, demonstrated in a bar graph by an asymptotic curve of weighted frequencies after this point (Reyes-Lagunes, 1993). This cutting point represents the semantic network core (SNC), which is considered the main meaning that the stimulus has among the assessed participants (Cabalín & Navarro, 2008; Reyes-Lagunes, 1993). This set of concepts represents the shared social meaning that the word-stimulus has for the subjects.

The quantitative semantic distance (QSD) of each SNC was obtained after assigning the defining word with the highest semantic weight a value of 100%, and defining the rest of these values on the basis of the first one (using the rule of three). The defining word with the highest QSD value is considered the central to the semantic network's core of a word-stimulus. The rest of the defining words were analyzed in relation to this central defining word. Thus, QSD gives information on the ordinal distance between defining words, and therefore, the importance or position that each concept has in the social definition of the word-stimulus. It is important to highlight that the central definition of any construct is reflected within the first defining words that comprise the highest QSD for the total SNC, which were usually the first five to six words in the SNC's ordinal list. The rest of the SNC's

words are considered to reflect the assessed group's particularities.

The interpretation of the relationship among the defining words and the word-stimulus were compared to the existing literature. These findings were proposed as subjects of further research, recommending their consideration as hypotheses for quantitative approaches. According to Hernández-Sampieri, Fernández and Baptista (2010), hypotheses are plausible outcomes in qualitative research. This analysis was ran with the general defining words for each stimulus for all participants in the sample, and separated by gender for comparison reasons.

Although subsamples by gender were different in size, their comparison was viable. Considering that this technique is used to identify the semantic structure of social representations among individuals in a specific group (i.e., undergraduates of the sampled university), it is expected that the members of a particular group share most of the defining words that form the semantic network's core (approximately the most common 15-20 defining words). Since uncommon defining words and outliers are disregarded during the analysis, the addition of participants to a sample of at least 50 subjects is expected to have a subtle impact on the semantic network's core (as long as the participant is a member of a cohesive, well conformed, and delimited group). Thus, given the exploratory nature of this study and the fact that participants have similar background, it was possible to compare the two subsamples in this study with sufficient validity to draw hypotheses for future research (Reyes-Lagunes, 1993).

In the results section, the defining words that represented the SNC for each word-stimulus were arranged into charts, allowing for the visualization of their QSDs and the differences between the total sample and the subsamples by gender.

Results

The defining words used by participants to describe parental practices and teachers' characteristics reflect a strong social consensus in the definition of these constructs. The main differences between males and females are related to how words are ranked for each construct.

Table 1

Conducts and Attitudes of Your Parents That Have Contributed to Your Learning

Defining word	General (NS = 409) QSD	Male (NS = 259) QSD	Female (NS = 321) QSD
Support	100.00	100.00	100.00
Responsibility	53.46	50.72	51.82
Comprehension	47.68	48.19	48.56
Loving	44.98	48.74	41.60
Respect	38.93	31.05	37.97
Patience	34.56	24.55	38.05
Trust	28.94	-	30.48
Motivation	27.81	27.08	32.83
Honesty	27.70	46.03	20.05
Interest	20.63	-	-
Help	19.92	-	21.79
Attention	18.14	-	-
Dedication	16.31	-	-
Discipline	14.85	-	-
Freedom	-	19.86	-

Note. NS = network size; QSD = quantitative semantic distance. SNC for the general sample includes 14 defining words; SNC for male subsample includes 9 defining words; SNC for female subsample includes 10 defining words.

Parental Practices that Contribute to Learning

Regarding the conducts and attitudes of parents that have contributed to the students' learning, the SNC in Table 1 shows the definition given by both genders. The main differences between males' and females' defining words are the inclusion of the defining word *freedom* by males, and the defining words *trust* and *help* by females. Also, females appear to give less relevance to honesty while males placed this word near the middle point of their SNC.

Concerning the similarities found in the definition of positive parental practices, Table 1 shows that undergraduate students believe that *support* is the parenting practice that best promotes learning. Responsibility, comprehension, love, respect, and patience appear to be far away from the central definition. The strong consensus concerning parental support by both genders indicate that this parental practice may be the primary conduct that promotes learning.

Parental Practices that Obstruct Learning

The social definitions for parental practices that hinder learning are shown in Table 2. These definitions include a larger network size (597 words) re-

flecting greater semantic richness in the negative parental practices than in the positive practices. The defining words with the highest QSD for this stimulus include overprotection, demanding, and pressure. Other parental conducts with high QSD include attitudes such as being strict, incomprehensive, and showing anger, impatience, and disinterest. One of the gender differences was that males put higher importance on *overprotection* while women emphasize parental *demands*. Also, *scold* is closer to males' central definition than in females' SNC. On the other hand, females' notion of *pressure,* which occupies the 3rd position in their SNC, is less relevant to males' central definition. Another difference between genders is that females appear to consider *impatience* as more relevant than males. In females' SNC *impatience* is close to the network's core, yet occupies the last positions in males' SNC.

Moreover, there were words that were exclusive to only one gender. Males included the defining word *negativity* while females did not, and females included *denying, comparing, time, unpunctuality and desperate* while males did not. Although these words stand at the end of both SNCs, they show moderate differences in the conception of parental malpractices between

Table 2

Conducts and Attitudes of Your Parents That Have Hindered Your Learning

Defining word	General (NS = 597) QSD	Male (NS = 311) QSD	Female (NS = 441) QSD
Overprotection	100.00	100.00	96.55
Demanding	94.84	82.46	100.00
Pressure	93.59	77.73	91.57
Strict	83.44	66.35	66.86
Incomprehensive	76.25	64.45	60.34
Anger	70.31	68.25	52.49
Impatience	65.94	49.76	74.71
Scold	56.72	86.26	61.88
Disinterest	56.09	50.71	57.09
Narrowness	53.59	43.60	45.98
Punisher	52.34	60.19	55.17
Intolerant	42.03	43.13	32.95
Distrust	35.78	56.87	41.00
Time	34.22	-	30.08
Comparing	31.41	-	31.99
Unpunctuality	29.06	-	28.74
Authority	28.13	-	-
Negativity	-	47.87	-
Denying	-	-	32.18
Desperate	-	-	25.48

Note. NS = network size; QSD = quantitative semantic distance. SNC for the general sample includes 17 defining words; SNC for male subsample includes 14 defining words; SNC for female subsample includes 18 defining words.

females and males. Lastly, the main similarity between genders is, particularly, the defining word *overprotection*, which is shown as the most central negative parental conduct for both genders, occupying the first positions in both SNCs.

Characteristics of Good Teachers

The social definitions of good teachers are shown in Table 3. The word *responsibility* appeared as the central definition of a teaching practice that fosters learning for both genders. Other defined words included *intelligence* and *respect*. The only gender difference is the ordinal position given to the word *fairness,* which is located among the first defining words on both females' and males' SNCs. While females put fairness in the 3rd place, followed by respect, men put in the 5th position. This is especially relevant because the first defining words in both males' and females'

SNCs occupy similar positions in the ordinal scale, and fairness' position appears to be the central difference between genders' main definition of the construct.

Characteristics of Worst Teachers

The social definition of the characteristics of worst teachers that emerges from SNCs, shown in Table 4, showed the counterpart of behaviors and attitudes of good teachers, which are irresponsibility, unfairness, disrespect, and unpunctuality. *Unpunctuality* is considered a central bad feature by both genders, but is more relevant to females than males. *Unfair* appears also as more central to females' definition in comparison to that of males'.

Finally, the sizes of the semantic networks that defined parents' and teachers' negative features were the

Table 3
Characteristics of Good Teachers

Defining word	General (NS = 364) QSD	Male (NS = 245) QSD	Female (NS = 267) QSD
Responsible	100.00	100.00	100.00
Intelligence	80.25	84.27	78.28
Comprehensive	80.18	59.27	41.31
Respect	60.63	62.36	61.58
Fairness	57.75	60.67	61.68
Patience	48.90	61.24	56.08
Punctual	45.54	54.49	45.08
Dynamic	41.43	50.56	37.45
Honesty	39.09	54.49	29.25
Kindness	32.78	34.83	29.54
Prepared	31.55	40.45	29.25
Organized	28.74	29.21	29.73
Experience	27.43	32.58	38.22
Knowledge	24.01	27.53	39.38
Flexibility	-	31.18	-
Strict	-	26.69	-
Dedicated	-	25.56	-
Well-informed	-	25.00	-
Wise	-	23.60	-
Creative	-	23.31	-
Knowledgeable	-	23.03	-
Tolerant	-	22.47	-
Helpful	-	21.35	-
Charismatic	-	19.38	-
Demanding	-	19.10	22.97

Note. NS = network size; QSD = quantitative semantic distance. SNC for the general sample includes 14 defining words; SNC for male subsample includes 25 defining words; SNC for female subsample includes 15 defining words.

largest compared to the semantic networks that emerged from the stimulus for positive parental and teaching practices.

Discussion

In general, the results obtained during the analysis of males' and females' semantic networks support the main hypothesis of this study about gender differences in the perceptions of generation Y undergraduates regarding the parenting and teaching influences on their learning process. The first main finding is that students used a larger number of words to define negative features of parenting and teaching, compared to the number of words used to describe positive parent and teaching practices. This might indicate either a strong consensus among students in the selection of parents' and teachers' practices that contribute to their learning showed the counterpart of behaviors and attitudes of good teachers, which are irresponsibility, unfairness, or an increased number of previous negative learning experiences that led students to utilize more words when defining negative parenting and teaching traits. These results are discussed in three main sections: parenting, teaching and gender differences.

Table 4
Characteristics of Bad Teachers

Defining word	General (NS = 432) QSD	Male (NS = 272) QSD	Female (NS = 365) QSD
Irresponsible	100.00	100.00	100.00
Unpunctuality	87.56	73.68	86.35
Unfair	75.86	60.82	75.83
Disrespectful	62.62	71.35	65.31
Lazy	56.29	78.95	43.54
Rude	44.81	38.60	51.77
Boring	43.86	75.44	41.88
Disorganized	41.13	21.64	52.40
Impatient	40.10	47.37	34.27
Disinterest	38.19	38.60	38.75
Permissive	31.71	23.10	32.50
Prepotency	29.95	37.13	22.71
Narrowness	25.53	31.87	21.56
Ignorant	25.53	33.63	23.44
Dishonest	25.46	25.44	23.33
Intolerant	20.97	31.58	-
Strict	-	28.07	-
Inexperienced	-	27.49	-
Apathetic	-	25.73	-
Monotonous	-	22.81	-
Irascible	-	20.47	-

Note. NS = network size; QSD = quantitative semantic distance. SNC for the general sample includes 16 defining words; SNC for male subsample includes 21 defining words; SNC for female subsample includes 15 defining words.

Impressions on Parenting

The defining words included in the SNC of positive parenting represented an active involvement and recognition of the student's effort. The word *support* shows the highest QSD and there is also a significant gap between this word and the second defining word.

This gap might indicate that the educational support that parents give to their offspring is the most important parenting practice for undergraduate students. In addition, other conducts and attitudes appear to be contingent to the existence of this primary element, as most following words are semantically related to "giving support". The importance placed on parental support could be related to Riso's acceptance/ sensibility dimension (2009). It could also be related to what Fulton and Turner (2008) found about the impact of authoritative parenting - warmth, autonomy granting, and behavioral supervision - which assures children possibility of turning to their parents for unconditional understanding and positive advice. The SNC for this stimulus is the only case in which the central defining word, which is the one that holds a QSD of 100, is separated from the second word by approximately 50 QSD points, showing a strong consensus in its socially shared definition. Thus, to northeastern Mexican undergraduate students, parental support could be the parenting practice that has the most positive impact on their learning.

Nonetheless, an excessive amount of involvement in their learning process might paradoxically hinder their outcomes. This is shown in the SNC for the stimulus that represents negative parental conducts, where *overprotection* appears with the highest QSD,

followed by *exigency* and *pressure.* Thus, it is important to understand the different elements involved in students' conception of parental support to determine the limits in which it stops fostering effective learning. Presumably, students expect their parents to be actively involved in their learning process by supporting them through attention, love, patience, motivation, and trust, among other things (Espitia & Montes, 2009; Sánchez & Valdés, 2011; Shah & Gardner, 2008; Weihua & Williams, 2010), but reject the obligation of fulfilling exigent expectations that put them under pressure (Weihua & Williams, 2010).

According to Cuesta et al. (2008), formal education must increase students' ability to solve problems and manage stress. However, it might be possible that increased parental expectations and demands would hinder the development of these strategies, both at home and at school. Consequently, parents must model effective strategies to handle pressure and to solve problems before setting high expectations and demands.

It is also relevant that the word *intelligent* is not included as a positive parental trait. It seems that the attributes valued at home have more to do with those that forge character (responsibility, respect, patience, and discipline) and those that entail a support system and a confidence network (support, comprehension, love, trust, attention, dedication), rather than traits that imply knowledge or wisdom (intelligence). It is possible that at higher levels of education, parents are not expected to be portrayers of the specialized knowledge that a student seeks to acquire, but are required to support him/her in the process of forging their own intellectual identity (Fulton & Turner, 2008; Riso, 2009).

Impressions on Teaching

Two attributes presented as most relevant with regards to how students conceive the best teachers were *responsible* and *intelligent.* Teachers' intelligence could be related to their knowledge of the discipline (Irigoin, 2002; Senior, 2004), to the know-how required in the field of work, to transferring knowledge into action, to their ability to enhance their student's capabilities (Quiroga, 2008; Ruiz, 2008), and/or ethical commitment (Tobón, 2008).

Responsibility was a term that was also used to define positive parenting. It is possible that what students value and observe in their parents at home is related to what they expect and value at school, with an added expectation about the teacher's abilities

(*intelligence*). This could be a data-structure for representing a stereotyped situation (Minsky, 1975). It is expected that responsibility comes with being a good teacher and being a good father/mother. Also, it is important to assess what students mean by intelligent. Intelligence could either represent a high level of expertise in instructional and educational strategies (Arancibia, 2008; Posner, 2004), or being cultured and knowledgeable about general topics.

Furthermore, the importance that students put on teachers' responsibility appears to be associated to findings by Cabalín and Navarro (2008). These authors found that university students attributed greater value to the development of competencies related to the "ought to be" (in Spanish, "deber ser", which relates to a person's fulfillment of his or her responsibilities and compliance with norms), rather than being instructed by an organized and prepared teacher. Thus, responsibility arises as a highly valued feature in teachers, and its antonym (irresponsibility) appears as the main defining word for the characteristics of bad teachers. It is also probable that students highly value conducts and attitudes such as comprehension, respect, patience and responsibility because these practices improve student-teacher relationships (Beltrán, 2005; Mares et al., 2009).

Finally, regarding the relevance that the word boring has for both genders, it is possible that undergraduate students seek high levels of stimulation in order to engage in learning activities inside the classroom. This could be related to the characteristics of generation Y or Millenials (Feixa, 2008), whose members are accustomed to constant stimulation due to technological advances and a surfeit of information. This characteristic of generation Y may imply that teachers should incorporate teaching elements that students consider stimulating. For example, the inclusion of digital tools (Cuesta et al., 2008; Duart, 2010) can empower teachers to become learning mediators (Vygotsky, 1978) and avoid the passive reception of data among their students.

Impressions on Gender Differences

Regarding the social representation of best teachers, a difference on the concept of *fairness* was observed between males and females. Overall, males place fairness as the 5th defining word for best teachers, while females rank it in 3rd place. The difference is more notorious in the negative teaching practice stimulus' SNC, since both genders use its antonym

(unfair) in different positions. Males present unfair in 6th position and females in 3rd. The relevance that females give to the fairness construct could indicate a perceived difference on how they are treated in school. This is consistent with Rice's (2012) findings on females' perception that their gender is an obstacle in their path towards thriving in academic endeavors.

Perhaps the value given to fairness by females is related to the conducts and behaviors from their parents that they have identified as interfering with their learning. Since they use *demanding* as the first defining word, there might be a relation between the pressure that females feel to meet parental demands, and the sense of fairness that they seek in their classrooms. It's also possible that they expect their authority figure, their teacher, to act fairly and allow them to fulfill these parental demands. Therefore, equity and equal opportunities for all students seem to be a priority in terms of improving learning effectiveness (Braslavsky, 2006; Mizala, Romaguera, & Ostoic, 2005; Musset, 2012).

Additionally, females use *unpunctual* as the second defining word for negative teaching practices, meaning that they expect teachers to comply with the norms. This possibly reflects how females feel less confident due to an increased demand experienced with their parents at home (Fulton & Turner, 2008). Most compelling evidence is that by using *demanding, overprotecting* and *pressure* as their 1st, 2nd, and 3rd defining words, females convey feeling monitored. This perception of being assessed could perhaps explain why it is relevant for females to replicate this conduct by monitoring their teachers and this tension is transferred as an exigency to their teachers (Geist & King, 2008).

Males and females define bad teaching practices with the word *irresponsibility*. Males differ from females by using *lazy* and *boring* as the 2nd and 3rd defining words, while females use it as the 7th and 8th. Since both genders highly appreciate intelligence in their teachers, this difference could exemplify how males conceive learning in particular. It is possible that males perceive learning as a dynamic process where the teacher plays the role of a figure of knowledge, a figure that has the intelligence to promote learning through engagement. This is different from how females seem to perceive teachers, as a figure aligned with norms. Kohlberg's post conventional moral reasoning would best fit to explain why males appear to disregard norming behavior to concentrate in

learning from their teachers (Evans, Forney, Guido, Patton, & Renn, 2010; Woolfolk, 2006).

Gender differences were observed concerning the cutting point of positive parental practices. Males use *freedom* indicating a need for "letting them be" and females use *help* emphasizing their first defining word (*support*). This gender difference could indicate the effect of conservatism and different expectations that society has for males and females in Mexico (Wiseman, 2011). Male's need for freedom could also be related with the value given to *scold* when defining the parental conducts and behaviors that have blocked their learning. This could mean that the continuous exposure to parents' scolding is more noticeable for males, and could lead to a bigger urge for freedom.

It is important to consider the use of the word *demanding* to define the stimulus related to negative parenting behaviors in order to understand how females perceive a distinctive treat from their parents compared to males. The use of this word seems to be quite a paradox: It appears that females require encouragement to learn, but not in a coercive way since it would then transform into a negatively perceived action. This could be related to how females perceive the expectations that their teachers and parents have about them, as described by Geist and King (2008). According to these researchers, both teachers and parents expect males to outperform females in their mathematical abilities. Knowing that parental expectations have an impact on students' learning (Sphera et al., 2009), it is plausible that parents have different expectations for males and females that might influence students in different ways.

Limitations and Future Directions

The present study is limited by the type of sample used, as results are circumscribed to the group of undergraduate students that was assessed. Factors that might hinder the possibility of generalizing this study's results relate to cultural and sociodemographic variables. Participants in this study represent only a specific sector of the population, as private education attendance in Mexico rose to nearly 30% of matriculated students in 2005 (Gil-Antón, 2005), increasing over the past few years. Therefore, it is plausible that slight differences in perceptions may arise in groups that pursued another type of education, even though they are from the same generation.

Moreover, the characteristics of the northern Mexican community might alter the perception of its students regarding the factors that impact their learning. Not only could the *generation* variable have an impact on students' perception, but cultural differences might also play an important role on the way in which learning factors are perceived. For example, although the *responsibility* trait was central to the definition of good teachers in both males and females, it is recommended that cultural differences are assessed prior to making any generalization about these results.

Additionally, since the sample used for the present study lacks statistical representativeness, caution should be exerted in attempting to generalize the results to the undergraduate population. Nonetheless, given the exploratory and qualitative nature of this study, its results could further enrich investigations and bring innovation to the field (Fullan, 2011) by proposing hypotheses for future studies.

This study points out the differences and similarities between males' and females' perceptions on the learning process. This could help in understanding their learning reality and improve parental and teaching strategies to approach students learning. It is especially important to understand the external factors that influence the individual process of learning of undergraduate students. If these elements prove to have an important impact on learning, identifying them both in the classroom and at home would help teachers and parents to address them properly in order to grant an effective learning environment. For instance, the trait of fairness in teachers could be taken into consideration in the academic preparation of future education professionals, as a means of fostering an inclusive and equitable learning context.

This study supports the notion about the relevance that students put on the image that teachers portray, specifically the importance they give to their teachers' personal traits (like responsibility and intelligence), emphazing these over teachers' educational strategies or expertise. This is important because these traits represent the social representation of a contemporary group of undergraduate students that requires new interventions and strategies to reach the new objectives of higher education institutions (Fullan, 2011). These results may indicate that teachers should not only stay up to date with their discipline, but also develop additional skills or values. These may include innovation, openness to change, dealing with ambiguity, adaptability, and responsibility towards their profession.

Further, the results convey an emphasis in the utilization of semantic networks as a qualitative assessment technique to integrate theory and practice in Educational Psychology. Given that most quantitative approaches in research use instruments that are bounded to theoretical constructs, it would be useful to compare these constructs to their social definitions, which could be obtained by assessing groups of students at different levels and diverse environments. Considering that students' generation can impact on their behavior (Cuesta et al., 2008) the use of semantic networks to support current quantitative assessments may shed new light on their construct and content validity. Moreover, these exploratory qualitative studies might provide insights into the applicability of previous research findings on current students, and update the knowledge in the field with constant innovation (Fullan, 2011).

Also, it is important to consider that one of the applications of semantic networks relates to increasing the validity of psychometric instruments by using the same language that the target population in the creation of items for inventories and scales (Reyes-Lagunes, 1993). The richness of the semantic networks' cores found in this study could be utilized to create quantitative instruments to measure the impact that teachers and parents have on the learning process of contemporary undergraduate students.

It is relevant to consider that the results of semantic networks suggest that, although students share social definitions regarding the elements surrounding their learning, they also account for particular perceptions that differ from group to group (Griffiths et al., 2007; Vivas et al., 2007; Zermeño et al., 2005). The comparative analysis between groups indicates that while social representations comprise an inter-subjectively accepted reality (Mora, 2002) it is bounded to each group. This implies that when working with students enrolled in every course, teachers have to take into consideration their particularities along with recent research findings.

Nonetheless, it is necessary to continue researching parental and teachers' influences on the learning process of undergraduates. Future research should use representative samples of a larger population, and include quantitative measures that would help gauge how generalized the results may be to the rest of the student community. In this case, doing an analogous study with quantitative methodology could contribute to the literature by delivering results that can be

supported by statistical analysis, and at the same time, that would be supported by qualitative data.

Other possibilities might include utilizing the key findings from this study as hypotheses for future research. For example, a comparative design in which undergraduates are quantitatively assessed in their perceptions on their teacher's responsibility and fairness, their attitudes towards learning, and academic achievement could be designed. Such study could identify positive correlations between appraisals of teachers' positive attitudes towards learning and better academic outcomes. In addition, it can identify gender influences on these variables. This could also be done by operationalizing and quantitatively measuring the variable of parental control/supervision with a larger, representative sample, and then relating this variable to other learning variables.

Additionally, the variable *parental support* could be analyzed within the learning context, and operationalized in order to measure its impact on undergraduates' learning process. Given the possibility that this variable is multidimensional, since support can be given in different ways, its study would allow a broader comprehension of how it could be properly managed to foster students' learning.

Finally, the relevance of qualitative research in educational contexts relies on the quality of the information it obtains, and the synergy created by the inclusion of quantitative methods in the analysis of a same phenomenon. Mixed research methodologies appear to be acquiring more importance in academic practices (Hernández-Sampieri et al., 2010), and its positive applications should be incorporated in research related to education and learning. Only then could previously identified factors implied in the process of learning in pupils gain support from the qualitative data collected from the same population. As we find similarities and disparities between quantitative and qualitative data, we can proceed to understand the different theoretical applications for diverse groups of students, and refine our approaches to the study of this phenomenon.

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(de gauche à droite en commençant par la rangée arrière / from left to right, starting from the last row) Mathieu Caron-Diotte, Thomas Marsh, Sarah Gaham, Laura French Bourgeois, Melissa Stawski, Sarah Kimpton, Meagan Beaudin, Diana Cárdenas, Roxane de la Sablonnière, Marie-Josée Leclerc, Mathieu Pelletier-Dumas

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