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

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

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JIRIRI

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Journal of Interpersonal Relations, Intergroup Relations and Identity

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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 en avril. Sa mission est de permettre aux étudiants de premier cycle de faire l'expérience complète de la démarche scientifique, de la mise sur pied d'idées originales jusqu'à leur diffusion, par le biais d'un processus de révision par les pairs.

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

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

Processus de révision

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

Ensuite, le responsable du manuscrit fait la synthèse de ces évaluations dans une lettre d'édition destinée à l'auteur. La rédaction de la lettre d'édition est supervisée par les éditeurs consultants, des étudiants aux cycles supérieurs. La lettre d'édition doit souligner les critiques les plus importantes et rendre la décision concernant la publication de l'article. L'article peut être accepté, l'auteur peut recevoir une demande de modifications (mineures ou majeures) avec demande de re-soumission ou l'article peut être rejeté.

L'auteur doit alors considérer les modifications suggérées par le comité de rédaction. Le processus de révision et de corrections se poursuit jusqu'à ce que le manuscrit soit jugé satisfaisant pour fin de publication.

Consignes pour la soumission d'un manuscrit

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

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

La première page du manuscrit doit contenir le titre de l'article ainsi qu'un titre abrégé de **50 caractères maximum**. La deuxième page doit contenir un résumé de l'article de **150 mots maximum**. De plus, l'auteur doit fournir **cinq mots-clés** en lien avec les thèmes abordés dans l'article. Le texte doit contenir **un maximum de 7 500 mots et il doit respecter les normes de l'APA**.

Pour s'impliquer au sein du JIRIRI

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

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

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Mission

The Journal of Interpersonal Relations, Intergroup Relations and Identity (JIRIRI) is an international scientific journal published annually in April. Its mission 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 field of identity, interpersonal and intergroup relations—ideas that could eventually become solid bases for large-scale studies.

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

Reviewing Process

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

The associate editor will write an edition letter to the author, which will synthesize the reviewer's comments. This process will be supervised by the consulting editors, who are graduate students. The edition letter must contain the most important comments and the decision regarding publication. The manuscript may be accepted as it is, the authors may be invited to revise and resubmit the article (with minor or major revisions), or the manuscript may be rejected completely.

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

Guidelines for Submitting an Article

Undergraduate students of all universities are invited to submit their manuscript in French or in English. In his letter to the Editor-in-Chief, the author submitting a manuscript must confirm that he is an undergraduate student and that his manuscript has neither been published nor submitted for publication elsewhere. An undergraduate student may submit a manuscript that

he has co-written with a professor or a graduate student only if he is the first author. It is not possible to be the first author of an article in the JIRIRI if one's undergraduate degree was completed more than **six months** prior to the submission of the manuscript.

The cover page must include the title of the manuscript and a running head **with a maximum of 50 characters**. The second page must include an abstract **with a maximum 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 must conform to APA standards**.

To Participate in the JIRIRI

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

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

Postal Address

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Remerciements

L'équipe du JIRIRI tient tout d'abord à remercier le Département de psychologie de l'Université de Montréal et sa Directrice, Madame Michelle McKerral. De même, nous tenons à remercier tout particulièrement les entreprises Shaker Mixologie, L'Oasis de l'île, La Salle Andrée-Mathieu, Oasis Immersion et Oui Manon pour leur contribution à titre de commanditaires. Leur générosité aide à financer la distribution gratuite de la revue à la communauté universitaire et au grand public.

Nous remercions également tous les étudiants qui ont collaboré au Journal sur l'identité, les relations interpersonnelles et les relations intergroupes (JIRIRI). Nous remercions aussi tous les éditeurs consultants ainsi que Jonathan Doherty, Laura French Bourgeois et Sébastien Hétu, qui ont su guider généreusement les rédacteurs adjoints dans leurs lettres d'édition. La publication du présent volume n'aurait pu être possible sans l'implication et l'expertise de toutes ces personnes. Par ailleurs, nous exprimons notre reconnaissance à Roxane de la Sablonnière, fondatrice du JIRIRI, et à nos collègues du Laboratoire de recherche sur les changements sociaux et l'identité (CSI).

Sur une note plus personnelle, nous tenons à remercier Daniel Sznycer pour son dévouement et son appui continu. De plus, nous remercions les rédacteurs et rédactrices en chef des volumes précédents, qui continuent d'agir en tant que guides année après année

Un grand merci final aux auteurs et auteures qui ont fait confiance au JIRIRI pour la publication de leur manuscrit ainsi qu'aux lecteurs et lectrices qui font vivre ce journal depuis maintenant 15 ans !

Acknowledgments

The JIRIRI's team would first like to thank the Department of Psychology at the University of Montreal and its Director, Ms. Michelle McKerral. Another thank you to *Shaker Mixologie, L'Oasis de l'île, La Salle Andrée-Mathieu, Oasis Immersion* and *Oui Manon* for their contributions as sponsors. Their generosity helps finance the free distribution of the journal to the academic community and to the general public.

We thank all the students who contributed to the Journal on Identity, Interpersonal Relations and Intergroup Relations (JIRIRI). We also thank all of the consulting editors as well as Jonathan Doherty, Laura French Bourgeois and Sébastien Hétu, who generously guided the associate editors through their edition letters. The publication of this volume would not have been possible without the involvement and expertise of all these people. In addition, we are grateful to Roxane de la Sablonnière, founder of the JIRIRI, and our colleagues at the Social Change and Identity Research Laboratory (CSI).

On a more personal note, we would like to thank Daniel Sznycer for his dedication and ongoing support. Furthermore, we would like to thank the editors of previous volumes, who continue to act as guides year after year.

A final thank you to the authors who trusted the JIRIRI for the publication of their manuscript as well as to the readers who have kept this journal alive for the past 15 years !

Éditorial

Céline Chumbi Flores & Jacob Lalongé
Université de Montréal



Un an ! Une période essentielle à la publication du nouveau volume du *Journal sur l'Identité, les relations interpersonnelles et les relations intergroupes* (JIRIRI). Au cours du mandat 2021-2022, les acteurs et actrices de cette équipe ont mis à profit leurs capacités de révision en vue de soutenir le travail effectué par des étudiants et étudiantes du premier cycle.

Cela fait quinze ans que le JIRIRI continue de susciter la curiosité scientifique des étudiants et étudiantes qui proviennent du monde entier. Son enseignement vise à favoriser autant que possible l'autonomisation. En tout et pour tout seize manuscrits nous ont été acheminés dont douze ont finalement été acceptés. Le taux de refus a ainsi atteint 25 %.

En tant que rédactrice et rédacteur en chef, nous avons eu l'opportunité de superviser une équipe éditoriale extraordinaire. La minutie d'Irza Tuzi (édition), l'initiative de Sophie-Catherine Dick (communications) de même que l'enthousiasme d'Ariane Roy (événements) ont permis le fonctionnement optimal de cette quinzième édition. De plus, les innombrables facultés de nos trois rédacteurs adjoints et de nos dix rédactrices adjointes, soit l'ouverture d'esprit, l'esprit critique et l'adaptabilité pour ne nommer qu'elles, ont assuré la qualité des articles subséquents que nous avons la fierté de vous présenter.

Cette belle aventure ne serait par ailleurs pas envisageable sans d'un côté l'expertise des éditeurs et éditrices consultants ainsi que des rédacteurs et rédactrices séniors et de l'autre l'implication des évaluateurs et évaluatrices externes au JIRIRI. Le JIRIRI compte donc sur une vaste équipe consacrant temps et énergie

avec pour objectif commun de perpétuer sa publication.

Au moment d'écrire ces lignes, nous sommes convaincus que notre responsabilité à l'égard du bon déroulement de ce processus a fait de celui-ci une expérience unique et enrichissante. Recruter, former, organiser ... Des tâches aussi diverses que variées qui ont contribué à des apprentissages sur le plan personnel tout autant que professionnel.

C'est par l'intermédiaire de notre étonnante complémentarité qu'il nous a été possible de faire face aux défis allant de pair avec ce poste. En effet, le fait de planifier sur le long terme ainsi que de réagir avec rapidité ont constitué des atouts non-négligeables. Ayant fourni d'importants efforts pour renforcer davantage la structure du JIRIRI, c'est le cœur léger que nous passons le relai.

Nous remercions infiniment Daniel Sznycer, directeur du JIRIRI, pour son suivi et Roxane de la Sablonnière, fondatrice de celui-ci, pour ce projet de grande envergure. Pour conclure, nous tenons à manifester notre reconnaissance envers l'ensemble de l'équipe.

Editorial

Céline Chumbi Flores & Jacob Lalongé
Université de Montréal



A whole year! It is the time needed from start to finish to publish a new volume of the *Journal of Interpersonal Relations, Intergroup Relations and Identity* (JIRIRI). During our 2021-2022 mandate, every actor of our team shined by their ability to review and improve the work that undergrad students produced.

It now is the fifteenth year that the JIRIRI stimulates the scientific curiosity of students from all over the world. The teaching method rests on the empowerment of the students and authors. This year, sixteen manuscripts have been submitted and we have managed to publish twelve. The refusal rate reaches 25%.

As editors in chief, we had the opportunity to supervise an unbelievable team. The meticulousness of Irza Tuzi (Edition), the proactivity of Sophie-Catherine Dick (Communication) just like the enthusiasm of Arianne Roy (Events) all made this fifteenth volume an amazing experience for our team and the public. In addition, our thirteen associate editors have been at work relentlessly highlighting their understanding, their critical thinking and their adaptability, to only name these qualities, ensuring the quality of the twelve articles we are proud to share with you.

This exquisite process would not be possible if we hadn't had the chance to work with such talented and rigorous working people that our consulting editors and the senior associates represent. The JIRIRI is lucky to have a vast team with as much expertise and time to put on its mission.

At the time we are writing this letter, we realize how unique and rewarding the role we had is. All these responsibilities, such as recruiting,

training or assembling a team to work on this project, all of those tasks provided us with exquisite learning experiences.

Across our complementarity and understanding of our strengths and weaknesses, we have managed to overcome the challenges this position has given us. Being able to plan the whole publication process from the beginning to its conclusion and to be constantly present for our team were prime qualities. We have worked steadily this whole year to strengthen the JIRIRI's structure and it is lighthearted that we depart and welcome a new team into this institution.

We are indebted to Daniel Sznycer, director of the JIRIRI, for his mentorship and to Roxane de la Sablonnière, creator of this journal, for this monumental project. To culminate this letter, we want to reiterate our immense gratitude to every single member that has been part of our team this year.

Lettre des rédacteurs adjoints séniors

JONATHAN DOHERTY¹, M. SC., LAURA FRENCH BOURGEOIS², SÉBASTIEN HÉTU¹, PH. D., & DANIEL SZNYCER³, PH. D.

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Nous sommes heureux de vous présenter le 15e volume du Journal des relations interpersonnelles, des relations intergroupes et de l'identité (JIRIRI), une revue de psychologie sociale dirigée par des étudiants de premier cycle et domiciliée à l'Université de Montréal.

Cette initiative étudiante a débuté il y a quinze ans, sous la direction de la professeure Roxane De La Sablonnière. Cette initiative a permis à des dizaines d'étudiants de premier cycle d'universités du monde entier de faire leurs premiers pas dans la production de recherches en psychologie. Le JIRIRI a également offert aux étudiants de premier cycle la possibilité de participer au processus éditorial, à la révision, à l'édition et à la révision d'articles rédigés par d'autres étudiants de premier cycle.

Les étudiants-leaders du JIRIRI de cette année étaient Jacob Lalangé et Célina Chumbi Flores. Jacob et Célina ont formé les étudiants et géré le fonctionnement du JIRIRI. Jacob et Célina ont fait partie de l'édition précédente du JIRIRI, ils ont donc transposé leurs connaissances inestimables nécessaires pour achever leurs nouvelles tâches. Leur travail était difficile compte tenu de la pandémie - la formation des étudiants à l'édition se faisait en ligne. Malgré ces défis, Jacob et Célina ont réussi à produire ce que nous pensons être un volume passionnant et de haute qualité. Nous les remercions chaleureusement pour leur travail acharné et leur belle gestion d'équipe.

L'objectif du JIRIRI est de donner aux étudiants de premier cycle en psychologie sociale et de la personnalité une expérience de première main avec la production de connaissances scientifiques et les outils conceptuels et techniques du métier. Ces articles, souvent les premiers articles produits par de jeunes scientifiques, sont conceptuellement innovants et analysés avec rigueur et passion.

Les articles du volume actuel abordent une foule de questions fascinantes : Quels sont les facteurs de risque d'insatisfaction corporelle chez les femmes ? Qu'est-ce qui explique les différences de bonheur au niveau national ? Qu'est-ce qui explique les différences au niveau individuel dans la rationalisation d'un comportement immoral ? Comment la hiérarchie sociale influence-t-elle notre perception de la douleur chez autrui ? Quels effets la pandémie de la COVID-19 peut-elle avoir sur notre santé mentale ? Ces questions font briller l'importance de ces nouveaux scientifiques.

Nous espérons que vous appréciez le 15^{ème} volume du JIRIRI !

Letter from the Senior Associate Editors

JONATHAN DOHERTY¹, M. SC., LAURA FRENCH BOURGEOIS², SÉBASTIEN HÉTU¹, PH. D., & DANIEL SZNYCER³, PH. D.

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We are happy to introduce the 15th volume of the *Journal of Interpersonal Relations, Intergroup Relations and Identity* (JIRIRI), an undergraduate-run social psychology journal with home at the Université de Montréal.

This student-led initiative began fifteen years ago, under the direction of Professor Roxane De La Sablonnière. This initiative has allowed over a hundred of undergraduate students from universities around the world to take their first steps in the production of psychological research. The JIRIRI has also offered undergraduate students the opportunity to be involved in the editorial process, reviewing, editing, and copyediting papers authored by fellow undergraduates.

This year's student-leaders of the JIRIRI were Jacob Lalangé and Céline Chumbi Flores. Jacob and Celina trained the students and managed the running of the JIRIRI. Jacob and Celina had been part of the previous edition of the JIRIRI, so they brought with them invaluable knowledge needed to make all of this work. Their work was challenging given the pandemic—the training of students to the publishing was done online. Despite these challenges, Jacob and Celina managed to produce what we believe is an exciting, high-quality volume. We thank them very much for their hard work and their managerial talent.

The goal of the JIRIRI is to give undergraduate students in social and personality psychology first-hand experience with the production of scientific knowledge and the conceptual and technical tools of the trade. These papers, often the first papers produced by junior scientists, are conceptually innovative and rigorously researched.

The papers in the current volume address a host of fascinating questions: What are risk factors for body dissatisfaction among women? What accounts for country-level differences in happiness? What accounts for individual-level differences in rationalization for immoral behavior? How does social hierarchy influence our perception of pain in others? What influences did the COVID-19 pandemic may had on mental health? The importance of these new scientist shines by these questions. intolerance of minority groups? And many others.

We hope you enjoy the 15th volume of the JIRIRI!

Processus de révision par les pairs

Le JIRIRI a mis au point un processus de révision par un comité de pairs adapté aux étudiants universitaires de premier cycle. Chaque membre de l'équipe éditoriale reçoit des tâches précises qui visent l'apprentissage et le développement de compétences liées au domaine de la publication scientifique. L'équipe éditoriale est guidée par le *rédacteur en chef*, qui assure le bon déroulement du processus de révision et de publication tout en respectant l'échéancier. Les tâches du *chef d'édition* consistent à organiser des ateliers de formation pour les évaluateurs et à superviser le processus de mise en page du JIRIRI. Le *directeur des communications* est responsable de la promotion du journal, de la rédaction des demandes de bourses et le *coordonnateur des événements* est responsable de l'organisation des collectes de fonds. Le *trésorier* est responsable des transactions et de la gestion des fonds du JIRIRI. Finalement, le *responsable des médias* coordonne les publications sur notre page *Facebook* et notre compte *Instagram*, ce qui vise l'augmentation de la visibilité du journal. Les *rédacteurs adjoints* sont responsables du processus de révision et de publication des manuscrits soumis.

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

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 to develop 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 organizing workshops for reviewers and supervising the page layout of the JIRIRI. The *Communications Director* promotes the journal, submits grant applications and the *Events Coordinator* organizes multiple fundraisers. The *Treasurer* is responsible for the transactions and fund management of the journal. The *Media Director* oversees publications on our *Facebook* page and *Instagram* account that ensure the journal's visibility. The *Associate Editors* are responsible for the review and publication process of some of the submitted articles.

The review process has three parts. First, the *Editor-in-Chief* makes a preliminary selection of the manuscripts, retaining those that comply with the JIRIRI's mission, and sends them to the *Associate Editors*. The *Associate Editors* ensure that all articles are reviewed by three undergraduate *Reviewers* and one *Guest Reviewer*, who must be a graduate student. Following the reception of the reviews, the *Associate Editor* provides a summary of

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

the comments to the manuscript's author in an *Editor's Letter*. In addition, the *Consulting Editors*, graduate students or students who have finished their undergraduate degree, review the editor's letter to provide guidance to the authors and the editor in charge of the paper. The entire process is supervised by the *Senior Associate Editors*, Jonathan Doherty, M. Sc., Laura French Bourgeois, Ph. D., Sébastien Hétu, Ph. D., and Daniel Sznycer, Ph. D., in collaboration with the *Editor-in-Chief*. Several rounds of reviews may be undertaken until the manuscript is judged suitable for publication. As the review process moves from the first to the last round of reviews, the comments and modifications required become more precise and detailed. At first, the reviewing process ensures the overall scientific contribution of the paper. Then, subsequent rounds are aimed at improving more precise and detailed aspects, such as statistical analyses. Throughout the entire process, the editorial team is readily available to offer help and support to the authors. Thanks to the collaboration of the entire team as well as the authors, the JIRIRI is able to reach its goals and mission.

Comprendre la douleur chronique au spectre du genre : attentes de rôles de genre et pandémie

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La douleur chronique est un problème majeur de santé publique, touchant un·e Canadien·ne sur quatre, majoritairement des femmes. L'étude vise à documenter les effets de la pandémie sur les individus vivant de la douleur chronique selon le genre et explorer les attentes de rôles de genre liées à la douleur en lien avec l'interférence de douleur. Les participant·e·s ($N = 49$) ont rempli des questionnaires avant, pendant et après la première vague de COVID-19, documentant leur solitude, leur détresse, les restrictions de la pandémie, leur douleur et leurs attentes de rôles de genre. Il était attendu que les femmes seraient plus affectées par la pandémie. Les résultats ($p > .05$) ne montrent pas de différences genrées ni d'association entre les attentes de rôle de genre et l'interférence de douleur. Plusieurs études seront nécessaires afin d'éclaircir nos connaissances sur les différences de genre en douleur et adresser les inégalités en santé.

Mots-clés : douleur chronique, COVID-19, différence de genre, attente de rôle de genre liée à la douleur, détresse psychologique

Chronic pain is a major health problem, afflicting one in four Canadians, with more women living with chronic pain. The study aims at documenting the impacts of the COVID-19 pandemic among individuals living with chronic pain depending on gender and at exploring gender role expectations of pain in relation to pain interference. Participants ($N = 49$) filled out questionnaires before, during and after the first wave of the COVID-19 pandemic, documenting their loneliness, distress, pandemic-related restrictions, pain and gender role expectations of pain. It was expected that women would be more affected by the pandemic. Results ($p > .05$) do not indicate gender differences, nor associations between gender role expectations and pain interference. Further research is needed to broaden our knowledge regarding gender differences in chronic pain and to address health inequalities.

Keywords: chronic pain, COVID-19, gender difference, gender role expectation of pain, psychological distress

La douleur est définie comme une expérience sensorielle et émotionnelle désagréable, associée ou apparentée à des dommages tissulaires dans le corps (Raja et al., 2020). Elle devient chronique lorsqu'elle persiste au-delà de 3 mois ou au-delà du délai normal de guérison (Merskey et al., 1994; Treede et al., 2015). La douleur chronique est un problème majeur de santé publique au Canada, touchant près de 25% de la population, dont une proportion un peu plus grande de femmes et avec une prévalence augmentant avec l'âge (Campbell et al., 2020; Reitsma et al., 2011;

Schopflocher et al., 2011). La douleur chronique représente aussi des coûts directs (p.ex., les soins de santé) et indirects élevés (p.ex., la perte de productivité au travail), atteignant entre 38.3 et 40.4 milliards de dollars annuellement (Campbell et al., 2020).

La douleur a des conséquences sur plusieurs sphères de vie, notamment la santé mentale (Demyttenaere et al., 2007). Environ 25% des personnes vivant avec de la douleur chronique vivent de l'anxiété (Haggman et al., 2004) et la prévalence de dépression majeure varie selon les conditions, allant de 13% pour les douleurs gynécologiques à 85% pour les douleurs faciales (Bair et al., 2003). Cette comorbidité serait généralement plus élevée chez les femmes (Munce & Stewart, 2007). Par ailleurs, en contexte de COVID-19, entre 25 et 30% des adultes vivraient un niveau de stress significatif dû à la pandémie (Cooke et al., 2020; Salari et al., 2020) et les mesures de confinement favorisant l'isolement

Nous sommes reconnaissant·e·s envers tout·e·s les participant·e·s qui ont pris le temps de répondre aux questionnaires. Cette étude a été financée par une subvention attribuée à MG Pagé de la part du Réseau québécois de recherche sur la douleur. MG Pagé et E Vachon-Presseau sont des chercheurs Junior 1 du Fonds de recherche en santé-Québec. M Roy détient une chaire de recherche du Canada en imagerie cérébrale de la douleur chronique et expérimentale. S Lupien détient une chaire de recherche du Canada sur le stress humain. Toute correspondance doit être adressée à M Gabrielle Pagé, Ph.D., au gabrielle.page@umontreal.ca.

social pourraient avoir des conséquences sur le bien-être psychologique (Kim & Jung, 2021; Smith & Lim, 2020). Les personnes qui vivent avec une maladie chronique ou sont dans un état de santé plus vulnérable seraient aussi plus susceptibles de vivre une détérioration de leur santé psychologique (Alonzi et al., 2020; Horesh et al., 2020; Szabo et al., 2020; Xiong et al., 2020) et cette association semble plus marquée chez les femmes (Elran-Barak & Mozeikov, 2020). L'ensemble de ces conséquences sur les finances et le bien-être des individus appelle à une meilleure compréhension de la douleur chronique et des différences de genre qui y sont associées, particulièrement dans un contexte, comme celui de la COVID-19, où certaines inégalités de genre semblent exacerbées (Fisher & Ryan, 2021). À cet égard, deux questions majeures méritent d'être examinées. D'abord, quelles sont les relations entre le genre et l'expérience de la douleur au quotidien? Ensuite, comment les personnes vivant avec de la douleur chronique vivent-elles la pandémie en fonction de leur genre? Une meilleure compréhension de ce phénomène est pertinente, tant pour mieux intervenir auprès des personnes vivant de la douleur chronique que pour l'élaboration de politiques publiques sensibles aux différences genrées.

Le genre et la douleur chronique

Un corpus grandissant de littérature s'intéresse aux différences de sexe et de genre dans l'étude de la douleur chronique. Ces termes ne sont toutefois pas interchangeables (Bernardes et al., 2008). Le sexe est défini comme un ensemble de facteurs biologiques, tandis que le genre fait référence à des aspects construits socialement (Dorlin, 2008). À cet effet, l'identité de genre, soit le « sentiment d'être une femme, un homme, les deux, ni l'un ni l'autre, ou d'être à un autre point dans le continuum des genres » (Gouvernement du Canada, 2016), est généralement la variable recueillie en recherche comme donnée sociodémographique. Un autre aspect important du genre concerne les rôles de genre, qui sont des comportements, des attentes et des rôles appris au moyen de la socialisation et définis par la société comme masculins ou féminins et culturellement considérés appropriés ou non en fonction du genre (O'Neil, 1981). Des études récentes réalisées avec des échantillons de personnes cisgenres et trans soutiennent que l'identité de genre pourrait jouer un rôle plus important que le sexe dans la douleur (Strath & al., 2020). Bien que, d'un point de vue théorique, le sexe et le genre soient distincts, plusieurs études ne parlent que de différences entre hommes et femmes sans préciser si elles font référence au sexe ou au genre. Dans ce texte, l'emploi de ces termes fait donc référence à cette imprécision de la littérature.

Les différences de sexe et de genre dans la douleur sont de plus en plus documentées. Ainsi, la douleur chronique est plus prévalente (Fillingim, 2000; Fillingim et al., 2009; Moulin et al., 2002), sévère (Barnabe et al., 2012), fréquente, diffuse et présente sur de plus longues durées (Hurley & Adams, 2008; Unruh, 1996), en plus d'être davantage incapacitante (Unruh, 1996) chez les femmes. L'inclusion du genre dans l'étude de la douleur chronique permet d'en explorer la dimension sociale. Le modèle biopsychosocial conçoit la douleur comme une expérience influencée à la fois par des composantes biologiques (p.ex., la nociception), psychologiques (p.ex., la peur de la douleur) et sociales (p.ex., l'expression de la douleur) (Gatchel et al., 2007). Bien que les aspects biologiques et psychologiques aient reçu beaucoup d'attention, ce n'est que depuis plus récemment que les aspects sociaux sont explorés. Pourtant, dans son rôle de protection et d'alarme, la douleur est une expérience sociale et communicative (Craig et al., 2001; Deyo et al., 2004; Prkachin & Craig, 1995). Elle joue un rôle clé dans la sollicitation du soutien des autres et il semble y avoir des différences genrées quant à l'expression et à la reconnaissance de la douleur chez les autres (Coll et al., 2012; Earp et al., 2019; Keogh, 2014; McClelland & McCubbin, 2008; Wandner et al., 2012), de même que dans le besoin de communiquer la douleur (Nascimento et al., 2020). Il est possible que ces différences soient en partie dues aux normes culturelles et sociales.

Afin d'explorer les différences de genre en relation à la douleur, Robinson et al. (2001) ont développé le *Gender Role Expectation of Pain* (GREP) qui nous informe des attentes de rôles de genre des individus par rapport à la douleur et de comment ils se situent en relation à ces attentes. Ce questionnaire évalue les attentes de rôles de genre stéréotypées (c.-à-d., comment une personne évalue un homme typique en comparaison avec une femme typique et vice-versa) et personnelles (c.-à-d., comment une personne s'évalue elle-même en comparaison à un homme ou une femme typique) en rapport à la douleur sur trois dimensions : la *sensibilité*, qui correspond à combien de temps s'écoule après une blessure avant qu'une personne ressente la douleur ; l'*endurance*, qui correspond au temps qu'une personne peut passer à endurer la douleur avant de chercher à la faire cesser ; et la *volonté à rapporter la douleur*, qui correspond à la susceptibilité qu'a une personne à rapporter sa douleur à autrui (Robinson et al., 2001).

Certaines études ont montré que manipuler en laboratoire les attentes de rôle de genre liées à la douleur a un effet sur la douleur. En effet, Robinson et al. (2003) ont montré que les hommes et les femmes ne différaient plus dans leur tolérance ou leur seuil de

COMPRENDRE LA DOULEUR CHRONIQUE AU SPECTRE DU GENRE

douleur lorsqu'on communique aux participant·e·s une performance moyenne des personnes de leur genre à une tâche et que cette norme est la même pour les hommes et les femmes (p.ex., 30 secondes). Toutefois, le GREP ne semble pas encore avoir été utilisé dans la recherche en douleur chronique. Si, dans un contexte de douleur induite en laboratoire, la manipulation des attentes de rôles de genre liées à la douleur influence la douleur, il est possible que ces attentes viennent aussi moduler l'expérience de la douleur chronique au quotidien, notamment dans son interférence avec différentes sphères de vie. Il est donc important de comprendre de quelle façon les attentes de rôles de genre en situation de douleur sont associées à l'expérience de la douleur chronique. Pourraient-elles avoir un effet sur l'expérience de la douleur au quotidien? Afin de répondre à cette question de recherche, cette étude explorera les relations entre les attentes de rôles de genre personnelles (c.-à-d., la comparaison de l'individu par rapport à un homme ou à une femme typique) et stéréotypées (c.-à-d., la comparaison d'un homme et d'une femme typiques entre eux) liées à la douleur sur trois dimensions (c.-à-d., la sensibilité, l'endurance et la volonté à rapporter la douleur) chez les individus qui vivent avec de la douleur chronique ainsi que l'interférence de la douleur sur la vie quotidienne. Bien que les études réalisées en douleur expérimentale soutiennent que les attentes de rôles de genre peuvent moduler la douleur chez les individus, à notre connaissance, il n'existe pas d'étude en douleur chronique s'intéressant aux attentes de rôles de genre en situation de douleur chronique. Par conséquent, le premier objectif, de nature exploratoire, vise à brosser un portrait de la relation entre les attentes de rôles de genre en situation de douleur et l'interférence de la douleur en contexte de douleur chronique.

Douleur chronique et détresse psychologique en contexte de COVID-19

Outre les attentes de rôles de genre, des éléments contextuels, comme le contexte stressant de la pandémie, sont importants à prendre en considération dans l'expérience de douleur chronique. À cet effet, plusieurs expert·e·s évoquent une possible augmentation de la douleur chronique après la pandémie, que cette douleur soit due à l'hospitalisation ou aux conséquences du virus chez les gens infectés ou à l'exacerbation des facteurs de risque chez les individus (Clauw et al., 2020; Elran-Barak & Mozeikov, 2020). Certain·e·s auteur·trice·s ont aussi mis en lumière que la réduction des soins pour les personnes vivant avec de la douleur chronique durant la pandémie en raison du délestage pourrait mener à l'augmentation de la douleur, de l'anxiété et du stress (Clauw et al., 2020; Pope, 2020; Villegas-Echeverri & Carrillo, 2020). D'autre part,

une étude de Pagé et al. (2021) rapporte que 69% des individus vivant avec de la douleur chronique ont noté une détérioration de leur condition durant la première vague de la pandémie. Les personnes vivant avec une maladie chronique ou ayant une santé plus fragile seraient aussi plus susceptibles de vivre de la détresse psychologique, soit un niveau de stress, de dépression ou d'anxiété élevé en contexte de COVID-19 (Alonzi et al., 2020; Horesh et al., 2020; Szabo et al., 2020; Xiong et al., 2020) et cette détresse semble plus marquée chez les femmes (Elran-Barak & Mozeikov, 2020). Cela souligne l'importance de s'intéresser aux effets de la pandémie sur la détresse psychologique et sur la douleur dans une population d'individus vivant avec de la douleur chronique, notamment chez les femmes. L'état actuel de la littérature suggère que la pandémie a un effet sur la détresse psychologique, en particulier chez les femmes et les personnes vivant avec des problèmes de santé, mais aucune étude ne semble s'être intéressée à la pandémie et au spectre du genre spécifiquement chez des individus vivant avec de la douleur chronique. Les personnes vivant avec de la douleur chronique vivent-elles différemment les effets de la pandémie en fonction de leur genre?

Effets genrés de la COVID-19

En contexte de COVID-19, il semble y avoir un consensus soutenant que les femmes vivraient plus de détresse psychologique, notamment de l'anxiété, de la dépression et du stress, liée à la pandémie (Alonzi et al., 2020; Ausín et al., 2021; Broche-Pérez et al., 2020; Etheridge & Spantig, 2020; Horesh et al., 2020; Rossi et al., 2020; Szabo et al., 2020; Xiong et al., 2020). Plusieurs auteur·trice·s soutiennent que cette détresse serait due à la solitude imposée par le confinement, qui entraînerait des conséquences plus grandes chez les femmes en raison de l'importance qu'elles accordent au maintien de liens sociaux (Ausín et al., 2021; Elran-Barak & Mozeikov, 2020; Etheridge & Spantig, 2020; Horesh et al., 2020; Serafini, 2020).

Hors COVID-19, la littérature révèle que les femmes, dans la population générale, seraient 1,5 à 3 fois plus touchées par la dépression que les hommes (Abate, 2013; Kessler, 2006; Salk et al., 2017). De plus, si les femmes vivent plus de douleurs chroniques et de dépression en général, il y a aussi une plus grande comorbidité entre la douleur chronique, et l'anxiété ou la dépression chez elles (Munce & Stewart, 2007; Unruh, 1996).

Parmi les personnes vivant avec une maladie chronique, les femmes semblent aussi plus affectées par la pandémie, puisqu'elles semblent vivre plus de détresse (Elran-Barak & Mozeikov, 2020). Selon des données provenant de plusieurs pays, en matière

d'emploi, contrairement à d'autres récessions, les secteurs d'emplois féminins (p.ex., vente au détail, écoles, garderies) ont été plus touchés par le confinement (Alon et al., 2020). La fermeture des écoles et des garderies aurait également eu des conséquences plus marquées chez les femmes, encore majoritairement responsables des soins aux enfants (Alon et al., 2020). Les mères avec de jeunes enfants auraient, par ailleurs, réduit leurs heures de travail quatre à cinq fois plus que les pères (Collins et al., 2021). Les femmes seraient donc susceptibles de vivre davantage de restrictions associées à la pandémie.

En contexte de COVID-19, alors que la détresse psychologique semble plus élevée dans la population générale, mais encore plus particulièrement chez les femmes et les personnes vivant avec une maladie chronique, il semble important de s'intéresser à comment les personnes vivant avec de la douleur chronique vivent la pandémie de façon différentielle selon le genre. D'autre part, aucune étude dans une population de douleur chronique ne semble avoir été réalisée dans un contexte québécois. Or, puisque les mesures sanitaires varient d'un pays et d'une province à l'autre, il importe de s'intéresser à comment les mesures spécifiques au Québec, notamment le confinement large de la population entre mars et juin 2020, peut avoir eu un impact sur la douleur et la santé psychologique des individus vivant de la douleur chronique.

Le deuxième objectif de l'étude vise donc à explorer l'effet de la pandémie COVID-19 sur les personnes vivant avec de la douleur chronique en fonction de leur identité de genre. Il est attendu que les personnes de genre féminin vivant avec de la douleur chronique seront plus nombreuses à vivre de la solitude en raison du confinement (H1), qu'une plus grande proportion d'individus de genre féminin vivant avec de la douleur chronique rapporteront de la détresse modérée à sévère pendant la COVID-19 comparativement aux individus de genre masculin (H2) et que les femmes vivront davantage de restrictions associées à la COVID-19 (H3) comparativement aux personnes de genre masculin vivant avec de la douleur chronique. De plus, il est attendu que la douleur se sera détériorée chez une plus grande proportion d'individus de genre féminin, comparativement aux individus de genre masculin (H4).

Méthodologie

Participant·e·s

Les participant·e·s ont été recruté·e·s au moyen d'une annonce envoyée par courriel aux membres de l'Association québécoise de la douleur chronique (AQDC). Les personnes éligibles ayant manifesté leur

intérêt ont ensuite été contactées par téléphone afin de recevoir des explications sur l'étude. Les critères d'inclusion consistaient à vivre avec de la douleur non cancéreuse depuis plus de trois mois et d'une intensité supérieure à 3 sur une échelle de 0 (*pas de douleur*) à 10 (*pire douleur imaginable*). Les participant·e·s devaient aussi habiter au Québec, être âgé·e·s de 18 ans ou plus, parler et écrire le français et avoir accès à une connexion internet pour remplir les questionnaires. Les participant·e·s ne répondant pas à ces critères, de même que celles et ceux présentant un trouble physique ou cognitif majeur empêchant la réponse aux questionnaires, ont été exclu·e·s.

Procédure

Les participant·e·s ont été recruté·e·s dans le contexte d'une étude longitudinale pilote à trois temps de mesure portant sur le stress et la douleur chronique. Le premier temps de mesure (T0) a été réalisé entre novembre 2019 et février 2020, soit avant le début de la pandémie de la COVID-19. Le deuxième temps de mesure (T1) a été réalisé durant la première vague de la pandémie, soit entre mars et mai 2020, et le troisième temps de mesure (T2) a été réalisé après la première vague de la pandémie, soit entre juin et août 2020 (voir Figure 1). Au T0, les participant·e·s ont complété une batterie de questionnaires en ligne documentant leur niveau de stress global, leur détresse psychologique, les caractéristiques de leur douleur et leur qualité de vie, de même que des données démographiques. Au début de la pandémie (T1), les participant·e·s ont été recontacté·e·s et invitée·e·s à participer à une étude de suivi. Ce suivi (T1 et T2) a mesuré notamment le nombre de restrictions associées aux mesures de santé publique qui les affectaient directement, le niveau de solitude perçue, le stress global, la détresse psychologique, l'impression globale de changement de leur état douloureux, l'interférence et l'intensité de la douleur. Le *Gender Role Expectations of Pain Questionnaire* a aussi été administré au T2. Seulement les questionnaires mesurant les variables pertinentes aux objectifs de recherche sont détaillés plus bas.

Les participant·e·s ont reçu une compensation de 30\$ pour la participation au T0, puis une compensation additionnelle de 30\$ après la complétion du T2. L'étude a été approuvée par le comité d'éthique du Centre hospitalier de l'Université de Montréal (18.368-YP).

Instruments

Données démographiques. Au T0, les participant·e·s ont répondu à un questionnaire démographique comprenant des questions sur leur sexe, leur genre, leur origine, leur niveau de scolarité,

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leur condition de vie (p.ex., avec qui ils ou elles habitent) et leur statut d'emploi.

Caractéristiques de la douleur. Au T1 et au T2, les participant·e·s ont complété le *Brief Pain Inventory* (BPI), un outil mesurant l'interférence de la douleur (Cleeland, 2009). Les participant·e·s devaient indiquer, sur une échelle de type Likert à 11 points allant de 0 (*n'interfère pas*) à 10 (*interfère complètement*), comment leur douleur a créé de l'interférence dans leur vie au cours de la dernière semaine sur sept dimensions, comme l'activité générale, l'humeur, le travail, ou encore, l'envie de vivre (Cleeland, 2009). Cet instrument possède de bonnes propriétés psychométriques avec une excellente consistance interne ($\alpha = .89$). Dans la présente étude, l'interférence de la douleur est considérée au T2, puisque l'on s'intéresse à l'interférence de la douleur en lien avec les attentes de rôles de genre aussi mesurées au T2.

La *Global Impression of Change Scale* (Salaffi et al., 2004) a été administrée au T1 et au T2 afin de mesurer si les participant·e·s ont perçu un changement dans leur état de douleur depuis le début de la pandémie sur une échelle allant de 1 (*considérablement détériorée*) à 7 (*considérablement améliorée*). Dans la présente étude, le changement dans le statut de douleur des individus est considéré au T1, puisqu'il est inclus dans l'objectif 2, qui vise à analyser les effets de la première vague de la pandémie sur la douleur en fonction du genre.

Three-Item Loneliness Scale (TILS). Au T1 et au T2, les participant·e·s ont noté le niveau de solitude ressenti depuis le début des restrictions associées à la pandémie (indiquée comme débutant au 13 mars 2020) au moyen de la *Three-Item Loneliness Scale* (Hughes et al., 2004), une échelle à trois items de type Likert à trois points : *presque jamais, parfois et souvent*. Un exemple d'item est : *combien de fois vous êtes-vous senti isolé des autres?* Cette échelle possède de bonnes propriétés psychométriques ($\alpha = .72$), avec une bonne validité convergente et divergente (Hughes et al., 2004). Dans la présente étude, la solitude est considérée au T1, puisqu'elle est incluse dans l'objectif 2, qui vise à analyser les effets pendant la première vague de la pandémie.

Restrictions associées à la COVID-19. Les participant·e·s ont également dû, dans une liste préétablie, cocher quelles restrictions associées à la COVID-19 les affectaient directement au T1 et au T2. La liste de restrictions comprenait : des enfants à charge qui doivent rester à la maison suite à la fermeture des écoles et/ou des garderies, le télétravail, un arrêt de travail, l'annulation de rendez-vous avec un ou des professionnels de la santé, la diminution de

l'aide médicale reçue pour d'autres conditions/ maladies (p.ex., services du CLSC, réadaptation, etc.), la réduction de l'aide reçue par des membres de la famille, amis ou voisins, les restrictions de sortir de la maison (p.ex., être âgé.e de 70 ans et plus ou recevoir des traitements affectant le système immunitaire) et l'isolement volontaire pour 14 jours. Les participant·e·s pouvaient également spécifier d'autres restrictions non listées. Le nombre de restrictions associées à la pandémie de la COVID-19 est considéré au T1, puisqu'elles sont incluses dans l'objectif 2, qui vise à analyser les effets pendant la première vague de la pandémie.

Patient Health Questionnaire (PHQ-4). Le *Patient Health Questionnaire-4* (Kroenke et al., 2009) a été administré aux trois temps de mesure dans le but de mesurer les symptômes d'anxiété et de dépression. Ce questionnaire comprend quatre items, deux mesurant l'anxiété et deux mesurant la dépression. Les répondant·e·s devaient identifier, sur une échelle de type Likert à quatre points allant de *jamais à presque tous les jours* la fréquence à laquelle ils ou elles ont été dérangé·e·s par certains problèmes. Un exemple d'item pour la dépression est : *peu d'intérêt ou de plaisir à faire les choses* et un exemple d'item pour l'anxiété est : *sentiment de nervosité, d'anxiété ou de tension*. Ce questionnaire a de bonnes propriétés psychométriques ($\alpha > .75$) pour ses deux échelles, avec une bonne validité de construit et factorielle (Kroenke et al., 2009; Stanhope, 2016). Dans la présente étude, la détresse psychologique est considérée au T1, puisqu'elle est incluse dans l'objectif 2, qui vise à analyser les effets de la première vague de la pandémie.

Gender Role Expectations of Pain (GREP). Au T2, le *Gender Role Expectations of Pain* (Robinson et al., 2001) a été administré afin de mesurer les attentes de rôles de genre personnelles et stéréotypées liées à la douleur des participant·e·s sur trois dimensions : la sensibilité, l'endurance et la volonté à rapporter la douleur. Pour chaque dimension, le GREP mesure les attentes de rôles de genre au moyen de quatre items (deux pour les attentes personnelles et deux pour les attentes stéréotypées), utilisant la même échelle visuelle analogique de 100 mm allant de 0 (*beaucoup moins*) à 100 (*beaucoup plus grande*). Pour les attentes personnelles, les participant·e·s évaluent leur sensibilité, leur endurance et leur volonté à rapporter la douleur comparativement à une femme typique, puis comparativement à un homme typique. Pour les attentes stéréotypées, les participant·e·s évaluent la sensibilité, l'endurance et la volonté à rapporter la douleur d'une femme typique comparativement à un homme typique, puis d'un homme typique en comparaison à une femme typique. La fiabilité test-retest est de passable à bonne, variant de .53 à .93, et

la consistance interne est bonne (Robinson et al., 2001).

Analyses statistiques

Afin de répondre à l'objectif 1, qui explore les associations entre les attentes de rôles de genre associées à la douleur et l'interférence de la douleur, six modèles de régression linéaire ont été utilisés. La variable dépendante pour chacun des modèles était le score continu au *Brief Pain Inventory*. Toutes les variables indépendantes ont été centrées avant de créer les termes d'interaction. Le premier modèle concerne les attentes personnelles quant à la sensibilité. Il inclut comme variables indépendantes le score de sensibilité des participant·e·s comparativement à l'homme typique, le score de sensibilité comparativement à la femme typique, ainsi que l'interaction entre ces deux scores. Le deuxième modèle concerne les attentes stéréotypées de sensibilité. Il inclut comme variables indépendantes le score de sensibilité de l'homme typique en comparaison à la femme typique, le score de sensibilité de la femme typique en comparaison à l'homme typique et l'interaction entre ces scores. Les modèles pour l'endurance et la volonté à rapporter la douleur ont été construits de la même manière.

Pour l'objectif 2, afin d'examiner si des différences de genre existent quant au niveau de solitude (H1) et de détresse psychologique (H2) chez les personnes vivant avec de la douleur chronique lors de la première vague de la pandémie (T1), des analyses de chi-carré ont été réalisées. Le score de solitude a été dichotomisé suivant les recommandations de Nielsen (2021) pour le *Three-Items Loneliness Scale*. Ainsi, un score compris entre 3 et 5 correspondait à ne pas vivre de solitude et un score compris entre 6 et 9 correspondait à une solitude modérée à sévère. Similairement, le score de détresse psychologique a aussi été dichotomisé. Un score au *Patient Health Questionnaire-4* compris entre 0 et 5 correspondait à un niveau de détresse psychologique normal à léger, et un score de 6 à 12 correspondait à un niveau de détresse psychologique modéré à sévère (Kroenke et al., 2009). Afin d'examiner les différences de genre quant au nombre de restrictions associées aux mesures de santé publique (H3), un test *t* à groupes indépendants a été utilisé.

Afin d'examiner s'il y avait une différence entre les genres quant à la proportion d'individus qui rapportent une détérioration de leur douleur depuis le début de la pandémie (H4), un test de chi-carré a été utilisé. Le score de détérioration de la douleur a été dichotomisé. Ainsi, un score compris entre 1 (*considérablement détériorée*) et 3 (*un peu détériorée*) était catégorisé comme une détérioration de la douleur et un score compris entre 4 (*aucun changement*) et 7 (*considérablement améliorée*) était catégorisé comme

une amélioration ou un état stable du statut de douleur (Salaffi et al., 2004). Toutes les analyses ont été réalisées au moyen du logiciel IBM SPSS Statistics 26.0.

Résultats

Sur les 54 participant·e·s recruté·e·s au départ, 49 ont accepté de participer au temps T1 et/ou au T2 et ont donc été inclus·e·s pour les analyses. Les caractéristiques sociodémographiques de ces participant·e·s se trouvent au Tableau 1. En résumé, l'échantillon est composé d'une majorité de femmes (73,5%), avec un âge moyen de 51,1 ans et un écart-type de 10,6 ans. Aucun·e participant·e ne s'est identifié·e comme appartenant à un genre autre qu'homme ou femme sur le spectre de l'identité de genre. Cependant, le genre n'est pas en parfaite adéquation avec le sexe dans l'échantillon. En effet, six personnes de sexe féminin ont mentionné être de genre masculin et une personne de sexe masculin a mentionné être de genre féminin. L'échantillon est presque exclusivement composé de personnes blanches/caucasiennes (91,8%) et la majorité (71,4%) ne travaille pas. La durée moyenne de la douleur des participant·e·s est de 15,1 ans et l'écart-type de 11,3 ans. Les autres caractéristiques de la douleur peuvent être observées au Tableau 2. Des participant·e·s additionnel·le·s ont été retiré·e·s de cet échantillon pour les fins d'analyse de l'objectif 1, car iels n'avaient pas répondu au T2 ou avaient omis de répondre à certaines questions du GREP. Pour les cinq premiers modèles de régression linéaire, 43 participant·e·s ont été inclus·e·s dans les analyses. Pour le sixième modèle, 44 participant·e·s ont été inclus·e·s dans les analyses.

Objectif 1 : Associations entre les attentes de rôles de genre associées à la douleur et l'interférence de la douleur

Pour ce qui est des attentes de rôles de genre associées à la douleur et l'interférence de la douleur, aucun des six modèles de régression linéaire n'est significatif ($p > .05$). Les résultats des différents modèles de régression peuvent être trouvés au Tableau 3. Le score moyen d'interférence de la douleur au T2 est de 5,1 avec un écart-type de 2,1.

Objectif 2 : Effet de la pandémie de la COVID-19 sur les personnes vivant avec de la douleur chronique en fonction de leur identité de genre

Aucune différence significative n'a été trouvée concernant les effets de la pandémie en fonction du genre pour la solitude, $\chi^2(1, N = 47) = .01, p = .932$ (H1), la détresse psychologique, $\chi^2(1, N = 47) = .01, p = .919$ (H2), le nombre de restrictions associées à la COVID-19, $t(46) = 0.47, p = .640$ (H3), ou la

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détérioration de la douleur, $\chi^2(1, N = 47) = .42, p = .518$ (H4).

Concernant la solitude, 6 hommes et 17 femmes rapportent de la solitude, tandis que 6 hommes et 18 femmes n'en rapportent pas.

Pour la détresse, 7 hommes et 21 femmes ne rapportent pas de détresse, tandis que 5 hommes et 14 femmes rapportent un niveau de détresse modéré à sévère. Environ 37% ($N = 18$) des participant·e·s rapportent de la détresse modérée à sévère au T0, 41% ($N = 20$) au T1 et 31% ($N = 15$) au T2.

Pour ce qui est des restrictions liées à la pandémie, les participant·e·s rapportent une médiane de 2 restrictions au T1 avec un écart interquartile de 2. Les hommes ont une médiane de 2,5 restrictions, tandis que les femmes ont une médiane de 2 restrictions. Seulement 4 participant·e·s (8,2%) ne rapportent aucune restriction liée à la pandémie au T1. Par ailleurs, environ 73% ($N = 36$) des participant·e·s rapportent au moins une restriction liée à la santé comme l'annulation d'un rendez-vous médical (55%, $N = 27$), la diminution de l'aide médicale (39%, $N = 19$) ou de l'aide des proches (33%, $N = 16$). Seulement environ 27% ($N = 13$) des participant·e·s rapportent au moins une restriction liée au travail comme le télétravail (18%, $N = 9$) ou les enfants à charge (18%, $N = 9$).

Enfin, concernant la détérioration de la douleur, une majorité d'individus (65,3%) ont rapporté une détérioration de leur douleur depuis le début de la pandémie lorsqu'interrogés au T1. Les changements dans l'état de douleur peuvent être observés au Tableau 2, qui recense les caractéristiques de douleur de l'échantillon. Il n'y a pas de différence concernant le changement du statut de douleur en fonction de l'identité de genre selon les résultats au test de chi-carré, $\chi^2(1, N = 47) = .42, p = .518$. En effet, 7 hommes et 24 femmes rapportent une détérioration de leur douleur, tandis que 5 hommes et 11 femmes rapportent une amélioration ou pas de changement.

Discussion

Cette étude s'est intéressée aux associations entre les attentes de rôles de genre liées à la douleur et l'interférence de la douleur parmi les individus qui vivent avec de la douleur chronique de manière exploratoire. Aucune association n'a été trouvée entre les attentes de rôles de genre et l'interférence de la douleur.

La présente étude a aussi examiné les effets de la pandémie de la COVID-19 et la détérioration de la douleur chez les personnes vivant avec de la douleur chronique en fonction de leur identité de genre.

Contrairement aux hypothèses, parmi les personnes vivant avec de la douleur chronique, les femmes ne sont pas significativement plus nombreuses à vivre de la solitude (H1) ou de la détresse psychologique (H2) en contexte de pandémie. Elles ne vivent pas significativement plus de restrictions associées à la COVID-19 (H3) et il n'y a pas une plus grande proportion d'entre elles qui vit une détérioration de leur douleur en comparaison aux individus de genre masculin (H4).

Objectif 1 : Associations entre les attentes de rôles de genre liées à la douleur et l'interférence de la douleur

En ce qui concerne les associations entre les attentes de rôles de genre liées à la douleur et l'interférence de la douleur, aucun modèle n'était significatif. Cela signifie que, pour chacune des trois dimensions du GREP, ni les attentes de rôles de genre personnelles, ni les attentes de rôles de genre stéréotypées ne sont associées à l'interférence de douleur sur la vie quotidienne.

Il est possible que les attentes de rôles de genre ne permettent simplement pas de prédire l'interférence de la douleur. Puisqu'il s'agit d'une première tentative d'utilisation du GREP dans un contexte de douleur chronique, il est possible que les attentes de rôles de genre n'aient un effet sur la douleur que dans un contexte expérimental, qui est très différent du contexte de douleur chronique. En effet, la douleur induite en laboratoire, dans laquelle il existe une certaine notion de performance, est très différente de l'expérience quotidienne de douleur qui interfère avec plusieurs sphères de vie.

Au-delà des attentes de rôles de genre liées à la douleur, les rôles de genre plus largement, non liés à une situation de douleur, pourraient aussi être impliqués dans l'expérience de douleur chronique et permettre d'expliquer les différences genrées généralement observées dans la littérature. Une étude qualitative récente (Arman et al., 2020) a mis en lumière que les femmes vivant avec de la douleur chronique expérimentaient de la solitude en combinant plusieurs rôles et en se conformant aux rôles de genre traditionnellement féminins (p.ex., s'occuper de la famille et/ou des enfants tout en travaillant à temps plein, avoir peu de temps pour l'auto-soin et n'avoir personne pour prendre soin de soi). Certaines participantes associaient également leur douleur à cette charge additionnelle qui s'imposait à elles en raison de leur genre. Une étude qualitative aurait permis de mieux saisir l'expérience des personnes vivant avec de la douleur chronique selon leur genre en pandémie dans toutes ses subtilités. Le GREP est centré sur les rôles de genre spécifiques aux situations de douleur et ne capte peut-être pas

adéquatement les différences dans l'expérience de douleur chronique en fonction des rôles sociaux exercés comme vivre avec une limitation fonctionnelle en plus d'assurer d'autres rôles sociaux attendus selon le genre.

Objectif 2 : Effets de la pandémie selon le genre : solitude, restrictions liées à la COVID-19, détresse et détérioration de la douleur

De manière générale, l'une des explications possibles aux résultats qui ne soutiennent pas d'effet différentiel de la pandémie selon le genre, pour les personnes vivant avec de la douleur chronique, pourrait résider dans les différences entre l'échantillon à l'étude et la population générale. En effet, l'échantillon était constitué de personnes plus âgées ($M = 51.1$, $E-T = 10.6$), et seulement 14 participant·e·s (29%) ont déclaré travailler, comparativement aux études en contexte de COVID-19 dans lesquelles sont ancrées les hypothèses de recherche, qui étaient généralement réalisées sur une population comprenant une plus large proportion d'individus en emploi. Puisque, dans la population générale, les différences entre les hommes et les femmes semblent surtout concerter les restrictions associées au travail en contexte de COVID-19 (p.ex., Alon et al., 2020; Collins et al., 2021), le fait que ces restrictions ne concernent qu'une faible proportion de notre échantillon pourrait expliquer l'absence de différence genrée.

En effet, puisque la majorité (71%) de l'échantillon ne travaille pas, les restrictions associées au travail, comme le fait d'avoir des enfants à charge en télétravail, qui peut différer selon le genre, ne s'appliquent pas vraiment. Il n'y a pas non plus de raison de croire que les autres restrictions, comme les restrictions liées à la santé (c.-à-d., l'annulation de rendez-vous ou la diminution de l'aide médicale) toucheraient davantage de femmes que d'hommes. Il est aussi possible de croire que c'est plutôt la nature qualitative des restrictions, comme leurs effets, qui diffère selon le genre.

Bien que l'échantillon de la présente étude diffère de ceux recueillis en contexte de COVID-19 dans la population générale, il est assez similaire à d'autres échantillons recueillis dans des populations de douleur chronique en contexte de pandémie (p.ex., Pagé et al., 2021). Une différence majeure réside toutefois dans la proportion d'individus en situation d'invalidité temporaire ou permanente dans notre étude, avec plus de 57% des participant·e·s ($N = 28$) dans cette situation, en comparaison à une proportion de seulement 32% pour l'étude de Pagé et al. (2021). Puisque, dans notre échantillon, la plupart des participant·e·s ne travaillent pas et/ou sont en situation d'invalidité temporaire ou permanente, il est possible

que la vie sociale des participant·e·s fût déjà limitée au départ. À cet égard, l'absence de différence entre les genres concernant la solitude vécue pourrait résulter du fait que les personnes vivant avec de la douleur chronique, en général, vivent déjà de la solitude, indépendamment de leur genre. Dans une étude qualitative sur les effets psychosociaux de la douleur chronique, des participant·e·s ont mentionné que la douleur les avait séparé·e·s des autres et avait affecté leurs relations (Ojala et al., 2015). Il est en effet possible de penser que la douleur chronique peut constituer un obstacle à la participation à la vie sociale. La nature parfois imprévisible de la douleur, qui peut notamment amener à annuler des plans à la dernière minute, la difficulté d'être cru·e, ou encore, l'incompréhension des proches quant à la douleur, ont été recensées comme des obstacles aux relations sociales pour les personnes vivant avec de la douleur chronique (Closs et al., 2009). Plusieurs études établissent par ailleurs la solitude comme un prédicteur de la douleur (Allen et al., 2020; Jaremka et al., 2013), et la douleur comme étant associée au risque de vivre de la solitude (Batley, 2019; Emerson et al., 2018). La littérature rapporte également l'isolement social comme un prédicteur de l'interférence de la douleur (Karayannis et al., 2019). Plus de recherches seraient donc nécessaires afin de mieux comprendre la solitude en contexte de COVID-19 chez les personnes vivant avec de la douleur chronique et les différences de genre à cet effet.

Il est aussi possible que les restrictions associées à la pandémie constituent un obstacle mineur en comparaison aux difficultés auxquelles les personnes vivant avec de la douleur chronique font face chaque jour. À cet effet, il se peut que ces personnes aient développé plus de résilience en raison des épreuves qu'elles ont déjà surmontées en relation avec leur situation de douleur (p.ex., accident, maladie, chirurgie, etc.). La résilience, soit la capacité à faire face à l'adversité et à se rétablir rapidement lors de conditions difficiles, a été associée positivement à des indicateurs de santé mentale favorables et négativement à des indicateurs de santé mentale défavorables dans la population générale (Hu et al., 2015). Dans un contexte de COVID-19, la résilience a aussi été évoquée comme un facteur de protection pour la détresse psychologique (Serafini et al., 2020) et comme favorisant l'ajustement psychologique (Chen & Bonanno, 2020). La résilience a aussi été décrite comme un mécanisme important dans l'expérience de douleur (Goubert & Trompetter, 2017) et comme un facteur protecteur pour la dépression chez les adultes âgé·e·s vivant avec de la douleur chronique (Bauer et al., 2016). Une autre étude a rapporté qu'un haut niveau de résilience chez les individus vivant avec la douleur chronique était associé à une intensité de douleur plus faible (Newton-

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John et al., 2014). La solitude serait aussi associée négativement à toutes les facettes de la résilience dans la population générale (Jakobsen et al., 2020).

La résilience semble donc être un facteur associé à la fois à la détresse psychologique, à la solitude et à l'intensité de douleur. Puisqu'il n'y a pas vraiment de raison de croire que cette résilience serait développée de façon différentielle selon le genre, la résilience pourrait potentiellement aider à comprendre l'absence de différence genrée. L'absence de différence genrée concernant la détresse psychologique dans l'échantillon demeure toutefois surprenante, puisque la littérature documente généralement des différences entre les hommes et les femmes concernant la détresse psychologique, tant dans la population générale (Abate, 2013; Kessler, 2006; Salk et al., 2017) que chez les personnes vivant avec de la douleur chronique (Munce & Stewart, 2007; Unruh, 1996). Les recherches futures pourront donc élucider ces relations.

Enfin, concernant la détérioration de la douleur, la majorité des participant·e·s (65%) a observé une détérioration de la douleur durant la première vague de la pandémie, mais aucune différence genrée n'a été détectée à cet égard. Suivant les arguments présentés par Karos et al. (2020), il est possible que, de manière générale, les individus vivant avec de la douleur chronique aient été affectés par l'accès réduit aux programmes de gestion de la douleur pendant la première vague de la pandémie, ce qui aurait eu un effet sur leur douleur indépendamment du genre.

Forces de l'étude

Cette étude est une première tentative d'exploration des attentes de rôles de genre liées à la douleur dans un contexte de douleur chronique. Elle ouvre la porte aux recherches futures sur ce sujet afin d'arriver à expliquer les différences genrées qui existent chez les individus vivant avec de la douleur chronique.

Il s'agit aussi d'une tentative pour examiner l'existence de différences de genre dans l'expérience de la douleur chronique dans un contexte comme celui de la COVID-19 qui s'ajoute donc au corpus récent de littérature sur la COVID-19.

Cette étude est également composée d'un échantillon communautaire d'individus vivant avec de la douleur chronique, ce qui offre une meilleure validité écologique pour comprendre l'expérience de la douleur chronique qu'un échantillon constitué d'individus issus de la population générale à qui des questionnaires de douleur auraient été administrés. L'étude a aussi un excellent taux de rétention à travers les trois temps de mesure.

Limites de l'étude

Les résultats de la présente étude comportent toutefois certaines limites, comme la petite taille de l'échantillon et le nombre plus faible de participants de genre masculin, ce qui rend plus difficile la comparaison entre les groupes. Par ailleurs, la puissance statistique n'est vraisemblablement pas responsable des résultats non significatifs, puisque les moyennes et les proportions entre les genres sont très similaires.

Il convient également de souligner le grand manque de diversité dans l'échantillon, composé presque exclusivement de personnes blanches/caucasiennes. Pourtant, plusieurs études soulignent des différences dans l'expérience de la douleur chronique pour les personnes racisées (p.ex., Ndaobrumbay & Green, 2005; Pryma, 2017; Wandner, 2012), dans l'accès à la réhabilitation (Wiklund et al., 2016) et dans l'évaluation que font les médecins de la douleur des patient·e·s racisé·e·s, notamment des femmes racisé·e·s (Anderson et al., 2000). La recherche dans le domaine suggère également l'importance de considérer conjointement les différentes identités sociales marginalisées afin d'adresser les inégalités en santé, plus spécifiquement, en douleur chronique (Befus et al., 2018; Brady et al., 2019), la combinaison de ces identités créant potentiellement une expérience unique de douleur (Quiton et al., 2020).

Par ailleurs, bien que certain·e·s participant·e·s aient rapporté un genre qui n'était pas en adéquation avec le sexe assigné à la naissance, aucun·e participant·e ne s'est identifié·e à un genre autre qu'homme ou femme sur le spectre de l'identité de genre et aucune hypothèse dans l'étude ne s'intéressait à l'expérience particulière de la douleur des personnes trans ou non binaires. La formulation des options pour s'identifier à un genre (c.-à-d., homme, femme, autre, indéterminé) pourrait aussi être améliorée (Jaroszewski et al., 2018). Enfin, il est aussi possible que la formulation des questions (c.-à-d., l'absence de définition des mots « sexe » et « genre ») ait apporté de la confusion chez les participant·e·s puisque 7 participant·e·s (14%) se sont identifié·e·s à un genre différent de leur sexe, alors que, dans la population générale au Canada, seulement 0,24% de la population rapporte un genre qui diffère du sexe assigné à la naissance (Statistiques Canada, 2020).

Orientations futures

Tant en ce qui concerne les attentes de rôles de genre liées à la douleur dans un contexte de douleur chronique (objectif 1) que l'expérience de la pandémie pour les personnes vivant avec de la douleur chronique (objectif 2), la recherche qualitative semble

une avenue intéressante. Cela pourrait permettre de mieux cibler des variables d'intérêt pour comprendre comment les personnes vivant avec de la douleur chronique traversent des situations qui amènent de grands changements, comme une pandémie (p.ex., Margolies et al., 2021), en fonction de leur genre. Similairement, la recherche qualitative s'intéressant aux rôles de genre pourrait permettre de mieux comprendre comment le genre affecte la douleur chez les personnes vivant avec de la douleur chronique.

Les limites nommées plus haut appellent à l'utilisation d'un cadre d'analyse intersectionnel dans l'étude de la douleur chronique. Ce cadre d'analyse permet de s'intéresser à comment différentes identités sociales convergent pour créer une expérience unique (Wilson et al., 2015). Certaines études ont déjà exploré les associations entre la douleur chronique et la discrimination (p.ex., Brown et al., 2018) et l'exclusion sociale (Jaremka et al., 2013). Les recherches futures pourront donc s'intéresser davantage à comment un ensemble d'identités et de systèmes d'oppression qui créent des discriminations (p. ex., racisme, capacitarisme, âgisme, etc.) peuvent interagir entre eux et avec le genre afin de teinter l'expérience de douleur chronique. Hankivsky (2012) dépeint l'importance d'un cadre d'analyse intersectionnel dans la recherche en santé, particulièrement lorsque l'on s'intéresse aux inégalités. Cette approche permettrait de mieux comprendre les facteurs sociaux de l'expérience de douleur chronique. L'inclusion de personnes trans et non binaires pourrait aussi aider à mieux comprendre la contribution du genre dans la douleur, puisque les recherches récentes soutiennent que l'identité de genre pourrait être plus pertinente que le sexe assigné à la naissance dans l'expérience de la douleur (Strath et al., 2020).

Conclusion

Bien que la présente étude ne permette pas de tirer des conclusions quant à l'importance du genre dans l'expérience de douleur chronique en contexte de pandémie, la pandémie de la COVID-19 semble avoir des conséquences chez les personnes vivant avec de la douleur chronique, puisqu'une majorité d'entre elles (65%) a rapporté une détérioration de la douleur lors de la première vague. Cela appelle à une meilleure compréhension des différents facteurs pouvant contribuer à l'expérience de douleur chronique dans un contexte comme celui d'une pandémie. Par ailleurs, les liens entre le genre et la douleur chronique devront aussi être clarifiés, notamment en ce qui concerne les attentes de rôle de genre liées à la douleur chez les personnes vivant avec de la douleur chronique. L'inclusion de la diversité dans les échantillons, notamment la recherche incluant l'expérience de

douleur chronique de personnes trans et non binaires et la recherche qualitative se centrant sur les expériences vécues, pourrait permettre de mieux comprendre ces relations. Plusieurs études seront donc nécessaires afin d'élargir nos connaissances sur la douleur chronique dans le futur.

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COMPRENDRE LA DOULEUR CHRONIQUE AU SPECTRE DU GENRE

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Annexe A**Tableau 1***Données sociodémographiques*

Sexe (N[%])	
Masculin	7 (14,3%)
Féminin	42 (85,7%)
Identité de genre (N[%])	
Homme	12 (24,5%)
Femme	36 (73,5%)
Âge moyen (écart-type)	51.13 (10.6)
Origine ethnique (N[%])	
Blanc·he ou caucasien·ne	45 (91,8%)
Niveau de scolarité (N[%])	
Secondaire	7 (14,3%)
École technique ou CEGEP	26 (53,1%)
Universitaire	16 (32,7%)
Condition de vie (N[%])	
Seul·e	12 (24,5%)
Avec membres de la famille	36 (73,5%)
Statut d'emploi (N[%])	
Invalidité temporaire ou permanente	28 (57,1%)
Travail à temps complet ou partiel	14 (28,6%)
Retraité·e	7 (14,3%)

Tableau 2*Caractéristiques et aspects de la douleur*

	T0	T1	T2
Changement de douleur (N[%])			
Détérioration		32 (65,3%)	22 (44,9%)
Amélioration/pas de changement		16 (32,7%)	24 (49%)
Durée moyenne de la douleur en années (écart-type)	15.1 (11.3)		
Origine de la douleur (N[%])			
Accident	15 (30,6%)		
Maladie	13 (26,5%)		
Chirurgie	3 (6,1%)		
Mouvement répétitif	2 (4,1%)		
Aucune	16 (32,7%)		
Moyenne de l'intensité moyenne de douleur au cours des 7 derniers jours (écart-type)	5.86 (1.37)	6.03 (2.04)	5.63 (1.84)
Score moyen d'interférence de la douleur au BPI (écart-type)	5.9 (1.82)	5.11 (2.1)	5.09 (2.07)

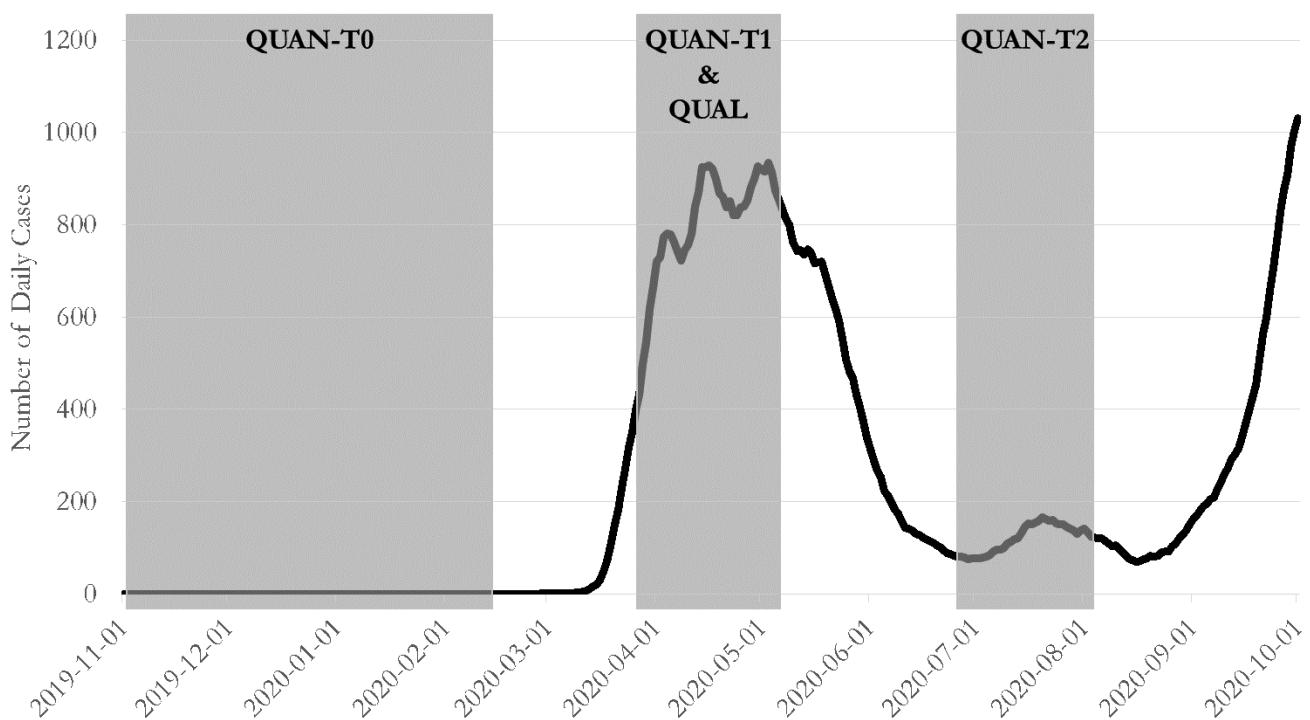
COMPRENDRE LA DOULEUR CHRONIQUE AU SPECTRE DU GENRE

Tableau 3
Régressions

	Coefficients non-standardisés		Coefficients standardisés		<i>p</i>	<i>R</i> ² ajusté
	b	Erreur standard	Bêta			
A) Attentes de rôles de genre personnelles – sensibilité						
(Constante)	5.454	.444			.000	
Comp. femme typique	.002	.017	.031		.900	
Comp. homme typique	-.010	.021	-.116		.641	
Interaction	.000	.001	-.125		.457	
B) Attentes de rôles de genre stéréotypées – sensibilité						
(Constante)	5.075	.327			.000	
H typique vs. F typique	.013	.019	.119		.493	
F typique vs. H typique	-.020	.021	-.168		.350	
Interaction	.001	.001	.219		.266	
C) Attentes de rôles de genre personnelles – endurance						
(Constante)	5.304	.437			.000	
Comp. femme typique	-.002	.027	-.021		.948	
Comp. homme typique	-.006	.024	-.071		.808	
Interaction	.000	.001	-.112		.578	
D) Attentes de rôles de genre stéréotypées – endurance						
(Constante)	5.237	.312			.000	
H typique vs. F typique	.016	.018	.144		.378	
F typique vs. H typique	.000	.018	.004		.979	
Interaction	.001	.001	.218		.184	
E) Attentes de rôles de genre personnelles – volonté à rapporter la douleur						
(Constante)	5.235	.425			.000	
Comp. femme typique	.011	.021	.163		.588	
Comp. homme typique	-.001	.021	-.010		.972	
Interaction	-3.719E-5	.000	-.015		.933	
F) Attentes de rôles de genre stéréotypées – volonté à rapporter la douleur						
(Constante)	5.104	.295			.000	
H typique vs. F typique	-.003	.013	-.037		.804	
F typique vs. H typique	.027	.014	.293		.051	
Interaction	.001	.000	.324		.032*	

Annexe B

Figure 1
Temps de mesure et nombre de cas de COVID-19 au Québec



Note. Temps de mesure en relation avec l'évolution de la pandémie de la COVID-19 au Québec, Canada. Les bandes grises réfèrent aux temps où ont été complétés les différents points de mesure. La ligne noire correspond au nombre de cas de COVID-19 recensés au Québec en fonction de la date. L'étude longitudinale plus large contenait des mesures quantitatives (QUAN) et qualitatives (QUAL).

L'effet de la hiérarchie sociale sur l'évaluation de la douleur d'autrui

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La douleur est une expérience qui s'inscrit dans un cadre social lorsqu'elle est exprimée à autrui. Plusieurs facteurs psychosociaux peuvent affecter comment on interprète la douleur de l'autre. Un des éléments qui a été peu étudié est la position d'un individu dans la hiérarchie sociale, un concept qui est pourtant au cœur des interactions sociales. L'objectif était donc de voir comment la position hiérarchique des individus influençait leur évaluation de la douleur d'autrui. Pour ce faire, la perception de la position hiérarchique de chaque participant a été manipulée expérimentalement. Ils devaient ensuite juger de l'intensité de la douleur exprimée dans des extraits vidéos d'expressions faciales de douleur. Malgré l'efficacité de la manipulation, les analyses ne montrent pas d'effet de la position hiérarchique sur les scores d'intensité douloureuse rapportés. Cette étude est la première étude comportementale à examiner le lien entre la position hiérarchique et l'évaluation de la douleur d'autrui.

Mots-clés : hiérarchie sociale, douleur, évaluation, induction, expression faciale

Pain becomes a socially constructed experience when it is expressed to others. Several psychosocial factors can affect how one interprets another's pain. One of the elements that has been little studied is the position of an individual in the social hierarchy, a concept that is nevertheless central to social interactions. The main goal of this study was therefore to see how the hierarchical position of individuals influenced their evaluation of the pain of others. To do so, the perception of the hierarchical position of each participant was experimentally manipulated. Then, they were asked to judge the intensity of pain expressed in video clips of facial expressions of pain. Despite the effectiveness of the manipulation, analyses showed no effect of hierarchical position on reported pain intensity scores. This study is the first behavioral study to examine the relationship between hierarchical position and the assessment of others' pain.

Keywords: social hierarchy, pain, assessment, induction, facial expression

La douleur est une expérience subjective complexe qui émerge d'une interaction entre des aspects sensoriels, cognitifs, affectifs et motivationnels (Hadjistavropoulos et al., 2011). Au-delà de ses composantes personnelles et privées, l'expérience de douleur s'inscrit dans un cadre interpersonnel dans la mesure où elle est souvent partagée avec autrui (Hadjistavropoulos et al., 2011). Parmi les fonctions de la communication de la douleur, elle signale entre autres à l'observateur une menace dans son environnement et améliore l'efficacité de ses réponses défensives (i.e., actions appropriées pour faire face à la menace; Craig et al., 2012; Williams, 2002; Yamada & Decety, 2009). En outre, elle peut susciter des réponses empathiques qui peuvent à leur tour favoriser des comportements

d'aide (Hadjistavropoulos et al., 2011; Prkachin & Craig, 1995; Williams, 2002). Dans cette optique, la formulation d'un modèle de l'expérience de douleur adéquat doit être faite en incorporant autant les processus interpersonnels que les processus intrapersonnels qui sont mobilisés (Craig, 2009; Goubert et al., 2005; Hadjistavropoulos et al., 2011).

Le modèle social de communication de la douleur

À cet égard, plusieurs auteurs ont proposé des modèles de communication de la douleur. Parmi ceux-ci, le modèle social de communication de la douleur de Craig, axé sur une conception biopsychosociale de la douleur, est le plus utilisé pour représenter le processus de communication de la douleur (Craig, 2009; Craig, 2015; Hadjistavropoulos & Craig, 2002; Hadjistavropoulos et al., 2011; Prkachin & Craig, 1995). Il reconnaît que les mécanismes biologiques sont fondamentaux à l'expérience de douleur, mais il dirige également l'attention vers les processus sociaux qui la modulent. Au fil des années, des précisions ont été apportées pour rendre le modèle plus complet (Craig, 2015; Craig, 2009; Hadjistavropoulos et al., 2011). Le modèle actuel s'articule autour de trois étapes de base successives: l'expérience interne,

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l'encodage et le décodage par l'observateur. La première étape est déclenchée par la perception d'un stimulus nociceptif par l'individu. L'expérience interne vécue est alors encodée et exprimée par certains comportements tels que des plaintes verbales, des expressions faciales ou des postures corporelles (Coll et al., 2011; Craig, 2002). Ces comportements sont ensuite décodés par l'observateur et les actions de ce dernier sont dictées par son interprétation de la douleur de l'autre. Pour que la douleur conserve sa fonction adaptative, il est primordial qu'elle soit perçue et décodée de manière efficace (Coll et al., 2011; Goubert et al., 2005). Néanmoins, l'étape du décodage est affectée par de nombreux éléments qui peuvent altérer la façon dont on conçoit et interprète la douleur d'autrui.

Les facteurs pouvant influencer la perception de la douleur d'autrui

La perception de la douleur et la signification qu'on lui attribue sont façonnées par de multiples facteurs (Coll et al., 2011). Il a été proposé que trois grands facteurs viendraient influencer la perception de l'observateur (Craig et al., 2012; Goubert et al., 2005). Le premier concerne les influences contextuelles comme le type de relation entre la personne en douleur et l'observateur. Le deuxième réfère aux caractéristiques de la personne en douleur telles que ses expressions faciales et son discours. Le dernier implique des caractéristiques qui sont liées à l'observateur et qui comprennent ses croyances, ses attentes et certains biais. Ces caractéristiques sont particulièrement déterminantes pour la détection et l'estimation de la douleur d'autrui. Au-delà de ce que la personne en douleur exprime, les comportements d'aide de l'observateur et l'expérience de douleur de l'autre dépendront de ces caractéristiques, d'où l'importance de les comprendre pleinement (Hadjistavropoulos et al., 2011; Rash et al., 2015).

Les caractéristiques de l'observateur

Plusieurs caractéristiques liées à l'observateur ont été explorées en lien avec le décodage de la douleur d'autrui. Parmi celles-ci se trouve le genre de l'observateur. En effet, il a été montré que des hommes soignants avaient davantage tendance à sous-estimer la douleur d'un patient que des femmes soignantes. C'est un effet qui dépendrait toutefois du genre du patient, puisque la douleur est davantage sous-estimée chez les femmes (Coll et al., 2011; Kállai et al., 2004; Robinson & Wise, 2003). En outre, les individus qui font preuve de plus d'empathie ont généralement moins tendance à sous-estimer la douleur d'autrui (Green et al., 2009). Une autre caractéristique individuelle liée à une évaluation différentielle de la douleur d'autrui est le niveau de

dramatisation de la douleur de chaque personne - *pain catastrophizing*. La dramatisation de la douleur est la tendance à ruminer des pensées négatives à propos de sa douleur en termes de handicap et de devenir de la douleur, à évaluer négativement sa capacité à faire face à la douleur et à se sentir sans ressources face à celle-ci (Sullivan et al., 2001). Les observateurs qui dramatisent beaucoup la douleur auraient tendance à inférer que la douleur des autres est plus intense (Sullivan et al., 2006). Bref, une panoplie de facteurs divers qui concernent l'observateur viennent affecter son interprétation de la douleur des autres. Dans cette étude, nous proposons une nouvelle dimension qui pourrait affecter l'évaluation de la douleur d'autrui : la position hiérarchique de l'observateur.

La position hiérarchique de l'observateur

La position hiérarchique réfère au rang qu'occupe un individu dans la hiérarchie sociale et qui découle de son pouvoir, son influence ou sa dominance dans son milieu de vie (Koski et al., 2015). C'est ainsi que certains individus se hissent dans le haut de la hiérarchie sociale, et une faible partie de ces individus occupe les positions les plus élevées et prestigieuses (Magee & Galinsky, 2008). Les hiérarchies sociales sont omniprésentes à travers les différentes cultures et elles émergent naturellement dans les groupes humains et les autres animaux sociaux (Chase et al., 2002; Koski et al., 2015; Magee & Galinsky, 2008; Sapolsky, 2004). Il en est ainsi à cause de leur grande valeur adaptative. En effet, une organisation en hiérarchie est bénéfique pour tous les membres de la société puisqu'elle permet de définir clairement les rôles de chacun en plus de permettre une allocation des ressources efficace (Halevy et al., 2011; Sapolsky, 2005). Dans les sociétés humaines, les hiérarchies sociales sont établies grâce aux ressources que chacun possède, qui peuvent être matérielles ou sociales (Kraus et al., 2010). Typiquement, la position d'un individu dans la hiérarchie sociale est déterminée par certains indicateurs tels que son niveau d'éducation, son revenu ou encore sa profession (Kraus & Keltnner, 2009; Kraus et al., 2010; Oakes & Rossi, 2003). À cause de la place que les hiérarchies sociales occupent dans la société, il est possible de concevoir que la position qu'on y occupe vienne affecter plusieurs aspects de la vie sociale, particulièrement la façon dont on perçoit les autres. Dès lors, la position hiérarchique devient une variable importante dans l'étude de la communication de la douleur et pourrait venir bonifier la compréhension que nous avons de la manière dont on perçoit et interprète la douleur d'autrui.

Lien entre la position hiérarchique et les processus émotionnels

POSITION HIÉRARCHIQUE ET ÉVALUATION DE DOULEUR

Quelques études ont investigué la relation entre la position hiérarchique et certains processus ayant une composante interpersonnelle. Les recherches sur le sujet montrent que la position hiérarchique vient influencer les processus cognitifs et émotionnels impliqués lors d'interactions sociales. Concernant les processus cognitifs, certaines études ont montré que les individus ayant une position hiérarchique plus faible étaient plus rapides lors de prises de décisions (Santamaría-García et al., 2014) et qu'on accorde plus d'attention aux individus avec une position hiérarchique plus élevée que la nôtre (Foulsham et al., 2010). Relativement aux processus émotionnels, Kraus et al. (2010) ont montré que les individus qui ont une position hiérarchique moins élevée infèrent les émotions de base des autres avec plus de justesse - *accuracy*, comparativement aux individus qui ont une position hiérarchique plus élevée. Dans cette même étude, lorsqu'ils ont manipulé expérimentalement la perception de la position hiérarchique de façon temporaire, les participants à qui on avait induit le sentiment d'avoir une position plus faible étaient plus exacts lors de l'identification des émotions des autres. Dans le même ordre d'idées, une série d'études de Galinsky et al. (2006) qui avaient manipulé le sentiment de pouvoir (intimement lié à la position hiérarchique) ont montré que les individus avec un sentiment de pouvoir plus faible avaient plus de facilité à adopter la perspective des autres et à associer correctement une expression faciale à son émotion correspondante (plus haut taux d'exactitude). Finalement, dans une dernière étude (Van Kleef et al., 2008), les participants qui rapportaient avoir un sentiment de pouvoir moins élevé ressentaient plus de détresse et de compassion lorsqu'ils écouteaient un autre participant raconter une expérience qui leur avait causé beaucoup de souffrance. Dans l'ensemble, cette littérature, quoique peu nombreuse, suggère que les individus qui occupent une position hiérarchique plus faible ont une plus grande tendance à s'engager dans des processus cognitifs et émotionnels qui peuvent contribuer à une meilleure compréhension de la façon dont les autres se sentent. À notre connaissance, il n'existe pas d'étude, à ce jour, qui va dans le sens contraire de cette prémissse.

La douleur, une émotion?

Sachant que le traitement émotionnel que fait un observateur est affecté par sa position hiérarchique, il est possible de postuler que la position hiérarchique vienne aussi affecter l'expérience de douleur, qui partage des caractéristiques fondamentales avec les autres émotions. En effet, les émotions sont enclenchées par des objets ou des événements présents physiquement ou mentalement et comprennent une évaluation des conséquences de ces événements pour l'intégrité physique ou affective (Rainville, 2013). Ces

éléments sont aussi présents dans la douleur, qui s'accompagne d'affects désagréables communs aux émotions négatives. Il est donc concevable que l'expérience de douleur et la façon dont elle est communiquée soient sujettes aux mêmes influences que celles liées aux expériences émotionnelles. Considérant que l'évaluation des émotions des autres est affectée par la position que l'observateur occupe dans la hiérarchie sociale, il est possible que l'évaluation de la douleur d'autrui le soit également à cause des caractéristiques communes que partagent la douleur et d'autres émotions.

L'objectif de l'étude

Dans cette étude, la façon dont la position hiérarchique d'un individu, l'observateur, influence l'évaluation qu'il effectuera de l'intensité de la douleur de quelqu'un d'autre sera examinée. À la lumière d'une littérature qui suggère que la hiérarchie sociale a un impact important sur les processus cognitifs et émotionnels, il est postulé que l'évaluation de la douleur d'autrui sera différente en fonction de la position hiérarchique de chaque individu. Étant donné l'absence de littérature sur l'impact de la hiérarchie sociale sur la perception de la douleur d'autrui, aucune direction n'est proposée pour cette hypothèse. La présente étude permettra d'éclaircir si la douleur est évaluée comme étant plus ou moins intense selon la position hiérarchique. La position hiérarchique, faisant partie du construit plus global qu'est l'identité sociale, est influencée par de nombreux facteurs tels que le milieu où l'on grandit ou encore des expériences de vie particulières. Ces facteurs étant difficiles à contrôler dans des approches corrélationnelles, nous avons opté pour une manipulation temporaire de la perception de la position hiérarchique des participants telle qu'elle a été réalisée lors d'études antérieures (Galinsky et al. 2003; Galinsky et al., 2006; Kraus et al., 2010; Ma et al., 2019). Pour ce faire, une procédure d'induction sera employée, qui consiste à induire un sentiment d'avoir une certaine position hiérarchique chez le participant avant l'expérience grâce à un exercice réflexif et des mises en situation. Les participants devront ensuite juger de l'intensité de la douleur qu'ils perçoivent chez d'autres personnes dans de courtes vidéos d'expressions faciales de douleur. Ainsi, nous pourrons examiner si la position hiérarchique influencera l'évaluation de l'intensité de la douleur d'autrui. Sachant que d'autres variables corollaires affectent l'évaluation de la douleur d'autrui, nous regarderons aussi l'influence du genre, de la dramatisation de la douleur et de l'empathie des participants sur leurs évaluations d'intensité douloureuse.

Méthodologie

Participants

Pour estimer la taille que l'échantillon devait avoir pour obtenir une puissance adéquate, le logiciel G*Power 3.1.9.7 (Faul et al., 2009) a été utilisé ($\alpha = .95$ et puissance = .80). Le d de Cohen utilisé pour le calcul provient des résultats d'une étude antérieure ayant utilisé la même procédure expérimentale et qui ont obtenu un d de Cohen de .53 (Kraus et al., 2010). Suite aux calculs réalisés par le logiciel, un $N = 90$ a été obtenu. Il était donc prévu de recruter environ 90 participants (hommes et femmes). Étant donné que le recrutement n'a pas pu s'étendre au-delà d'un mois, seulement 56 participants ont été recrutés. L'échantillon contient 49 femmes et 7 hommes, et l'âge moyen des participants est de 24,76 ($\bar{E-T} = 5,88$). Les participants de l'étude devaient être âgés de 18 ans et plus, être en bonne santé, ne pas avoir de diagnostic de trouble psychiatrique ou neurologique, ne pas prendre de médication et ne pas souffrir de douleur chronique. Pour réaliser le recrutement, les participants ont été contactés via des annonces sur les réseaux sociaux et par bouche-à-oreille. Les participants ont été recrutés de façon volontaire (échantillon de convenance) et ont été répartis dans les deux conditions expérimentales selon l'ordre dans lequel ils ont été recrutés (c.-à-d., le premier participant était assigné au groupe de position hiérarchique faible, le deuxième était assigné au groupe de position hiérarchique élevée, et ainsi de suite). Les participants ont reçu une compensation monétaire de 20\$ à la fin de l'étude. Le projet de recherche a été approuvé par le comité d'éthique du Centre de Recherche de l'Institut Universitaire de Gériatrie de Montréal (CRIUGM) et tous les participants ont donné leur consentement avant le commencement du projet.

Matériel

Étant donné que les observateurs qui font l'expérience de hauts niveaux de dramatisation de la douleur ont tendance à inférer que la douleur des autres est plus intense (Sullivan et al., 2006), il a été décidé que ce facteur serait contrôlé dans cette étude. Préalablement à la procédure d'induction, les participants devaient compléter un questionnaire sur la dramatisation de la douleur. Le questionnaire utilisé était l'*Échelle de dramatisation face à la douleur* (PCS-CF), l'équivalent français validé de la *Pain Catastrophizing Scale* ($\alpha = .91$; French et al., 2005). Le PCS-CF comprend 13 items présentant des énoncés de pensées et émotions liées à la douleur pour lesquels on doit indiquer la fréquence sur une échelle graduée en cinq points (0 = *pas du tout*, 4 = *tout le temps*). Un exemple d'item est : *j'ai peur qu'il n'y aura pas de fin à la douleur*. Les scores à chaque question sont additionnés et les participants ayant les plus hauts scores sont ceux ayant les plus hauts niveaux de dramatisation de la douleur.

Les participants devaient également compléter la version française de l'*Interpersonal Reactivity Index* (*Indice de Réactivité Interpersonnelle*, IRI), créé d'abord en anglais par Davis (1980). Le questionnaire est composé de quatre sous-échelles de sept items, mais uniquement les deux sous-échelles qui évaluent les composantes cognitives et affectives de l'empathie, soit l'échelle de la prise de perspective ($\alpha = .79$) et celle de la préoccupation empathique ($\alpha = .80$), ont été utilisées. Le IRI a été choisi puisqu'il s'agit d'un des questionnaires les plus fréquemment utilisés pour évaluer l'empathie chez les adultes (Pulos et al., 2004). Puisqu'il a été montré que les individus faisant preuve de plus d'empathie avaient moins tendance à sous-estimer la douleur d'autrui (Green et al., 2009), ce facteur a été contrôlé pour s'assurer que les différences entre les individus provenaient bien de la procédure d'induction et non d'une différence au niveau de l'empathie de chaque participant.

Les stimuli utilisés lors de l'évaluation de la douleur d'autrui consistaient en 32 courtes vidéos d'une durée d'une seconde chacune où l'on y voit des expressions faciales de douleur de quatre intensités différentes (neutre, faible, modérée et forte) qui sont mimées par des acteurs (4 hommes et 4 femmes). Ces stimuli provenaient d'une banque de stimuli déjà validés et incluant des expressions faciales prototypiques de douleur et d'autres émotions (Budell et al., 2010; Simon et al., 2008). Pour évaluer l'intensité de la douleur perçue dans les vidéos, on présentait aux participants une échelle visuelle analogue allant de 0 à 100 et on leur demandait d'évaluer l'intensité de la douleur perçue sur cette échelle. Cette échelle consistait en une ligne d'environ 10-15 cm sur laquelle un curseur peut être déplacé d'une extrémité à l'autre par le participant. L'extrémité gauche de l'échelle était identifiée avec l'étiquette *pas de douleur* alors que l'extrémité droite était identifiée avec l'étiquette *la douleur la plus intense imaginable*.

L'étude s'est déroulée entièrement en ligne à l'aide des logiciels LimeSurvey (GitHub, version 4.1.13) et Zoom (version 5.9.1. [2581]).

Procédure

L'étude était d'une durée d'environ 45 minutes et elle se déroulait en deux temps.

Première partie de l'étude (temps 1). Avant le début de l'étude, le formulaire de consentement était envoyé au participant, qui devait le renvoyer complété. Ensuite, un lien était envoyé au participant pour qu'il complète le PCS-CF ainsi que le IRI. Une fois ces questionnaires remplis, le participant devait regarder 16 courtes vidéos d'expressions faciales de douleur et évaluer l'intensité de la douleur perçue sur l'échelle visuelle analogue. Ces vidéos sont reprises

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dans la deuxième partie de l'étude dans le but d'établir un niveau de base pour pouvoir comparer l'évaluation de l'intensité de la douleur perçue avant et après la procédure d'induction pour chaque participant. L'ensemble de la première partie durait environ 15 minutes. Une fois cette étape terminée, le participant devait prendre un rendez-vous sur Zoom pour effectuer la deuxième partie en présence d'un membre de l'équipe de recherche.

Deuxième partie de l'étude (temps 2). Une fois le participant connecté à la séance Zoom, le deuxième lien vers la procédure d'induction lui était acheminé. Le membre de l'équipe de recherche avait sa caméra allumée, mais ce n'était pas le cas du participant. Deux liens différents ont été créés pour chaque condition expérimentale et les participants ont été affectés à une ou l'autre des conditions expérimentales (position hiérarchique élevée ou faible) de façon pseudo-aléatoire (selon l'ordre dans lequel ils ont été recrutés) pour constituer deux groupes équivalents en tenant compte de la répartition homme-femme.

Procédure d'induction. La procédure d'induction utilisée visant une manipulation expérimentale de la position hiérarchique est une adaptation française de celle qui est employée dans l'étude de Kraus et al. (2010). Avant la procédure d'induction, nous informions le participant qu'il allait se prêter à un exercice d'écriture pour bien visualiser comment la hiérarchie sociale pouvait venir façonnner les interactions sociales. Pour débuter la procédure d'induction, on présentait aux participants une image d'une échelle à dix échelons et on leur demandait de s'imaginer que « l'échelle représente la position où les gens se situent dans la hiérarchie sociale au Canada ». Ils ont ensuite reçu les instructions suivantes :

Maintenant, comparez-vous aux gens qui se situent au plus haut [bas] point de l'échelle. Ces gens sont ceux qui sont les mieux [les plus mal] placés dans la société— ceux qui ont le plus [moins] d'argent, le plus haut [faible] niveau d'éducation et les emplois les plus [moins] respectables. Plus particulièrement, nous aimerais que vous réfléchissiez à ce qui vous différencie de ces gens en termes de votre propre revenu, de votre éducation et de votre statut professionnel. Où vous placeriez-vous sur cette échelle par rapport à ces gens tout en haut [bas]?

Pour renforcer la procédure d'induction, on demandait ensuite aux participants de décrire une situation hypothétique où ils interagiraient avec une personne en haut ou en bas de l'échelle selon la condition expérimentale. Les participants chez qui on induisait une position hiérarchique élevée devaient se comparer avec une personne en bas de l'échelle tandis

que les participants chez qui on induisait une position hiérarchique faible devaient se comparer avec une personne du haut de l'échelle. Finalement, pour vérifier l'efficacité de la procédure d'induction, les participants devaient indiquer leur propre position hiérarchique sur l'échelle, où « 1 » représentait la plus basse position hiérarchique possible et « 10 » représentait la plus haute position hiérarchique possible. Les scores des deux groupes ont ensuite été comparés pour vérifier si les participants qui avaient fait l'expérience d'une position hiérarchique plus élevée rapportaient effectivement un score plus élevé sur l'échelle. Les instructions plus détaillées de cette procédure d'induction se trouvent à l'annexe 1.

Évaluation de l'intensité de la douleur. Par la suite, 32 courtes vidéos d'expressions faciales de douleur étaient présentées aux participants. Ces derniers voyaient des vidéos d'expressions faciales de douleur et devaient évaluer l'intensité de la douleur pour chaque vidéo sur la même échelle visuelle analogue présentée lors de la première partie de l'expérience. Une fois l'étape franchie, les participants étaient informés du véritable objectif de l'étude et de la procédure d'induction de la position hiérarchique à laquelle ils ont été soumis. Une fois cela fait, les participants pouvaient quitter la séance Zoom et l'ensemble de l'expérience prenait fin. La deuxième partie durait environ 30 minutes.

Analyses statistiques

Pour vérifier l'efficacité de la procédure d'induction, les scores auto-rapportés des deux groupes sur l'échelle de positions hiérarchiques ont été comparés grâce à un test *t* bilatéral. Ensuite, des corrélations de Pearson ont été effectuées pour vérifier si les scores du PCS-CF et du IRI sont corrélés aux scores d'intensité douloureuse rapportés. Cela avait pour but de vérifier si ces variables devaient être considérées comme des covariables potentielles à ajouter au modèle. Finalement, pour examiner si l'évaluation de l'intensité de la douleur exprimée dans les vidéoclips différait entre les groupes « position élevée » et « position faible » et entre les temps 1 et 2, des ANOVA mixtes ont été conduites sur les scores d'intensité douloureuse rapportés pour chaque niveau d'intensité de douleur exprimée (neutre, faible, modérée et forte). Dans ces ANOVA, le facteur intra-sujet correspondait à la variation des scores d'intensité douloureuse rapportés entre le temps 1 et le temps 2, alors que le facteur inter-sujet correspondait à la condition expérimentale assignée à chaque participant (c.-à-d., position hiérarchique élevée ou faible). Le genre des participants a aussi été pris en compte dans les ANOVA mixtes. Le seuil de signification pour toutes les analyses a été établi à $p < .05$ et des corrections ont été apportées pour les tests post-hoc.

Toutes les analyses ont été conduites avec le logiciel IBM SPSS Statistics 26.

Résultats

Analyses préliminaires

Avant d'effectuer les analyses, il a été vérifié qu'il n'y avait aucune donnée manquante ni de scores extrêmes (± 3.29 écart-types de la moyenne). De plus, les scores d'intensité douloureuse rapportés ont été regardés pour chaque niveau d'intensité à travers tous les participants. Il a été décidé que pour garder un participant, il devait avoir rapporté un score moyen d'intensité douloureuse entre 0 et 20 sur 100 dans la condition d'intensité neutre. Ces scores moyens devaient également être plus élevés dans la condition d'intensité modérée que dans la condition d'intensité neutre, et ils devaient être plus élevés dans la condition d'intensité forte que dans la condition d'intensité faible. À la suite de cette vérification, les données de deux participants ont été exclues, ce qui a porté la taille de l'échantillon à 54, avec 27 participants dans chaque groupe.

Les postulats de base des analyses statistiques réalisées ont tous été vérifiés. Concernant les corrélations de Pearson entre le PCS-CF, l'IRI et les scores d'intensité douloureuse, les résiduels étaient distribués normalement et leur variance était homogène. Pour les ANOVA mixtes, l'erreur d'échantillonnage était distribuée normalement et l'homoscédasticité était respectée pour toutes les variables analysées. Les scores étaient indépendants et la sphéricité n'était pas problématique puisque la VI intra-sujet avait deux niveaux (c.-à-d., les scores d'intensité douloureuse au temps 1 et au temps 2). Il a donc été établi que tous les postulats des analyses sont respectés.

Statistiques descriptives

Les statistiques descriptives pour l'ensemble des variables continues sont présentées dans le Tableau 1.

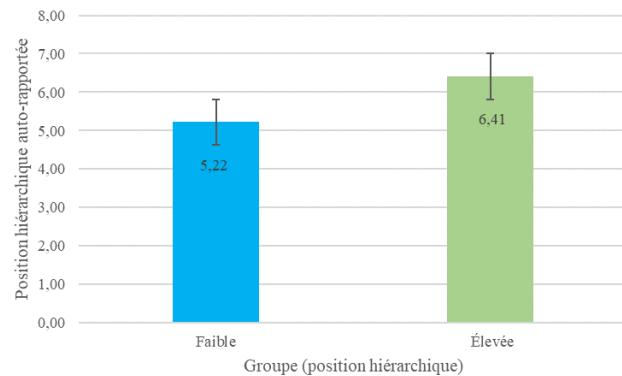
Analyses principales

Vérification de l'efficacité de la procédure d'induction d'une position hiérarchique. Concernant la procédure d'induction, un test t bilatéral avec échantillons indépendants a été utilisé entre le groupe de position hiérarchique élevée et le groupe de position hiérarchique faible dans le but de comparer les moyennes de leur position hiérarchique auto-rapportée. Les moyennes et les écarts-types des groupes se retrouvent dans le tableau 1 et sont illustrés dans la figure 1. Les résultats du test t montrent que la position hiérarchique que les participants s'attribuent est significativement moins élevée dans le groupe chez qui on a induit une position hiérarchique faible que

dans le groupe chez qui on a induit une position hiérarchique élevée, $t(52) = -2.76$, $p = .008$. Le d de Cohen est de -0.54, ce qui correspond à une taille d'effet moyenne.

Figure 1

Procédure d'induction



Effet de la position hiérarchique sur les scores d'intensité douloureuse rapportés. Pour vérifier si l'induction d'une position hiérarchique élevée ou faible a eu un effet sur l'évaluation de l'intensité de la douleur exprimée dans les vidéos, des ANOVA mixtes ont été conduites, d'abord sur les scores moyens d'intensité douloureuse pour l'ensemble des vidéos (sauf les vidéos d'intensité neutre), et ensuite sur les scores moyens pour chaque niveau d'intensité douloureuse présentée (neutre, faible, modérée et forte). Les moyennes et les écarts-types des deux groupes se trouvent dans le tableau 1.

En ce qui concerne l'analyse incluant les niveaux d'intensités faible, modérée et forte combinées, l'ANOVA mixte montre que l'effet d'interaction entre la variation des scores et la position hiérarchique n'est pas significatif, $F(1.52) = .03$, $p = .863$. L'effet principal de la variation des scores entre le temps 1 et le temps 2 n'est pas significatif, $F(1.52) = .24$, $p = .625$, et l'effet principal de la position hiérarchique non plus, $F(1.52) = .15$, $p = .700$. Aucun effet de la position hiérarchique sur les scores d'intensité douloureuse lorsque tous les niveaux d'intensité douloureuse sont inclus dans l'analyse n'a été observé.

Pour les vidéoclips d'intensité neutre, l'ANOVA mixte montre que l'effet d'interaction entre la variation des scores et la position hiérarchique n'est pas significatif, $F(1.52) = .13$, $p = .717$. L'effet principal de la variation des scores entre le temps 1 et le temps 2 n'est pas significatif, $F(1.52) = .68$, $p = .412$, et l'effet principal de la position hiérarchique non plus, $F(1.52) = .29$, $p = .595$.

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Tableau 1

Présentation des statistiques descriptives des variables continues par groupe

Variables	<i>n</i>	Position hiérarchique faible		Position hiérarchique élevée		
		Moyenne	Ecart-type	<i>n</i>	Moyenne	Ecart-type
Age	27	25.33	5.44	27	24.19	6.34
Score composite de la PCS-CF	27	1.70	0.70	27	1.64	0.63
Score composite du IRI	27	2.90	0.46	27	2.59	0.60
Position hiérarchique auto-rapportée	27	5.22	1.63	27	6.41	1.52
Scores d'intensité douloureuse rapportés au temps 1 (intensité faible, modérée et forte)	27	45.01	13.35	27	44.06	12.40
Scores d'intensité douloureuse rapportés au temps 1- Intensité neutre	27	1.69	2.95	27	2.11	2.92
Scores d'intensité douloureuse rapportés au temps 1- Intensité faible	27	17.23	10.86	27	16.27	9.24
Scores d'intensité douloureuse rapportés au temps 1- Intensité modérée	27	49.65	16.78	27	47.47	15.23
Scores d'intensité douloureuse rapportés au temps 1- Intensité forte	27	68.14	17.47	27	68.44	15.51
Scores d'intensité douloureuse rapportés au temps 2 (intensité faible, modérée et élevée)	27	45.84	11.93	27	44.46	10.03
Scores d'intensité douloureuse rapportés au temps 2- Intensité neutre	27	1.55	1.44	27	1.74	1.82
Scores d'intensité douloureuse rapportés au temps 2- Intensité faible	27	19.26	8.46	27	17.00	8.42
Scores d'intensité douloureuse rapportés au temps 2- Intensité modérée	27	45.08	15.05	27	43.19	13.38
Scores d'intensité douloureuse rapportés au temps 2- Intensité forte	27	73.19	16.15	27	73.19	12.39

Pour les vidéoclips d'intensité faible, l'ANOVA mixte montre que l'effet d'interaction entre la variation des scores et la position hiérarchique n'est pas significatif, $F(1.52) = .32$, $p = .577$. L'effet principal de la variation des scores entre le temps 1 et le temps 2 n'est pas significatif, $F(1.52) = 1.425$, $p = .238$, et l'effet principal de la position hiérarchique non plus, $F(1.52) = .51$, $p = .477$.

Pour les vidéoclips d'intensité modérée, l'ANOVA mixte montre que l'effet d'interaction entre la variation des scores et la position hiérarchique n'est pas significatif, $F(1.52) = .01$, $p = .931$. L'effet principal de la variation des scores entre le temps 1 et le temps 2 est significatif, $F(1.52) = 6.98$, $p = .011$,

$\eta^2_{partiel} = .12$, avec des scores significativement plus élevés au temps 1 qu'au temps 2. L'effet principal de la position hiérarchique n'est pas significatif, $F(1.52) = 0.290$, $p = .593$.

Pour les vidéoclips d'intensité forte, l'ANOVA mixte montre que l'effet d'interaction entre la variation des scores et la position hiérarchique n'est pas significatif, $F(1.52) = 0.01$, $p = .935$. L'effet principal de la variation des scores entre le temps 1 et le temps 2 est significatif, $F(1.52) = 7.24$, $p = .01$, $\eta^2_{partiel} = .12$, avec des scores significativement plus élevés au temps 2 qu'au temps 1. L'effet principal de

la position hiérarchique n'est pas significatif, $F(1.52) = 0.002, p = .969$.

Dans l'ensemble, lorsqu'on regarde l'effet de la position hiérarchique sur les scores d'intensité douloureuse en analysant chaque niveau d'intensité douloureuse séparément, il n'est pas possible d'observer l'effet attendu.

Effet du genre sur les scores d'intensité douloureuse rapportés. Pour évaluer l'effet du genre sur l'évaluation que les participants font de la douleur exprimée dans les vidéoclips, étant donné la faible représentation des hommes dans l'échantillon ($n = 7$), il n'était pas possible de faire des analyses comparatives entre hommes et femmes. Il a donc été choisi de réaliser l'ANOVA mixte (avec les intensités faibles, modérées et fortes combinées) en excluant les hommes pour examiner l'effet pour un seul genre. Lorsqu'on exclut les hommes, l'ANOVA mixte montre que l'effet d'interaction entre la variation des scores et la position hiérarchique n'est pas significatif, $F(1.45) = .12, p = .730$. L'effet principal de la variation des scores entre le temps 1 et le temps 2 n'est pas significatif, $F(1.45) = 0.608, p = .439$, et l'effet principal de la position hiérarchique non plus, $F(1.45) = .56, p = .460$. Les effets d'interaction n'étaient pas significatifs pour chaque niveau d'intensité non plus, $p > .05$.

Effet des scores du PCS-CF et du IRI sur les scores d'intensité douloureuse rapportés. Des corrélations de Pearson ont été effectuées entre les scores du PCS-CF, du IRI et les scores d'intensité douloureuse rapportés par les participants (intensités faible, modérée et forte combinées). La corrélation entre les scores du PCS-CF et les scores d'intensité rapportés n'était pas significative ni au temps 1 ($r = .12 ; p = .395$) ni au temps 2 ($r = .17 ; p = .212$). La corrélation entre les scores du IRI et les scores d'intensité rapportés n'était pas significative ni au temps 1 ($r = .13 ; p = .348$) ni au temps 2 ($r = .09 ; p = .535$). Étant donné que les corrélations n'étaient pas significatives, des ANCOVA pour contrôler l'effet de ces variables n'ont pas été réalisées.

Discussion

Dans cette étude, l'objectif était d'examiner la façon dont une position hiérarchique faible ou élevée pouvait influencer l'évaluation que les participants effectuent de l'intensité de la douleur de quelqu'un d'autre. Malgré que la procédure d'induction de la position hiérarchique ait bien fonctionné, un effet de la procédure d'induction sur l'évaluation de la douleur n'a pas été observé. Notre hypothèse, soit que l'effet d'induction de la position hiérarchique aurait un impact sur les scores d'intensité douloureuse rapportés, n'a donc pas été confirmée. Ces résultats

doivent cependant être considérés avec précaution puisque cette étude est la première à investiguer un lien entre la position hiérarchique des individus et la façon dont ils évaluent la douleur d'autrui.

Les études antérieures qui ont utilisé une procédure d'induction de la position hiérarchique similaire se sont penchées sur la discrimination des émotions (Galinsky et al., 2006; Kraus et al., 2010). La douleur étant considérée comme partageant plusieurs caractéristiques essentielles avec les émotions (Rainville, 2013), il est raisonnable de croire qu'un traitement différentiel de la douleur devrait aussi être observé selon la position hiérarchique de l'observateur. Plusieurs raisons peuvent expliquer pourquoi l'effet n'a pas été retrouvé dans cette étude. D'abord, les études antérieures ont utilisé comme mesure des taux d'exactitude, c'est-à-dire que leur procédure consistait généralement à montrer des visages exprimant différentes émotions et à demander aux participants quelle émotion était exprimée. Les taux d'erreur étaient alors calculés et comparés entre les deux groupes pour voir les performances selon la position hiérarchique induite. Ici, au lieu de présenter plusieurs émotions différentes, on présentait uniquement la douleur à différents niveaux d'intensité. Il est possible que l'effet se perçoive mieux lors de tâches de discrimination de différentes émotions que lorsque la tâche présente une seule émotion à différents niveaux d'intensité.

Le type de stimuli a aussi pu influencer les résultats trouvés. Les clips d'expressions faciales de douleur étaient constitués d'acteurs à qui on demandait de mimer une expression faciale de douleur à différentes intensités (neutre, faible, modérée et forte). Il est possible qu'un acteur mime une expression correspondant à une intensité douloureuse modérée et que lorsqu'un autre acteur tente de reproduire la même intensité, l'expression ne soit pas exactement la même. En outre, les acteurs n'avaient pas tous le même âge, ce qui a pu avoir un impact sur l'évaluation que les participants ont faite de l'intensité de leur douleur.

En lien avec le point précédent, l'aspect peu écologique de la tâche en général a pu masquer l'effet souhaité. D'abord, le fait que l'expérience se déroule en ligne aurait pu faire que l'évaluation de la douleur qu'ont faite les participants n'ait pas été la même que ce qu'on aurait pu retrouver dans un contexte où il y aurait eu une interaction face-à-face. Lorsqu'on porte un jugement sur l'intensité de la douleur de quelqu'un d'autre lors d'une situation réelle, plusieurs aspects contextuels entrent en jeu, notamment l'identité de la personne en douleur et la relation entre les deux personnes. En outre, dans une interaction réelle entre deux personnes, il est possible que l'individu ait une

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plus grande tendance à se comparer à l'autre personne et ainsi percevoir les aspects de hiérarchie sociale comme plus saillants. À l'avenir, il serait intéressant de placer les participants dans une situation où ils auraient la possibilité d'interagir avec les personnes qui leur expriment leur douleur.

Un dernier point important à souligner est la présence virtuelle de l'expérimentateur, c'est-à-dire le membre de l'équipe de recherche. Même si la tâche était virtuelle, pour s'assurer que le participant prenait l'exercice d'induction au sérieux, l'expérimentateur était présent via une rencontre virtuelle Zoom et sa caméra était allumée tout au long de la deuxième partie de l'expérience. Il est donc possible que le participant se soit comporté différemment entre le temps 1 et le temps 2 ainsi que lors des évaluations au temps 2 de façon plus générale, puisqu'il aurait pu se sentir observé.

Cette étude comporte également quelques aspects novateurs qui méritent d'être soulignés. En plus d'être la première étude comportementale à étudier le lien entre la position hiérarchique et l'évaluation de la douleur d'autrui, c'est la première à utiliser un devis mixte avec un facteur intra-sujet pour examiner les scores avant et après la manipulation de la perception de la position hiérarchique pour chaque participant. Les études futures devront s'assurer de continuer à prendre des mesures avant la manipulation expérimentale pour s'assurer que les effets trouvés seront bel et bien dus à cette dernière. Concernant la manipulation expérimentale, il est intéressant de noter que la perception de la position hiérarchique des participants a bel et bien été modifiée au cours de l'expérience, ce qui souligne la nature malléable de ce construit en plus de mettre en évidence la forte influence du contexte sur la perception de notre propre position hiérarchique.

Parmi les limites de cette étude, on retrouve le plus petit nombre de participants que prévu. Bien qu'il fût prévu initialement de recruter 90 participants, l'échantillon de l'étude est composé de 54 participants seulement. Il est donc possible de croire qu'un effet aurait pu être observé si plus de participants avaient été recrutés considérant qu'un plus grand échantillon aurait exacerbé la puissance statistique. On peut aussi relever le petit nombre d'hommes dans l'échantillon, ce qui a empêché de comparer les réponses entre les genres. C'est pourtant une question très pertinente à explorer; il a été documenté que les hommes, qui sont typiquement placés plus haut dans la hiérarchie sociale, sont moins précis que les femmes lorsqu'ils doivent identifier les émotions des autres (Ickes et al., 200). L'interaction entre le genre et la position hiérarchique lors de l'évaluation de la douleur d'autrui est potentiellement pertinente à étudier. Une autre

limite consiste en l'absence de condition contrôle. Il aurait été particulièrement informatif de pouvoir comparer les deux groupes qui ont subi la procédure d'induction à un groupe qui ne l'aurait pas subie pour voir si les scores d'intensité douloureuse rapportés par les participants étaient plus élevés ou plus bas que s'il n'y avait pas eu de manipulation expérimentale. Finalement, il aurait été pertinent d'avoir les informations sur la position hiérarchique auto-rapportée des participants avant la procédure d'induction pour savoir si leur position hiérarchique non-manipulée aurait pu avoir un impact sur la façon dont ils perçoivent la douleur d'autrui.

Pour conclure, la présente étude met en lumière le caractère malléable de notre perception de notre position hiérarchique. Malgré l'absence d'effet de la procédure d'induction sur les évaluations de douleur, il demeure essentiel de continuer à étudier la question pour comprendre comment une variable psychosociale qui occupe une place prédominante dans la société comme la position hiérarchique peut influencer notre rapport à autrui lorsqu'il est question de se représenter leur douleur.

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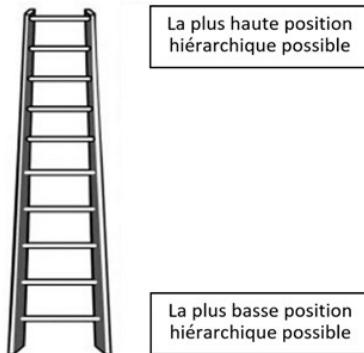
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Annexe 1

Instructions données aux participants lors de la procédure d'induction

Pour vous familiariser avec le concept de la position hiérarchique et bien visualiser la façon dont elle affecte les interactions sociales, nous vous demandons de réaliser un exercice réflexif en répondant aux questions suivantes.

1. Voici une échelle à 10 échelons. Vous pouvez vous imaginer que cette échelle représente la position où les gens se situent dans la hiérarchie sociale au Canada. La position hiérarchique réfère au rang qu'occupe un individu dans la hiérarchie sociale et qui découle de son pouvoir, son influence ou sa dominance dans son milieu de vie. Elle est typiquement indiquée par le niveau d'éducation, le revenu ou la profession.



Condition « position hiérarchique faible » :

Maintenant, comparez-vous aux gens qui se situent au plus haut point de l'échelle. Ces gens sont ceux qui sont le mieux placés dans la société – ceux qui ont le plus d'argent, le plus haut niveau d'éducation et les emplois les plus respectables. Plus particulièrement, nous aimerais que vous réfléchissiez à ce qui vous différencie de ces gens en termes de votre propre revenu, de votre éducation et de votre statut professionnel. Où vous placeriez-vous sur cette échelle par rapport à ces gens tout en haut?

Répondez en quelques lignes et de la façon la plus détaillée possible

Condition « position hiérarchique élevée » :

Maintenant, comparez-vous aux gens qui se situent au plus bas point de l'échelle. Ces gens sont ceux qui sont le plus mal placés dans la société – ceux qui ont le moins d'argent, le plus faible niveau d'éducation et les emplois les moins respectables. Plus particulièrement, nous aimerais que vous réfléchissiez à ce qui vous différencie de ces gens en termes de votre propre revenu, de votre éducation et de votre statut professionnel. Où vous placeriez-vous sur cette échelle par rapport à ces gens tout en bas?

Répondez en quelques lignes et de la façon la plus détaillée possible

2.

Condition « position hiérarchique faible » :

Décrivez en quelques phrases une situation hypothétique où vous interagiriez avec une personne en haut de l'échelle.

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Condition « position hiérarchique élevée » :

Décrivez en quelques phrases une situation hypothétique où vous interagiriez avec une personne en bas de l'échelle.

3. Finalement, où vous placeriez-vous sur cette échelle? (1 = la plus basse position hiérarchique possible; 10 = la plus haute position hiérarchique possible)

Violent and Aggressive Behaviour: Are we Defining the Problem Appropriately?

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Violent behaviour has an abundance of negative consequences ranging from the victim's personal distress to increased economic strain on an entire community. The search for the cause(s) of aggression has been long underway with some major findings and innovations. However, there have also been several overlooked topics pertaining to the increased likelihood of violence. The current review aims to examine one of these oversights: the deeper meaning of trait aggression and the role of emotional self-regulation in violence perpetration. The author reviews current literature on the topic and outlines several correlations between violent behaviour and emotional self-regulation, which appear to be consistent across multiple adult populations. The author argues that this strong link provides due cause for future research aimed at empirically examining the relationship between emotional self-regulation and violent behaviour.

Keywords: emotional self-regulation, trait aggression, violence, aggressive behaviour

Les comportements violents ont une abondance de conséquences négatives allant de la détresse chez la victime à une pression économique accrue sur toute la communauté. La recherche de la ou des causes de l'agression est en cours depuis longtemps. Toutefois, il y a eu plusieurs sujets négligés en ce qui concerne la probabilité accrue de violence. Cette revue de littérature vise à examiner l'un de ces oubliés : la signification du trait agressivité et le rôle de l'autorégulation émotionnelle dans la perpétration de violence. L'auteure passe en revue la littérature actuelle sur ce sujet et décrit plusieurs corrélations entre le comportement violent et l'autorégulation émotionnelle qui semblent être cohérentes à travers plusieurs populations adultes. L'auteure soutient que ce lien justifie la pertinence des futures recherches visant à examiner la relation entre l'autorégulation émotionnelle et les comportements violents.

Mots-clés : autorégulation émotionnelle, trait agressivité, violence, comportement agressif

Violent and Aggressive Behaviour: Are we Defining the Problem Appropriately?

The question as of why people behave aggressively has been studied from many different perspectives and disciplines ranging from neuroscience to philosophy. The intense interest in the subject of violence is likely linked to the profound negative consequences of such behaviour. While rates of violent crime, and violence in general, have been on the decline since about 1990 in Canada, recent studies have shown a surge in new or different forms of violence not recorded before 1960 (e.g., cases of female sexual sadism and more recently an increase in physical violence in adolescent females, etc.), as well as a general increase in violent crime since 2013 (Statistics Canada, 2015, 2020; Stone & Brucato, 2019; Tully & Bamford, 2019). This clearly illustrates that, while progress has been made in violence reduction, we must continue to produce

research and studies as new challenges and patterns in violent crimes continue to present themselves. Additionally, even with the steady decrease in violent crimes, over 330,000 adult victims are reported by the Canadian police each year, with an additional 60,000 children (aged 17 and younger) (Conroy, 2018). Moreover, certain agencies have already reported an increase in domestic violence during the current COVID-19 pandemic and many expect a further increase as the pandemic progresses, and even after it subsides (Campbell, 2020; National Domestic Violence Hotline, 2020). Though before we can meaningfully examine the current literature, we must construct and agree upon functional definitions for a few central terms.

While violence and aggression are relatively simple terms to define, defining and classifying different forms of aggressive behaviour can be more complex. Anderson and Bushman (2002) define violence as “aggression that has extreme harm as its goal (e.g., death)” and further explain that “all violence is aggression, but many instances of aggression are not violent” (pp.29). We will use “violence” to refer to actions resulting (or intending to

The author would like to thank Dr. Peter Hoaken (from the University of Western Ontario) for providing guidance and feedback on an early draft of this review. Correspondence concerning this article should be addressed to Annah McCurry at annah.mccurry@questu.ca.

result) in serious physical harm. There are two general understandings of “aggression” in the relevant literature. The first recognizes aggression as a broader and less consequential form of violence which can manifest in non-physical forms (e.g., verbal, relational, etc.) (Anderson & Bushman, 2002; Hsieh & Chen, 2017); and the second regards aggression as an affective state or a set of behaviours associated with violent intent which do not necessarily result in a harmful action (Mahady Wilton et al., 2000). Both understandings are relevant in the current review and thus, aggression will refer here to the first definition and ‘negative emotional arousal’ will refer to the second.

Moving onto the classification of types of aggression, there are many factors to consider. Some scholars differentiate between verbal, physical, proximal (i.e., posturing or breaching personal space), and relational aggression (Horton, 2021; Robertson et al., 2020; Werner & Nixon, 2005). For the purposes of the current review, one’s form of aggressive behaviour is unimportant. More important, however, is recognizing the difference between instrumental and reactive aggression. Lee and Hoaken (2007) differentiate the two by stating that “[r]eactive aggression refers to impulsive retaliatory aggression in response to a perceived threat or provocation” whereas “proactive [instrumental] aggression refers to aggressive acts in pursuit of a goal or desired outcome” (pp. 282). This review will focus exclusively on reactive forms of aggression as instrumental aggression represents behavioural (unemotional) choices based on desired outcomes and planning, rather than behaviours/emotions presented in response to provocation (Lee & Hoaken, 2007; Lobbestael et al., 2013). Previous research suggests that these two forms of aggression must be addressed differently, and the former lends itself better to considerations involving emotion (Lobbestael et al., 2013; Maneiro et al., 2020).

Much of the progress in our understanding of the mechanisms of violence and violence reduction began with scholars from various fields who have identified several major risk factors or predictors of violent behaviour (Bond et al., 2004; Hoaken et al., 2003, 2007; Krakowski, 2003; Mednick & Kandel, 1988; Meyer-Lindenberg et al., 2006; Raine, 2008; Tremblay & Belchevski, 2004). Some of the factors considered most significant are executive functioning, impulsivity, and trait aggression. While our understanding of executive functioning and impulsivity continue to evolve and adjust with emerging literature, our understanding of trait aggression has not. In addition to the concept of trait aggression being static, it is also potentially limited to research and treatment interventions as it confines the

cause/explanation of aggression to simply past histories of aggression (i.e., crystallized behavioural patterns), ignoring context, emotional arousal, and emotional self-regulation.

The goal of this review is to examine relevant constructs relating to aggression and to conceptualize the concept of trait aggression while expanding the thinking of reactive aggression in multiple adult populations. In fact, using multiple populations allows a wider range of emotional dysregulation. To this end, articles for the current review were identified through PsycINFO database. Articles published between 2000 and 2021 were included if they met the following criteria: a.) peer-reviewed; b.) a meta-analysis or original research; c.) included adult participants; and d.) contained at least one of our key search terms in the abstract. These search terms were “violence”, “aggression”, “trait aggression”, “violent ideation”, “emotional self-regulation”, and “abuse”. Several historical sources are also mentioned below to provide context (e.g., Buss & Perry, 1992; Cannon, 1987; Fehr & Stern, 1970), but these sources are not considered as part of the analysis.

Based on the review of the literature that meets the criteria noted above, the current review argues that the negative emotional arousal of subjects exhibiting reactive aggression is often overlooked and is likely a significant and treatable factor contributing to violent behaviour. This review is particularly relevant for individuals who are regularly faced with aggressive people or the victims themselves (e.g., schoolteachers, recreation leaders/coaches, and emergency room personnel) (Dheensa et al., 2020; Lloyd, 2018; Szilassy et al., 2017), as these are the people most situated to intervene. For example, Szilassy et al. (2017) found that general care physicians lack an adequate understanding of domestic violence and feel uncomfortable addressing possible violence with patients, thus prompting the authors to develop a training protocol specifically for educating medical professionals about domestic violence. To this end, the current review will begin by discussing the greater prevalence of violent ideation than violent action during conflicts. The review will then continue by discussing the use of trait aggression in a sampling of current literature and the underlying meaning and relevance of trait aggressiveness. The review will finish by discussing some treatments relevant to violent behaviour, such as trauma-focused cognitive behavioural therapy (TF-CBT), eye movement desensitization and reprocessing (EMDR), and emotion-focused therapy for trauma (EFTT). TF-CBT is a trauma focused extension of cognitive behavioural therapy, a structured psycho-social intervention focused on forming adaptive cognitions and resulting behaviour. EMDR is a psychotherapy that uses eye

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movement to aid in the processing of difficult/traumatic content. EFTT is a psychotherapy designed to treat adults suffering from challenges stemming from childhood abuse. The current review is not intended to be an exhaustive representation of the literature on violence research as the relevant literature cannot adequately be represented in a single paper.

Literature Review

Background and Theoretical Context

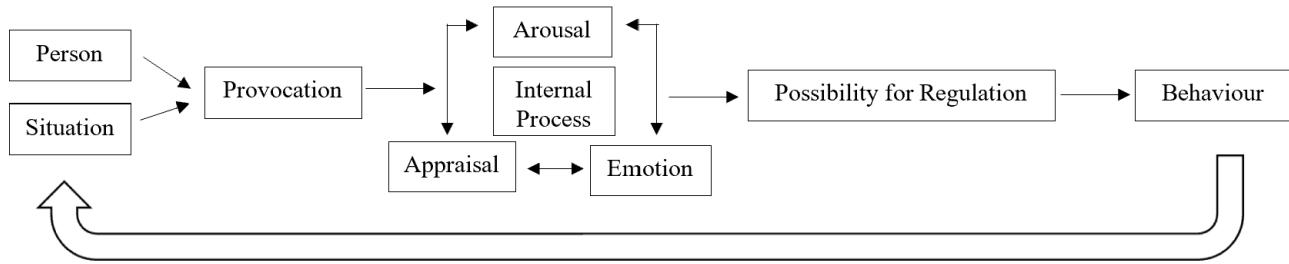
Early theorists James and Lang proposed a physical basis of emotion in the 1980s, which has been revised and criticized by many researchers since (Cannon, 1987; Fehr & Stern, 1970; James, 1994; Lang, 1994). Numerous studies have taken the physiological basis of emotion into account and these studies have shown that poor emotional self-regulation in abused children tends to be comorbid with greater than average aggressive behaviour in school and later on in adulthood (Lee & Hoaken, 2007; Maguire et al., 2015; Norman et al., 2012; Pollak et al., 2000; Siegel, 2013). However, the role of emotional self-regulation in aggression has not been thoroughly studied as it continues into adulthood. Furthermore, while traits like poor executive functioning and low impulse control, defined as the tendency to make quick decisions and act without thinking (Hoaken et al., 2003), have been linked to violent behaviour, the emotion that precedes these two mediators has also not been thoroughly researched. Despite the lack of studies, some previous research showed that there are more individuals experiencing aggressive ideation (i.e., negative emotional arousal) than people actually engaging in violent/aggressive behaviours (Denson et al., 2012; DeWall et al., 2007; DeWall et al., 2011; Finkel, 2007; Finkel et al., 2009). This finding carries important implications for the prevention of violence as the ability of a person to manage their own aggressive ideation means that people have the potential to recognize their cognition and come to a decision about their behaviour, hence preventing outward displays of aggression. This points to emotional self-regulation as a promising potential mitigator of violence that warrants further consideration.

Even though trait aggression is considered to be one of the most relevant predictors of violent behaviour, it has not been specifically researched other than as a predictor of, or a control factor for, other predictors of violence. Trait aggression is understood as “a tendency to act aggressively.” This tendency is measured either with reference to the history of a subject’s violent behaviour or through a self-report of how “characteristic” a set of behaviours and cognitions are for the subject (Buss & Perry, 1992). While having a history of violence is a strong

predictor of future violence, it is not a predictor simply because violent people tend to be violent over time (“and that’s that”); it is a predictor because there is undoubtedly a major factor underlying trait aggression, specifically in reactive instances of violence (Denson et al., 2011; Leki & Wilkowski, 2017; Sherrill et al., 2016).

While the current review will not discuss the alternative and already alluded to predictors of violence at length (i.e., executive functioning and impulse control), low executive functioning and low impulse control are important factors worth considering before thinking about the role of emotional regulation in mitigating reactive violent behaviour. Simply put, the most relevant aspect of executive functioning is the ability of a person to predict the consequences of their actions in order to make decisions that correspond with their goals/intentions. An individual’s capacity to learn from social cues relies on their ability to “use response feedback cues to regulate ongoing behaviour” (Hoaken et al., 2003). If this social learning is disrupted, one might fail to behave appropriately in a given situation, resulting in reactive aggression and possibly violence. Both executive functioning and impulse control deal with consciousness and reason (or at least quasi-reason), but one cannot consider the reasonableness of their actions if they are emotionally compromised (Murray-Close et al., 2017). Therefore, it is essential to be cognizant of the role that negative emotional arousal plays in reactive aggression and pattern violence (Murray-Close et al., 2017).

If trait aggression is considered one of the strongest predictors of violent behaviour, which it is (Bond et al., 2004; Tremblay & Belchevski, 2004), and if aggression has roots in emotional affect, which it does (Lee & Hoaken, 2007; Paivio et al., 2010; Siegel, 2013), then trait aggression can be better explained as poor emotional self-regulation (which can be treated) rather than simply a history of or a proclivity for violence (DeWall et al., 2007; Hsieh & Chen, 2017; Siegel, 2013). See figure 1 for a graphical representation of the proposed model of aggression below. In short, an individual and their situation (including others) can individually or collectively present a provocation. An individual then experiences a cyclical interaction of internal processes that contribute to negative emotional arousal. After the provocation and before the resulting behaviour, the individual has the possibility of emotional self-regulation. If they attempt regulation successfully, no aggression results. If they attempt regulation unsuccessfully, or do not attempt it at all, aggression results.

Figure 1*Self-regulatory Model of Aggression***Violent Ideation vs. Violent Action**

As noted, studies have shown that people experience violent or aggressive impulses much more frequently than they act out violently (DeWall et al., 2007; Finkel, 2007; Finkel et al., 2009; McNulty & Hellmuth, 2008). While there are many outside influences that can provoke violence, violent behaviour is necessarily preceded by aggressive cognition, ideation, and/or intent (Bowes & McMurran, 2013; Clements & Holtzworth-Munroe, 2008; Evans et al., 2007; Nunes et al., 2015; Walters, 2020). This fact provides us with hope as it suggests that individuals have the ability to prevent their own violent actions (Denson et al., 2012; DeWall et al., 2007; DeWall et al., 2011; Finkel et al., 2009). Therefore, a potential first step in preventing violent behaviour is to gain awareness of one's negative emotional experience and/or cognitions (Bowes & McMurran, 2013; Clements & Holtzworth-Munroe, 2008; Denson et al., 2011; Nunes et al., 2015; Walters, 2020). The following section will discuss some of the emotional and cognitive factors that differentiate violent ideation from violent action.

Prevalence of Violent Ideation vs. Violent Behaviour

As previously alluded to, studies have shown that people tend to think about or 'want' to be aggressive more often than they actually act aggressively (DeWall et al., 2007; Finkel, 2007; Finkel et al., 2009; McNulty & Hellmuth, 2008). This is intuitively pleasing as almost anyone can think of more occurrences where they wanted to act violently than events where they actually externalized these violent impulses. McNulty and Hellmuth (2008) conducted a study in which 72 newlyweds were asked (each partner individually) to fill out a self-report measure of any occurrences of intimate partner violence in the preceding year. Each partner was then given seven copies of a questionnaire with sections designed to assess the partner's experience of negative affect.

McNulty found that negative affect was reported much more frequently than physical aggression or violence and that higher reports of intimate partner violence were only correlated with negative affect when both partners exhibited negative affect. McNulty speculates that this finding is likely associated with the increased negative emotional arousal commonly experienced when both parties express negative affect (as compared to when only one partner does). This increase in emotional arousal was the most consistent predictor of when negative affect would lead to physical confrontations between intimate partners. Furthermore, self-reports collected by Finkel et al. (2009) suggest that couples involved in a serious conflict frequently experience aggressive impulses without engaging in aggressive behaviour. It is clear that, at least to some extent, violent action (even reactive violence) is a choice.

Trait Aggression

One of the most reliable predictors of violent behaviour is trait aggression. Trait aggression is generally understood as the tendency toward aggressive behaviour. Trait aggression has been overlooked so far as it is considered a given predictor of violence based on the history of an individual's behaviour and has not been studied much further. Considering the necessarily (and even definitionally) strong correlation between trait aggression and every other predictor of violent behaviour (Bond et al., 2004; Hoaken et al., 2003; Hoaken et al., 2007; Krakowski, 2003; Mednick & Kandel, 1988; Meyer-Lindenberg et al., 2006; Raine, 2008; Tremblay & Belchevski, 2004), there has been a severe lack of research conducted with the aim of determining specifically what trait aggression is and how it plays a role in aggressive behaviour.

Current understandings

It is hard to avoid the term trait aggression while reviewing the literature on violent behaviour. Despite

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the wide usage of the term, there does not seem to be a clear definition of trait aggression. With that being said, the de facto understanding of trait aggression is that it is a tendency toward aggressive behaviour. The problem with this understanding is that, since trait aggression is considered one of the leading factors of aggressive behaviour, it means that past aggression leads to future aggression, which, while logically and statistically valid, is a circular and generally unhelpful argument. In psychological research, “trait X” seems to refer to any character or personality trait without a clear origin. A few scholars have proposed an alternative to trait aggression called “trait self-control” (Denson et al., 2012; DeWall et al., 2007). Unfortunately, this alternative terminology suffers from the same weaknesses as trait aggression as it is simply the positive form of trait aggression. The current author argues that calling emotional self-regulatory ability a personality or character trait is a mistake as it is a cognitive skill more than a tendency per se, and she rejects this terminology. Semantics and connotation are very important when communicating about human behaviour and cognition. The current understanding of trait aggression limits research on the causes of aggressive tendencies in an individual as it minimizes and neglects the role of emotion in violent behaviour. The proposed alternative to trait aggression is trait self-control, which is problematic because it describes emotional self-control as a personality/character trait/tendency rather than a cognitive skill (which is much more teachable than a personality trait). People are not born with self-control; people learn self-control (Pan & Zhu, 2018; Pesce et al., 2021; Vazsonyi & Ksinan Jiskrova, 2018). Like most other things, this is probably easiest to “pick up” in childhood, but there is no reason that one cannot learn emotional self-regulation in adulthood with proper attention and effort (Duckworth, 2011; Hay & Forrest, 2006; Moffitt et al., 2013). We need to teach/train and encourage emotional coping skills and praise the effort required to use them if we hope to reduce reactive aggression in adulthood (Katz et al., 2020; Lauw et al., 2014).

Potential Treatment of Trait Aggression

As people age, personality and character traits tend to become increasingly resistant to change and outside influence (Specht, 2017; Specht et al., 2011). For this reason, aggressive trait, especially among repetitive adult offenders, may seem untreatable. This likely contributes to the paucity of research conducted on reducing trait aggression (as far as the author can find); there has only been research studying mitigators of trait aggression. These mitigators (e.g., executive functioning, impulse control, early trauma intervention, etc.) are often the tendencies cited when studying treatment for adults who have experienced

trauma aimed at reducing post-traumatic stress disorder (PTSD) symptomology and preventing future reactive violence. Interestingly, almost all of the promising trauma-informed treatments focus more on emotional self-regulation rather than executive functioning and impulse control (Mavranezouli et al., 2020; Paivio et al., 2010; Yasinski et al., 2018). For example, Mavranezouli et al. (2020) conducted a meta-analysis assessing different treatment options for adults suffering with PTSD. The authors found that EMDR and TF-CBT were most effective at reducing PTSD symptomology, and both methods showed continued improvement following the end of treatment. Similarly, Yasinski et al. (2018) found that TF-CBT was the most effective treatment for transition aged youth/young adults (ages 15-25) diagnosed with PTSD. Furthermore, Paivio et al. (2010) show significant pre-test/post-test improvement in functioning and emotional adjustment for adult participants who underwent treatment. In this study, the authors found that EFTT was effective in treating negative emotional arousal (specifically anxiety and depression, which have been linked to increased family violence) and increasing self-esteem (low self-esteem has been shown to increase negative emotionality [Velotti et al., 2017]). While these therapeutic models were designed for use in patients with experiences of trauma, they may also prove to be valuable interventions for abusers with or without a history of trauma. This is because the mechanism underlying the model is more important than the original intent of the model. If poor emotional self-regulation is a major contributor to violent behaviour, then EMDR, TF-CBT, and EFTT may all be viable treatment options to prevent aggression by aiding in emotional self-regulation (further research is required).

There has been less promising research on the effective treatment of adult batterers or otherwise reactively aggressive individuals (possibly due to the paucity of research on emotional regulation in adult populations). In a meta-analysis conducted by Babcock et al. (2004), the authors reviewed existing literature regarding spousal abuse treatment, specifically looking at the Duluth model (a program designed to reduce domestic violence against women) and CBT. The authors found that neither model showed statistically relevant success over the other and that neither treatment showed statistically relevant results overall. A potentially larger factor than the age of subjects, in this case, is the specific cognitions and emotions that were addressed. In their meta-analysis, Babcock et al. (2004) examined two major domestic violence treatment approaches, neither of which are trauma-focused and both of which center around cognition and behaviour rather than emotion. This contrasts with the more promising trauma-informed

studies, which have a predominant focus on emotional self-regulation and self-esteem. Following our understanding that trait aggression is an aggressive behaviour resulting from a failure to regulate negative affect, this relative failure in adult intervention of reactive aggression is clear and almost inevitable. We must always be cognizant of the role of emotional regulatory abilities and the discomfort of negative emotional arousal in individuals who tend toward reactive aggression (Bushman, 2002; Lahey et al., 1984).

The current understanding and acceptance of trait aggression have limited important research on the role of emotional self-regulation in reactive violent or aggressive behaviour. All personality and character traits are tendencies toward a certain type of behaviour even though the reason is not necessarily well defined. Behavioural traits likely have their roots in emotion and emotional processing and should be regarded as such (Paulhus et al., 2018). Past aggression tends to result in future aggressive behaviour because of a pervasive/consistent failure in regulating negative emotional experiences (Dankoski et al., 2006; Heleniak & McLaughlin, 2020; Siegel, 2013). Promising research regarding the treatment of childhood maltreatment (significantly related to future violence perpetration) tends to focus on emotional self-regulation and self-esteem, whereas the less promising research focuses on halting violent behaviour through cognitive/behavioural techniques alone (thus neglecting the role of emotions). The difference in effectiveness (as shown from the follow-ups of the above treatment studies) seems intuitive given the strong role that emotional self-regulation plays in aggression and violence perpetration. Clinical interventions for adults exhibiting a tendency toward aggressive violence need to include a focus on promoting self-regulation and self-soothing instead of solely cognition and behaviour.

All these promising correlations warrant further research. While there has been a small amount of research conducted on the role of emotional control in aggressive behaviour, this research has had significant limitations. More rigorous research on this topic is not only warranted but also promising. It is especially promising given that if a strong link is empirically shown to exist, then pilot treatments can be tested. Furthermore, it is likely much easier to address negative affect and train emotional self-regulation than it is to change and remove a character trait from someone. Given the great potential to be able to prevent violence through emotionally focused tactics, it is unreasonable for this gap in research to continue.

Conclusion

While pattern violence and reactive aggression have been studied thoroughly in the last few decades, violent ideation vs. violent action has received very little scrutiny. In addition, trait aggression, in its common understanding, does not capture the complexity of the development of pattern aggression. Both topics have at least one common theme among them, and that is negative emotional arousal alongside poor emotional self-regulation. Poor self-control has been linked with both violent victimization and violent perpetration (Chen & Chu, 2021; Cooper et al., 2017; Reisig & Golladay, 2019). Furthermore, a focus on emotional self-regulation has been a differentiating factor in the success or failure of interventions for those involved in aggressive behaviour (both victim and perpetrator, as many perpetrators were once victims) (Mavranzouli et al., 2020; Paivio et al., 2010; Yasinski et al., 2018). This all suggests that trait aggression has a strong and wide-reaching basis in failed emotional self-regulation (at least with regards to reactive aggression).

In the meantime (while further research is being conducted), those who work/interact with reactively aggressive individuals should be cognizant of the factors contributing to reactive violence discussed in the current review. It should also be understood that reactive aggression is almost undeniably preceded by negative emotional arousal (Alesina et al., 2021; Briere & Spinazzola, 2005; Siegel, 2013). Negative emotional arousal is emotionally, psychologically, and even physically uncomfortable (Bushman, 2002; Lahey et al., 1984). Acting out aggressively as a reaction to this discomfort can function as venting and can provide temporary relief (Bushman, 2002). Once the perpetrator has calmed from their emotional arousal and violent action, they will (often) be able to recognize the negative (instrumental and/or relational) consequences of their actions and, so long as they have the capacity for empathy, they will likely experience regret, remorse, and even shame (Weiss-Klayman et al., 2020).

If one can remain aware of the above general narrative, they can take action to mitigate and prevent reactive aggression. As previously seen, if someone is prone to reactive aggression, they likely experience a greater level of baseline negative affect than most and another person negatively challenging their negative experience (i.e., through judgment) tends to lead to more reactive aggression (Alesina et al., 2021; Briere & Spinazzola, 2005; Siegel, 2013). Those most prone to reactive aggression must be treated with compassion and patience in order to build the capacity to encourage the use of emotional self-regulation in place of violence or aggression. It is essential to remain aware of the fact that, in the short term, learning positive forms of coping through self-

regulation with negative emotional arousal can be deeply uncomfortable and much more difficult than coping with outward displays of violence and aggression. Hopefully, with time and further research, we will have a better understanding of the role of emotional arousal in reactive aggression, which those in contact with aggressors and their victims could use to reduce reactive aggression (especially schoolteachers, recreation leaders/coaches, and emergency room personal).

The present article also suffers from several significant limitations. First, the population of interest is broad. The current review includes studies focused on adults in a variety of contexts, including adult abusers, adults with a history of child abuse, couples, etc. This allowed for a more comprehensive overview of trait aggression but severely limits the generalizability of the present findings. Furthermore, the keywords used in the database search, as well as the timeframe chosen does not cover all literature on violence and aggressive behaviour. Despite these significant limitations, the current article remains informative regarding the potential misemphasis on trait aggression and offers valuable implications for clinical practice.

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Social Support Influences Preference for Feminine Facial Cues in Potential Social Partners: A Replication

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Attractive facial cues are preferred by most but, interestingly, people tend to find certain facial features more attractive depending on the context. This replication of Watkins and colleagues (2012) investigates how priming different social support conditions influences preferences for feminized or masculinized faces. In this study, 124 participants were recruited to complete an online survey where they were asked to imagine a time they felt socially isolated (low support condition) or a time they felt emotionally supported (high support condition). Participants were then shown 20 pairs of masculinized and feminized versions of the same face and were asked to rate attractiveness. Overall, feminine female faces and masculine male faces were significantly preferred. We did not replicate the finding that femininity is preferred under conditions of low social support. Future research is needed to make conclusions about how perceived social support influences our perception of faces.

Keywords: facial feature, feminine facial feature, masculine facial feature, social support, partner

La plupart des individus préfèrent les caractéristiques faciales attrayantes, mais, de manière intéressante, ces derniers ont tendance à trouver certaines caractéristiques faciales plus attrayantes dépendamment du contexte dans lequel ils vivent. Cette réplication de l'étude de Watkins et collègues (2012) étudie comment l'amorçage de différentes conditions de soutien social influe sur la préférence pour les visages féminisés ou masculinisés. Dans cette étude, 124 participants ont été recrutés pour répondre à un sondage en ligne, où il leur était demandé de s'imaginer à un moment où ils se sentaient socialement isolés (condition de faible soutien) ou à un moment où ils se sentaient soutenus émotionnellement (condition de soutien élevé). On a ensuite montré aux participants 20 paires de versions masculinisées et féminisées d'un même visage et on leur a demandé d'évaluer l'attractivité du visage. Dans l'ensemble, les visages féminins efféminés et les visages masculins virils ont été préférés de manière significative. Nous n'avons pas reproduit le résultat selon lequel la fémininité est préférée dans des conditions de faible soutien social. Plus de recherches sont nécessaires pour tirer des conclusions sur la façon dont le soutien social perçu influe sur notre perception des visages.

Mots-clés : caractéristique faciale, caractéristique faciale féminine, caractéristique faciale masculine, soutien social, partenaire.

Past research has found that the way a person perceives their own level of social support can influence their preference for different facial features. This study is a direct replication of the work done by Watkins and colleagues (2012), who examined how perceived social support influenced preferences for feminine facial features in potential social partners. Their study aimed to broaden the literature surrounding facial preferences in social partners rather than just mating partners. The goal of this replication is to further contribute to the gap in the literature

surrounding replication studies and to determine whether feminine facial features are preferred by those perceiving low levels of social support.

Attractive faces are clearly preferred by most people; however, we tend to find certain facial features more attractive depending on the context (Watkins et al., 2012). Social support is crucial to both human survival and success as we rely on one another to fulfill many needs and overcome challenges. Past research on social support has demonstrated that the definition can include a variety of factors such as structural support (e.g., number of friends and close family), the level of support being provided by those close relationships, and the level of satisfaction associated with those relationships (Colarossi, 2001; Rueger et al., 2008). For this study, low social support is defined as feeling isolated or alone from family and/or friends while high social support is defined as being surrounded by family and/or friends who are reassuring. Based on these definitions and the positive association between prosocial personality traits and

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feminine faces (Little et al., 2011), we predict that social support will significantly influence preferences for feminine faces in the current study.

Evolutionary Reasons for Preferring Attractive Facial Features

The general observation that attractive people are rated as possessing more socially desirable traits and are expected to lead more successful lives was demonstrated in a classic study of human perceptions of beauty (Dion et al., 1972). Preferences for certain facial features likely evolved due to the evolutionary advantages that attractive people may provide. Kościński (2008) affirms that faces conveying autonomy and maturity are perceived as more attractive in certain environmental conditions. Because of the survival benefits of affiliating with altruistic individuals, people may have evolved to innately prefer individuals with facial features that convey traits that enhance one's well-being. Sexual dimorphism is a concept that describes the distinct differences between male and female. Regarding sexually dimorphic faces, male faces typically display larger and stronger looking jawbones with more prominent cheekbones compared to female faces (Little et al., 2011). The original article highlights the role that facial sexual dimorphism may play in signalling health and reproductive potential (Watkins et al., 2012). The health of a potential partner may play a role in the preference for prosocial individuals because of the association of social support with increased long-term health. Additionally, people who affiliate with prosocial individuals may gain a positive reputation, which increases the likelihood that they will be helped by others in the future (Fehr, 2004).

Relationship Between Sexual Dimorphism and Personality

Facial cues act as important signals of personality traits, including prosociality, regardless of whether individual judgments are accurate. Prosociality is a behaviour that one can demonstrate to promote feelings of warmth, acceptance, and friendship from others and is expressed through altruistic behaviours such as opening the door for someone (VandenBos, 2007). Numerous studies have revealed that femininity is associated with prosocial personality traits like warmth, emotionality, trustworthiness, and strong parenting skills (Buckingham et al., 2006; Little et al., 2011; Ma et al., 2015; Watkins et al., 2012). This relationship between femininity, masculinity, and personality means that people make decisions about partner selection based on physical traits that they associate with personality characteristics (Buss, 1989; Buss & Barnes, 1986). If someone desires a specific personality trait that is associated with a particular

facial feature, attraction to that characteristic increases (Little et al., 2006; Mogilski & Welling, 2017). For example, women tend to avoid masculine-faced men if they value cooperation and good parenting. Masculine faces increase perceptions of characteristics like dominance and age but decrease perceptions of parenting ability, warmth, emotionality, honesty, and cooperativeness (Perrett et al., 1998). Partner selection is highly dependent on individual preferences and context because of this trade-off of positive and negative traits.

Preferences for Feminine Features in Low Social Support Context

A very recent study conducted with a sample of Caucasian young adults found that feminine faces were rated as attractive more frequently than masculine faces by both female and male participants (Carrito et al., 2018). A longer reaction time to feminine stimuli may reflect the perceived social reward of such attraction. Attraction to certain facial features, particularly feminine ones, are supported as an important stimulus for social decisions such as selecting mating partners, friendships, and other social partners. Given that feminine faces are associated with positive attributes such as hospitality and kindness (Perrett et al., 1998), one may expect that feminine faces will be inherently preferred in scenarios where affection would be beneficial, such as situations in which social support is low. This is because, in situations where caregivers or partners are unable to provide support, affiliating with individuals who have feminine features—and are thus presumed to be prosocial—may provide the individual with support, warmth, a positive reputation, and the potential for receiving support in the future.

Research Question and Hypothesis

Contextual factors such as what type of relationship a person is seeking (e.g., short-term versus long-term or friend versus partner) or why they are seeking a relationship (e.g., having children) may mean that physical attraction becomes less important than personality characteristics. In 2019, Korenman and colleagues found that participants preferred masculinized faces in conflict-primed situations and feminized faces in situations that required leader cooperativeness. This finding fits within the hypothesis that feminized faces will be preferred in low social support situations because cooperation is a characteristic associated with prosociality. Within this study, a desire for prosocial characteristics may lead to increased attraction to feminine features even if an individual does not find the stimuli particularly attractive. Investigation on how priming low or high social support conditions influence preferences for

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feminized or masculinized faces will be conducted. Based on literature and previous research by Watkins and colleagues (2012), it is expected that participants will prefer feminized male and female faces in low social support conditions. With the aim to replicate the findings of the original research, it is also expected that feminized female faces will be preferred to masculinized faces in both low and high social support conditions.

Method

Participants

Participants included 124 (19% male and 81% female) students from the University of Alberta who were recruited through a university-wide email newsletter. When asked to identify their ethnicity, 72% identified as Caucasian, 19% as Asian, 2% as African, 1% as Indigenous, 1% as Latin, Central, or South American, and 6% stated “other”. Participants were unable to select more than one ethnicity, although they were able to select “other” and indicate multiple ethnicities. Participant age was not recorded, but all participants indicated that they were over 18 years of age. All participants reported that they have been living in Canada for at least five years. This study had a similar sample size to that of Watkins and colleagues (2012), which consisted of 106 participants (28% male and 72% female).

Materials

The face stimuli used matched that of the original study. To create face stimuli, the original researchers used prototype-based image transformation to manipulate sexual 2D shape dimorphism. Twenty pairs of masculinized and feminized faces were used: 10 male pairs and 10 female pairs of the same individual (see Figure 1 in the appendix for an example). These images were then tested by the original researchers to determine whether participants noticed a difference in feminized or masculinized facial features, based on the facial manipulation. They found participants differentiated between both feminized and masculinized faces significantly different than chance (Watkins et al., 2021).

Procedure

Priming Phase. First, participants completed the priming phase, where they were randomly assigned to one of four conditions. The independent variable in this study is one’s level of social support, and this is operationally defined as a one-moment period in which a participant imagines a scenario of high or low social support. The experimental conditions were: (1) high support from family; (2) high support from friends, (3) low support from family, and (4) low

support from friends. Because participants were randomly assigned to one of the four conditions, researchers were blind to the conditions. Depending on the experimental condition that participants were in, they were asked to imagine a scenario where they either received a lot of support from family or friends or a condition where they received little support from friends or family. Specifically, the following instruction was given to the participants: “Please take a moment to imagine a time when you felt very [close to/isolated from] your [family/friends] and felt that you received [a lot of/little] emotional support from them.” Then, participants were asked to rate how vividly they imaged their given scenario using a scale ranging from 0 (not vivid) to 7 (very vivid).

Feminine Preference Test. After the priming phase, participants completed the femininity preference test. Participants were shown 20 pairs of faces in randomized order, with each pair containing one feminized and one masculinized version of the same face. The face depicted within each pair differed across pairs, resulting in 20 pairings that were each based on a different face. Participants were then instructed to choose which face they perceived as more attractive and then indicate if they found that face much more attractive, moderately more attractive, or slightly more attractive than the unchosen face.

Similar to the original study, the face preference test was coded using the following scales. For the masculinized faces, a scale from 0 to 2 was used, where 0 was much more attractive, 1 was moderately more attractive, and 2 was slightly more attractive than the feminized face. For the feminized faces, a scale from 3 to 5 was used, where 3 was slightly more attractive, 4 was moderately more attractive, and 5 was much more attractive than the masculinized face. The Cronbach’s alpha for the femininity preference scale was equal to .64.

Measures

Following Watkins and colleagues (2012) analyses, the average rated score of the 10 feminized faces and the average score of the 10 masculinized faces for each participant were calculated. The dependent variable in this study is one’s preference for femininity, which is operationally defined as the participant’s average attractiveness rating for male and female faces. Here, a lower average score indicates a preference for masculinized faces and a higher average score indicates a stronger preference for feminized faces.

Results

Priming Phase

Participants' vividness ratings were averaged across the four experimental conditions. A one-sample *t*-test was used to determine whether the average vividness ratings were significantly different from the expected average (i.e., 4.0) for each experimental condition. For all but Condition 4 (low support from friends), the average vividness rating was not significantly different from the expected average. Condition 1 (high support from family): $t(31) = 1.18, p = .25, M = 4.38, SE = .32$; Condition 2 (high support from friends): $t(29) = .00, p = 1.00, M = 4.0, SE = .33$; Condition 3 (low support from family): $t(32) = -.51, p = .62, M = 3.84, SE = .30$; Condition 4 (low support from friends): $t(28) = 3.00, p < .01, M = 4.9, SE = .30$.

A two-way ANOVA revealed a significant interaction effect of support level by support condition on vividness rating, $F(1, 120) = 5.24, p = .02, \eta^2 = 15.65$. However, there was not a significant main effect of support level on vividness rating, $F(1, 120) = 1.51, p = .22, \eta^2 = 4.50$, and there was not a significant main effect of support condition on vividness rating, $F(1, 120) = .73, p = .39, \eta^2 = 2.18$.

Femininity Preference Test

A one-sample *t*-test was used to determine whether the facial preferences for male and female faces were significantly different from chance (i.e., 2.5) (see Table 1 for a summary of the mean femininity preference for male and female faces across experimental conditions and participant genders). Overall, feminized versions of the female faces were rated as significantly more attractive than the masculinized versions, $t(123) = 14.52, p < .001, M = 3.15, SEM = .04$, and the masculinized versions of the male faces were rated as significantly more attractive than feminized versions, $t(123) = -2.54, p = .012, M = 2.37, SEM = .05$.

A $2 \times 2 \times 2 \times 2$ mixed-design ANOVA was then used using the gender of the face (male, female) as the within-subject factor and support level (supported, unsupported), source of support (friends, family), and participant gender (male, female) were the between-subject factors. There was a significant effect of face gender on femininity preference ratings, $F(1, 116) = 68.2, p < .001, \eta^2 = .020$, where preference for femininity in female faces, $M = 3.15, SEM = .04$, was significantly more robust than preference for femininity in males faces, $M = 2.37, SEM = .05$. However, there was not a significant effect of support level on femininity preference ratings, $F(1, 116) = 1.41, p = .24, \eta^2 = .004$.

Curiously, there was a significant main effect of source of support on femininity preference, $F(1, 116) = 6.84, p = .01, \eta^2 = .020$, where participants who imagined their family preferred more feminine faces, $M = 2.78, SEM = .060$, than those who imagined their friends, $M = 2.73, SEM = .058$. (Using a one-sample *t*-test, the authors found that participants' preference for feminized versions of female faces were significantly different from chance in both the friends $t(58) = 10.107, p < .001$, and the family, $t(64) = 10.435, p < 0.001$, conditions). Participants tended to prefer masculinized versions of male faces in both the friends, $t(58) = -1.95, p = .056, M = 2.36$ and the family, $t(64) = -1.65, p = .10, M = 2.38$ conditions, though neither preference was significantly different from chance.

Furthermore, there was a significant interaction effect among participant gender and source of support, $F(1, 116) = 9.76, p = .002, \eta^2 = .029$. When examining data from male and female participants separately, there was not a significant effect of source of support on female participants' femininity ratings, $F(1, 200) = .214, p = .644$. By contrast, there was a significant effect of source of support on male participants' femininity ratings, $F(1, 44) = 7.819, p = .008$, whereby male participants in the family condition significantly preferred more feminine faces, $M = 3.08, SE = .12$, than those in the friends condition, $M = 2.61, SE = .11$ (see Figure 2).

Finally, there was a significant interaction effect among support level and face gender, $F(1, 116) = 6.50, p = .012, \eta^2 = .019$. Masculinity was preferred more in male faces for those in the supported condition compared to those in the unsupported condition while femininity was preferred more in female faces for those in the supported condition compared to those in the unsupported condition. That is, for both male and female faces, femininity ratings were closer to chance (i.e., 2.5) in the unsupported condition, male faces: $M = 2.43, SE = .06$, female faces: $M = 3.07, SE = .061$, than in the supported condition, male faces: $M = 2.32, SE = .079$, female faces: $M = 3.23, SE = .064$ (see Figure 3 in the Appendix). When looking at male and female faces separately, there was not a significant effect of support level on femininity ratings for male faces, $F(1, 122) = 1.20, p = .28$, or for female faces, $F(1, 122) = 3.13, p = .08$.

Discussion

Preference for Sexual Dimorphism

Consistent with the original study by Watkins et al. (2012), femininity was preferred in female face stimuli. However, this study found that masculinity was preferred in male face stimuli, which was not

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reported in their original research. These results are not likely due to the gender imbalance in this study, as this study had a similar number of male participants as Watkins et al. (2012). The present study's findings support an evolutionary perspective of facial preference in social partners. Sexual dimorphism is associated with features such as good genes, immunity, and respiratory health (Little et al., 2011, 2014). The choices of social partners are at least partially based on these factors as well as personality (Buss, 1989; Buss & Barnes, 1986). Considering the advantages, the finding that masculinized male and feminized female faces are preferred emphasizes the enduring human traits that underlie our partner choices. Regarding non-binary individuals, more research needs to be conducted to investigate the impact of a less distinctly gendered face on social partners. For females, there is a vast source of literature which indicates that femininity is associated with traits such as prosocial personality characteristics, health, reproduction, and attractiveness (Carrito et al., 2018; Hu et al., 2018; Little et al., 2011; Perret et al., 1998; Scott et al., 2014; Watkins et al., 2012). Therefore, finding a social partner with these features is considered to be evolutionarily advantageous.

For male faces, the research on partner preferences is less conclusive. Masculinity is associated with good genes, certain positive health outcomes, high testosterone, and strength as well as traits like aggressiveness and dominance (Hu et al., 2018; Little et al., 2011; Perrett et al., 1998; Scott et al., 2014; Yang et al., 2015). Some studies have found that females prefer male faces with masculine characteristics, such as a large jaw, but others find that more feminine male faces are more attractive. This may be attributed to a lack of consensus among females regarding what makes men attractive as well as the sexual dimorphism which may be more important when choosing a female partner than when choosing a male partner (Carrito et al., 2018). Hu et al. (2018) found that the preference for masculinity only occurred for attractive male faces (not less attractive ones). Preference for male faces may therefore be a result of many interacting factors, including sexual dimorphism, attractiveness, age, environmental and developmental experiences, and personal preference. These results add to the body of research that is less conclusive in terms of preference for male faces, revealing that not only female attractiveness is advantageous.

Some cross-cultural research does support the findings of the current study. One study found that a preference for sexually dimorphic characteristics only occurs for populations in highly developed, urban environments (Scott et al., 2014). However, this

challenges the hypothesis that sexual dimorphism is an evolutionarily adaptive trait that indicates a mate's potential value. Two other studies found that women's preference for masculine men and men's preference for feminine women are both stronger in favourable environments but not in unfavourable ones (Marcinkowska et al., 2014, 2019). If one considers the University of Alberta students to be in a favourable environment, these studies support our results.

No Effect of Level of Social Support

The finding that level of social support did not influence participant femininity preference is not consistent with the previous study. Watkins et al. (2012) reported that participants in the low social support condition had a slight preference for feminine facial stimuli. Based on previous literature and these results, preferences for prosocial individuals should increase under conditions of low social support. The present study's results may suggest that more research could be conducted to discover the differences in findings compared to Watkins et al. (2012). Since participants completed the study online, it is difficult to verify if participants thoroughly fulfilled the priming phase as instructed, despite participants rating how vividly they experienced their assigned scenario. Although the average vividness rating was near the expected average for all experimental conditions except Condition 4 (low support from friends), this did not appear to influence the results. Because individuals in Condition 4 imagined their scenario more vividly than those in the other three experimental conditions, one might expect that those in Condition 4 would prefer femininity in female faces more than those in the other three experimental conditions. This did not occur, as individuals in the family condition preferred feminine female faces more so than those in the friend condition. Similarly, there was no significant difference in femininity preference ratings for female faces between those in the supported or unsupported condition. Under conflict-primed situations, people have been found to prefer masculinity to femininity as well (Korenman et al., 2019). Further research investigating low and high social support conditions with more vivid and well-supervised priming phases will shed light onto whether this discrepancy resulted in the present differing results.

Interaction and Higher Preference for Femininity in Family Condition

The results indicated a higher preference for femininity in both low and high support family conditions, but not the friend conditions. This differs from Watkins and colleagues (2012) study where they did not find a preference for high femininity in either

low and high support family conditions. Further, an interaction found that male participants prefer femininity in the family conditions and females slightly prefer femininity in the friend condition. These results together are supported by previous research that states women have larger and more intimate social circles than males and report higher levels of overall social support (Belle, 1987; Kendler et al., 2005). This may be because females place a larger emphasis on emotional support within their relationships whereas males are more likely to seek instrumental support and activities like sports (McKenzie et al., 2018; Rueger et al., 2008; Tamres et al., 2002). Some researchers have shown that males seeking to perform the expectations of masculinity in our society may lead to disconnections between themselves and others (Chu, 2018). Furthermore, these results add to the need for clinical intervention and stronger emotional support for men in Western society. Other studies have found that female socialization consists of communion (e.g., kind, understanding, and helpful) and often results in women being over-involved in supporting others while neglecting themselves (Fritz & Helgeson, 1998; Katz et al., 2002). With the results of femininity preference for both genders, the expectation for females to care for others in theoretical social settings and in personal relationships is emphasized. Where females are encouraged to share their emotions, men are largely discouraged from talking about their problems and expressing vulnerability. The present research's findings further emphasize the social and cultural expectations of encouraging males to suppress their emotions, especially around other males. Female femininity preference in the friend conditions is likely because women believe they are more supported by their friends than men, especially at younger ages (Prezza & Pacilli, 2002). Male preference for femininity in the family conditions can be explained by the role of females at home. Women are often the main source of support in the family, regardless of their role as wife, mother, sister, or daughter (Prezza & Pacilli, 2002). Other findings suggest that males in early adulthood often have the same number of friends as females do. However, they often lean on adult figures as a main source of support (Colarossi, 2001). Males may be more greatly dependent on female family members for social support, which supports the gender x support condition interaction and emphasizes the social concept of females taking the lead in terms of the provision of social support in western societies.

Limitations and Future Directions

Limitations to this study include a relatively small university sample size ($N = 124$) with a largely unequal gender distribution. Generalizability is also slightly weakened due to convenience sampling in a

university population. Additionally, by having significantly fewer male participants, statistical power may be considered lower for the male participant data than the female participant data. Due to the COVID-19 pandemic, people may be experiencing varying levels of social support and a wide variety of emotions they would not typically experience, which could impact overall levels of perceived support during this time. Additionally, the online format may have led to errors in the priming phase of this experiment, as there is no way of verifying if participants followed instructions correctly.

Facial averageness is a factor not measured in this replication but would be an important factor to consider. Several studies indicate that facial averageness produces a larger increase in attractiveness than femininity and masculinity (Jones & Jaeger, 2019; Komori et al., 2009; Muñoz-Reyes et al., 2015). It is suggested that because most studies in this body of literature use a forced-choice paradigm where participants must choose between masculine or feminine faces, this may not indicate a preference for feminine faces, but a dislike for masculine faces.

Another factor to consider is the sexual orientation of the assessor. A study by Glassenberg et al. (2010) assessing straight and gay men's preferences for feminized and masculinized faces was recently replicated by Shiramizu and collagues (2020). The results of that study revealed that homosexual individuals show a different preference for masculinity and femininity than heterosexual individuals, so they may be using alternative cues for attraction and mate selection.

Conclusion

In conclusion, the present study's findings were not entirely consistent with the results of Watkins et al. (2012). However, this research supports the idea that there may be a preference for sexual dimorphism under certain conditions, such as highly developed, urban environments (Scott et al., 2014). Additionally, family support may influence male's and female's preferences for femininity, as this was not found in the Watkins et al. (2012) study. Research using a different priming phase and focusing specifically on family may be needed to solve discrepancies. Future studies can build upon these results to further interpret preferences for social partners rather than mating partners.

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Appendix

Figure 1

Facial Stimuli



Note. Examples of masculinized (left) and feminized (right) face images used in the study.

Table 1*Means and Standard Deviations for Femininity Preference Across Conditions*

Female Participants	High Support Family	High Support Friends	Low Support Family	Low Support Friends
Male Faces	2.30 (0.65)	2.30 (0.63)	2.31 (0.48)	2.45 (0.50)
Female Faces	3.15 (0.53)	3.28 (0.47)	3.14 (0.52)	3.05 (0.49)
Male Participants				
Male Faces	2.75 (0.45)	2.20 (0.43)	2.82 (0.25)	2.44(0.57)
Female Faces	3.88 (0.49)	3.01 (0.51)	3.02 (0.17)	2.80 (0.53)

Note. Mean femininity preference (standard deviation given in parentheses) for each condition in our main experiment (2.5 = chance level, indicating no overall femininity preference).

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Figure 2

Mean Femininity Rating by Gender for Family and Friends Conditions

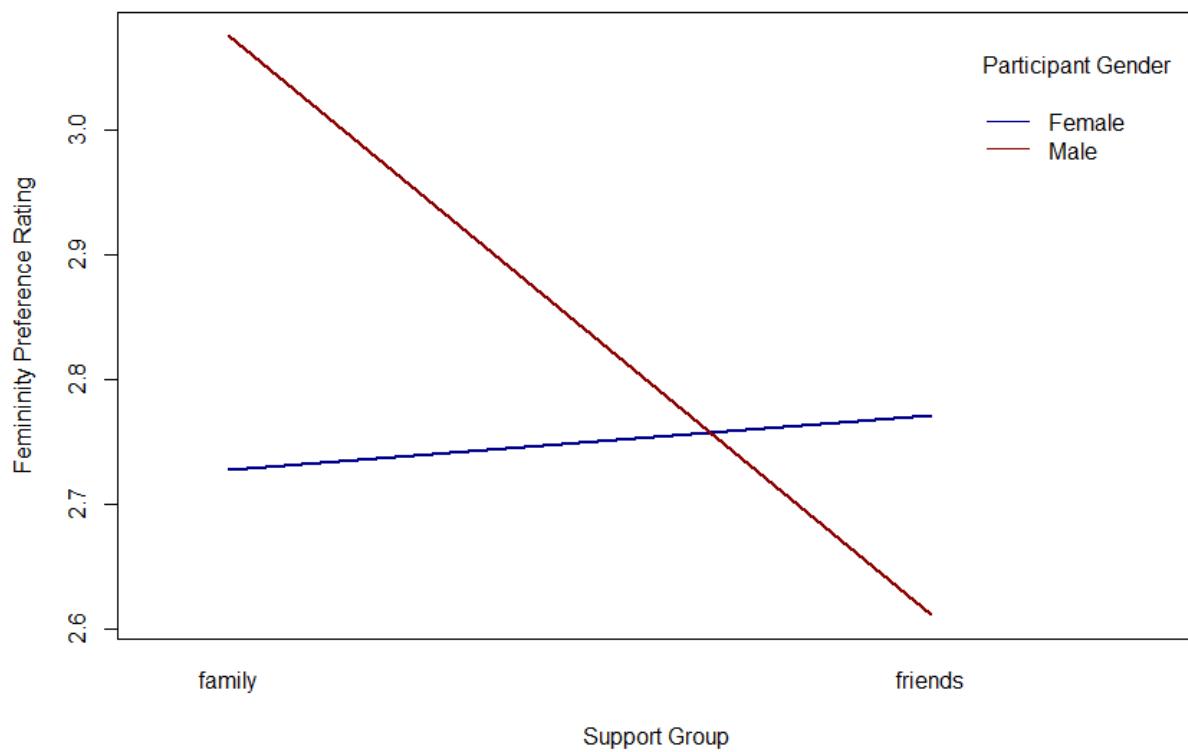
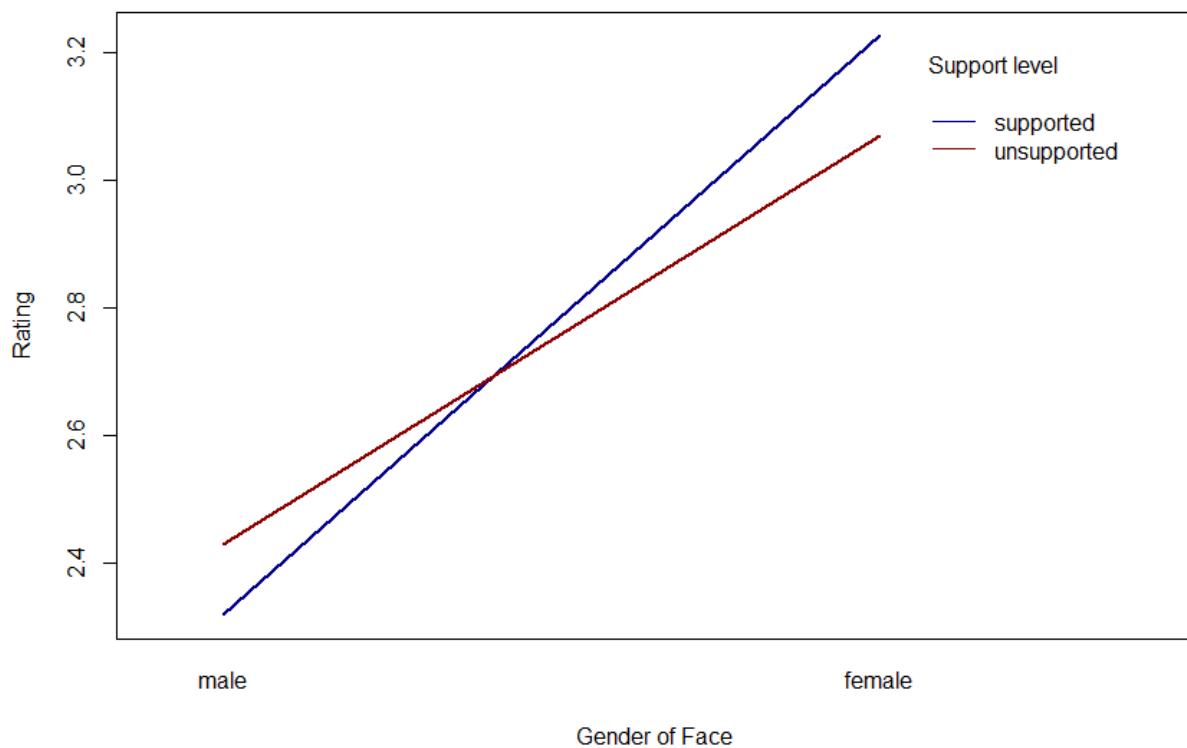


Figure 3

Mean Femininity Rating by Gender for Supported and Unsupported Conditions



The Role of Self-Silencing and Appearance Investment in Heterosexually Experienced Women's Body Dissatisfaction

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Traditional socialization can lead to negative individual and relational outcomes for women including self-silencing and body dissatisfaction. We explored the relationship between these phenomena, particularly whether problematic appearance investment was an explanatory mechanism for body dissatisfaction within a context of self-silencing. Women students ($N=116$) aged 18-24 completed online surveys. More engagement in all domains of self-silencing was associated with higher body dissatisfaction. Problematic appearance investment mediated three of the four domains (externalized self-perception, care as self-sacrifice, divided self) with the other, silencing the self, directly associated with body dissatisfaction. When young women engaged in more relational self-silencing, they focused on their appearance as more integral to their identity, which predicted higher body dissatisfaction. These findings, based on women without eating disorder diagnoses, demonstrate one specific danger of relational self-silencing for women's well-being. Encouraging self-affirmation may be a promising strategy to undermine these effects for women who engage in self-silencing.

Keywords: self-silencing, body dissatisfaction, body image, intimate relationship, young woman

La socialisation traditionnelle peut conduire à des conséquences individuelles et relationnelles négatives pour les femmes, notamment au silence auto-imposé et à l'insatisfaction corporelle. Nous avons exploré si un investissement problématique dans l'apparence est un mécanisme explicatif de l'insatisfaction corporelle dans un contexte de silence auto-imposé. Des étudiantes ($N=116$) de 18 à 24 ans ont répondu à des questionnaires en ligne. L'investissement problématique a servi de médiateur dans trois des quatre domaines (perception de soi extériorisée, soins en tant que sacrifice de soi et soi divisé). Le silence auto-imposé, était directement associé à l'insatisfaction corporelle. Lorsque les participantes s'auto-imposaient le silence en contexte relationnel, elles considéraient que leur apparence faisait davantage partie intégrante de leur identité, ce qui laisse présager une plus grande insatisfaction corporelle. Ces résultats, basés sur des femmes sans diagnostic de trouble alimentaire, démontrent un danger spécifique du silence auto-imposé dans un contexte relationnel pour le bien-être des femmes.

Mots-clés : silence auto-imposé, insatisfaction corporelle, image corporelle, relation intime, jeune femme

Two distinct literatures explore psychological harms women experience in a societal context of gender inequality. The first describes how women internalize cultural expectations to maintain intimate relationships at the expense of their own voice (self-silencing; e.g., Jack & Ali, 2010). The second examines the dissatisfaction many women experience with their own bodies (e.g., Karazsia et al., 2017). While these seem like disparate topics which are often studied primarily in clinical samples (e.g., depressed women, women with eating disorders), we hypothesized that they were related to each other, for young women more generally. Thus, the current study aimed to explore whether young women's self-silencing in intimate heterosexual relationships was related to their body dissatisfaction and, if so, whether internalization of the belief that women's bodies and

appearance are critical to their identity as women was, in part, responsible for this relation.

Body dissatisfaction, the negative evaluation of one's body (Stice & Shaw, 2002), has become a "normative discontent," meaning that it has become a global characteristic that most women share (Rodin et al., 1985). There has been ample research in the body image literature describing the problem of body dissatisfaction, including its prevalence (e.g., 13.4% to 31.8% among a sample of almost 2000 women in the United States; Fallon et al., 2014) and risk factors, namely low self-esteem, the presence of depressive symptomology, and/or higher body mass index (BMI) (Bulky & Elosua, 2011; Clark et al., 2009; van den Berg et al., 2010). Feminist theorists understand women's body dissatisfaction as a consequence of living in patriarchal and androcentric societies where women are viewed as inherently inferior (Bordo, 1993; hooks, 1990), where the male perspective is

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central, and femininity is culturally marginalized (Bem, 1996). Women's bodies, often the physical representation of their femininity, are seen as inferior to men's, indirectly or directly under men's controlling gaze, and in need of constant alteration and improvement (Rice, 2014; Walters, 1995). As a result, men are expected to, and often do, idealize women who seek attention from them without questioning their place within society (Currie et al., 2007).

Women must consistently navigate societal expectations surrounding their function as "woman," and this navigation is embodied (Piran, 2017). As women move from childhood into adolescence, a shift occurs where their behaviours and their bodies are suddenly closely regulated to ensure that they are adhering to their socially prescribed roles and expectations (Gilligan, 1982; Rice, 2014). De Beauvoir (1952/2009) called this a struggle between childish independence and womanly submission to these socially prescribed roles (e.g., the process of moving from being comfortable and free in one's body at a young age to becoming objectified by others and engaging in bodily surveillance and alteration in behaviour such as dieting; Rice, 2014). At the same time, women are expected to prioritize finding and maintaining intimate relationships. Indeed, the relational self-theory (Jordan, 1991, 1997a; Surrey, 1985) highlights that a woman's deepest self is fostered and nurtured in the context of intimate relationships with others, and they must do whatever they can to maintain these socially powerful relationships (Gilligan, 1982), even at the expense of self and their own needs (Jack, 1991). Accordingly, women are expected to adhere to societal expectations surrounding their body and relational behaviours to maintain intimate unions, even if doing so has personal costs within the relational context (e.g., the inability to express one's authentic self; Jack, 1999).

One way that women may attempt to maintain their intimate relationships is through self-silencing behaviours. Self-silencing is a collection of behaviours that involve women hindering or suppressing their thoughts, wants, needs, and opinions in intimate relationships to prioritize those of their partner (Jack, 1991). These behaviours are based on gender-specific schemas, which act as a guide for women's social behaviours and their general self-assessment (Jack & Dill, 1992). Theoretically, self-silencing is divided into four subconstructs characterized by specific ways in which women can silence themselves, which consist of (a) externalized self-perception, which is the adoption of a stance whereby external standards matter more than internal ones; (b) care as self-sacrifice, which involves placing others' needs above one's own to ensure attachment; (c) silencing the self, which consists of the inhibition of expression to

prevent conflict; and (d) the divided self, whereby women withhold hostility and engage in outer compliance and adherence to role expectations (Jack & Dill, 1992). Self-silencing is a common, culturally enforced experience further exacerbated by the experience of societal gender-based oppression (Jack 1991, 1999). Young women face developmental risks (e.g., conformity to rigid gender role expectations, pressure to date boys/men, and development of an other-focused [e.g., partner-focused] identity, to name a few) that may predispose them to greater use of self-silencing behaviours, especially for relationship maintenance (Brown & Gilligan, 1992; Gilligan, 1982; Gilligan et al., 1990).

In previous literature, self-silencing has been positively correlated with women's experiences with body dissatisfaction (Buchholz et al., 2007; Frank & Thomas, 2003; Hambrook et al., 2011; Ross & Wade, 2004; Shouse & Nilsson, 2011; Wechsler et al., 2006). Likely because of its more obvious relation to physical aspects of the self, the most researched facet of self-silencing in this context is externalized self-perception, which, although similar to self-objectification (i.e., adoption of an outside perspective when thinking about and viewing one's body; Fredrickson & Roberts, 1997), involves a more global judgment of the self. Externalized self-perception has a relational element that includes how women should present themselves in society according to pre-established societal role expectations generally and concerning appearance (Jack, 1991). Associations between this facet of self-silencing and body image concern (positive association; Ross & Wade, 2004) as well as weight-based self-esteem (negative association; Frank & Thomas, 2003) have been found. The other aspects of self-silencing, though not overly appearance-focused like externalized self-perception, may also be implicated in women's development of body dissatisfaction. For instance, a positive correlation between body dissatisfaction and (a) experienced division of self (Buchholz et al., 2007; Nolan, 2010); (b) care as self-sacrifice (Geller et al., 2000; Hambrook et al., 2011); and (c) silencing the self (Buchholz et al., 2007; Geller et al., 2000) has been found in some studies. That is, the more that women engage in the aforementioned forms of self-silencing, the higher their reported dissatisfaction with their bodies. But these associations, while important, are incomplete because they were established only within clinical samples of women who met the criteria for eating pathology. This means that the experiences of women who do not meet clinical diagnosis thresholds have not been accounted for in the current literature. Additionally, many of the reviewed studies focused on one or two of the domains (e.g., Hambrook et al., 2011), thus failing to assemble a fulsome picture

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of self-silencing behaviours as they relate to the appearance context.

It may not be immediately clear why there would be associations between these more diverse facets of self-silencing and body dissatisfaction. While in studies such as Buchholz et al.'s (2009), the aim was to explore the unique contribution of self-silencing to body dissatisfaction, there is evidence that the relationship is indirect. One example is Frank and Thomas's (2003) study, where they tested the unique roles of self-silencing and the perceived importance of body shape and weight in predicting anorexic dietary cognition. The roles of self-silencing and the perceived importance of body shape and weight have been correlated with body dissatisfaction in past studies (Geller et al., 1997). Body dissatisfaction is a strong precursor to the development of eating pathology, including problematic cognitions (Stice & Shaw, 2002). A study led by Stice and Shaw (2002) provided evidence that the relationship between self-silencing and body dissatisfaction may not be direct and needs further investigation by parsing out the unique contributions of both self-silencing and body weight/shape importance. In fact, these relations are likely not direct and instead may be indirect through other factors and processes given the increased complexities inherent within relational connections during the tumultuous time of adolescence. These factors include societal expectations from multiple sources about both bodily appearance and behaviours and practices such as engagement in sexual activity in addition to pubertal changes during that time (Manning et al., 2014; Surrey, 1991).

We speculated that problematic investment in appearance could be an explanatory mechanism by which the association between the various self-silencing domains is indirectly associated with body dissatisfaction. Problematic appearance investment refers to the importance of appearance as a defining feature of identity (Cash et al., 2004). Higher appearance investment is related to lower self-esteem (e.g., Morrison et al., 2004) and is involved in the development of body dissatisfaction (e.g., Carraça et al., 2011), likely due to the reliance on appearance for self-worth. It is well established that women experience societal pressure (including pressure by their intimate partners) to conform to gender role expectations (Belenky et al., 1986; Gilligan, 1982; Jack, 1991), and this likely extends to pressure to conform to societal standards of body appearance. Geller et al. (2000) offered an interesting explanation for high body image dissatisfaction in women who engage in more self-silencing. They suggested that women may be avoiding the expression of threatening feelings or impulses toward the appropriate targets (like their intimate partners, for example), turning

their attention to their own body as a more socially acceptable target on which to release these feelings. If women have experienced a loss of agency, defined in part as an increase in "internal and external barriers to action" (Deveaux, 2000, p. 15), in their intimate relationship, they may search for an alternative domain where they can experience it (e.g., Fingerson, 2005). Given the general importance of appearance for women in the current sociocultural context (Bordo, 1993; Rice, 2014), in heterosexual relationships, women may focus on their body and appearance as stand-ins for actual agency, thus increasing problematic appearance investment and body dissatisfaction. In other words, if women are unable to experience agency by having their voice and views recognized and their needs met in their intimate relationships, they may focus instead on the way they look and appear to others (e.g., Fingerson, 2005; Martin, 1996), something that does not solve the problem and may contribute to body dissatisfaction. Thus, problematic appearance investment may be the indirect link through which body dissatisfaction is fostered for women in intimate relationships.

The majority of the available research establishing the groundwork for these relations has been conducted with women who met the criteria for problematic eating behaviour diagnoses. Relatively few previous studies have explored the connection between body dissatisfaction and self-silencing, particularly among young women who do not meet clinical standards for these diagnoses (Morrison & Sheahan, 2009; Piran & Cormier, 2005). There are established differences between clinically diagnosed women and comparable women from the community who do not qualify for a clinical diagnosis on several body-related indicators, with the latter most notably having lower body dissatisfaction than the former (Polivy & Herman, 2002; Striegel-Moore & Bulik, 2007). Thus, it is important to know whether the relations between self-silencing and body-related variables exist in non-clinical samples as well, especially given the ubiquitous focus on appearance in Western society and the conflation of thinness with femininity (Chrisler, 2011). Further, our exploration of the role of the four facets of self-silencing and appearance investment in body dissatisfaction fills additional gaps in the literature by examining how self-silencing becomes embodied for women, which links and expands upon two distinct literatures and which could help contribute to additional avenues for intervention.

Study Aims and Hypotheses

The aims of this study were to (a) test the association between the four domains of self-silencing and the experience of body dissatisfaction, (b) explore the association between the four facets of self-

silencing and appearance investment, and (c) investigate the potential mediating role of appearance investment as an explanatory mechanism of the hypothesized association between self-silencing and body dissatisfaction, in a sample of young women who have never received an eating disorder diagnosis. The hypothesis is that all four facets of self-silencing would be positively related to greater body dissatisfaction and increased appearance investment, and that appearance investment would mediate the relationship between all four types of self-silencing and body dissatisfaction. Higher body dissatisfaction is often found to be related to lower self-esteem (e.g., Tiggemann, 2005; van den Berg et al., 2010), higher levels of depression (e.g., Clark et al., 2009; Stice & Whitenton, 2002), and higher BMI (e.g., Bully & Elosua, 2011; Yates et al., 2004); thus, they were all measured and included as covariates, if applicable, for analyses (see Figure 1 for graphic representation).

Method

Participants

Women undergraduate students ($N = 116$) from a mid-sized Canadian university were recruited through a pool of students who received credit for participation in psychology research. The women were deemed eligible based on their self-reports to the following inclusion criteria: (a) female gender; (b) young (17–24); (c) absence of a past or present eating disorder diagnosis; and (d) having been or currently being in an intimate, heterosexual relationship. Participants were compensated with 0.5 bonus points (or the equivalent of 0.5%) toward an eligible psychology course of their choice.

Participants were aged 18 to 24 ($M = 20.68$, $SD = 2.54$) and distributed across years of enrollment in university (13% in year 1, 27% in year 2, 33% in year 3, 22% in year 4, and 5% in year 5+). The majority (81%) reported their ethnic/racial backgrounds as White. The remaining women identified as Indigenous (4.30%), Arabic or West Asian (4.30%), East Asian (4.30%), African or Caribbean (2.60%), South Asian (0.90%), South or Central American (0.90%), and “other” (1.70%).

Only 60% of participants provided their self-reported height and weight, so BMI computation was not possible for all women. For those who did provide their height and weight, the BMI computations ranged from 15.20 to 43.08 ($M = 23.93$, $SD = 5.24$). The World Health Organization (2019) classifies BMI in the following way: < 18.50 = underweight; $18.50 - 29.44$ = normal weight; $25.00 - 29.99$ = overweight; and ≥ 30.0 = obese. In this sample, 11.60% of the women who provided their height and weight were classified as underweight, 50.70% as normal weight,

23.20% as overweight, and 14.50% as obese. The Results section provides more details on the treatment of height and weight data in light of the amount of missing data.

Procedure

This study was conducted in accordance with Tri-Council Guidelines for Ethical Conduct for Research Involving Humans (Panel on Research Ethics, 2014) and received ethical clearance from the University’s Research Ethics Board (REB#15-168). All students in the Participant Pool complete a pre-screen questionnaire at the start of the semester that includes basic demographics as well as specific questions added for specific research studies (e.g., past or present eating disorder diagnosis). The pre-screen responses to age, relationship experience (ever been in an intimate heterosexual relationship), and past or present eating disorder diagnosis (yes/no), were used to ensure that the study description on the Participant Pool website was visible only to eligible participants. The study was advertised as a survey about how people’s behaviour in their intimate relationships impacts their psychological functioning, including mood and mental health. Participants who signed up received an e-mail link to the study webpage, where they were presented with the consent form. Once they provided their electronic informed consent, the measures were presented in random order. The exception to this was the demographic questionnaire, which was always presented last to avoid reactivity related to asking for height and weight-related information. Upon completion of the survey, participants were directed to the post-study debriefing page.

Measures

Self-silencing. *The Silencing the Self Scale* (STSS; Jack & Dill, 1992) is a 31-item self-report measure of gender-specific schemas that broadly involve actively suppressing one’s needs in favour of their partner’s. This measure includes four subscales, each of which inquires about distinct behaviours of self-silencing: (a) Externalized Self-Perception ($\alpha = .80$), self-judgment by external standards, e.g., I tend to judge myself by how I think other people see me. ; (b) Care as Self-Sacrifice ($\alpha = .61$), over-caring for one’s partner while under-caring for oneself, e.g., One of the worst things I can do is to be selfish ; (c) Silencing the Self ($\alpha = .87$), hindering one’s expressions, e.g., I think it’s better to keep my feelings to myself when they do conflict with my partner’s; and (d) Divided Self ($\alpha = .86$), an experience of a division of self (inner, angry self vs. outer, socially compliant self), e.g., I feel that my partner does not know my real self. Participants respond on a 5-point scale ranging from 1 (Strongly disagree) to 5 (Strongly agree), with higher scores

indicating a higher tendency toward that type of self-silencing behaviour. Although a total score is possible, the subscales were separated to test specific hypotheses. Jack and Dill (1992) have suggested reporting item-total correlations for items 1 and 11, two of the items comprising the Care as Self-Sacrifice subscale because they tended to be either negative or zero in previous studies; in this study, they were .04 for item 1 and -.04 for item 11.

Appearance investment. *The Appearance-Schemas Inventory-Revised* (ASI-R; Cash et al., 2004) is a 20-item self-report measure of two types of appearance investment: (a) Motivational Salience, which assesses motivation for the management of one's appearance; and (b) Self-Evaluative Salience, which assesses the importance that one places on appearance for achieving a sense of self-worth. Although the entire scale was administered to ensure scale integrity, only the Self-Evaluative Salience subscale was analyzed (12 items; $\alpha = .86$). A sample item from this subscale is If I dislike how I look on a given day, it's hard to feel happy about other things. Participants respond on a 5-point scale ranging from 1 (Strongly disagree) to 5 (Strongly agree), with higher scores indicating more reliance on appearance for self-worth purposes.

Body dissatisfaction. *The Eating Disorder Inventory-2* (EDI-2; Garner, 1991) is a 91-item self-report measure of various disordered eating behaviours. The measure has 11 subscales, but only one assesses body dissatisfaction (EDI-BD), which assesses feelings toward one's physical appearance. The entire measure was administered to maintain scale integrity; however, only the EDI-BD subscale was analyzed (9 items; $\alpha = .90$). A sample item from the Body Dissatisfaction subscale is I like the shape of my buttocks. Participants respond on a 6-point scale ranging from 1 (Always) to 6 (Never), with higher scores indicating more dissatisfaction with one's body.

Depression. *The Beck Depression Inventory II* (BDI-II; Beck et al., 1996) is a 21-item self-report measure of various depressive symptomatology. A sample item is Irritability, where participants answer from 0 (I am no more irritable than usual) to 3 (I am irritable all the time), with higher scores indicating both the presence of and severity of depressive symptomatology ($\alpha = .95$).

Self-esteem. *The Rosenberg Self-Esteem Scale* (RSES; Rosenberg, 1965) is a 10-item measure of global trait self-esteem, which assesses feelings of affection for oneself not based on rational judgments that endure time and social situations. A sample item is I feel that I have a number of good qualities. Participants respond on a 4-point scale ranging from 1

(Strongly disagree) to 4 (Strongly agree), with higher scores indicating higher trait self-esteem ($\alpha = .90$).

Demographic questionnaire. A short demographic questionnaire created by the first author was used to collect information on age, years in university, ethnic/racial origin, and height and weight. We used participants' height and weight to calculate their BMI scores (kg/m^2), though we could only do this for part of the sample given that 40.50% of participants did not provide their height and weight. This was likely due to an error in the question's response format where we asked participants to report their height in centimeters (cm) and weight in pounds (lbs). Alternatively, it may be that women felt uncomfortable providing this information, particularly after answering questions about their bodies and appearance (Cromer et al., 2006).

Results

Preliminary Data Cleaning and Analysis

An a priori power analysis was conducted using Kenny's (2019) MedPower calculator for mediation: to achieve a power estimate of .80, 106 participants would be needed, and this requirement was achieved. Little's (1988) MCAR test indicated that the data were missing completely at random, $(20) = 28.41$, $p = .100$. Participants missed 4.30% of items in the Silencing the Self subscale of the STSS (Jack & Dill, 1992) so expectation maximization, which generates imputed values consistent with population values (Schafer, 1997), was used to replace the missing values in the Silencing the Self subscale. Means, standard deviations, and correlations between variables are presented in Table 1. The correlations between the four subscales of the STSS (Jack & Dill, 1992) did not exceed .49, suggesting that the various conceptualizations of self-silencing are indeed measuring different forms of self-silencing behaviours.

Shapiro-Wilk tests of normality revealed that body dissatisfaction was not normally distributed. However, the skewness and kurtosis values were within the $|\pm 2|$ and $|\pm 3|$ range respectively (Pituch & Stevens, 2016) and the distribution visually appeared normal. Using studentized residuals and a cut-off value of $|2.5|$, no participants were identified as univariate outliers (Pituch & Stevens, 2016). A cut-off of $|2|$ was used to identify influential observations with standardized DFBETA and none were found (Fox, 1997). Finally, multivariate outliers were assessed using Mahalanobis distance, $\chi^2 (6) = 22.46$, $p = .001$ (Mahalanobis, 1936). Only one case was identified as a multivariate outlier as it exceeded the cut-off ($\chi^2 = 24.77$). This case was removed from all further analyses.

Mediation Analyses

We assessed mediation using Hayes' (2013) PROCESS macro, which is an observed variable ordinary least squares regression path analysis tool estimating direct and indirect effects. We conducted mediation analyses according to Preacher and Hayes' (2004, 2008) method using PROCESS model 4, wherein a significant direct effect between x and y is not necessary for mediation to be tested, and where the focus is on the product of ab (or the indirect effect). PROCESS has no direct way of standardizing variables and the confidence intervals provided correspond to the unstandardized solution (Hayes, 2013). To obtain a standardized solution, we manually standardized by deriving z scores for the variables before analyzing them in PROCESS. All assumptions aside from normality were satisfied, so data were bootstrapped to 1000 cases to avoid bias in the standard errors. Please note that despite the importance of BMI in past body dissatisfaction studies (e.g., O'Driscoll & Jarry, 2015), we were unable to use it because the PROCESS macro uses listwise deletion when testing mediation (Hayes, 2013). Thus, its inclusion would prevent the use of otherwise complete data and the sample size ($n = 69$ if BMI is included) would not be sufficient for evaluating relationships as shown by the power analysis reported above. In Table 2, we present partial correlations between study variables, while holding constant the effects of BMI. Therefore, although we were unable to include BMI, the partial correlations allow for visualization of its effects.

Self-silencing and body dissatisfaction. All four subscales of the self-silencing measure were significantly correlated with body dissatisfaction (see Table 1; all $p < .01$) but only the Externalized Self-Perception, Care as Self-Sacrifice, and Divided Self subscales were significantly correlated with appearance investment (the mediating variable; $p < .05$). It was not appropriate to include the Silencing the Self subscale in the mediation analyses because of the assumption that the predictor variable is theoretically related to the mediator variable, which cannot be violated (Preacher & Hayes, 2004, 2008).

Externalized self-perception. We first investigated the hypothesis that appearance investment would mediate the effect of externalized self-perception on body dissatisfaction, with depression and self-esteem as covariates. In this model, higher externalized self-perception predicted higher appearance investment, which then predicted higher body dissatisfaction (see Table 3 for a summary of the results). Self-esteem did not emerge as a significant covariate, 95% CI (-.14, .25). After holding depression constant, approximately 32% of the variance in body

dissatisfaction was accounted for by the relation between externalized self-perception and appearance investment.

Care as self-sacrifice. Next, we tested the hypothesis that appearance investment would mediate the effect of care as self-sacrifice on body dissatisfaction while testing depression and self-esteem as covariates. Here, higher care as self-sacrifice predicted higher appearance investment, which then predicted higher body dissatisfaction (see Table 3). Similar to the previous analysis, self-esteem did not emerge as a significant covariate, 95% CI (-.15, .24). After accounting for the effect of depression, about 31% of the variance in body dissatisfaction was accounted for by the relation between care as self-sacrifice and appearance investment.

Divided self. Finally, we tested the hypothesis that appearance investment would mediate the effect of the divided self on body dissatisfaction. In this final model, higher experienced division of self predicted higher levels of appearance investment, which in turn predicted higher body dissatisfaction (see Table 3). Self-esteem, once again, did not emerge as a significant covariate, 95% CI (-.17, .22). After accounting for the role of depression, approximately 34% of the variance in body dissatisfaction was accounted for by the relation between divided self and appearance investment.

Discussion

There are many individual and relational outcomes for women in a society that makes socially prescribed gender roles and expectations overt (Piran, 2017; Rice, 2014). One such outcome, self-silencing, and its relationships with women's body image, namely problematic appearance investment and bodily dissatisfaction, were explored. Against the backdrop of a societal context of gender inequality where women's appearance is prioritized, this study explored the link between relational and appearance-related domains of women's lives that have potentially harmful psychological consequences. Thus, this study had three aims. First, it attempted to replicate previous findings of an association between self-silencing and body dissatisfaction in a non-clinical sample of women and to determine which aspect(s) of self-silencing was/were associated with body dissatisfaction. Second, it explored the association between self-silencing and investment in appearance for self-definition, a particularly problematic form of appearance investment. Third, the current study investigated whether this problematic form of appearance investment offered a possible explanatory role in predicting body dissatisfaction within the context of self-silencing. Doing so was our attempt to explore links between two distinct literatures

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exploring psychological harms (i.e., self-silencing and body dissatisfaction) for women who do not qualify for clinical diagnoses of eating pathology and examine the four dimensions of self-silencing and how they influence body-related outcomes.

Our study was successful in replicating previous research findings that higher levels of all four types of self-silencing were related to more body dissatisfaction among college-aged women. Supported by these other studies, higher levels of externalized self-perception (Ross & Wade, 2004), care as self-sacrifice (Hambrook et al., 2011), silencing of the self (Buchholz et al., 2007), and division of self (Nolan, 2010) were associated with greater body dissatisfaction in our sample of young women-students. Notably, previous findings linking care as self-sacrifice and body dissatisfaction were only within clinical contexts (Geller et al., 2000), so our study extended these findings for a non-clinical sample of women.

Higher engagement in externalized self-perception, care as self-sacrifice, and division of self were related to more problematic investment in appearance, a dysfunctional form of appearance investment whereby women conflate their physical appearance with their perceived social worth and sense of self (Cash et al., 2004). The relation between the form of self-silencing where self-perceptions are externalized and investment in appearance immediately makes sense since both are heavily appearance-focused, though in different ways. Women higher in externalized self-perception tend to judge themselves based on external standards, with the focus being on what others think and feel about them. This form of self-silencing involves the development of a schema about how women “should” be based on standards set for them by others, particularly during the process of gender role socialization (Gilligan, 1982; Jack, 1991; Jack & Dill, 1992). These societal standards become ingrained as a part of women’s standards for themselves, and their goal becomes living up to them and satisfying both self-judgments and the judgments of others (Mahalik et al., 2005). Higher self-silencing in the form of experience of a divided self, on the other hand, involves conflicting feelings within the self. Women who are high in this form of self-silencing experience a disconnect between the outer version of themselves and their inner “true” self. Their outer self conforms to the current socially influenced expectations of what women should be, while their inner self becomes angry and hostile, resenting their inability to be authentic and express themselves truly (Jack, 1991; Jack & Dill, 1992).

Each aspect of self-silencing, in which women’s agency and voice in relationships are thwarted in

different ways, is congruent with problematic appearance investment, which involves both a hyper-focus on appearance and a desire to be viewed as worthy through the lens of appearance because worth is not already inherent. It may be that in their heterosexual relationships, women may begin focusing on their body and appearance as stand-ins for actual agency, thus fostering a problematic investment in their appearance (e.g., for self-worth). That is, in relationships where they may not feel that they can express themselves, turning a focus toward their bodies may be the desired alternative and thus may have contributed to higher body dissatisfaction, as seen in this study. These findings are important because they provide linkages between relational and appearance contexts by suggesting one way in which self-silencing becomes embodied and provide additional nuance for the studies which demonstrate the influence of problematic appearance investment in the development of bodily dissatisfaction (e.g., Carraça et al., 2011). Indeed, a problematic investment in one’s appearance serves as a link between various forms of self-silencing, which similarly involve a restriction of some part(s) of oneself, and an experience of body dissatisfaction, something that continues to be seen as normative and expected among women (Grogan, 2017). However, the relation between care as self-sacrifice and appearance investment was less obvious and will be discussed next.

Although the aforementioned findings were expected, two findings were particularly notable. First, care as self-sacrifice was associated with problematic appearance investment, which was expected based on theory (Geller et al., 2000; Hambrook et al., 2011) but has not been previously established. Previous research has confirmed that women are often still expected to take on the caretaker role in intimate relationships, ensuring that they tend to their partner’s various needs, whether they are emotional or sexual, or the like (Fahs, 2011). One way that women may be engaging in care for their partner’s needs is by being invested in their appearance and spending time and effort to adhere to their partner’s beauty standards (Smolak, 2012; Smolak & Murnen, 2007). Second, a somewhat surprising finding was that the facet of self-silencing implicated in the actual suppression of words (i.e., the Silencing the Self subscale of the STSS; Jack & Dill, 1992) was related to body dissatisfaction but not to problematic appearance investment. This aspect of self-silencing concerns interpersonal behaviours regarding the actual expression of words and how conflicts are resolved (Jack & Dill, 1992). The focus is not on the outward physical presentation of the body, but rather on the physical and social behaviour involved in inhibiting “voice” and self-expression. It was expected that all forms of self-silencing would be

associated with body dissatisfaction through the problematic focus on appearance as self-worth. This finding suggests that increased body dissatisfaction may operate as a more direct extension of women silencing their “voice.” If women are vocally silencing themselves, their bodies may become a more vivid representation for the expression and non-expression of their voice. It may be that for these self-silencing women, their body is the most proximal entity upon which to act, including how they present themselves in society, without the need for an intervening mechanism such as problematic appearance investment. However, replication and further research investigation are necessary to better understand this relationship.

There may be other mechanisms by which women who silence themselves come to develop body dissatisfaction. One such mechanism may be self-objectification, which involves adopting an outside perspective when thinking about and looking at one’s body (Fredrickson & Roberts, 1997). Women who deliberately adopt a social self are more likely to be highly appearance-focused and pre-disposed to be hyper-aware, and thus, highly critical of their body (e.g., Striegel-Moore et al., 1993). There may be other possible mechanisms related to the complex gender role socialization experienced by women across identities. Attempts to meet ubiquitous explicit and implicit gendered expectations are likely contributing factors to the development of body dissatisfaction, especially when those standards are related to body weight and/or appearance (Mahalik et al., 2005). We have found support for one factor that influences women who engage in self-silencing and contributes to the development of body dissatisfaction. Further research is necessary to better understand how women navigate societal messages and how engagement in self-silencing behaviours contributes to the development of body dissatisfaction.

There were limitations in this study that warrant mention. First, while BMI was related to body dissatisfaction in our study and past research (e.g., Bully & Elosua, 2011), it was not used as a covariate in the final analyses due to a survey error that resulted in high participant non-response. Although we were unable to conduct analyses accounting for BMI, partial correlations suggest that its effect is important in accounting for women’s experience and future research accounting for its influence is necessary. BMI is a flawed measurement tool that does not account for factors like sex, ethnicity, age, and muscle mass (Nuttall, 2015). However, given its widespread use and that we had originally planned to control for the influence of BMI, its absence is a limitation.

A second limitation was our recruitment of only women who were currently or had previously been in intimate relationships with men. We made this decision because we were attempting to replicate past research findings with heterosexually experienced women. Little research on self-silencing has been carried out with lesbian women, but preliminary research suggests that they may self-silence more than heterosexual women. For example, Kirk (2002) found that among a sample of community women, both heterosexual and lesbian, lesbians had significantly higher scores on the Silencing the Self subscale (Jack & Dill, 1992) as compared to their heterosexual counterparts. One of the reasons for this may be societal homophobia which “requires” that one’s sexual identity and authentic self be hidden (Kirk, 2002). Regardless of similarities or differences in self-silencing, future research should explore whether self-silencing has a similar connection to body dissatisfaction for women in relationships with women. Currently, the findings of this study apply to a non-clinical sample of young, educated, and mostly White women who have been in heterosexual relationships, so future research is necessary to replicate these findings in a more diverse sample while accounting for intersecting identities.

Despite the aforementioned limitations, there were several strengths to this study. Namely, it extended upon a body of literature that had focused exclusively on the experiences of women who qualified for diagnoses of eating pathology and provided preliminary evidence of the relation between self-silencing and body-related variables in a non-clinical sample. It also explored the unique contribution of each of the four facets of self-silencing, something that many studies fail to do when they use a total self-silencing score. Exploring each facet’s unique contribution allowed for nuance regarding the role of self-silencing behaviours in problematic appearance investment and body dissatisfaction. We further nuanced our findings and extended the body image literature by presenting a new mechanism that accounted for the relationship between several facets of self-silencing and body dissatisfaction.

Practical Implications

If these findings are replicated, they suggest a possibility for an interesting and low-stress intervention to reduce problematic appearance investment and self-silencing in women who experience body dissatisfaction without clinical eating disorder diagnoses. Previous experimental research has suggested that self-affirmation may be a useful strategy in helping to reduce women’s body dissatisfaction (Bucchianeri & Corning, 2012). As an example, Armitage (2012) conducted a study with

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adolescent girls, half of whom had been randomly assigned to a self-affirmation manipulation task asking them to elaborate on their past acts of kindness, and half of whom were assigned to the distractor task asking them to elaborate on things not directly related to themselves. In their sample, affirmation resulted in greater body satisfaction and lower perceived threat after rating their own body weight and shape. This research suggests that encouraging self-affirmation may be a way to mitigate the negative influence of self-silencing on body dissatisfaction.

Women who silence themselves tend to see themselves through the eyes of others and feel pressure to present themselves in socially desirable ways (Jack, 1991; Jack & Dill, 1992), and are thus frequently receiving threatening information (e.g., about their body). Receiving such threatening information may promote a focus on perceived body inadequacies. Removing the focus from their perceived inadequacies and building adequacies while encouraging self-affirmation may be another promising intervention (Steele, 1988). Self-affirmations work to bring a more expansive view of the self and one's resources, encompassing everything from daily occurrences to bigger triumphs (Cohen & Sherman, 2014). One possible option may be to ask young women to write about their core personal values (e.g., McQueen & Klein, 2006). Having women focus on positive agency-promoting characteristics may result in less focus on appearance and more of an experience of voice in their lives (Cohen & Sherman, 2014).

It is also important to reduce women's self-silencing in relationships through broader social change and alterations in the way young men behave in intimate relationships. One small step would involve high-quality relationship communication education for all adolescents. While there are numerous programs in existence targeting specific issues concerning youth, including dating violence (e.g., Dating MattersTM; Tharp, 2012), addressing healthy communication skills deficits and undermining gendered power dynamics in building and maintaining relationships more generally has not been a priority. These findings suggest the need for education that acknowledges gendered dynamics, supports young women to have a strong equal voice in their heterosexual relationships, while simultaneously developing young men's awareness and skill to ensure that their partners' needs are met in the relational context (Viejo et al., 2015).

Conclusion

The current study's findings extend and nuance the body image research area by suggesting that women's bodies may become a representation of the (non-)

expression of their voice. This study also fills important gaps like exploring the role of the four facets of self-silencing and appearance investment as they relate to body dissatisfaction, which links and expands upon two distinct literatures and which could help contribute to additional avenues for intervention. Further research on factors that influence women who engage in self-silencing and contribute to the development of body dissatisfaction is needed. Future qualitative and quantitative research exploring the processes by which young women internalize gender socialization and navigate their intersecting identities is also needed to better understand how self-silencing contributes to the development of body dissatisfaction (a "normative discontent") (Rodin et al., 1985).

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Appendix A

Table 1

Table of Descriptive Statistics and Correlations (N = 115)

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9
1. Externalized self-perception	19.96	5.57	—	.43**	.53**	.49**	.45**	.43**	-.40**	.52**	.27*
2. Care as self-sacrifice	26.94	5.01		—	.32**	.20*	.23*	.23*	-.20*	.26**	.28*
3. Silencing the self	23.87	7.6			—	.59**	.16	.30**	-.27**	.35**	.18
4. Divided self	15.79	6.41				—	.27**	.43**	-.27**	.51**	.14
5. Appearance investment	3.86	0.67					—	.44**	-.37**	.40**	.17
6. Body dissatisfaction	34.19	10.21						—	-.30**	.48**	.25*
7. Self-esteem	23.03	5.71							—	-.59**	-.25*
8. Depression	15.18	12.88								—	.15
9. BMI	23.93	5.24									—

Notes. Externalized self-perception = STSS *Externalized Self-Perception* subscale; Care as self-sacrifice = STSS *Care as Self-Sacrifice* subscale; Silencing the self = STSS *Silencing the Self* subscale; Divided self = STSS *Divided Self* subscale; Appearance investment = ASI-R *Self-Evaluative Salience* subscale; Body dissatisfaction = EDI-2 *Body Dissatisfaction* subscale; Self-esteem = RSES; Depression = BDI-II; BMI = Body Mass Index (kg/m^2).

* $p < .05$. ** $p < .01$.

Table 2

Partial Correlations between Study Variables, Controlling for BMI (N = 64)

BMI	1	2	3	4	5	6	7	8
1. Externalized self-perception	—	.41**	.48**	.51**	.56**	.45**	.48**	-.42**
2. Care as self-sacrifice		—	.31*	.20	.16	.21	.24	-.15
3. Silencing the self			—	.66**	.14	.34**	.26*	-.21
4. Divided self				—	.30*	.55**	.49**	-.33**
5. Appearance investment					—	.55**	.45**	-.36**
6. Body dissatisfaction						—	.53**	-.25*
7. Depression							—	-.64**
8. Self-esteem								—

Note. BMI was the control variable.

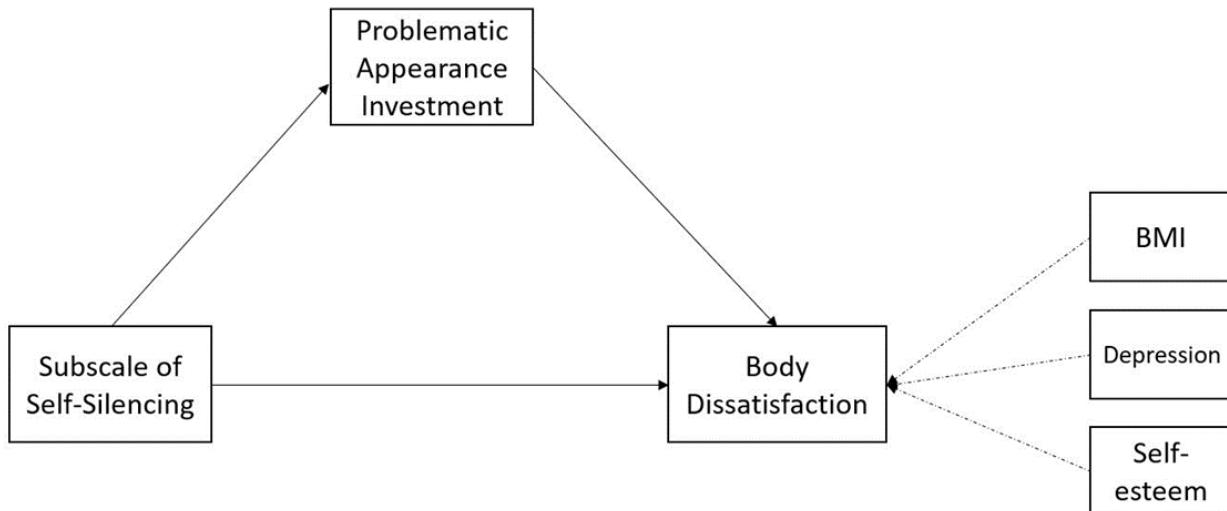
* $p < .05$. ** $p < .01$.

Table 3*Effect Size Estimates, Path Estimates, and 95% CI for the Direct and Indirect Effects of the Mediation Models (N = 115)*

Predictor (IV)	Effect of IV on M	Effect of M on DV	Effect of IV on DV	Indirect Effect	Indirect Effect	
	β (SE)	β (SE)	β (SE)		Boot LLCI	Boot ULCI
Externalized self-perception	.45 (.08)	.26 (.09)	.17 (.10)	.12 (.06)	.03	.26
Care as self-sacrifice	.23 (.09)	.30 (.09)	.08 (.08)	.07 (.03)	.02	.15
Divided self	.27 (.09)	.29 (.09)	.23 (.09)	.08 (.04)	.02	.17

Note. Externalized self-perception = STSS *Externalized Self-Perception* subscale; Care as self-sacrifice = STSS *Care as Self-Sacrifice* subscale; Divided self = STSS *Divided Self* subscale.

Bolded values indicate significant effects.

Figure 1*Graphic representation of planned model*

Note. Planned model exploring the indirect effect of problematic appearance investment in the relationship between each domain of self-silencing (four subscales: *Externalized Self-Perception*, *Care as Self-Sacrifice*, *Silencing the Self*, and the *Divided Self*) and body dissatisfaction, holding self-esteem, depression, and BMI constant (covariate relationships shown with dotted lines).

More Than Oneself: Cultural Values as Predictors of Happiness

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The present study analyzed whether cultural values, such as individualism, foster lesser or greater degrees of happiness and to what degree the Gross Domestic Product (GDP) per capita moderated such interaction. Data were compared across 82 nations according to their World Happiness Report scores, GDP per capita, and Hofstede dimensional scores. It was hypothesized (1) that high levels of national individualism would be positively correlated to happiness at a national level, (2) that other cultural dimensions would be relevant in predicting national happiness, (3) and that the association between happiness and cultural factors would be moderated by GDP per capita. Results indicated that individualism is correlated with higher happiness. Additional quantitative analyses showed that happiness was predicted by individualism, indulgence, long-term orientation, and power distance. Implications of these findings and future research directions are outlined.

Keywords: culture, Hofstede, happiness, GDP per capita, individualism

La présente étude a analysé si les valeurs culturelles, telles que l'individualisme, favorisent le bonheur et si le produit intérieur brut (PIB) par habitant modère une telle interaction. Les données ont comparé 82 nations en fonction de leurs scores du Rapport mondial sur le bonheur, du PIB par habitant et des scores de Hofstede. Nous avons émis l'hypothèse (1) que des niveaux élevés d'individualisme national seraient positivement corrélés au bonheur, (2) que d'autres dimensions culturelles seraient pertinentes afin de prédire le bonheur national et (3) que l'association entre le bonheur et les facteurs culturels serait modérée par PIB par habitant. Les résultats ont indiqué que l'individualisme est corrélé à un bonheur plus élevé. Des analyses quantitatives supplémentaires ont montré que le bonheur est prédict par l'individualisme, l'indulgence, l'orientation à long terme et la distance hiérarchique. Les implications de ces résultats et les orientations futures de la recherche sont décrites.

Mot clés : culture, Hofstede, bonheur, PIB par habitant, individualisme

Throughout the past decades, research has examined the cultural value of individualism, which has become increasingly prevalent throughout the world (Santos et al., 2017). Operationally defined as values coinciding with an emphasis on independence, individualism is commonly associated with increased self-centeredness, promotion of individual as opposed to collective success, autonomy, and self-direction. Increasing preferences for living alone and the lack of interdependence required for survival are two of the many reasons researchers believe the shift towards individualism is occurring through many global societies (Santos et al., 2017). Despite a plethora of research pertaining to the topic of individualism, literature has yet to agree on how the endorsement of this value impacts distinct cultures (Fischer & Boer, 2011; Ogihara & Uchida, 2014; Spector et al., 2001; Stolarski et al., 2015). Numerous articles outline the adaptive functioning associated with individualism,

whereas many others illustrate a maladaptive function of individualist values (Fischer & Boer, 2011; Ogihara & Uchida, 2014). Although the impact of individualism has not been fully established, an interesting caveat is a simultaneous increase in happiness (or well-being) throughout the world (Cohen, 2018; Diener et al., 1995; Fischer & Boer, 2011; Santos et al., 2017). Defined as cognitive functioning pertaining to positive affect, well-being is better understood as an integration of mental and physical health (Centers for Disease Control and Prevention, 2018). The increase in individualism and happiness simultaneously occurs; however, their exact interaction in a global context requires further analysis.

Ranging from the Eudemian and Nicomachean Ethics of Aristotle, to chapters of the Dhammapada in the Buddhist canon, to the teaching of Confucianism, the pursuit of happiness has been of great interest to the human condition (Judge & Kammeyer-Mueller, 2011). Not only has happiness been subject to discussion in the metatheoretical realm of philosophical thought and religious dogma, but happiness has also been subject to empirical inquiry

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throughout academia. Various articles sought to understand what impact happiness provides on aspects of human experiences. An article by Veenhoven (2008) addressed how happiness not only aids in longevity of life but also (implicitly) in the protection against illness. More specific works have drawn links between happier nations and lowered levels of hypertension, whereas others have uncovered a significant relation between happiness and reduced activation of neuroendocrine and bodily mechanisms (i.e., inflammation) that hamper individual health (Blanchflower & Oswald, 2008; Steptoe & Wardle, 2005). In consideration of the aforementioned research, it is clear why studying happiness remains imperative. Further inquiry into the way humans promote happiness can serve to better understand what citizens can do to maximize such sentiments.

Copious studies have offered evidence towards the understanding that culture itself plays a vital role in creating and fostering varying conceptualizations of happiness distinct to specific cultures (Lu & Gilmour, 2004; Oishi & Gilbert, 2016; Ye et al., 2015). As suggested by Hofstede et al. (2010, p. 4), “ecological, economic, political, military, hygienic, and meteorological developments do not stop at national or regional borders.” Therefore, understanding the role cultural factors may have on varying nations worldwide may foster greater global cooperation and understanding. Unfortunately, today’s literature that examines happiness and cultural variables lacks certain elements that would expand our understanding of how the two interact. Many studies have either merely retained one dimension, included limitations on their generalizability due to non-representative samples, or simply limited their sample to specific regions on the globe (Bianchi, 2016; Chung & Mallery, 1999; Joshanloo & Jarden, 2016; Muresan et al., 2019). Therefore, the present study aims to address these problems by comparing all six dimensions of Hofstede’s cultural variables and utilizing representative samples of a wide array of nations worldwide. Although the research has an initial focus on the relation between individualism and happiness, additional cultural variables were examined to understand their predictive ability on happiness.

The present study aims to contribute to the understanding of how cultural values are associated with happiness in various nations. An examination of 102 nations included a range of variables to predict national happiness. The study aims to address the accuracy of happiness and cultural values (i.e., individualism) as correlated variables, and the degree to which this relation is moderated by Gross Domestic Product (GDP) per capita, which is the sum of the value of goods, services, and taxes provided by a nation’s economy minus product subsidies not added

to the value of products divided by the population of such nation (The World Bank, n.d.-a).

Individualism and Happiness

A rich literature has outlined the promotion of adaptive functioning through well-being (happiness) in regions corresponding to higher individualist values. For example, Diener et al. (1995) analyzed the relation between well-being and individualism. The data were collected from a national subjective well-being sample of 55 nations and a national college subjective well-being sample from 40 nations, encompassing a representative sample of individuals from 75% of the world’s population. The authors aimed to understand how different components of an individual’s life mediated their personal well-being. Results showed that high income, individualism levels, human rights afforded to the respective citizens, and equality among the society contributed significantly to higher reports of personal well-being. However, individualism was the only variable that consistently predicted well-being when other variables were controlled. The study offers supportive evidence of the relation between individualism and well-being while chiefly highlighting the greater importance of individualism in comparison to other factors in predicting well-being (i.e., high income).

The academic work examining the link between well-being and individualism resides in a vast interdisciplinary field. As shown by Krys et al. (2019), the conceptualization of well-being throughout the globe is inconsistently defined. They offer an extensive review of the measurement of well-being throughout global societies. Whereas the current metric for well-being is life satisfaction, a potential bias was identified. That is, the measurement of life satisfaction seeks to answer how a person views their individualized pursuit of life satisfaction, but disregards aspects such as interdependent happiness and family satisfaction that may have gravely contributed to an individual’s overall well-being if they were holding collectivist values. This bias in measurement of collectivist forms of well-being consequently skews the results of well-being assessment toward the support of more individualist societies being happier. If researchers aimed simply to measure values that individualist societies hold in high regard when reporting their happiness, then collectivist individuals and their reported happiness would struggle to be adequately understood. Krys et al. (2019) postulate that if psychometrically sound measures of well-being contained facets relevant to collectivist individuals, results may no longer be indicative of individualist nations being happier. Cultural differences are also relevant, as illustrated by Ogihara and Uchida (2014), who conversely identified

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among their Japanese participants a decrease in well-being while in the presence of individualism. The illustration of global differences as it pertains to happiness and cultural variables aids in portraying the importance of utilizing comprehensive measures of well-being that encompasses as many cultural components as possible. However, other researchers have concluded that a host of terms such as happiness, well-being, life satisfaction, and positive affect tend to be interchangeable due to the extensive overlap of their constructs (Medvedev & Landhuis, 2018).

Throughout the literature, GDP is a relatively established measure in understanding an important amount of well-being within a nation (Cohen, 2018). Despite its inability to be an utterly robust measure, Cohen equates higher levels of GDP as coinciding with increasing levels of well-being. These increases were identified in areas such as healthcare, directly affecting those within the population that may manifest lower degrees of well-being due to perplexing problems within such societal systems. Although GDP may be essential, Fischer and Boer (2011) investigated whether the money an individual possesses was more predictive to their well-being than their individualism level. The conceptualization of well-being was based upon the absence of maladaptive psychopathology (i.e., stress, anxiety, poor psychological health) based on a meta-analysis of 420 000 respondents from 63 nations. Results indicated that although wealth may contribute to providing individuals with a greater sense of autonomy to expel their individualist values, it was not a sole factor in improving well-being. In addition, the results also illustrated that people with individualist values, such as autonomy, tended to have a strong relation to increased well-being which was more consistent throughout time. Fischer and Boer's (2011) study provides evidence to the importance of individualism on well-being while also contributing to support of the proverb "money does not bring happiness". However, the study identified several limitations, not the least of which was operationally defining well-being as an absence of maladaptive psychopathology.

The link between well-being and individualism does not stem exclusively from large-scale individualist values being granted from the governing body in the form of personal autonomy. As illustrated by Chung and Mallery (1999), individualist citizens also interact with their environment in a unique way compared to collectivist citizens. The researchers examined the different ways that individualist and collectivist persons compared themselves by comparing 235 students from the United States and China. Students completed a social comparison measure; it was predicted that collectivist (Chinese) students would be more likely than individualist

(American) students to engage in upward comparisons (i.e., comparing themselves to others they deem intrinsically better than them). Additionally, the Individualism-Collectivism Scale (INCOL) was used to measure the two constructs. In conjunction with the prediction, results exemplified that individuals with higher collectivist scores were more likely to conduct comparisons than individualistic individuals. The analysis revealed that collectivist individuals may be more prone to engage in actions such as self-deprecation, consequently potentially decreasing their well-being. It is worth noting that this research is similar to that of Joshanloo and Jarden (2016). Although the researchers separately established that hedonistic acts such as pleasure enhance well-being within individualist cultures, in conjunction with Chung and Mallery (1999), both studies display how happiness is promoted in culturally individualist societies. However, the two studies presented several limitations and consequently their generalizability was compromised. Both studies were limited due to their analysis of a singular cultural dimension (individualism-collectivism) and failed to sample from a wider selection of the world's nations.

Happiness and Multiple Predictive Variables

The extent to which multiple variables (such as individualism, power distance, and psychopathological symptoms) can predict happiness has been well established in the literature (Garaigordobil, 2015; Ye et al., 2015). On the surface, a headline such as: "you would be happier if you ate less" reads like a valid recipe for achieving happiness (Wadyka, 2016). Nevertheless, such statements in many instances may prove misleading: wherein an individual could see that multiple factors relate to happiness, conclusions as to what causes happiness in a specific individual are not clearly defined (Frey & Stutzer, 2000; Garaigordobil, 2015; Hofstede et al., 2010; Inglehart et al., 2008; Muresan et al., 2019; Verme, 2009; Ye et al., 2015). In many instances, predictors of happiness may go beyond cultural variables. A study by Garaigordobil (2015) examined interpersonal variables that predict happiness among adolescents. Their multiple regression analyses identified higher self-concept, fewer symptoms of depression, various cooperative behaviours, higher self-esteem, and lower psychoticism as salient predictors of happiness. Whereas the study was limited in its exclusive analysis of adolescents, it did successfully illustrate the need to examine a host of variables, beyond just culture, to adequately and comprehensively predict individual happiness.

Individualism and GDP

An array of literature has revealed a link between individualist values and economic growth (Bianchi, 2016; Gorodnichenko & Roland, 2011; Tang & Koveos, 2008). Whether it be the emphasis on achieving personal satisfaction through the mediation of either increasing societal status or the recognition of accomplishments, it could be argued that citizens in individualist societies seek to engage in money-generating actions such as innovation (Gorodnichenko & Roland, 2011). The facilitation of economic development in countries does not come without intrinsic changes within a nation's cultural fabric. Ball (2001) explains that as societies become more economically developed, they soon witness a shift towards more individualist values driven chiefly by personal rights and freedoms. According to Ball, whether it be property rights or aspects related to wages, the development of a nation's economy grants individuals the ability to rely less on family.

Bianchi (2016) conducted six different studies to determine whether individualism is affected by changes in economic development. Study 1 examined millions of American birth names given from 1948 to 2014; this would quantify the uniqueness of names given during various periods of economic growth. Bianchi hypothesized that more unique names would be given during economic prosperity. Study 2 similarly examined autonomy levels using the *General Social Survey* from 1986 to 2014, hypothesizing that self-focused values would augment during times of economic growth. Using the DDB *Worldwide Communications Lifestyle Survey*, study 3 compared ratings of individualism in times of prosperity among almost 100 000 adults from 1975 to 2006; it was hypothesized that individualism would wain during an economic downturn. Study 4 analyzed the linguistic content of songs from 1980 to 2014, expected more self-focused lyrics during an economic boom. With measures of perceived uncertainty obtained from almost 800 000 Americans sampled from 2006 to 2013, Study 5 hypothesized greater uncertainty under recessive conditions. Finally, study 6 mirrored the previous study in an analysis of the uncertainty of 100 respondents recruited through "Amazon's Mechanical Turk". Across all six studies, Bianchi concluded that individualism was more pronounced during periods of economic growth and prosperity but faltered during economic hardship. However, the study was not without limitations; even Bianchi acknowledged exclusive American sampling for 5 of the 6 studies plus an overabundance (88%) of white participants in the only global sample.

Despite monetary capital potentially confounding the relation between individualism and happiness, understanding the limits in how monetary metrics relate to happiness is integral. The assertion that

money can buy happiness was addressed in the research of Muresan et al. (2019), who sought to understand to what degree money contributes to an individual's happiness. Their European sample was drawn from 2008-2016 across 26 nations. The independent variables consisted of income and the six cultural variables derived from Hofstede, whereas the control variables consisted of income disparity, health, unemployment, social status, and education. Using ordinary least squares regression analysis, the Hausman-Taylor Estimator, and the generalized method of moments method, the researchers concluded (1) that income and happiness both increase until around \$35,000 USD; (2) that cultural factors play a role in the happiness of such nations; and (3) that in countries of low power distance, high individualism, low uncertainty avoidance, and high indulgence—the levels of happiness were maximized. The study was limited in its generalizability in a global context as the research solely focused on European countries.

Hofstede Dimensions of Culture

Hofstede offers an index of cultural dimensions compiled from data across 102 nations (Hofstede et al., 2010). Scores within each cultural value have been occasionally updated since their first collection in 1967 through replications and extensions of the surveys by associated researchers (Hofstede Insights, n.d.-a). Whereas it was argued that changes in culture would be a gradual and slow-moving process, all nations' values are considered current (Hofstede Insights, n.d.-a). In part, Hofstede's research and the preliminary surveys led him to develop the six cultural dimensions as an explanation for the variation in cultural groups' behaviour (Hofstede et al., 2010). The *Hofstede Index* includes the individualism (versus collectivism) dimension, a preference for individual autonomy and smaller-knit social frameworks; indulgence (versus restraint dimension), a societal acceptance of free-gratification; long-term orientation (versus short-term normative orientation), a cultural perspective towards fostering future rewards; masculinity (versus femininity), a preference of achievement, success, and competitive environments; power distance, the acceptance of the inequality in power distribution; and uncertainty avoidance, a preference for avoiding unpredictable or uncontrollable events (Hofstede Insights, n.d.-b). Validity studies have criticized the indices for a lack of construct and face validity (Blodgett et al., 2008). Contrary to this, Hofstede et al. (2010) discuss how over 400 correlations had been observed between the indices and other research. Such correlations illustrate the external validity of the *Hofstede Index* and provide a basis to how the framework is appropriate under certain circumstances. Hofstede acknowledges that the

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utilization of his work is suitable for highlighting similarities cross-culturally (Eckhardt, 2002). In weighing the arguments for or against the utilization of the *Hofstede Index*, the conclusion was reached that due to its relevancy, established nature, and ability to be utilized to highlight patterns cross-culturally, that it would be a suitable measure for the present research.

Present Study and Hypotheses

The present study has evaluated whether cultural values, such as individualism, were associated with citizens' overall happiness. GDP per capita and Hofstede variables were included to determine their relative moderation or predictive ability concerning happiness. Based on Fischer and Boer (2011), whose multi-national analysis observed increased individualism linked to increased well-being, it was hypothesized (1) that high national levels of individualism would be positively correlated to happiness. In line with research postulating happiness has many predictors (Frey & Stutzer, 2000; Garaigordobil, 2015; Hofstede et al., 2010; Inglehart et al., 2008; Muresan et al., 2019; Verme, 2009; Ye et al., 2015), it was also hypothesized (2) that additional cultural values found within the Hofstede model would be relevant in predicting national happiness. Lastly, based on a multitude of work that has outlined how monetary variables are associated with happiness (Dipietro & Anoruo, 2006; Hagerty & Veenhoven, 2003; Senik, 2014), it was hypothesized (3) that the association between happiness and cultural factors would be moderated by GDP per capita.

Method

Data and Measures

This research joined data from various sources in order to analyze how varying cultural values and happiness relate without common limitations in the field of research on cultural values and happiness (i.e., non-representative sample). Data from both the World Happiness Report and The World Bank were used to amass an aggregated construct of happiness scores and GDP per capita of nations within the sample. A measure of cultural values for the respective nations was drawn from the *Hofstede Index*. The World Happiness Report is an annual publication conducted in coordination with the *Gallup World Poll* which evaluates the happiness of world citizens (Helliwell et al., 2020). The World Bank is a financial institution that hosts a website containing financial information for an array of countries internationally (The World Bank, n.d.-c). Lastly, the Hofstede Index indexes cultural values for international societies through the use of Hofstede's original work with supplementary data from associated researchers (Hofstede et al., 2010).

Happiness. Data pertaining to happiness were taken from the World Happiness Report. The measure is an annually conducted publication overseen by the Sustainable Development Solutions Network, a subsidy of the United Nations started in 2012. The annual report ranks 156 countries concerning how happy their citizens are by utilizing the cornerstone life evaluation measure on the *Gallup World Poll*, dubbed the Cantril Ladder (Helliwell et al., 2020). The Cantril Ladder asks participants to quantify their current happiness on a scale (ladder), where 0 is the lowest and 10 the highest. Approximately 1000 respondents from each country are surveyed every year, and this report contains representative samples of the 156 countries through the years 2016-2018 aged 15 and older (Gallup, 2019). The report's prime goal is to provide a ranked list of happiness scores to the 156 participating countries. Among the 156 nations, scores ranged from Afghanistan's 2.567 to Finland's 7.809.

GDP per capita. To quantify the distribution of national wealth, the GDP per capita was derived from The World Bank database (The World Bank, n.d.-b). GDP per capita was calculated by dividing the specified GDP (USD) of a nation by its population (the most recent year of datum were 2019). GDP per capita scores ranged from \$114 685 in Luxembourg to \$787 in Burkina Faso. An outlier identified as Luxembourg (\$114 685) within the data set was excluded.

The Hofstede Index. This index was used to derive the cultural values of the constituent countries. All indices within the Hofstede Index range from 0 to 100. As per Hofstede, all cultural values can be understood through the critical analysis of traits pertaining to such cultural values (Hofstede et al., 2010). Accordingly, in the individualism index, higher values denote a greater prevalence of self-centered traits. Scores on the higher end are countries such as the United States (91), and a nation on the lower end (implying greater prevalence of collectivistic traits such as conformity) is that such as Guatemala (6). In the power distance index, higher values denote greater acceptance of the inequality in the distribution of power. The highest index scores were shared by Slovakia and Malaysia (100), and the lowest score (implying resistance to the inequality of power and aim to regulate greater equality within the society) was from Austria (11). In the masculinity index, higher values denote greater acceptance of masculine traits such as assertiveness and heroism. Slovakia again has the highest value (100), whereas Sweden has the lowest value (5) (implying more feminine traits such as care for the weak and cooperation). The uncertainty avoidance index, where high values are related to heightened feelings of uncertainty, shows

Greece as the most uncertain nation (100) and Singapore as the most certain nation (implying a more relaxed demeanour) (8). Long-term orientation, where higher scores denote a greater desire to plan and work towards virtuous acts for the future, has South Korea as the longest term-orientated (100) and Puerto Rico (0) as the shortest term-orientated (implying more thought into the present and past as opposed to the future). Lastly, the indulgence dimension, where high values denote a greater allowance of free gratification within a society, has Venezuela (100) as the most indulgent and Pakistan (0) as the least indulgent (implying a tendency to conceal and curb gratification). The final sample included 90 scores for the individualism versus collectivism dimension, power distance index, masculinity versus femininity dimension, and uncertainty dimension. However, datum for the long-term orientation dimension was only available for 84 nations, whereas only 83 nations were available for the indulgence dimension. All included nations within the final sample had no more than 2 missing values on the Hofstede Index (Hofstede, 2015).

Results

All data were analyzed using SPSS (version 26) with a significance level set at .05. Whereas the full dataset included 102 nations, 11 nations (Arab World, Dutch Belgium, East Africa, French Belgium, French Canada, French Switzerland, German Switzerland, Puerto Rico, Suriname, Taiwan, and West Africa) had missing values for a combination of power distance, individualism, masculinity, uncertainty avoidance, happiness, or GDP per capita. Long-term orientation values were missing for 17 nations (Costa Rica, Ecuador, Ethiopia, Guatemala, Jamaica, and Panama), and indulgence scores were missing for 18 nations (Armenia, Costa Rica, Ecuador, Guatemala, Israel, Jamaica, and Panama). A singular outlier (Luxembourg) was identified for GDP per capita and was excluded from the sample. The final sample included 82 nations which had scores for all variables. Overall, the sample of nations tended to be more collectivist ($M = 39.81$, midpoint of 50, $SD = 22.62$), and they tended to be reasonably happy ($M = 5.90$, midpoint of 5, $SD = 0.98$). The average GDP per capita was 20.79k ($SD = 21.10k$). All predictors were screened for outliers, and masculinity was transformed into ranks to correct for non-normality.

Table 1 outlines the variable means, standard deviations, and intercorrelations of the variables. In support of the first hypothesis—that individualism is correlated with happiness—the Pearson product moment correlation was significant, $r(90) = 0.57$, $p < .001$. Moreover, happiness was positively correlated to both indulgence and GDP per capita; and

negatively correlated to power distance. That is, as a society a) allows greater self-gratification and b) achieves higher GDP per capita, they tend to exhibit higher scores of happiness. Alternatively, the more a nations' powerless citizens believe that the distribution of power is unequally distributed, the less happy those citizens tends to be.

To test the second hypothesis, that additional cultural variables would predict national happiness levels, a stepwise regression analysis (excluding GDP per capita) was conducted with happiness as a criterion, and power distance, individualism, indulgence, long term orientation, masculinity, and uncertainty avoidance as predictors. The rationale behind a stepwise regression analysis was to determine what cultural variables adds explanatory power in predicting happiness scores. As outlined in Table 2, the final model explained 59% of the variance, and included power distance ($\beta = -.29$), individualism ($\beta = .27$), indulgence ($\beta = .44$), and long-term orientation ($\beta = .32$).

To test the third hypothesis—that GDP per capita would act as a moderator between happiness and the cultural predictors, countries were trichotomized based on their relative distribution of GDP per capita: lower ($M = \$3.7k$, $SD = \$1.7k$), middle ($M = \$12.6k$, $SD = \$4.2k$), and higher ($M = \$46.5k$, $SD = \$17.1k$). The stepwise multiple regression was repeated for the three sets of nations, as outlined in Table 3. When GDP per capita was low ($n = 27$), the final model $F(1, 25) = 4.62$, $p = .041$ explained 16% of the variance in happiness scores and included only individualism ($\beta = -.39$); in short, national happiness was higher when self-propelled motivations were lower. Whereas none of the predictors were selected among mid-wealth nations ($p > .05$), a unique set of predictors $F(2, 26) = 39.70$, $p < .001$ was identified for high-range GDP per capita nations, accounting for 75% of the variance, and included both indulgence ($\beta = .59$) and power distance ($\beta = -.40$); in short, national happiness was greater when a nation could be described as higher in their demand for equality and more indulgent to their citizens.

Discussion

Based on the analysis of data from 82 nations, the present study has addressed to what extent national cultural values were associated with happiness. The interest was in addressing questions such as whether nations described as more individualist (e.g., United States) report greater happiness than nations described as more collectivist (e.g., China), and would this relation be qualified by the distribution of national wealth among its citizens while addressing common limitations in past research. Three hypotheses were

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advanced: (1) that high levels of national individualism would be positively correlated to happiness at a national level, (2) that other cultural dimensions would be relevant in predicting national happiness, and (3) that the association between happiness and cultural factors would be moderated by GDP per capita. Addressing such questions should allow communities, organizations, and policymakers to better generate social structures and frameworks to either augment or maintain happiness among their citizens.

The first hypothesis—of a significant correlation between individualism and happiness—was supported. These results build on existing literature on the correlation between higher levels of individualism and higher levels of happiness (Diener et al., 1995; Fischer & Boer, 2011; Joshanloo & Jarden, 2016). With a more careful examination of the five countries with the greatest happiness (Denmark, Finland, Iceland, Norway, and Switzerland), readers can observe that their citizens reported an average individualism score (out of 100) of 67, whereas the five least happy countries (Egypt, India, Tanzania, Ukraine, and Zambia) reported an average individualism score of 32. Since many confounding variables remained uncontrolled, the reader should be cautioned herein regarding any causal connections. These results run contrary to the Oghara and Uchida (2014) study, which illustrated a negative effect of individualism. However, the support of this hypothesis was based on the columnniation of results from 90 nations, whereas Oghara and Uchida referred to the negative effect of individualism as it pertained to only Japan. Such aspects as correlated explanatory factors may contribute to an increased happiness level through a domino effect in the sample. To specify, trust in institutions may lead to greater expansion of welfare programs, thereby increasing equality among the disadvantaged and increasing happiness (Macchia & Plagnol, 2019). For the research, this suggests a plausible way that individualism may lead to greater happiness in a global context. The correlation between individualism and happiness may also be indicative of a positive feedback loop. It is possible that happiness can be expected to increase as citizens take more responsibility for their general well-being. Since individualism is predicated on self-centred directives, when individuals take on more directives like pursuing their dream career, they may trigger increases in happiness. Nonetheless, by pursuing such self-centred actions, one may be able to seek happiness in areas they believe will provide them with happiness. In a more collectivist nation, individuals may not pursue their longed-for career due to their social obligations to their family (Mok et al., 2020; Woodhams et al., 2015; Wu, 2014). In being provided with the opportunity to pursue one's self-centred desire, an

individual may be able to find happiness that they would not have been able to obtain through group conformity. Despite the statistically significant correlation between individualism and happiness, it should not be overlooked that other variables had a statistically significant correlation with happiness, such as power distance index, indulgence, and GDP per capita. Such results provide a glimpse into how happiness is associated with a variety of differing variables.

One explanation for this apparent contradiction could be the social undesirability of most forms of bias. Because most types of bias are considered socially undesirable, people may attempt to maintain a positive self-image by consciously rejecting the possibility that they are biased against someone. A conscious rejection of bias has been supported by research on other marginalized groups. Research on women and people of color has found that people often are not consciously aware of being biased. Instead, they justify potentially discriminatory actions as being based on something other than bias (Barreto & Ellemers, 2005; Gaertner & Dovidio, 1986).

The second hypothesis—that additional cultural variables would predict national happiness levels—was also supported. The final model illustrated that power distance, individualism, indulgence, and long-term orientation were significant in predicting a nation's happiness. This overall model highlights the positive association of individualism as secondary to the preliminary negative association of power distance but ahead of the positive association of indulgence and long-term orientation. Specifically, nations were happier when pursuing equality, holding self-centred values, indulging as they pleased, and maintaining long-term orientations. As the preceding order of values implies, the degree to which nations tended to believe that inequalities amongst their citizens were acceptable seemed to be the most significant factor, with nations seeking to foster equality over inequality tending to be happier. That is, as the acceptance of inequality grows, happiness tends to decrease. The degree to which it predicts close to one-third of the variance in happiness is also indicative of the negative relation between happiness and power distance, as observed in previous research (Oishi et al., 2011; Simson & Savage, 2020; Stuntz, 2008; Ye et al., 2015). Furthermore, observing individualism as a secondary variable of importance within the model allowed us to interpret that it was not the most influential factor in predicting happiness. As mentioned earlier, the positive relation of individualism was consistent with previous research (Diener et al., 1995; Fischer & Boer, 2011; Joshanloo & Jarden, 2016). Additionally, the positive relation of indulgence and long-term orientation illustrated that as

people have greater opportunities to indulge in self-gratifying aspects and plan for the future, they tend to be happier. These results are similar to that of Schnizel (2013), however the results may be more complex than illustrated. Specifically, as mentioned by Gaygisiz (2013), higher levels of indulgence and long-term orientation can also be indicative of moderating aspects related to governance quality and human development, which coincidentally can predict happiness (Ott, 2010). In observing the overall model, examples such as Switzerland (3rd happiest nation) and Sweden (7th happiest nation) tended to meet all the criteria of the model that would relate to enhanced levels of happiness. Not only were both nations relatively high (as compared to the mean) in individualism, long-term orientation, and indulgence, but they were also low in power distance. Being some of the happiest nations within the sample, readers are provided with a glimpse into how a model nation would be depicted. Conclusively, a point of interest is the inclusion of long-term orientation within the final model. Despite long-term orientation not being correlated with happiness, its inclusion in the final regression model suggests that it has a suppressive effect on another variable. For context, a suppressive effect constitutes the way an independent variable strengthens the effect of another independent variable on the dependent variable. Within the data, this suggests that long-term orientation may strengthen the effect of another independent variable on happiness. The results are consistent with previous research that have similarly identified multiple determinants of happiness (Garaigordobil, 2015; Jo et al., 2020; Kumari & Duhan, 2019; Mehrdadi et al., 2016).

The third hypothesis—that the association between happiness and cultural factors would be moderated by GDP per capita—was also supported. The inclusion of GDP per capita was based on the well-documented finding that monetary variables are associated with happiness (Dipietro & Anoruo, 2006; Hagerty & Veenhoven, 2003; Senik, 2014). After trichotomizing the data into high, medium, and low GDP per capita, unique cultural predictors of a nation's happiness were observed. That is, as individualism increases, nations in the low GDP per capita category tends to become less happy. These results build upon the existing evidence between individualism, lower economic status, and happiness (Borrero et al., 2013; Veenhoven, 1991). However, an interesting caveat within the analysis is that no cultural variables had a statistically significant impact on happiness scores within the middle GDP per capita category. Hypothetically, although the middle GDP per capita category nations may desire to live individualistically, such factors as their lack of established wealth may hinder acting upon such desire. In higher GDP per capita category nations, there may be a greater ability

to pursue desires due to the security of wealth and benefits that come with higher GDP per capita (i.e., greater government spending on social programs as compared to lower GDP per capita nations). The benefits of such aspects as social spending include reducing poverty, increasing happiness, and improving life satisfaction (Easterlin, 2013; Kenworthy, 1999; O'Connor, 2017; Ortiz-Ospina & Roser, 2016). Moreover, the same could be said about other variables. For example, expressed opposition of the inequality of power, as postulated by the power distance index, may not be deemed acceptable in countries where such expression could be seen as anti-government. Therefore, it is our understanding that the complexity and central stance that the middle GDP per capita category nations would take is indicative of the lack of predictive power of cultural variables. Lastly, concerning the high GDP per capita nations, it was evident that happiness correlated positively to indulgence but negatively to power distance. It should be noted that among high GDP per capita nations, individualism was not included. This runs contrary to the initial assumption of the present research that individualism would lead to greater happiness within the high GDP per capita category. This assumption was predicated on the overlap of traits associated with those within higher socioeconomic classes and individualism. Persons with individualist values tend to exhibit independence, self-centeredness, focus on individual as opposed to collective success, autonomy, and self-direction (Santos et al., 2017). Many of those same values are exhibited within high socioeconomic classes (Piff & Moskowitz, 2018). Based on the overlap of traits as evident within previous research, it was not expected to have any significant interactions between individualism and happiness in the high GDP per capita category. However, one possible explanation for this could be in relation to other values. Although there may be overlap, higher socioeconomic classes may hold indulgence and the acceptance of inequality as more important factors in predicting their happiness. As someone becomes wealthier, they are allowed to become more indulgent and not restrain their desires and impulses as a means of saving money. On the other hand, the negative relation between power distance and happiness in the high GDP per capita category could possibly be explained by previous research which established that inequality tends to negatively impact economic growth (Bagchi & Svejnar, 2015; Brueckner & Lederman, 2018; Ncube et al., 2014). Therefore, since power distance is the cultural value denoting the acceptance of inequality, the economic growth that created the denotation as a high GDP per capita nation may not have been possible with high power distance scores (Hofstede et al., 2010). With such logic, it would be plausible that countries with higher GDP per

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capita would be less willing to accept inequalities within their societies. Additional evidence of this possible reasoning was also supported by the negative relation between power distance scores and GDP per capita illustrated within the correlation matrix of the present study. As mentioned earlier, for its relation to the consistency in being represented as one of the happiest nations, the Nordic nation of Sweden is a good example of this model. Being in the high GDP per capita category, Sweden showcased a high degree of indulgence, low degree of power-distance, and placed 7th in the sample's top 10 happiest countries. The inclusion of GDP per capita within the regression provided a unique facet, wherein upon its incorporation, the predictive power of certain values on happiness was altered. This was exemplified in how high GDP per capita illustrated the statistically significant predictive power of only power distance and indulgence. Whereas those in the low GDP per capita only illustrated a statistically significant predictive power for individualism, and no statistically significant predictive ability was shown for any cultural value in the middle GDP per capita category.

Future Research & Limitations

As with all research, the present study does include some limitations. One of the first limitations of the data is the use of *World Happiness Report* scores as the single measure of happiness. Despite suggesting efficacy in measuring happiness, it does present an issue regarding its utilization, interpretation, and meaning within a larger context. With respect to utilization, the results can only be used with relevance to happiness as it is measured and defined by the *World Happiness Report*. Future studies might aim to break down happiness into specific components such as life satisfaction, perceived health, relationships, and many other components to gain a more in-depth understanding of how more specified components relate to similar analyzes. Such studies can be conducted by utilizing various happiness measures such as the *Oxford Happiness Questionnaire*, *Subjective Happiness Scale*, and *Satisfaction With Life Scale*, to name a few (Diener et al., 1985; Hills & Argyle, 2002; Lyubomirsky & Lepper, 1999).

Additionally, although the data provided valuable results regarding the observation of a nation's level of happiness and cultural variables (i.e., individualism), individual as opposed to aggregate level data would provide a different perspective to the analysis. In the observance of individual levels of data, age differences could be examined. Such research would be conducted by replacing the countries with participants, using surveys instead of archival data, and gauging in-group differences. This would grant researchers an ability to understand the cultural values

held by differing ages and understand whether age-related differences are evident in such relation. Methodology for such studies can be based around measurement tools such as Triandis and Gelfand's (1998) *Culture Orientation Scale*. Through the utilization of methods similar to the Culture Orientation Scale, researchers may be granted a more descriptive understanding of how individualist persons think and how such thought processes contribute to happiness. The generalizability of the results is also limited by the national level of data that was utilized. Future studies may aim to utilize individual-level data obtained through measures such as the *World Values Survey* in order to quantify group differences (i.e., demographics) on the interaction of cultural variables and happiness (World Value Survey Association, n.d.).

Additional limitations are also present within the study concerning the difficulty with cultural constructs. In regard to the cultural values such as individualism and collectivism used within the research, the complexity of their multi-level application brings up an issue of application as it relates to the results. More specifically, cultural values can generally describe both nations, as done within the study, and individuals as proposed through the suggestions for future research. Therein lies the problem as although cultural terms can be applied at both levels, how the values are applied is not exactly isomorphic. Cultural values represent two anchors of a unidimensional scale at the national level, whereas such values tend to be orthogonal on the individual level. Researchers such as Oyserman (2006) and Vignoles et al. (2016) suggest utilizing more adept models of analyzing cultural values to provide greater generalizability of the results.

Conclusion

The present research aimed to identify whether cultural values could be useful and salient as predictors of happiness. It was hypothesized that (1) high levels of national individualism would be positively correlated to happiness at a national level, (2) that other cultural dimensions would be relevant in predicting national happiness, and (3) that the association between happiness and cultural values would be moderated by GDP per capita.

All in all, the results of the present study illustrate that individualism does seem to be correlated with higher degrees of happiness. This lends itself to the general implication that more individualist cultures tend to exhibit higher degrees of happiness. However, based on additional quantitative analysis, happiness seems to be predicted by multiple variables that were moderated by GDP per capita. Due to generalizability limitations, researchers should aim to use more

individualized measures of cultural values and happiness in future studies. Additionally, due to differences in the conceptualization of happiness throughout global societies, subsequent studies must address this issue by using similar methodologies combined with a diverse array of happiness measures.

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Appendix A

Table 1

Correlation Matrix of Hofstede Index, World Bank Data, & World Happiness Report

Variable	n	M	SD	1	2	3	4	5	6	7	8
1. Power-Distance Index (PDI)	90	63.81	21.89	---							
2. Individualism (IDV)	90	39.81	22.62	-.68**	---						
3. Masculinity (MAS)	90	46.53	26.97	.04	.10	---					
4. Uncertainty Avoidance Index (UAI)	90	68.42	22.11	.32**	-.26*	-.17	---				
5. Long-Term Orientation (LTO)	84	46.71	23.22	.10	.10	-.08	.12	---			
6. Indulgence (IVR)	83	44.47	22.69	-.38**	.24*	.15	-.20	-.48**	---		
7. World Happiness Report	90	5.90	.98	-.60**	.57**	-.07	-.08	.10	.46**	---	
8. GDP Per Capita	90	\$20.79K	\$21.10K	-.67**	.68**	.02	-.33**	.15	.37**	.77**	---

* $p < .05$

** $p < .01$

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Table 2

Stepwise Regression Analysis of Hofstede Index & World Happiness Report

Variable	Model 1			Model 2			Model 3			Model 4		
	B	SE B	β	B	SE B	β	B	SE B	β	B	SE B	β
Power Distance Index	-.03	.004	-.63**	-.02	.005	-.37**	-.01	.005	-.26*	-.01	.005	-.30**
Individualism				.02	.005	.36**	.02	.005	.37**	.01	.005	.27**
Indulgence							.01	.004	.28**	.02	.004	.44**
Long Term Orientation										.01	.004	.32**
R ²			.39			.46			.52			.59
F For Change In R ²			51.21**			9.30**			10.83**			13.64**

*p < .05
**p < .01

Table 3

Stepwise Regression Analysis of Hofstede Index, World Happiness Report, and GDP Per Capita

GDP Per Capita	Variable	Model 1			Model 2		
		B	SE B	β	B	SE B	β
Lower							
	Individualism	-.02	.011	-.40*			
	R ²			.16			
	F For Change In R ²			4.62*			
Middle							
Higher							
	Indulgence	.03	.004	.80**			
	Power Distance				.02	.004	.59**
	R ²			.64			.75
	F For Change In R ²			47.18**			12.36**

Note: No statistically significant interactions for 'Middle' GDP per capita.

*p < .05

**p < .01

The American Chill Pill: Tracking Demographic Changes in US Moral Rationalizations (1995-2020)

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Researchers have found that defense mechanisms are linked to moral reasoning. Age and sex are associated with defense utilization, wherein older individuals use mature defense mechanisms, and females use internalizing defenses. Research has identified that morality in society is declining. The present study evaluated the association of age, sex, and wave to rationalization in a situation involving moral reasoning. Age was hypothesized to correlate negatively with rationalizations, and females were hypothesized to utilize more rationalizations. Rationalization utilization was hypothesized to increase over time. Differences were found by age, suggesting older Americans were least likely to rationalize. Rationalization utilization increased over time among all ages. An interaction was found between age and wave, wherein the combination of variables predicted a participant's mean rationalizations. This study fills a gap in the literature by examining how rationalizations change in a nation, helping to understand how society's views on wrongdoings change with time.

Keywords: morality, moral justification, rationalization, defense mechanism, internalizing defense

Les mécanismes de défense seraient liés au raisonnement moral. La littérature suggère que la moralité serait en déclin dans la société. Les individus plus âgés utiliseraient des mécanismes de défense matures et les femmes des mécanismes de défense intériorisées. La présente étude vise à explorer l'association entre l'âge, le sexe et les rationalisations dans une situation impliquant un raisonnement moral. Les hypothèses étaient que l'âge corrélerait négativement avec les rationalisations, que les femmes utiliseraient plus de rationalisations et que les rationalisations seraient davantage utilisées avec le temps. Les résultats suggèrent que les Américains plus âgés étaient moins susceptibles de rationaliser. Une interaction a aussi été trouvée entre l'âge et le temps de mesure, l'utilisation de rationalisation augmentant au fil du temps pour tous les âges. Cette étude ajoute à la littérature en examinant comment la perception sociétale des actes répréhensibles varie au sein d'une nation et dans le temps.

Mots-clés : morale, justification morale, rationalisation, mécanisme de défense, défense intériorisée

As a fundamental part of human nature, morality serves to regulate the actions and behaviours of individuals. Morality is essential for society to thrive, allowing people to live amongst each other, to interact and cooperate (Janoff-Bulman & Carnes, 2013)—without it, society would descend into chaos. Whether they be capital crimes directed at others (like murder or kidnapping), or actions that, while less heinous, are still detrimental to relationships and society (like lying to a friend or spreading rumours), most individuals can make sound moral judgements. However, not

everyone views morality the same way. Whereas some people may think an action is completely immoral, others may believe it depends on various conditions and circumstances, in accordance with Kohlberg's theory of moral development (1958). The way in which an individual rationalizes actions and behaviours can reveal information about a person or relationship. Indeed, the relationship regulation theory posits moral judgements differ based on the type of relationship in which the wrongdoing is occurring and the individual's identity within the relationship (Simpson et al., 2016). For example, a teenager yelling at their siblings is more justified than a teenager yelling at their teacher, due to the nature of the relationship and whether they are an equal or subordinate in the relationship. There will always be individuals who act immorally and disrupt societal order and peace, and there will also be individuals who view immoral actions as acceptable, making

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excuses that justify why such an action is acceptable. An individual telling their best friend they like their new shoes despite finding them hideous will certainly justify telling a small lie as it is not harmful to anyone. However, sometimes individuals will justify actions that are not so harmless, and this seems to be the increasingly frequent case upon examination of political events in the United States in recent years, such as millions of Americans who continued to show support for the president after his many transgressions and vote for him in the 2020 election (NBC News, 2020).

It has been found that the moral reasoning process does not stop once an individual reaches adulthood as previously thought. Instead, individuals continue to develop their moral reasoning well into adulthood (Armon & Dawson, 1997). Through their research, Armon and Dawson have found that there are concrete changes in moral reasoning with age, such as moral reasoning becoming more complex with more individuals reaching post-conventional morality stages (defined as moral reasoning that may secede laws and instead uphold universal ethical principles [Kohlberg, 1958]). This typically only happens once they reach their thirties, and it continues to become more complex until individuals reach a decline in moral reasoning complexity in their elderly years. Researchers have also found that, contrary to findings of prior researchers (Gilligan, 1982), there are no significant sex differences in moral reasoning (Armon & Dawson, 1997). Other researchers have found that differences exist in moral reasoning between liberals and conservatives, such that liberals often find certain actions acceptable that conservative may not, and vice versa (Graham & Nosek, 2009). As society naturally changes over time and becomes more progressive, this could suggest that society's overall moral reasoning tendencies may also shift. As such, these findings may be indicative of individuals possibly finding more actions once considered as wrongdoings (behaviours that may be thought to cause harm, be socially unacceptable, or socially undesirable) acceptable with increasing age and over time. Clear historical markers, such as the end of the Prohibition Era in the United States, or the only recent legalization of gay marriage in the United States are indicators of this. In many cases, changes in moral reasoning can be beneficial, for example, most people today support gay marriage and believe that everyone deserves to marry whomever they love. However, other actions and behaviours can be harmful to everyone if society as a whole agrees that they are acceptable. For example, if moral reasoning changed such that most people find murder acceptable, crime would become rampant. Moreover, it is crucial to track how moral reasoning

changes in society over time by such variables as age, sex, and over time.

As such, the present study tracked Americans' use of moral rationalizations across three decades through an analysis of a large archival dataset drawn from the *World Values Survey* (WVS; Inglehart et al., 2020).

Rationalizations in Today's American Political Arena

Citizens of the United States are no stranger to large-scale rationalization of either unacceptable or even immoral behaviour. For example, the former president Donald Trump has made many obscene remarks towards women and has even boasted about grabbing women inappropriately (Fahrenthold, 2016). Even more notable was Trump's obstruction of justice. When FBI Director James Comey investigated Trump's communications with Russia leading up to the 2016 election, Trump pressured Comey to stop the investigation. After Comey insisted on continuing the investigation with potential criminal charges, Trump fired Comey from his high-ranking position (Sherman, 2019). Trump's actions have even resulted in violence, specifically regarding the insurrection at the Capitol on January 6 2021. After weeks of undermining the 2020 federal election results, Trump urged his supporters to go to the Capitol to fight for his presidency. Mobs of supporters followed his directions, storming Capitol Hill, breaking into the Capitol Building, rioting, and vandalizing. After hours of violence and the deaths of several people and injuries to many others, Trump urged his supporters to go home, but did not condemn the violence and rage (Tan et al., 2021). Trump has committed other wrongdoings throughout his presidency as well, such as his continuous perpetration of the myth that the election was stolen (Rucker, 2020), and his withholding of \$400 million worth of American taxpayers' military aid from Ukraine until they announced an investigation into Joe Biden and his family (Managan & Breuninger, 2020).

Countless political pundits have charged that Trump's actions launched an outright assault on democracy at home, creating a divisive and harmful political environment where millions of Americans questioned the legitimacy of their own government and the right to rule (Dimock & Gramlich, 2021; Freedland, 2020; McGee, 2020). But through it all, Trump's voter base continued to show their support for the president with over 74 million Americans voting for Trump (NBC News, 2020), thus justifying his actions.

Justifications as the Defense Mechanism of Rationalization

THE AMERICAN CHILL PILL

Justifications can be described as actions taken unconsciously by an individual to reduce cognitive dissonance (such that one feels they are a moral person but knows they are about to commit or have committed a wrongdoing) regarding the individual's morality when engaging in moral transgressions (Shalvi et al., 2015). For example, if an individual knows it is wrong to commit infidelity and cheat on their spouse, but they know their spouse has been cheating on them, they may justify to oneself (thereby excusing the behaviour) that it is okay to cheat because they have been cheated on. This justification may reduce any cognitive dissonance (mental conflict occurring when two things are not consistent with each other within the individual's mind [Festinger, 1962]) regarding their morality as a person if they commit this transgression. The individual may then feel as if it is not a wrongdoing and feel comfortable committing the act, and thus feel as if they are still a moral person. For the purpose of this study, justifications will be described as the Freudian defense mechanism of rationalization.

Rationalization of wrongdoings are not exclusive to politics, but are something everyone does to some extent in their everyday life. Rationalizations are unconscious ways in which individuals make excuses for actions or behaviours, typically thought of as wrongdoings (Jones, 1908). Importantly, no two people will always make the same rationalizations, and it should be noted that Kohlberg (1958) asserts that people will rationalize certain actions under various circumstances. Given the increase in recent years of patterns of individualism (Kesebir & Kesebir, 2012), as well as the increasing rationalizing of wrongdoings for actions of the government, it can be argued that the moral landscape in the United States is changing, and individuals are increasingly rationalizing behaviours typically thought of as wrongdoings. Almost a century ago, Taylor (1923) identified individuals as having a constant need for rationalizing actions. People need to reason through their thoughts and intellectually compensate for their behaviours, giving rise to the frequent use of this defense mechanism and its place in moral decision making (Taylor, 1923). As well, defending and morality have been found to be highly related, wherein mature defending is associated with higher morality (Hart & Chmiel, 1992).

Defense mechanisms are unconscious psychological processes by which an individual resolves anxiety resulting from stressful thoughts and situations (Freud, 1937). Many defense mechanisms are outlined by psychoanalytic theory, some of which are healthy and adaptive, and others which are maladaptive and can be harmful if used too often (Freud, 1894). Generally, individuals use a variety of

defense mechanisms in everyday life to work through stressful situations, and the chosen defense mechanism will typically depend on the situation. For example, to work through an unfortunate event like a job-loss, an individual may use the defense mechanism of humour, unconsciously working through amusing aspects of a situation to relieve anxiety and manage stress. Likewise, an individual facing a moral dilemma may use the defense mechanism of rationalization, the act of rationalizing an action, depending on the situation and its circumstances.

Defense utilization is thought to lead to the development of an individual's coping skills (Suls et al., 1996). Coping and defending are distinctly different psychological processes because defenses are unconscious and unintentional while coping is conscious and intentional (Cramer, 2000). However, it is thought that an individual's choice of defense reduces their perception of stress (Suls et al., 1996). In a recursive loop, this alleviation of stress impacts the coping mechanism one chooses to utilize, demonstrating why coping and defending are highly related. An individual who utilizes mature defense mechanisms will have a mature and realistic perception of stress, thus enabling them to utilize adaptive coping strategies. Likewise, an individual who utilizes psychotic or immature defense mechanisms will have an altered view on their reality of stress, leading them to choose maladaptive coping strategies.

Vaillant (2011) proposed a hierarchical model of defense mechanisms. At the bottom (and most immature segment) of the hierarchy are psychotic defense mechanisms, which are thought to be both harmful to the individual and ineffective at working through stressful events. One example of a psychotic defense mechanism is denial, by which an individual unconsciously refuses to believe a situation is happening such as evidence of a gambling addiction (Kline, 1993). Above psychotic defense mechanisms are immature defense mechanisms, which are commonly used by young adults and adolescents and include the defense of acting out, whereby the individual commits an unconscious impulse without thought of consequences. These defenses are considered normative among adolescents and even acceptable when used sparingly among adults (Cramer, 2012). However, these defenses may be harmful and socially undesirable if used too frequently, resulting in undesirable behavior. For example, frequent acting out can result in social deviance, or frequent passive-aggression may result in damage to relationships. Next in the hierarchy are neurotic defenses. While still immature, they are considered slightly more mature than the previous defenses. Neurotic defenses, which can alleviate short-

term stresses, can be maladaptive if used too frequently. An example of a neurotic defense is rationalization, whereby an individual unconsciously makes excuses for a behaviour that is socially unacceptable. For example, a teenager may rationalize drinking alcohol at a party because everyone else is doing it, even though underage drinking is illegal. Finally, at the top of the hierarchy are the mature defense mechanisms, thought to be the most useful and adaptive when working through stressful events. Included is the defense of anticipation, which involves an individual unconsciously preparing for future stresses (Vaillant, 2011). For example, a student giving a speech at graduation may rehearse their speech weeks in advance to feel comfortable.

Defense mechanisms also differ in their expression. Some defense mechanisms are internalizing in nature, by which an individual unconsciously turns their stresses and expressions of the defense inward (Cramer, 1979). For example, rationalization is an internalizing defense mechanism as it involves the individual unconsciously rationalizing to themselves why an action is acceptable. Other defenses are externalizing in nature, by which an individual unconsciously turns their stresses and expression of the defense outward (Cramer, 1979). For example, projection is externalizing whereby it involves the individual unconsciously projecting their stresses onto another person.

Importantly, defense mechanisms have also been found to differ based on several demographic characteristics, such as age and sex (Cramer, 1987; Diehl et al., 1996; Diehl et al., 2014; Levitt, 1991; Segal et al., 2007; Whitty, 2003).

Age Differences in Defense Mechanism Use

Many researchers have taken developmental approaches to examine how defending changes throughout the lifespan. Findings have indicated that immature defense mechanisms are more common during earlier years of life and decrease throughout the lifespan (Segal et al., 2007). This results from normal developmental tasks of increasing independence and testing day-to-day limits, and corresponds to Kohlberg's Theory of Moral Development, which posits that moral development transforms throughout the lifespan and can result in rationalizing certain behaviours under different circumstances. In an early study on defending throughout the lifespan, it was found that a linear model of defense mechanisms was supported, with psychotic and immature defense mechanisms used most in earlier years of development, but more mature defenses used in older years of development (Cramer, 1987). In this study, uses of denial (a psychotic defense), projection (an immature defense), and identification (a mature

defense) were examined among four different age groups: preschool, elementary school, early adolescent, and late adolescent. It was concluded that overall use of defenses increased with age, as did the use of more mature defending (and comparatively less psychotic and immature defending). According to Cramer, whereas defending is not used as frequently in younger years, the defenses chosen are most commonly psychotic and immature in nature. After examination of three age groups (17–23, 40–47, and 63–70), Whitty (2003) found further support for a linear model of defense mechanism use, whereas mature defending was positively correlated to age, such that middle and older groups used more mature defenses and fewer immature defenses compared to the younger group. Results indicated mature defending stabilized throughout adulthood, whereas no differences in mature defending between a middle and older group were found, suggesting a plateau model that perpetuates across adult years. Another study similarly supported a linear model, whereby maladaptive and immature defenses were significantly higher among younger participants than older participants (Segal et al., 2007). After examination of community-dwelling younger adults ($M = 19.7$ years) and older adults ($M = 70.8$ years), it was found that adaptive defense mechanism utilization was relatively stable throughout the lifespan. However, the younger sample displayed higher utilization of immature and maladaptive defenses, such as affiliation and somatization.

Sex Differences in Defense Mechanism Use

Sex differences have also been found to be significant predictors of defending. Research comparing sex differences in defense mechanisms is consistent, wherein males demonstrate greater use of externalizing defenses, and females demonstrate greater use of internalizing defenses. Levitt (1991) supported this result, reporting that males have, in average, higher levels of externalizing defenses than females, and females have higher internalizing defenses than males. It was argued that these differences in defending may not simply be due to biological sex, but traditional gender roles. The same researcher asserted that females are traditionally socialized to internalize stress and emotions, and males are traditionally socialized to externalize stress and emotions, suggesting that in regions where traditional gender roles are highly emphasized, these sex differences in defending are exacerbated. Diehl et al. (1996) found similar sex differences in defending, whereby females tend to choose internalizing defenses, such as turning against the self (redirecting emotions about another person onto oneself), and males tend to choose externalizing defenses, such as reaction formation (turning an impulse into the

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opposite). Like Levitt, researchers suggested that these sex differences are likely exacerbated by traditional roles and gender socialization (Diehl et al., 1996).

Other key sex differences have been found in defending, whereby internalizing defenses are more commonly used in females, and externalizing defenses are more commonly utilized in males. Cramer (1987) found that sex differences in internalizing and externalizing defenses were prevalent, and likely associated with younger age, suggesting that as age increases, sex differences should begin to converge. Whitty (2003) further corroborated these results, finding that females sought defenses that were more externalizing and problem focused. Diehl et al. (2014) found significant sex differences in common defense mechanisms, whereby females choose internalizing defenses such as rationalization more frequently than males.

The use of rationalizations has seldomly been exclusively explored in situations of moral reasoning and decision making, and research is needed on whether rationalizations are increasing with time and how they relate to variables in these contexts. Prior studies have failed to indicate how rationalizations of actions and behaviours change over time in the context of a group of people (such as a group of people in a country, as in the present study). Researching the way in which a group of people change in moral reasoning over time is imperative to determine the kinds of impacts such changes can have on a society. For example, increasing rationalizations for certain actions by society can lead to greater tolerance in a world with increasing diversity, possibly creating more compassion and empathy. Likewise, decreasing rationalization for certain actions could breed strife and hate, or lead people to feel restricted or as if they must hide. For example, abortion was legal in Texas. However, it is now illegal after six weeks of pregnancy, well before many even know they are pregnant (McCammon, 2021). These recent changes to abortion laws indicate a decrease in rationalizing abortion, causing many women to be afraid to obtain healthcare, as well as many physicians to fear for providing adequate healthcare. Moreover, it is important to understand the changes in the way a group of people, such as a society, changes in moral reasoning by key demographic factors like age, sex, and over time. As such, the present study seeks to fill this gap in the literature and determine whether these factors can help explain changes in moral reasoning.

Some commentators have argued that social morality is on the decline in the United States. To test the notion that America is shifting from a focus on communal values towards radical individualism, researchers conducted two separate studies to examine

the frequency with which words related to morality appear in American literature (Kesebir & Kesebir, 2012). In these studies, researchers asserted that dominant cultural themes and messages are ingrained into cultural works such as literature, and thus conducted two studies to screen for the frequency of words related to morality in these works throughout the twentieth century. Between 1901 and 2000, it was found that nearly all the words related to morality (for example, decency and righteousness) were negatively correlated with time. Most notably in decline were words related to modesty of the self (humility and humbleness) and recognition of blessings (gratitude and thankfulness).

Similarly, other researchers have found that the focus on morals in society has shown a decline in recent decades. In a study conducted by Wheeler et al. (2019), researchers examined the frequency with which words related to morals appear in English language books between 1900 and 2007. Although it was found that words related to certain moral foundations (ingroup, harm, and fairness) were stable or rising over time, the frequency with which words related to ingroup and purity moral foundations, as well as words related to general morality were shown to decline steeply over time, only beginning to increase slightly once more in the 1980s, suggesting that the salience of morals in society ebbs and flows over time (Wheeler et al., 2019). Other researchers have found decreases in morality over time as well. In an archival study conducted in Europe, researchers sought to test the levels of trust in society and morality among individuals in Croatia, Slovenia, Bosnia, and Serbia (Lavric et al., 2019). Upon examination of surveys, it was found that respondents in all four countries indicated decreased trust in neighbours, colleagues and social institutions over time, and that respondents in all four countries increasingly rationalized committing transgressions such as accepting bribes and evading taxes (Lavric et al., 2019).

In addition to the decreasing focus on morals found by some researchers (Kesebir & Kesebir, 2012; Lavric et al., 2019; Wheeler et al., 2019), other researchers have found that the focus on harm and immoral concepts has been increasing, resulting in individuals becoming increasingly desensitized to such topics and violence and harm. Upon examination of a sample of American parents with children between the ages of 6 and 17, researchers found that the more parents were exposed to violent or sexual media content, the more desensitized they became and the more they indicated they would allow their young children to consume media containing such content (Romer et al., 2014). Importantly, it has been found by Fanti et al. (2009) that even over a short period of time, individuals

become quickly desensitized to scenes of media violence, feeling decreased empathy for depictions of crime on victims, and a preference for violent scenes over comedic scenes. Moreover, in a society where technology is highly accessible and millions of individuals consume media every day, it can be argued that the trends observed between increased violence and decreased empathy can impact why people may be questioning whether morality is declining. As such, researchers concluded that throughout the 20th century, society saw a steady decline in the focus on morality in society.

Present Study and Hypotheses

The purpose of the present study was to track Americans' use of rationalization (moral justification) by both age and sex using data from the WVS (Waves 3, 4, 5, 6, and 7). Based on research by Cramer (1987), Segal et al. (2007), and Whitty (2003) who found that the utilization of immature defenses decreases with age, it was hypothesized (H1) that age will be negatively correlated with rationalization, whereby older respondents will utilize rationalization less than younger respondents.

Based on research by Cramer (1987), Diehl et al. (1996), Diehl et al. (2014), Levitt (1991), and Whitty (2003) who found that females are more likely to use internalizing defense mechanisms and males are more likely to use externalizing defense mechanisms, it was hypothesized (H2) that females would demonstrate higher levels of rationalization (an internalizing defense) than males.

Finally, based on research by Taylor (1923) who argued that moral reasoning and argumentation were important for rationalizing behaviours to others, Hart and Chmiel (1992) who found that moral decision making was related to defending, and Kesebir and Kesebir (2012), Lavric et al. (2019), and Wheeler et al. (2019) who found that the societal focus on morals was on the decline, it was hypothesized (H3) that the use of the defense of rationalization would increase over time as Americans felt the need to rationalize more wrongdoings.

Method

For the present study, we used a cross-national time series design using data from the WVS (Inglehart et al., 2020), and included Waves 3 to 7 (1995–2020). Begun in 1981, the WVS compares respondents' social and political values. With responses from approximately 86,000 individuals from almost 60 nations, these data provide a reasonably accurate representation of the social and political state of a nation, both nationally and internationally. Through fieldwork conducted by each country's principal

investigator (PI), surveys are typically conducted by a social scientist stationed at an academic institution. Surveys are delivered through structured questionnaires and administered face-to-face (recorded on either computer or paper). If respondents were unable to meet with the PI (due chiefly to regional isolation), the interview was conducted by phone. Questionnaires consisted of approximately 290 questions separated into 14 subsections that measure respondents' political and social attitudes.

For each wave, the WVS employed both stratified and probability sampling. Stratified sampling divides the entire national population into subgroups, from which random samples are drawn. Through probability sampling, the survey sets minimum sampling requirements for different countries, based on the overall population size. For example, although all countries must have a minimum sample size of 1200, exceptions are made for countries with less than 2 million residents (resulting samples approximate 1,000 surveys). The surveys are intended to be representative of the whole population aged 18-years and older. In some instances, the minimum age limit may be lowered if the sample size for the population of 18 years of age and older had been achieved. To maintain this, all respondents are randomly selected regardless of culture, language, and citizenship. In some instances, the PI can lower the minimum age requirement below 18 years.

For analysis, nonparametric tests were performed, which involved transforming raw data into ranked scores. Parametric statistics were then conducted, including the between-subjects factor univariate analysis of variance, Student-Newman-Keuls, and simple effects tests.

Present Sample

We selected only respondents from the United States for analysis, with roughly even sampling of male ($n = 4280$, 49.7%) and female respondents ($n = 4340$, 50.3%). Data volume varied somewhat by wave: Wave-3 (1995–1998, $n = 1513$, 17.6% of total), Wave-4 (1999–2004, $n = 1196$, 13.9%), Wave-5 (2005–2009, $n = 1183$, 13.7%), Wave-6 (2010–2014, $n = 2175$, 25.2%), and Wave-7 (2017–2020, $n = 2553$, 29.6%).

The data further offered us a reasonable breakdown of responses by age. Whereas the mean age across all waves was 46.29 years ($SD = 17.02$), we trichotomized the sample for each wave into younger respondents aged 18–35 years ($n = 2764$, 32.1%), middle-aged respondents aged 36–53 years ($n = 2829$, 32.8%), and older respondents aged 54–94 years ($n = 3027$, 35.1%).

Justification Scale

The justification scale, used to represent actions deemed as wrongdoings to be rationalized, consisted of 10 items used universally across all five waves. They asked each respondent: "Tell me for each of the following statements whether you think it can always be justified, never be justified, or something in between using a scale from 1 = *never justified* to 10 = *always justified*." The statements were the following: (1) *Claiming government benefits to which you are not entitled*; (2) *Avoid a fare on public transportation*; (3) *Stealing property*; (4) *Cheating on taxes*; (5) *Accepting a bribe in the course of their duties*; (6) *Homosexuality*; (7) *Prostitution*; (8) *Abortion*; (9) *Divorce*; (10) *Suicide*.

Although the full sample consisted of 8819 respondents, 199 were removed due to missing items in the justification scale (at least 4 missing among the 10). The attrition was not consistent across waves, supported by a significant chi-square statistic, $\chi^2(4) = 78.16, p < .001$; review of the standardized residuals showed less than expected attrition (4 observed for 27 expected, residual = -4.4) in Wave-4, and more than expected attrition (66 observed for 28 expected, residual = 7.0) in Wave-5. Cronbach's alpha derived for the 10 justification items (across the full sample) was .804, with no evidence of stray or misbehaving items. A summary total was calculated based on the average of the completed 10 items, multiplied by 10, and then converted to a percentage ranging from 0% (never justified) to 100% (always justified).

It must be noted that although several of these variables are universally considered wrongdoings, some of these variables may not be seen as wrongdoings by everyone. For example, it can be said that most individuals would agree that the following wrongdoings are universally considered to be transgressions: claiming government benefits to which you are not entitled, avoiding a fare on public transportation, stealing property, cheating on taxes, and accepting a bribe in the course of one's duties. However, other wrongdoings in this study may be more controversial, as many individuals will not see these actions as transgressions, including the following: homosexuality, prostitution, abortion, divorce, and suicide. As such, two separate analyses were conducted: one analysis with only the universal wrongdoings, and another with the controversial wrongdoings.

Results

A significance level of .05 was utilized for all analyses, conducted using SPSS (Version 25). Across all waves, the mean justification score was 24.95% ($SD = 15.96$), with a skewness of .717 ($SE = .026$) and

kurtosis of .746 ($SE = .053$). Due to the mild deviation from normality, a nonparametric analysis (based on ranked scores) was conducted alongside the parametric statistic to confirm the parametric results without restriction from derivational assumptions. Table 1 shows the mean rationalization scores by age, sex, and wave of analysis. A between-subjects factor univariate analysis of variance included the rationalization percent as the dependent variable, and each of sex (male, female), age (younger, middle, older), and wave (3 to 7) as the independent factors. Results showed three significant main effects plus an age x wave interaction ($p < .05$).

Main Effects

Males had significantly higher rationalization percentages ($M = 25.20, SD = 16.28, n = 4280$) compared to females ($M = 24.71, SD = 15.64, n = 4340$), $F(1, 8590) = 7.20, p = .007$, $\eta^2 = .001$. The main effect for age was also significant, $F(2, 8590) = 159.81, p < .001$, $\eta^2 = .036$. Follow-up Student-Newman-Keuls multiple comparison procedures showed that older respondents had lower rationalization scores ($M = 20.70, SD = 14.25, n = 3027$) compared to middle-aged respondents ($M = 25.11, SD = 15.22, n = 2829$), who had lower rationalization scores compared to younger respondents ($M = 29.45, SD = 17.19, n = 2764$). Finally, the main effect for wave was significant, $F(4, 8590) = 154.94, p < .001$, $\eta^2 = .067$. Follow-up Student-Newman-Keuls multiple comparison procedures showed that respondents from wave-3 had significantly lower rationalization scores ($M = 16.80$) than respondents from waves 4, 5, 6 ($M = 25.05, 24.48, 24.99$, respectively; these means were not different from each other), whose rationalization scores were significantly lower than respondents from wave-7 ($M = 29.92$). Note that these results were confirmed using nonparametric alternative statistics.

Interaction

Whereas both the sex x age ($p = .352$) and sex x wave ($p = .107$) two-way interactions plus the 3-way interaction ($p = .988$) were not significant, the age by wave interaction was, $F(8, 8590) = 3.07, p = .002$, $\eta^2 = .003$. Figure 1 shows the mean percentage of rationalization by both age and wave of study. Table 2 reports the mean rationalization percentage by age and wave. Simple effects tests reveal that when controlling for wave, a consistent pattern emerged for all waves with one exception. For wave-3 only, whereas older respondents had lower rationalization scores than both middle and younger respondents (who were not different from each other), the pattern observed in waves 4–7 were significant differences among each of older, middle, and younger respondents, wherein rationalization decreased with age. Alternatively,

when controlling for age, both middle and older respondents exhibited a comparable pattern, wherein respondents from waves 3 had lower rationalization scores than respondents from each of waves 4, 5, 6; whose rationalization scores were lower than respondents from wave-7. The exception was observed among younger respondents, where rationalization was lowest at wave-3, followed by waves 4 and 5, then wave-6, and finally wave-7. Note that these results (based on ranked data) were confirmed using nonparametric alternative statistics.

Universal vs. Subjective Wrongdoings

Overall, it appears that individuals rationalized subjective wrongdoings much more than individuals rationalized universal wrongdoings, suggesting that many individuals may not think the actions listed as subjective wrongdoings are wrongdoings at all. Main effects were observed for universal wrongdoings (see Appendix A), wherein there were differences in rationalizing universal wrongdoings by wave, sex, and especially age (younger participants rationalize more than middle-aged participants who rationalize more than older participants), as well as interactions (see Appendix A). For subjective wrongdoings, there were also main effects observed (see Appendix B), wherein there were differences in rationalizing subjective wrongdoings especially by wave (such that each successive wave saw increases in mean rationalizations, except for wave 4 and wave 5 which had no significant differences), as well as by age, but not by sex. There were also interactions observed (see Appendix B).

Discussion

Regarding the hypotheses that age, sex, and wave can predict Americans' use of rationalizations between 1995 and 2020, findings were mixed.

Rationalizations by Age

The first hypothesis—that age would be negatively correlated with respondents' use of rationalizations—was supported. As such, Americans who participated in the WVS were much more likely to rationalize a wrongdoing, such as abortion or prostitution, if they were in the younger group than the middle age and older groups. Still, a participant in the middle age group was more likely to rationalize a wrongdoing than a participant in the older group.

That older participants were less likely to rationalize a wrongdoing than middle age and younger participants supports existing literature of a negative linear relation between immature defense mechanism and age (Cramer, 1987; Segal et al., 2007; Whitty, 2003). As well, based on differences among the age

groups, these findings contribute to the progression of moral decision making throughout the lifespan. Findings were in support of an association between increasing age and decreased rationalization, possibly helping understand why it is that when people mature, they generally commit fewer transgressions, such as getting into legal trouble through actions like stealing (Steffensmeier et al., 1989). These findings offer further support to Kohlberg's (1958) theory of moral development, suggesting that morality may change throughout the lifespan. Differences between the three age groups may indicate that moral development does not stop once an individual finishes adolescence and reaches adulthood, but instead continues, and the utilization of the immature defense of rationalization decreases. However, it is possible that these findings result from cohort effects wherein older groups commit fewer crimes due to generational factors.

Rationalizations by Sex

The second hypothesis—that female respondents would show higher uses of the internalized style of rationalization than males—was not supported. Rather, it was found that male respondents were more likely to rationalize an action than female respondents, including rationalizing actions such as cheating on taxes. These findings contradict the literature, which states that males are more likely to engage in externalizing defenses, and females are more likely to engage in internalizing defenses (Cramer, 1987; Diehl et al., 1996; Diehl et al., 2014; Levitt, 1991; Whitty, 2003). Upon examination of sex differences, although they are significant, differences between males and females for mean rationalizations are only within a few points of each other. It is possible that this is due to sex differences converging with increasing age, as suggested by Cramer (1987).

These findings contribute to the literature on the superego in Freudian theory. Freudian theory asserts that males have stronger superegos than females (Freud, 1933), suggesting that women have weaker superegos because of sex differences in development and notions such as penis envy. However, these findings suggest the opposite. If males offer more rationalizations on average than females, this is indicative of females having a stronger superego, and males finding a greater need to rationalize their wrongdoings. Perhaps males are more immoral than females, contrary to Freudian theory (Freud, 1933), or females are stricter than males. Interestingly, other researchers have suggested that women have stronger superegos than males, wherein they experience greater shame in wrongdoings and are more empathetic than men (Tangney & Dearing, 2002). It could be suggested then that men were more likely to rationalize the actions than women because women

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felt greater shame towards committing such wrongdoings and greater empathy for victims of the wrongdoings. For example, women in this study may have felt more empathy for individuals and thus would not be able to rationalize stealing property from them. Future studies could explore these avenues.

Rationalizations by Wave

The final hypothesis—that the use of rationalizations would increase over time—was supported. Wave-3 had the lowest average use of rationalizations among all participants. Interestingly, Waves 4, 5, and 6 all had higher rationalizations than Wave-3 but were not statistically different from one another. Wave-7 however exhibited the highest average use of rationalizations compared to the other waves. This could be indicative of Americans becoming much more tolerant and relaxed over actions once thought of as transgressions, such as abortion and divorce, over time. It is possible that different societal factors, such as decreasing influence of the church, is impacting these increasing rationalizations. Perhaps, as fewer Americans are attending church and labelling themselves as religious individuals (Brenner, 2016), more Americans feel comfortable with actions typically thought of as transgressions by the church, like divorce and abortion, and thus are increasingly rationalizing them.

Although not hypothesized, we did observe an interaction between age and wave. Except for Wave-3, where older respondents had lower rationalization scores than middle age and younger respondents, a consistent pattern was observed where each age group consistently increased in their uses of rationalizations over time. As such, in each wave, older respondents rationalized on average the fewest actions, middle age respondents rationalized more than older respondents, and younger respondents rationalized more than middle age and older respondents. Moreover, from 1995 to the present, respondents in all age groups rationalized more wrongdoings.

These results are in support of the findings of Kesebir and Kesebir (2012) who found that the societal focus on morality has been declining in the United States in recent decades. If Americans are rationalizing more actions that have been deemed as wrongdoings, such as prostitution, cheating on taxes, and stealing property, then it can be inferred that they must have a reason to do so. Perhaps these actions are occurring more frequently in society, and Americans are finding the need to reduce the cognitive dissonance associated with committing or witnessing more frequent wrongdoings and their internal moral compass. As such, they unconsciously turn to the defense of rationalization and make excuses for why such behaviours are acceptable, thus becoming more

relaxed over time rationalizing these transgressions. It could be presumed then that future generations of Americans would rationalize even more behaviours than Americans in Wave-7, and that average rationalizations will continue to increase over time as Americans continue to become more relaxed on rationalizing wrongdoings.

One example of such an occurrence is the frequent wrongdoings committed by politicians—individuals stereotypically rife with corruption; and by this we return to Trump. As the Republican nominee for president, over 60 million Americans voted for Trump in 2016, and over 70 million in 2020 (NBC, 2020). These people include everyday Americans who try to avoid committing wrongdoings just like the next person. Yet, when news stories surfaced about Trump's misdeeds, these same Americans may have unconsciously rationalized his behaviour to reduce cognitive dissonance (Jarcho et al., 2011). This could explain the large increase in mean rationalization from waves 4, 5, and 6 (which were not statistically different from one another), to Wave-7 (2017), corresponding to the Trump presidency.

Other political events may explain the sizable increase in rationalizations from Wave-3 to Wave-4. Wave-3 (1995–1998) showcased the lowest mean use of rationalizations and significantly lower than the next wave, Wave-4 (1999–2004). During this period, President Bill Clinton's affair with his intern Monica Lewinsky became sensational news and led ultimately to his impeachment. Many Americans were shocked to hear about such a scandal, and likely also felt dissonance having voted for Clinton. Many of these constituents likely felt a need to reduce this cognitive dissonance, and seeing such public occurrences of wrongdoings, rationalize more actions like their support for Clinton, utilizing the defense of rationalization to subdue this internal stress and thereby becoming more relaxed towards rationalizing such behaviours. Likewise, during Wave-4 (1999–2004), many political events occurred in the United States that could have increased Americans' use of rationalizations, namely the events surrounding the September 2001 terrorist attacks in New York, Washington D.C., and Pennsylvania; as well as President G.W. Bush's controversial invasion of Iraq (in search of the never-discovered weapons of mass destruction). Not only was 9/11 a traumatic experience, but it brought forth many changes to Americans' lives. Flights were suspended, the country's borders were closed briefly, and national security increased significantly, especially for airline travel. The Iraq War (2003) involved increased American presence in the Middle East, with staggering civilian casualties and military violence. Many Americans arguably felt the need to rationalize

an increase in such actions, and thus could explain why rationalizations increased during this time, and Americans once again became more relaxed towards rationalizing such grand displays of transgressions. Moreover, it can be concluded that Americans' use of rationalization for wrongdoings has increased over time, and that this is possibly due to the increase in cognitive dissonance experienced by many Americans as they watch political events and crises involving wrongdoings unfold with increasing frequency over time, such as the Monica Lewinsky scandal, the invasion of Iraq, and the many wrongdoings committed during the Trump presidency.

Strengths

The present study contains several strengths that warrant mention. Firstly, it should be noted that the present study fills a major gap in the literature on the use of rationalization over time. Although prior research has examined changes in small groups of participants, prior research failed to examine how a large group of people change in moral reasoning over time and by factors such as age and sex. The present study fills this gap by bringing a large and diverse sample size of individuals from a society (the United States) and examining how Americans change in moral reasoning over time, by age and by sex. Importantly, the present study also brings a combination of parametric and non-parametric analysis to a large archival database, presenting a unique study design to answer the research question. The utilization of non-parametric analyses allows for greater statistical power in confirming the parametric statistics, which are slightly non-normal in this sample, as the sample is so large and diverse. The combination of parametric and non-parametric tests is also beneficial in analyzing the different types of variables (for example, the ranked rationalization scores). The unique design of this study is beneficial as it allows for rationalizations to be compared to events throughout the years, permitting individuals to predict which events brought about changes in rationalizing wrongdoings over time.

Limitations

The present study has several limitations that warrant mention. To begin, the cross-sectional nature of the WVS may confound the association between age and rationalization levels. Although it was found that older respondents were less likely to use rationalizations than younger respondents (except for Wave-3), this could be due to cohort effects, whereby older generations rationalize fewer actions than younger generations. This could suggest that decreased levels of rationalization in older respondents would simply be due to generational effects rather than maturity in defense mechanisms. It

is possible that varying generations have unique views on rationalizing wrongdoings. For example, older generations, such as those that were drafted into a World War experienced a more collectivistic life, whereby they had to make personal sacrifices to fight in the war. These generations may find it more difficult to rationalize their own behaviours when they focused on the needs of the group over the needs of the individual for so many years (for example, giving up their youth to serve their country). They saw firsthand the effects of war, violence, and many other wrongdoings, and as such may be less likely to rationalize such actions because of their experiences. These generations often grew up very religious and may also find it harder to rationalize actions such as abortion and divorce, typically marked as sinful by many religions. However, younger generations may be more likely to rationalize their own behaviours, as many societies today are more individualistic than in the past. Current examples can be seen with the Coronavirus pandemic, wherein so many individuals focus on individualistic and self-focused desires of not wanting to wear a mask or follow store protocols instead of focusing on the needs of the group which is to protect society from the pandemic (Dinić & Bodroža, 2021).

The nature of the study, whereby participants were interviewed, either face-to-face or over the phone, as opposed to filling out a questionnaire, may have resulted in social desirability effects. This could mean that the rationalization levels reported may be lower than what respondents would truly answer, as respondents may have wanted to answer in such a way as to make themselves fit in with societal norms. For example, a participant may have thought that claiming government benefits to which they are not entitled is an acceptable action but answered that it was never justifiable as to appear more socially desirable.

Importantly, a limitation of this study is that many of the actions listed on the scale as wrongdoings are very subjective. Although some of the items on this scale are universally considered to be wrongdoings, such as stealing property and cheating on taxes, other items are subject to personal, religious, and cultural beliefs. For example, for some individuals, divorce may be viewed as a wrongdoing within their religion and as such, they may believe it to be a transgression. However, other individuals who do not share the same religious beliefs may not have these views, and thus may not view divorce as a moral transgression at all. Moreover, to compensate for this limitation, additional analyses with subjective and universal wrongdoings were conducted.

Finally, the design of the present study was not a causal design, and so no causal conclusions can be

drawn.

Directions for Future Research

Future studies should examine a wide variety of actions to see how people of different ages and sexes rationalize a variety of wrongdoings. Perhaps other studies should look at more common occurrences; for example, many people in the study likely have never stolen something or had an abortion or divorce, although these are common occurrences. Future studies should examine a wide variety of wrongdoings, including more everyday occurrences, such as spreading rumours or lying. Importantly, future studies should examine a variety of externalizing and internalizing behaviours to encompass actions equally characteristic of men and women. Future researchers may benefit from studying sex differences in rationalization to determine whether males are more immoral, or females are stricter in rationalizations as they feel more empathy for the victim (Tangney & Dearing, 2002).

As well, future research on the use of rationalization with different populations is needed to determine whether people in other countries are displaying similar patterns of increasing rationalizations. Results would be informative as to whether this phenomenon is uniquely American, Western, or global.

Finally, it would be most beneficial to examine how the defense of rationalization relates to the broader picture of the association between coping and defending. Examination of how coping skills relate to rationalization can be informative in determining how people cope with actions they have done or may do, and what this means for their identity. For example, it would be beneficial to study the coping skills used by an individual who may rationalize major events in everyday life, such as abortion or divorce, sorting out how effectively an individual may be able to cope and how this translates to their self-image should they have to endure it.

Conclusion

To conclude, findings in this study support the literature in suggesting that older individuals tend to use fewer immature defense mechanisms, like rationalization. It was demonstrated that older individuals are less likely to rationalize an action viewed as a wrongdoing than are younger individuals. Significant sex differences were found in the use of rationalization, whereby males were significantly more likely to rationalize an action than were females. This finding is contrary to prior research, which has suggested females would have been more likely to rationalize given their internalizing nature and as

women have been said to have weaker superegos. Rationalizations over time were indicative of overall increases in rationalization in the late 1990s and early 2000s, then a constant trend until 2017 wherein rationalizations increased once more. These findings suggest that there may have been crucial events in American society during these times that may have resulted in Americans tending to rationalize more wrongdoings to reduce any cognitive dissonance experienced by witnessing such transgressions occur in their society. Clinton supporters may have had to learn to rationalize their voting for him after the Monica Lewinsky scandal, everyday Americans may have had to learn to rationalize heavily increased political violence in the Middle East following the invasion of Iraq, and Trump supporters may have had to learn to rationalize their voting for him after the numerous wrongdoings he committed during his presidency, such as the insurrection at the Capitol. These increasing rationalizations thus have translated into Americans' everyday lives—after finding themselves having to constantly rationalize what was occurring in politics and society, they may have found themselves unconsciously rationalizing acts more frequently in their personal lives, thus becoming more relaxed on rationalizing transgressions with time. After witnessing corruption in the Trump presidency, many may have little qualms rationalizing taking government benefits to which they were not entitled.

Moreover, this study contributes to the body of research on the defense mechanism of rationalization by examining how rationalizing relates to age and sex, and how it changes in use over time in the context of moral decision making. As described by Taylor (1923), humans are rationalizing beings, unconsciously seeking reasons to compensate for their behaviours. Used sparingly, the defense mechanism of rationalization can aid in the short-term relief of stress—everyone makes mistakes in life, and sometimes people need to excuse their actions to get themselves through them. However, when used too frequently, rationalization can result in constant rationalizations of unacceptable behaviour, such as rationalizing extreme acts of political violence like the insurrection at the Capitol and the president's encouragement of it, resulting in impaired functioning, social rejection, and an overall decrease in the moral compass of a society whereby Americans are becoming numb to these transgressions and are increasingly relaxed in rationalizing them.

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Table 1

Mean (SD) Rationalization by Wave, Sex, and Age

Wave (Years)	Younger (18-35)			Middle (36-53)			Older (54-94)		
Sex	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>
Wave-3 (1995–1998)									
Males	20.07	14.00	223	18.31	12.79	253	13.54	11.42	273
Females	19.03	12.91	229	18.38	12.54	234	13.14	11.25	301
Wave-4 (1999–2004)									
Males	29.12	16.44	213	25.35	15.70	174	21.42	13.23	119
Females	27.23	17.59	233	23.84	14.86	287	21.28	14.05	170
Wave-5 (2005–2009)									
Males	29.47	18.31	139	26.66	16.13	227	22.07	14.94	231
Females	26.45	16.31	169	23.32	14.41	194	21.18	14.30	223
Wave-6 (2010–2014)									
Males	30.33	17.71	536	25.27	15.98	337	21.18	14.19	458
Females	30.56	17.04	278	25.15	13.95	341	22.38	14.48	503
Wave-7 (2017–2020)									
Males	35.16	17.21	431	30.12	15.74	426	24.37	14.40	518
Females	33.93	15.74	591	28.98	14.57	356	23.49	13.74	231

Table 2

Simple Effects Test for Age x Wave Interaction

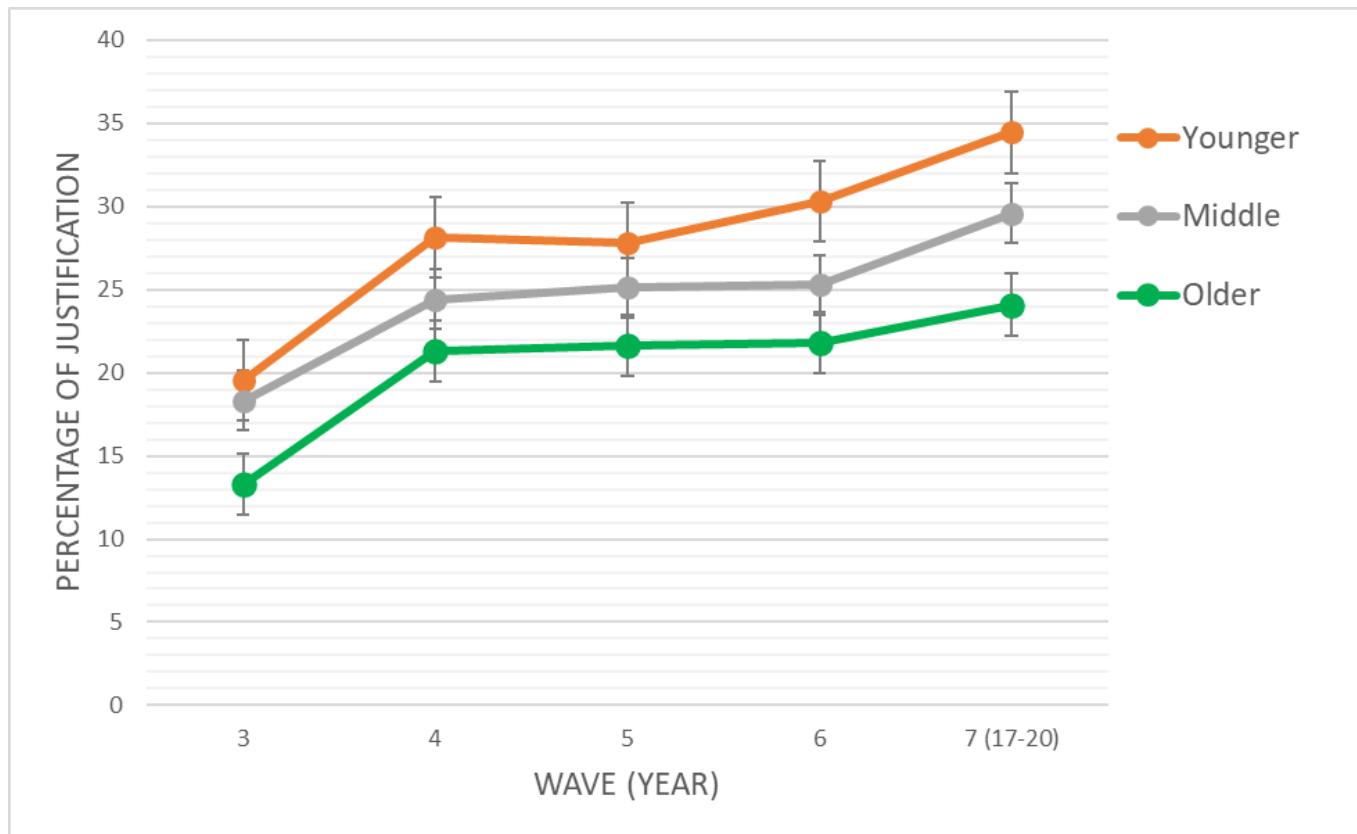
Wave (Years)	Younger (18–35)			Middle (36–53)			Older (54–94)		
	M	SD	n	M	SD	n	M	SD	n
Wave-3 (1995–1998)	19.54 _a	13.45	452	18.34 _a	12.66	487	13.33 _a	11.32	574
Wave-4 (1999–2004)	28.13 _b	17.06	446	24.41 _b	15.18	461	21.33 _b	13.70	289
Wave-5 (2005–2009)	27.81 _b	17.28	308	25.12 _b	15.44	421	21.63 _b	14.62	454
Wave-6 (2010–2014)	30.33 _c	17.71	536	25.27 _b	14.98	678	21.81 _b	14.34	961
Wave-7 (2017–2020)	34.45 _d	16.38	1022	29.60 _c	15.22	782	24.10 _c	14.19	749

Note. Column subscripts that are identical are not significantly different.

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Figure 1

Change in Justifications by Age and Wave



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Appendix A

Universal Wrongdoings Statistics

Mean (SD) Rationalization by Wave, Sex, and Age for Universal Wrongdoings

Wave (Years)	Younger (18–35)			Middle (36–53)			Older (54–94)			
	Sex	M	SD	n	M	SD	n	M	SD	n
Wave-3 (1995–1998)										
Males		9.68	6.02	225	8.09	4.41	257	6.86	3.72	278
Females		8.65	5.05	232	7.57	4.25	237	6.48	3.12	303
Wave-4 (1999–2004)										
Males		13.71	8.53	214	10.23	7.02	174	8.49	5.11	120
Females		12.40	8.61	233	9.69	6.48	288	8.67	6.15	170
Wave-5 (2005–2009)										
Males		13.83	9.54	142	10.99	7.51	227	8.93	6.26	232
Females		11.39	7.58	170	9.34	6.52	196	8.32	5.82	225
Wave-6 (2010–2014)										
Males		13.92	10.19	260	10.04	7.54	340	8.18	6.13	460
Females		12.76	8.89	281	9.25	6.66	342	7.88	6.23	506
Wave-7 (2017–2020)										
Males		13.6	8.84	434	10.57	6.92	428	8.44	5.45	519
Females		13.01	8.02	597	10.51	7.40	360	8.89	6.50	232

Table A2

Test of Between-Subjects Effects for Universal Wrongdoings

Variable	Degrees of Freedom (df)	F Statistic (F)	Significance (p)	Partial Eta Squared (eta ²)
Wave	4. 8681	48.25	< .001	.02
Sex	1. 8681	20.30	< .001	.00
Age	2. 8681	228.75	< .001	.05
Wave x sex	4. 8681	2.33	.053	.00
Wave x age	8. 8681	3.64	<.001	.00
Sex x age	2. 8681	4.39	.012	.00
Wave x sex x age	8. 8681	0.15	.997	.00

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Appendix B

Subjective Wrongdoings Statistics

Table B1

Mean (SD) Rationalization by Wave, Sex, and Age for Subjective Wrongdoings

Wave (Years)	Younger (18–35)			Middle (36–53)			Older (54–94)			
	Sex	M	SD	n	M	SD	n	M	SD	n
Wave-3 (1995–1998)										
Males		18.84	9.81	227	18.97	10.19	258	15.55	9.06	277
Females		18.53	9.82	231	19.32	9.80	237	15.62	8.92	303
Wave-4 (1999–2004)										
Males		21.66	10.44	214	21.36	10.50	174	19.70	9.52	120
Females		21.15	10.56	233	20.51	10.04	288	19.40	10.12	170
Wave-5 (2005–2009)										
Males		21.82	10.52	141	21.83	10.97	227	19.73	9.90	232
Females		21.25	9.87	169	20.48	10.03	195	19.59	19.74	223
Wave-6 (2010–2014)										
Males		24.52	11.61	258	24.42	11.42	337	22.69	11.30	459
Females		26.27	11.41	279	25.16	11.55	341	24.07	11.59	503
Wave-7 (2017–2020)										
Males		27.32	11.00	433	25.93	11.11	427	23.33	10.90	518
Females		26.67	10.47	596	24.72	9.94	358	22.16	10.06	231

Table B2

<i>Test of Between-Subjects Effects for Subjective Wrongdoings</i>				
Variable	Degrees of Freedom (df)	F Statistic (F)	Significance (p)	Partial Eta Squared (eta ²)
Wave	4. 8658	142.93	< .001	.06
Sex	1. 8658	.570	.450	.00
Age	2. 8658	42.20	< .001	.01
Wave x sex	4. 8658	3.66	.006	.00
Wave x age	8. 8658	2.39	.014	.00
Sex x age	2. 8658	.33	.716	.00
Wave x sex x age	8. 8658	.18	.994	.00

The Effect of Feminist Identification on the Perceived Authenticity of Male Allies

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Male allies are often described as essential to reducing gender inequity. However, some men may become allies through benevolent sexist beliefs. While some women recognize this as a suboptimal form of allyship, others may interpret it as authentic. We investigated whether the type of allyship (egalitarian vs. benevolent sexist) influences women's perceptions of authenticity and whether women's feminist identification moderates this effect. Women ($N = 132$) undergraduate students completed a pre-screening survey including a measure of feminist identification. They read about and rated the authenticity of a male ally who exhibited egalitarianism or benevolent sexism in his effort to increase women representation in a male-dominated club. Women perceived the egalitarian ally as highly authentic regardless of their feminist identification. However, higher feminist identification was associated with higher perceived authenticity for the benevolent sexist ally. Results are discussed in terms of how feminist identification can influence women's perceptions of men who help.

Keywords: allyship, benevolent sexism, authenticity, feminist identification, gender equity

Les alliés masculins sont souvent décrits comme essentiels à la réduction des inégalités entre les sexes. Cependant, certains hommes sont motivés à devenir des alliés par des croyances sexistes bienveillantes. Certaines femmes considèrent cette forme d'alliance comme peu optimale alors que d'autres peuvent l'interpréter comme authentique. Nous avons étudié l'influence du type d'allié (égalitaire ou sexiste bienveillant) sur la perception d'authenticité et vérifié si l'identification féministe modère cet effet. Des étudiantes de premier cycle universitaire ($N = 132$) ont répondu à un sondage mesurant leur identification féministe. Elles ont ensuite lu et évalué l'authenticité d'un allié masculin faisant preuve d'égalitarisme ou de sexe bienveillant dans ses efforts pour augmenter la représentation des femmes dans un club majoritairement masculin. Indépendamment de leur identification féministe, les femmes percevaient l'allié égalitaire comme hautement authentique. Cependant, une identification féministe plus élevée était associée à une perception d'authenticité plus élevée pour l'allié sexiste bienveillant.

Mots-clés : alliance, sexe bienveillant, authenticité, identification féministe, équité de genre

Male allies are increasingly being recognized as helpful and effective supporters in women's efforts to reduce gender inequity. For example, there is some evidence that men are seen as more persuasive than women at challenging sexist behaviour, which can reduce the burden on women (Gervais & Hillard, 2014). Moreover, because men often hold leadership positions and have access to more resources, supportive men can facilitate women's career advancement by being mentors and advocates (Madsen et al., 2020).

However, there remains considerable ambiguity in the existing psychological literature about what makes

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a man a good ally and especially about the way women determine who are authentic allies. Despite good intentions, men can be unaware of how women perceive their help and the full consequences of their actions (Cheng et al., 2019). Furthermore, it appears that not all male allies or allyship behaviour are seen as helpful, even by the women who are receiving the male ally's help. Macomber (2018) describes the wariness some women have of men being involved in feminism because of their tendency to perpetuate male dominance within the movement. This might imply that women can be skeptical of a male ally's motivation and thus their authenticity, resulting in distrust. Thus, male allies are not always liked or accepted by the women they seek to support.

If perceptions of authenticity can lead to trust, acceptance, and to effective relationships between male allies and the women they seek to help, it is important to understand what leads to women perceiving authenticity from male allies. Therefore,

while the call for men to get involved in feminism and gender equity is growing, more research is needed to offer a fuller understanding of how women react and engage with male allies. A focus on women's attributions of authenticity will offer insights into how the two groups can work together to achieve gender equity. The current study contributes to a small but growing literature that focuses on allyship from the perspective of the non-dominant group (i.e., women) to better understand the relationship between allies and the group they seek to help.

Defining Allies and Authenticity

Allies have been defined and conceptualized in different ways. For example, allies can generally be seen as members of dominant groups who engage in actions that improve the status of the non-dominant group (Droogendyk et al., 2016). On the other hand, a person may only be recognized as an ally if they have what is said to be the "right" motivation, such as being altruistic and focused on the needs and interests of the other group (Edwards, 2007). In addition, who is seen as a "real ally" or a "good ally" can vary between members of the non-dominant group and may depend on what kind of support they want from allies. A review of academic and public literature by Carlson and colleagues (2019) found distinct yet interrelated qualities of allies, such as being accountable to people they wish to support and being critical of oppressive structures that grant them privilege. The identity and goals of the non-dominant group can inform what qualities are desired and necessary to determine who is an ally. Thus, the definition of allies is fluid as the goals of the non-dominant group change.

Given the various ways that allies have been defined in the academic literature and by the general public, it is understandable that what constitutes an ally and allyship behaviour can be unclear. For the purposes of this paper, we will define a male ally as a man who seeks and engages in actions that could help improve the status of women. This allows the possibility of male allies to engage in actions that support women for numerous reasons (Estevan-Reina et al., 2020; Radke et al., 2020), where that allyship behaviour can result from multiple motivations (e.g., acting to help women but also to raise the image of one's own in-group by appearing supportive). It is also possible that a male ally's support can be motivated by paternalistic motives that equate paternalism with genuine respect towards women and their struggles. In fact, male allies can have good intentions but may be helping in ineffective or unfavourable ways (Macomber, 2018).

Furthermore, public discourse has suggested that some forms of allyship are fake or performative while

others are true and authentic in their support for the non-dominant group. For example, article headlines such as "Performative Allyship: What Are the Signs and Why Leaders Get Exposed" (Morris, 2020) and "Authentic Allyship in the Workplace: How to" (Kalsi, 2020) suggest a dichotomy between fake and authentic allyship and extol the benefits of the latter and the failings of the former.

Some of these references to authenticity divulge the motivations to become an ally. For example, authenticity refers to the genuine desire to support and improve the non-dominant group's status, rather than pursuing self-interest or benefits for one's own dominant group. Radke and colleagues (2020) call this "outgroup-focused motivation" because the ally is focused on the needs of the out-group and their actions may even have a negative impact on their own in-group. Thus, perceived authenticity of a male ally in a woman's perspective is the thought that male allies are acting with the genuine motivation to improve women's status and to promote gender equity.

Benevolent Sexism from Male Allies

Some men become allies for egalitarian reasons. They genuinely want to improve women's status because they both acknowledge the injustices women face, thus rejecting the legitimacy of current gender inequalities (Drury & Kaiser, 2014). Other men become allies based on beliefs that men have both a duty and the capability to protect women which are rooted in *benevolent sexism*. While the premise of benevolent sexism can sound supportive, benevolent sexism is based on beliefs that women are weak and unable to succeed on their own or protect themselves (Glick & Fiske, 1996). This can lead men to be overprotective of women and offer them support that is patronizing, which does not directly challenge underlying gender inequity.

In addition, some motivations can influence the types of help male allies provide. For example, men who endorse more benevolent sexist beliefs give more dependency-oriented help, a type of help that solves the entire problem for the help-seeker rather than giving them the means to solve it themselves (Nadler & Halabi, 2006). This type of help leaves women dependent on men, thereby perpetuating stereotypes that women are incompetent (Shnabel et al., 2016). Although dependency-oriented help can sometimes be necessary and beneficial, the benefits are mostly short-term. Conversely, autonomy-oriented help gives women the resources needed to solve their own problems and acquire more resources for and by themselves. This type of help can challenge structural barriers and inequalities that disadvantage women by increasing women's agency. Thus, the benefits are

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long-term. For example, male allies were seen to be more effective in supporting their women colleagues when they gave women opportunities to speak for themselves in meetings and directly show their competence, instead of the man speaking on their behalf (Cheng et al., 2019).

Not only can benevolent sexism influence the types of help male allies give, it can also limit who benefits from that help. Benevolent sexism may motivate male allies to help specific women in their lives who they see as their responsibility to protect and support (Estevan-Reina et al., 2020). These men are less likely than men with egalitarian beliefs to engage in broader social action to promote more systemic changes that would contribute to gender equity. While this interpersonal level help may be beneficial to some women, it does not challenge gender inequity on a group nor on a structural level. Similarly, Hideg and Ferris (2016) found that men who endorse benevolent sexism supported employment policies to hire more women but mainly for roles that are traditionally feminine (e.g., teachers, nurses), many of which are not leadership positions. The continued funnelling of women into these positions serves to perpetuate gender stereotypes. Thus, men motivated by benevolent sexism are limited in the type, the scope, and the effectiveness of their allyship, and may even be counterproductive to the broader goals of gender equity.

Perceiving Benevolent Sexism from Male Allies

The idea that there are sexist male allies may seem counterintuitive. This may be because people often equate sexism with what Glick and Fiske (1996) refer to as *hostile sexism* – overtly discriminatory and disparaging attitudes towards women. Sexism of this type is more noticeable and more openly condemned. Men who enact this form of sexism are unlikely to ever be seen as allies. In contrast, because benevolent sexism appears positive and complimentary, the stereotyping and differential treatment of women is often more subtle, and thus can go undetected and unchallenged (Barreto & Ellemers, 2005). In this way, it is possible that while some women will detect and challenge a male ally who endorses and demonstrates benevolent sexism, others may not.

For example, research shows that women who experience benevolent sexism from men can feel anxious (Barreto & Ellemers, 2005) and incompetent (Kuchynka et al., 2018). Moreover, some women recognize that benevolent sexism is based on stereotypes that support women's lower status and thus find it problematic (van Breen et al., 2017). However, there is also evidence that some women perceive men who give patronizing and paternalistic

help to be warm because they appear kind and caring (Becker et al., 2011). Furthermore, some women find men who exhibit benevolent sexism to be more attractive and preferable as a romantic partner because it suggests that the man is more willing to protect and provide for the woman (Gul & Kupfer, 2019).

In some cases, exposure to men who endorse benevolent sexism can also make some women feel advantaged because of their gender, reducing their interest in and the perceived necessity of collective action to promote gender equity (Becker & Wright, 2011). Women may even perceive men who endorse benevolent sexism as more likely to support gender equity and less likely to hold strict beliefs about gender roles compared to men who openly reject benevolent sexism (Hopkins-Doyle et al., 2019). These examples suggest that benevolent sexism can at times be interpreted positively by some women, as in the contexts of interpersonal relationships and helping behaviours, and even in more politicized relationships such as between male allies and the women they support. If some women associate benevolent sexism with support for gender equity and progressive gender beliefs, it is possible that women may consider a male ally motivated by benevolent sexism to be motivated by egalitarian beliefs, and thus consider him an authentic male ally.

The Role of Feminist Identification

Why some women interpret benevolent sexism positively while others see it as patronizing may depend on how aware women are of the ways sexism can manifest and its consequences. Some women may understand sexism only in its hostile and overtly discriminatory form, while others are more aware and vigilant of more subtle forms of sexism. Conversely, some women may share men's benevolent sexist beliefs, agreeing that it is a man's duty to protect women, while others reject this view and see this protectiveness as paternalistic and undermining.

Although there have been studies investigating how women respond to benevolent sexism, to our knowledge these studies do not focus on benevolent sexism in male allies and how this might influence a woman's perceptions of the male ally's authenticity. We propose that one factor that may influence whether women will recognize and reject benevolent sexism from a male ally is their level of feminist identification. Feminist identification is the extent to which women consider themselves to be a feminist and see support for women's issues as part of their identity. Women with high feminist identification are more likely than women with low feminist identification to be aware of injustices against women and see benevolent sexism as both the result and the

source of negative stereotypes about women (van Breen et al., 2017; Shnabel et al., 2016). Not surprisingly, Wiley and Dunne (2019) have shown that women with high feminist identification prefer male allies who give autonomy-oriented help over male allies who offer dependency-oriented help. However, this research did not investigate whether women made inferences about the male ally's intentions or whether they believed those intentions represented an authentic effort to advance women's equity. Thus, the question of whether feminist identification will influence how women will perceive the authenticity of a given male ally remains uninvestigated. The current study was designed to investigate specifically whether women with high feminist identification are more likely to find a male ally who exhibits benevolent sexism as inauthentic compared to women with low feminist identification.

The Current Study

This study explored women's perceptions of authenticity from a male ally who either exhibited benevolent sexist or egalitarian behaviours. A STEM (Science, Technology, Engineering, Maths) setting was used because there remains a gender gap in participation in STEM that has led to calls for more men to act as allies for their women colleagues in these settings (Dubow & Ashcraft, 2016). Specifically, the study involves a fictional article about a university robotics club open to women but which might be understood to be a STEM setting. This experimental study investigated whether feminist identification moderated the relationship between the type of male allyship behaviour (egalitarian vs. benevolent sexist) and the woman's perceived authenticity of the male ally. Women read about a male ally who was trying to engage and recruit more women into the robotics club that he was leading. He was described as either an egalitarian male ally (e.g., he understands the importance of male allies taking a supportive role, he emphasizes collaboration among men and women, and recognizes women's competence and skills) or a benevolent sexist male ally (e.g., he implies that men are more capable than women, that men need to lead and look out for women and describes the benefits of women in terms of being nurturing rather than competent). It was predicted that the egalitarian male ally would generally be perceived as more authentic than the benevolent sexist male ally. However, feminist identification was also measured to test for moderation of this effect. It was predicted that women with higher feminist identification would show a wider gap in their perception of the authenticity of these two types of male allies than women lower in feminist identification, because women with higher identification should see the benevolent sexist male ally as particularly inauthentic.

Methods

The study received approval from Simon Fraser University's Research Ethics Board and was conducted using Qualtrics software.

Participants

Participants were students enrolled in introductory psychology classes at a large university in Western Canada. The focal study was preceded by a pre-screening survey that was completed at least a day before participation in the focal study itself. This pre-screening was used to select participants for other studies as well. Thus, participants would unlikely be able to tie the content of the pre-screening survey to any particular study. This procedure allowed for the exclusive recruitment of women as only those identifying as women on the pre-screening survey were contacted, but it also allowed us to measure feminist identification in a way that did not make gender or feminist identification salient when participants completed the focal study. Participants were entered into a \$100 draw for completing the pre-screening survey and received a course credit for completing the focal study.

Using the pre-screening survey respondents, 162 women were recruited to the focal study. However, 30 participants were excluded from data analysis because of missing data, extremely high or low response times (± 2 SDs from the mean), or withdrawal of consent to their data being included following a debriefing. The final sample included 132 women ($M_{age} = 20.3$ years, $SD = 5.25$) with a variety of self-reported ethnic identities: 28.8% Caucasian, 27.3% East Indian/South Asian, 22% East Asian, 12.9% self-identified "other", 5.3% Middle Eastern, 2.3% Latin/x, and .8% Black/African. Those who self-identified as "other" indicated mixed backgrounds or more specific ethnic identities (e.g., Chinese). A power analysis determined that 77 participants were needed to detect a medium effect size with a power of .80.

Procedure

Pre-screening Survey. An announcement was given during undergraduate psychology classes in Simon Fraser University about the pre-screening survey. Participants were also able to sign up directly through the Psychology Department's Research Participation System. Participants accessed the pre-screening survey through a Qualtrics link that was either posted on their course webpage or sent to them via email. The pre-screening survey included demographic items including gender and a measure of feminist identification.

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Focal Study. Participants who self-identified as women on the pre-screening survey and consented to being invited to another study were sent an email containing the Qualtrics link to the focal study. After providing consent, all participants read a fictitious article about a male ally. He was the president of a robotics club who was trying to recruit more women into the club, which had previously included mostly men. The content of the article was manipulated to create two conditions and participants were randomly assigned to one of these conditions. In the Egalitarian Male Ally condition, the male ally described himself as taking a supportive role and spoke about engaging women in a way that emphasized collaboration between all club members. He also focused on women's competence and commented that women contributed skills that benefited the club (see Appendix A for complete version of the article). In the Benevolent Sexist Male Ally condition, he described himself as a leader for women. He spoke about helping women in paternalistic ways, suggesting that men need to look out for and teach women to be successful in the club. He commented that women contributed to giving a welcoming and warm feeling to the club, reflecting stereotypes that women have caring and nurturing qualities that men lack (see Appendix B for complete version of the article).

After reading the article, participants completed a measure of their perceptions of authenticity of the male ally. The final page included a debriefing, describing the fictitious nature of the article, the general goals of the study, and offering participants the option of withdrawing their consent to include their data in the analysis.

Measures

Pre-screening Survey.

Demographics. Participants indicated their gender, ethnicity, and age. Only gender was used as an inclusion criterion to select only those who self-identified as women.

Feminist Identification. Participants reported the degree to which they identified as a feminist using a 12-item version of Cameron's (2004) *In-Group Identification Measure* adapted to target the group "feminist". "Feminist" and "feminism" were not defined for participants as we felt it important to allow them to represent this group in whatever manner they understood it and to reflect the many ways that women engage with feminism. Participants responded to each item on a 7-point Likert scale anchored by 1 (*disagree strongly*) and 7 (*agree strongly*). Example items included *I have a lot in common with other feminists*, *Overall, being a feminist has very little to do with how*

I feel about myself (reverse coded), and *In general, I'm glad to be a feminist* ($\alpha = .91$).

Focal Study.

Perceived Authenticity. Participants indicated the extent to which they perceived the male ally as authentic using a 21-item scale created for this study. They responded to each item on a 7-point Likert scale anchored by 1 (*disagree strongly*) and 7 (*agree strongly*). Items were developed based on the allyship literature. Based on Radke et al. (2020), there are items that reflected perceptions of the ally's motivations to improve women's status (e.g., outgroup-focused motivation), or for self-interest. Based on McShane and Cunningham (2012), items about honesty, trust, and consistency between statement and behaviour were also included.

The original scale included 36 items. An initial exploratory factor analysis yielded 7 factors that did not offer an interpretable set of subscales. Thus, 15 items were dropped because they did not appear to focus on the core elements of authenticity (e.g., *I would consider joining the club*), focused on the respondent as the target of the question (e.g., *I would be willing to forgive mistakes he makes* [e.g., saying something sexist] because he is still making positive impacts as an ally), or consistently loaded alone on their own factors. Although the final 21 items produced a 2-factor solution, it was still difficult to determine a meaningful interpretation of these two factors. Thus, the 21 items were collapsed to create a single scale measuring *Perceived Authenticity* ($\alpha = .96$).

Results & Discussion

The hypothesis that feminist identification would moderate the effect of the type of male ally on ratings of women's perceived authenticity was tested using Hayes' (2017) PROCESS Macro on SPSS. The effect of condition was not significant ($b = .15$, $t(128) = .96$, $p = .34$). Thus, while women did perceive the egalitarian male ally ($M = 5.28$, $SD = 0.88$) to be somewhat more authentic than the benevolent sexist male ally ($M = 5.12$, $SD = 0.92$), this difference was not statistically significant. The main effect of feminist identification was significant ($b = .26$, $t(128) = 2.82$, $p = .01$), showing that high identifying women found the male allies to be more authentic than low identifying women.

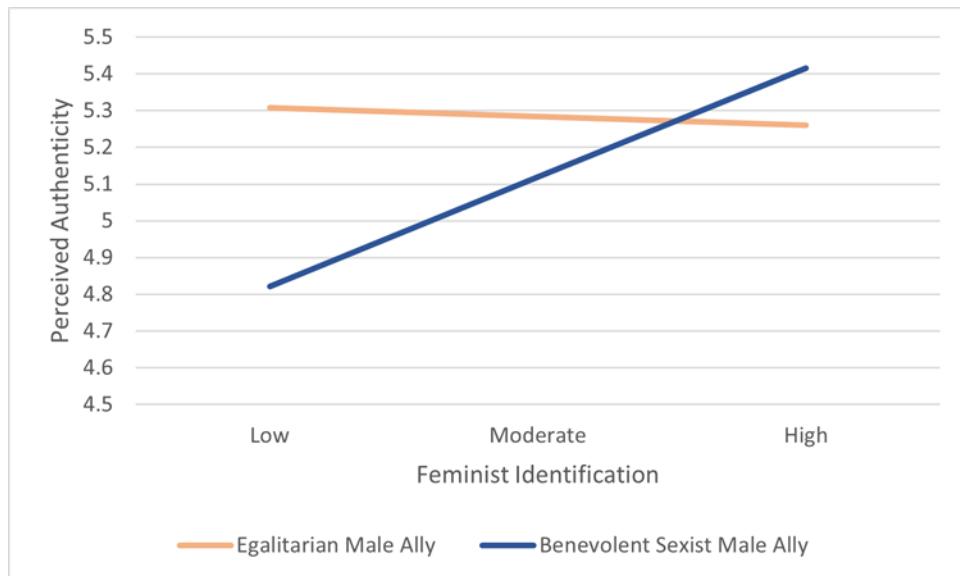
However, this main effect was qualified by a significant 2-way interaction between type of male ally and feminist identification ($b = -.28$, $t(128) = -2.00$, $p = .05$). The pattern of this interaction is shown in Figure 1. For women low in feminist identification, the benevolent sexist ally was seen as significantly

less authentic than the egalitarian ally ($b = .45$, $t(128) = 2.06$, $p = .04$). However, for women high in feminist identification, the ratings of authenticity for benevolent sexist male ally were not significantly different from those of the egalitarian male ally condition ($b = -.17$, $t(128) = -.77$, $p = .44$).

Figure 1

The pattern of the interaction was inconsistent with

Effect of Feminist Identification on Perceived Authenticity by Type of Male Ally Condition



Note. Moderate level of Feminist Identification represents the mean. Low and high levels represent -1 SD and $+1\text{ SD}$ from the mean, respectively.

our predictions. High feminist identification was predicted to result in lower perceived authenticity of a benevolent sexist male ally, but the entirely opposite effect emerged. The more a woman identified as a feminist, the more authenticity she ascribed to the benevolent sexist male ally, to the point that those highest in feminist identity perceived the benevolent sexist male ally to be just as authentic as the egalitarian male ally.

To test the generality of this unexpected finding and to shed light on the reasons for it, a series of separate tests for the effect of type of male ally and feminist identification was performed for each of the 21 items in the *Perceived Authenticity Scale*. There was considerable variation in the pattern of results across these 21 tests in the egalitarian male ally condition. Thus, the apparent lack of a meaningful relationship between feminist identification and perceived authenticity shown in Figure 1 is likely to be the best interpretation of these results.

However, the observed positive relationship between feminist identification and perceived authenticity in the benevolent sexist male ally condition was highly consistent across almost all the 21 items. This appeared to be a stable effect. Thus, among the current sample, it appears that as feminist identification increases the benevolent sexist male ally is seen as increasingly authentic.

One possible interpretation for these findings is

that women with higher feminist identification may be more familiar with the ways that male allies can help promote gender equity and their perceptions of authenticity may be based on a comparison to a much broader array of possible behaviours. For women with higher feminist identification, the benevolent sexist male ally's behaviour may not seem to be harmful to the cause because they know men are trying to help. For example, benevolent sexist male allies may still support women by being mentors and advocates, by providing resources, and by offering emotional support (Cheng et al., 2019). In the current study, women with higher feminist identification may recognize that paternalistic comments may not be empowering to individual women, but at the same time recognize that this helping behaviour could be beneficial in recruiting more women into the robotics club. More women in the robotics club could signal a shift in a positive direction as more women are entering a male-dominated environment. Thus, women with higher feminist identification may recognize a benevolent sexist male ally's pragmatic value and not automatically label their actions as performative or

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fake. Instead, they may contrast this less than desirable help with experience they have had with hostile sexism or with men who take no action at all. For example, Wiley and Dunne (2019) found that women with high feminist identification preferred a male ally who offered autonomy-oriented help. They perceived him to be a good ally, but they also did not see a man as a bad ally when he offered dependency-oriented help.

However, it must be recognized that the current findings are clearly inconsistent with the existing literature on how women generally respond to benevolent sexism. In general interactions, stronger endorsement of feminism is usually associated with increased vigilance, a higher detection, and a stronger rejection of benevolent sexism. Perhaps highly identified feminist women are less motivated to condemn benevolent sexism when the general intent of the man is to create real opportunities for women. In other words, perhaps women with higher feminist identification may be highly motivated to detect and reject benevolent sexism from a man who appears discriminatory and is undermining opportunities for women but are less motivated to do so when evaluating men who are clearly supportive. If this is true, this may help explain why some men are “put on a pedestal” when they get involved in feminist and gender equity work (Macomber, 2018).

Research Limitations & Future Directions

Nonetheless, given the unexpected nature of these findings, replication is needed. In addition, future attempts to replicate could also offer insights into the reliability and validity of our measure of perceived authenticity. Our sample was limited to university women, and although the sample was quite diverse in terms of ethnic background, it was a young and highly educated sample. Thus, the generalizability to other subgroups of women may be limited. Subsequent studies should include a more diverse sample of women. Participants in this study were undergraduate psychology students who likely hold more positive views of feminism and may have more progressive views of male allies and the cause for gender equity. Indeed, women’s feminist identification in this study was quite high. In addition, it might be interesting to further explore what specific aspects of feminist identification influences perceived authenticity. The current study measured engagement with feminism as an identity. There are, of course, other ways to conceptualize feminism and our operationalization may obscure other feminist values that may be important for feminist women when judging male allies’ authenticity. Additional measures of feminist values and opinions about the group and the cause might shed more light on why strong feminist identity

was associated with more positive evaluations of a benevolent sexist male ally. For example, it would be helpful to know whether women are open to or consider it beneficial to include men in the feminist movement. This might affect their leniency towards men when they exhibit benevolent sexism.

To our knowledge, this is the first study to focus on women’s perceptions of authenticity in the context of male allyship. Thus, it would also be beneficial to further elaborate the concept of authenticity. For example, rather than focusing on motivation alone, women may also consider the male ally’s effectiveness and the outcomes of his actions, whether they can trust and rely on the male ally, and whether they feel like they can turn to the male ally for support. While this study did have items about effectiveness, trust, and support, the information in the articles used to manipulate the type of male ally may not have provided enough details to allow women to make clear judgments on each of these unique elements of authenticity. Similarly, perceptions of authenticity may be informed by other factors not accounted for in the current study, and it might be more informative to measure other attributions women may be making about the male ally, including his likability, or morals and strength of character. These attributions may be related to what has been called “the pedestal effect” on male allies in which male allies are glorified despite doing less or the same actions as women in the movement (Macomber, 2018). As a result, women may not detect benevolent sexism or perhaps respond to it with more lenience. It is this general positive response to male allies that may lead to perceived authenticity despite their benevolent sexism. Measuring positive and negative evaluations beyond the authenticity of his allyship might offer a fuller understanding of attributions that drive perceived authenticity of a male ally.

Conclusion

As male allies are being recognized for their potential usefulness in improving women’s status and promoting gender equity, there are growing conversations about authenticity to ensure that men are supporting the cause appropriately. While some male allies seem to be motivated by a genuine egalitarian orientation, others may be more motivated by benevolent sexism. However, it is not always easy to recognize these different motivations. The current study showed that a male ally who appeared to be motivated by and exhibited behaviours consistent with egalitarianism was seen as highly authentic regardless of women’s feminist identification. Interestingly, a male ally who appeared to be motivated by, and exhibited behaviours consistent with benevolent sexism was increasingly described as authentic as

women's feminist identification increased. This makes the meaning of the growing calls for authentic male allies somewhat unclear and may complicate the meaning of authenticity when it comes to male allyship. However, it also clearly points to a need for continued investigations of these complications and on the need to focus on the perceptions of the women who are evaluating the authenticity of their male allies.

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Appendix A

Type of Male Ally Condition: Egalitarian Male Ally

With only 19% of engineering and engineering technology comprising women, the field is making strides to address this disparity. The Engineers Canada Board has made it one of their top priorities in their Engineers Canada Strategic Plan 2019-2021 to not only recruit more women in engineering, but to prevent “leaks” from the STEM “pipeline”.

Such efforts are also happening at a more local level in SFU with their own robotics club, driven by club president, Greg Gonzalez. In 2019, he became the new club president and his first order was to address this gender gap in STEM, particularly in engineering.

When asked why he began these efforts, Greg explains, “From learning about women’s experiences and from my own experience with the engineering program, I began to see the gender differences in the field. There were fewer women in my classes and in clubs. As president, I’d have the authority and resources to support women in STEM wherever they may need it.”

“We need to change the way we run things ‘cause women shouldn’t have to deal with this,” says Greg when referring to sexism in STEM. One of these changes is making sure struggles women face in the club are addressed, whether that’s about understanding how to build the robot or communicating with the other members about the project. “I emphasize to everyone in the club that collaboration is important so they can learn from each other when they come across problems.”

As a result of Greg’s efforts, there are currently 15 women in the club, making up half of the total membership. This is a significant jump from the three members they had before Greg became president. “It’s really great ‘cause they each bring in unique skills and creative ideas to the projects. It’s more fun building the robots and the robots themselves are really impressive. It’s really helped to make the club qualify and win more competitions.”

Because of the impressive growth in membership, other clubs are taking notice. Greg’s robotics club is setting an example for how other clubs in the STEM programs might want to tackle gender gaps in their membership.

Appendix B

Type of Male Ally Condition: Benevolent Sexist Male Ally

With only 19% of engineering and engineering technology comprising women, the field is making strides to address this disparity. The Engineers Canada Board has made it one of their top priorities in their Engineers Canada Strategic Plan 2019-2021 to not only recruit more women in engineering, but to prevent “leaks” from the STEM “pipeline”.

Such efforts are also happening at a more local level in SFU with their own robotics club, driven by club president, Greg Gonzalez. In 2019, he became the new club president and his first order was to address this gender gap in STEM, particularly in engineering.

When asked why he began these efforts, Greg explains, “From learning about women’s experiences and from my own experience with the engineering program, I began to see the gender differences in the field. There were fewer women in my classes and in clubs. As president, I’d have the authority and resources to pave the way for women to get more involved in STEM.”

“We need to change the way we run things ‘cause men are so much better than this,” says Greg when referring to sexism in STEM. One of these changes is making sure struggles women face in the club are addressed, whether that’s about understanding how to build the robot or communicating with the other members about the project. “I emphasize to the other guys in the club that it’s important we look out for them and help out as much as possible.”

As a result of Greg’s efforts, there are currently 15 women in the club, making up half of the total membership. This is a significant jump from the three members they had before Greg became president. “It’s really great ‘cause they add a balance to the group dynamic of the club. Less of that macho stuff you always get from having just guys. It’s really helped to make the club as whole feel more welcoming.”

Because of the impressive growth in membership, other clubs are taking notice. Greg’s robotics club is setting an example for how other clubs in the STEM programs might want to tackle gender gaps in their membership.

Perceptions of Confronters of Racist Remarks Towards Interracial Couples: The Effects of Confronter Race, Assertiveness, Explicit Bias, and Participant Race

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Previous research demonstrates that confronting prejudicial comments reduces bias towards minority groups and that perceptions of those who confront prejudicial comments differ as a function of factors such as confronter race. The current study extends on previous research examining how participants' race, confronters' race, assertiveness, and racial bias affect the perceptions of individuals who confront prejudice towards interracial couples on Twitter. Black and White participants throughout the United States ($N=154$) viewed a Twitter post from a Black-White interracial couple followed by a racist comment and a confronting comment varying by confronter race and assertiveness. Results indicated that confronters were perceived more positively when using a low assertive than a high assertive approach and were rated more negatively by Black compared to White participants. Additionally, those with more explicit biases towards the outgroup perceived the confronter more negatively. This work can inform interventions focused on increased confronting and highlights the importance of allyship.

Keywords: confronting, explicit bias, prejudice, perception, interracial couple

Plusieurs recherches ont démontré que confronter des commentaires racistes peut réduire les préjugés portés à l'égard de groupes minoritaires et que l'ethnicité des individus qui confrontent influence la façon dont ceux-ci sont perçus par les autres. Cette étude a examiné comment l'ethnicité des observateurs, l'ethnicité des individus confrontant les commentaires, l'intensité du commentaire confrontant et les biais raciaux peuvent influencer notre perception de personnes confrontant des commentaires racistes. 154 participants noirs et blancs vivant aux États-Unis ont lu deux commentaires (un raciste et un confrontant) sur la publication Twitter d'un couple interracial. Les résultats indiquent que les protagonistes confrontant le message raciste étaient évalués plus positivement quand leur commentaire avait une faible intensité, plus négativement par les observateurs noirs et par les observateurs ayant plus de préjugés explicites envers les ethnicités différentes de la leur. Ces résultats justifient les interventions axées sur la confrontation des commentaires racistes et l'importance des alliés.

Mots-clés : confrontation, biais explicite, préjudice, perception, couple interracial

Racism and denial of racism have increased significantly, causing people of color and members of other minority groups to feel unsafe, which shows there is more work to do in order to reduce discrimination (Dougherty, 2017). This increase in racism has increased on social media, with more conversations and comments dealing with race, particularly during Donald Trump's presidency (Ott, 2016; Shear, 2020). Most conversations regarding race on social media occur after large news events concerning intergroup relationships (i.e., cases of

police brutality) and mainly deal with references to Black and White people (Anderson, 2016). The conversations sometimes encompass prejudicial language which can have detrimental effects on the targeted groups and further prevent positive intergroup relationships.

These detrimental effects can be reduced, and future prejudicial acts can be avoided through confronting the individuals who make these prejudicial comments. Confronting prejudicial remarks requires an individual, the confronter, to deliberately express disapproval of the prejudice (Kaiser & Miller, 2004). Previous research indicates that confronting prejudice can increase guilt in the commenter which in turn causes the prejudiced commenter to engage in self-criticism of their prejudicial behavior (Czopp & Monteith, 2003). Perpetrators who are confronted are less likely to

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make prejudicial statements in the future (Czopp & Monteith, 2003; Mallett & Wagner, 2011) and their use of stereotypes is reduced (Chaney & Sanchez, 2018). Confronting has also been shown to encourage egalitarian norms in bystanders (Czopp et al., 2006). Together, these findings illustrate the importance of the confrontation of prejudicial remarks as it can evoke social change, creating and fostering egalitarian social norms, thoughts, and behaviors. As confronting instances of prejudice can have consequences for the confronter (Czopp & Monteith, 2003; Dickter et al., 2012; Rasinski & Czopp, 2010; Zou & Dickter, 2013), research also needs to investigate the perceptions of those who confront.

Perceptions of confronters

There are several factors that can affect how individuals who confront prejudicial comments are perceived. Previous research indicates that the race of the confronter can contribute to the perception others have toward the confronter (Czopp & Monteith, 2003; Dickter et al., 2012; Rasinski & Czopp, 2010; Zou & Dickter, 2013). Most of the research concerning the perceptions of confronters of prejudice examines Blacks as the target group and Whites as the non-target group. These studies have been consistent in indicating that the confronters who identify as the majority, non-target group, are perceived more positively than those who identify as the minority, target group (Czopp & Monteith, 2003; Rasinski & Czopp, 2010; Zou & Dickter, 2013). In fact, individuals who confront prejudicial comments towards an ingroup member, a person who shares their racial identity, tend to be looked down upon for confronting these injustices. For example, Black confronters are negatively perceived as complainers and as hypersensitive when speaking out against prejudicial comments (Czopp & Monteith, 2003; Rasinski & Czopp, 2010). Even further, confrontation style in the form of assertiveness, the firmness of communication used in responses, has been studied alongside confronter race. Rasinski and Czopp (2010) demonstrated that members of the Black community who confronted prejudicial comments were perceived more negatively in comparison to Whites regardless of the assertiveness of their remark. Majority group confronters often do not suffer from the same negative judgments as minority group confronters. Dickter and colleagues (2012) showed that White confronters were liked more when they confronted a highly offensive comment than when they did not, regardless of the confrontation style used. Since negative perceptions of confronters tend to result in a lack of agreement with minority confronters and an overall less effective confrontation among minority confronters in comparison to majority confronters (Czopp & Monteith, 2003; Rasinski & Czopp, 2010), more

research needs to be conducted. Furthermore, there needs to be more research examining the confrontation of comments made about targets of different minority groups.

Bias Towards Interracial Couples

Interracial couples are an understudied group yet are often the target of prejudicial remarks. Since the 1960s, interracial marriage among newlyweds has increased by 14%, especially among Whites and Blacks (Livingston & Brown, 2017). Research has revealed that perceivers hold consistent negative perceptions and discrimination towards interracial couples (Chuang et al., 2020; Crowder & Tolnay, 2000; Herman & Campbell, 2012; Murty & Roebuck, 2015; Skinner & Hudac, 2017; Skinner & Rae, 2018). For example, in the U.S., pairings between African Americans and Caucasians are seen as disgusting and unacceptable by some people (Fu & Heaton, 2008). Murty and Roebuck (2015) demonstrated that even though Black students approve of interracial dating, they do not necessarily approve of interracial marriage. Similarly, Skinner and Hudac (2017) conducted a study to assess the overall bias individuals have towards interracial couples in relation to disgust through using neural response measures and source localization. They demonstrated that disgust leads to dehumanization, and many people have dehumanized interracial couples to the point of processing them similar to the processing of non-human animals. Additionally, Skinner and Rae (2018) found that people have negative explicit (i.e., deliberate and conscious attitudes) as well as implicit (i.e., hidden and unconscious) biases towards Black-White interracial couples. Importantly, it was noted that there is a difference in the bias exhibited based on the intersectionality between race and gender. That is, Black women demonstrated a higher amount of bias due to feeling that there is a lack of eligible Black men in the marriage market, and Blacks overall had shown more bias towards interracial marriage in comparison to Whites (Crowder & Tolnay, 2000). Research examining the effects of confronting prejudice against interracial couples has not yet been conducted. However, since confronting can help reduce racism, discrimination, and stereotyping towards target groups (Czopp et al., 2006), research investigating the perceptions of individuals who confront racism against this group may inform of ways to reduce these biases.

Present study

The goal of the present study is to examine the perceptions of individuals who confronted racist comments made about a Black-White interracial couple and to examine whether these perceptions varied as a function of race of the confronter, race of

the perceiver, and the assertiveness of the confrontation. We chose to examine confrontations on social media, which has seen a significant amount of discussion concerning race. For example, Anderson (2016) found that between January of 2015 and March of 2016, there were 2.1 million Twitter posts per day concerning race. There is also a large number of racist comments on social media, particularly since the 2016 Presidential election when Donald Trump took the presidency (Dougherty, 2017; Ott, 2016; Sharma & Brooker, 2016; Shear, 2020) and especially in the United States, in comparison to other countries. Indeed, Laub (2019) indicated that 67% of U.S. participants agreed that they should be allowed to make offensive comments towards minority groups on public platforms. Therefore, discovering ways to combat the expression of racist content on social media is important because of the lack of research concerning the best ways to address prejudice on social media (Cisneros & Nakayama, 2015). This study may illuminate the factors that affect perceptions of White people, thus informing how majority, non-target individuals can effectively use their privilege as allies in confronting discrimination and prejudice towards target groups. This study may also extend beyond social media to inform interventions and trainings regarding discriminatory comments in the workplace, academia, and other institutions.

In the current study, adult participants from the United States viewed Twitter posts that contained a racist comment followed by a confronting comment by another person. The race (White) and gender (male) of the racist commenter was kept constant, a decision made because past work indicates that White males are the most common perpetrators of racist comments (Dickter & Newton, 2013). Additionally, gender of the confronter was held constant with a woman always confronting since women are more likely to confront than men (Rasinski & Czopp, 2010); this also limited the potential influence of gender dynamics related to power in confronting behavior. Participants then rated the perceiver on both positive and negative traits. As an extension of previous research, we asked participants if they found the confronter friendly or racist (Rasinski & Czopp, 2010). Further, we asked about perceptions of respect as an extension of the literature since this allowed us to test the participants' judgement of the confronters' character and principles (Dickter et al., 2012). Lastly, we examined if participants found the confronter to be hypersensitive since confronters, specifically minorities, have been viewed as complainers and overtly sensitive (Czopp & Monteith, 2003; Rasinski & Czopp, 2010; Xie, 2019). The four dependent variables—friendly, racist, respect, and sensitive—were chosen to measure perceptions consistent with

these previous studies.

We hypothesized that perceptions of the confronter would be affected by several factors. First, we investigated whether the race of the confronter affected perceptions. To test this, confronter race was manipulated with the race being either Black or White. Consistent with previous work, we expected that White confronters would be perceived more positively than Black confronters (Czopp & Monteith, 2003; Dickter et al., 2012; Rasinski & Czopp, 2010).

Second, we examined whether the assertiveness of the comment would affect perceptions of the confronter. Some previous research demonstrated that using a high assertive approach when confronting racism can cause individuals to have more negative perceptions of the confronter (Czopp et al., 2006), while other work indicated that a confronter was perceived more positively when the racist comment was highly offensive regardless of assertiveness (Dickter et al., 2012). Based on the Dickter et al. (2012) findings, we hypothesized that assertiveness would not have a significant effect on perceptions of the confronter.

Third, we examined whether participant race would affect perceptions of the confronter. Previous research indicates that individuals are more likely to confront when the prejudicial remark is made towards their own group rather than an outgroup, a person who does not share the same racial identity (Czopp & Monteith, 2003). However, no research has examined the confrontation of comments made about interracial couples in which one of the targets is an outgroup member and the other is an ingroup member. There is some research showing that Black individuals have negative feelings towards Black-White interracial couples (Chuang et al., 2020; Crowder & Tolnay, 2000; Skinner & Rae, 2018), but it is unclear whether attitudes towards interracial couples will predict confronting behavior. Since the present study focuses on interracial couples, with partners of both racial groups, and there is no prior research examining perceptions of those who confront prejudice towards interracial couples, predictions were not made concerning participant race.

The fourth goal of the present study was to examine whether those with more prejudice would have more negative perceptions of the confronter. Although there is a lack of research on whether this relationship occurs when the target group is an interracial couple, Rasinski and Czopp (2010) demonstrated that high-prejudiced participants perceived people confronting racist comments about one racial group more negatively than low-prejudiced participants. Therefore, we hypothesized that participants with more negative explicit attitudes

towards the outgroup and interracial couples would have more negative perceptions of the confronter.

Finally, on an exploratory basis, we sought to examine how confronter race, assertiveness, and participant race would interact with each other to influence the perception of the confronter. There is a gap in the literature indicating how these three variables interact with each other. Overall, it is important to study these interactions to examine which identities are perceived more positively than others which in turn can help inform the literature on confronting prejudice.

Methods

Participants

There was a total of 188 participants who completed the study through Amazon's Mechanical Turk (MTurk). Participants had to fulfill the following requirements: task approval rating greater than or equal to 99%, reside in the United States, and have had at least 100 completed tasks approved by other MTurk requesters. Thirty-four participants were removed due to participants failing manipulation ($n = 32$) checks or identifying as biracial ($n = 2$), as the focus of this study was monoracial populations. Age was coded as such: 1 = 18-24, 2 = 25-34, 3 = 35-44, 4 = 45-54, 5 = 55-64, 6 = 65, and older. Most of the participants were between the ages of 18-24 (61.7%) and 25-34 (20.1%) ($M = 2.43$, $SE = 0.76$); 16 participants did not state their age. The gender composition was 103 males (66.9%), 50 females (32.5%), and 1 transgender female (0.6%). The racial composition was 88 Whites (57.1%) and 66 Blacks (42.9%), and 56.5% of participants have had previous experience in interracial relationships.

Materials and Procedures

The study had a 2 (Participant Race: White, Black) \times 2 (Confronter Race: White, Black) \times 2 (Confrontation Assertiveness: low, high) between-subjects factorial design. Participants were told that they would be answering a survey about their opinions. They then moved on to give informed consent and answered some demographic questions. Next, they read a Twitter post of an interracial couple. The last names of the interracial couple (Anderson), racist commenter (Smith), and confronters (Black-Jones, White-Clark) used in the Twitter post were chosen using common last names in the US (Mongabay, n.d.). The first names of the racist commenter (Connor) and confronters (Black-Ebony, White-Holly) were taken from a site that displayed the most common White and Black female names in the US (ABC News, 2015). The entire image provided included the original post made by the interracial

couple, the racist comment, and the confronting comment (Appendices A-D). The original post and racist comment, including race of the commenter, were consistent among all conditions and appeared as such:

Original Post: "We just want to take the time to say thank you to all of those who have been supporting our cause over the years. We appreciate all of your love, support, and dedication that you have had towards making the world a better place. You mean so much to us and we will forever be grateful for the impact you have helped the Anderson family have. We love you! #thankyou #goals".

Racist Comment: "What do you have against dating your own race? I know your parents are disappointed in you, we already have affirmative action, we don't have to marry them too."

The race (White/Black) of the confronter and the assertiveness (low/high) of the confronting comments were manipulated while the gender (female) of the confronter remained constant. The low assertive comment stated: "Honestly we should just be nicer to each other. I think they are a beautiful couple and have done a lot for their community #peace". The high assertive comment stated: "I ABSOLUTELY HATE PEOPLE LIKE YOU! You don't have to be with a person of color but don't DEMEAN those who are. I'm sick of people attacking interracial couples!"

A pilot test was conducted in order to choose the best high assertive, low assertive, racist, and original comments out of multiple options generated by research assistants. The racial composition of participants in the pilot test was as follows: Non-Hispanic, Whites (33.33%), Black (52.38%), Hispanic (4.76%), Asian (4.76%), and Native Hawaiian/Pacific Islander (4.76%). Response choices for credibility, assertiveness, and racist ranged from 1=extremely incredible (unbelievable), inoffensive, unassertive to 7=extremely credible (believable), offensive, assertive. The original post was judged as highly credible ($M = 5.86$, $SD = 1.70$) while the racist comment was judged as highly offensive ($M = 6.33$, $SD = 1.32$) and credible ($M = 5.10$, $SD = 2.07$). The high assertive comment was high in both assertiveness ($M = 6.71$, $SD = 0.45$) and credibility ($M = 6.00$, $SD = 1.45$). In contrast, the lowest assertive comment was low in assertiveness ($M = 4.00$, $SD = 1.35$) and high in credibility ($M = 5.90$, $SD = 1.48$).

Participants then answered five questions as manipulation checks to the mock Twitter posts to ensure participants remembered the race of the commenter and confronter. The following questions

were included: *What was the name of the couple from the original Twitter post?, What was the race pairing of the couple from the original Twitter post?, What was the name and race of the first commenter?, What was the name and race of the second commenter?*. Participants were included if they correctly identified the racial pairing of the interracial couple and the race of the racist commenter and the confronter.

Next, participants completed a series of questionnaires assessing their perceptions of the confronter in the social media posts using Likert scales. Participants rated the confronter using 7-point Likert scales ranging from 1 = *not at all* to 7 = *very much*. They assessed the dependent variables friendly and respect to assess positive perceptions of the confronter and used the terms racist and sensitive to assess negative perceptions of the confronter.

Participants next completed the *Attitude Towards Blacks* scale (ATB; Brigham, 1993) if they identified as White. The ATB is a 20-item questionnaire which assesses prejudice towards Blacks using concise sentences (e.g., *I would rather not have blacks live in the same apartment building I live in.*) on a 7-point Likert scale (1= *strongly disagree* to 7= *strongly agree*). This was only administered to the White participants within the sample since the questions asked participants to rate their feelings in relation to Black individuals. Reliability analysis was conducted among the sample ($\alpha = .51$). Scores were standardized (higher scores indicate more positive attitudes).

Participants completed the *Attitude Towards Whites* scale (ATW; Brigham, 1993) if they identified as Black. The ATW is a 20-item questionnaire assessing prejudice towards Whites using concise sentences (e.g., *Most Whites can't be trusted to deal honestly with Blacks*) on a 7-point Likert scale (1 = *strongly disagree* to 7 = *strongly agree*). This was only administered to the Black participants within the sample since the questions asked participants to rate their feelings in relation to White individuals. Reliability analysis was conducted among the sample ($\alpha = .88$). Scores were standardized (higher scores indicate more positive attitudes).

Finally, participants completed a scale used to assess explicit attitudes of interracial couples (Skinner & Rae, 2018). This 3-item scale examines the explicit attitudes participants have towards Black-White interracial couples. The first question asked: *Which statement best describes your feelings about same race (both partners are White or both partners Black) and interracial (one partner is White and the other is Black) couples?* Participants responded on a 7-point scale (1 = *I strongly prefer same-race couples to interracial couples* to 7 = *I strongly prefer interracial*

couples to same-race couples). The last two items assessed feelings towards same-race couples in comparison to interracial couples (i.e., *How warm or cold do you feel towards Black-White interracial couples?*) using 11-point scales (1 = *extremely warm* to 11 = *extremely cold*). These scales were previously utilized to examine explicit attitudes towards members of different social groups. Reliability analysis was conducted among the sample ($\alpha = .80$). They were standardized with high scores indicating preference for interracial couples, since the item with high scores that indicated preference for same-race couples was reverse coded. For demographic purposes, we also used the single item (*Have you ever had a romantic or sexual encounter with someone outside your racial or ethnic group?*) to indicate the proportion of the sample with previous experience in interracial relationships.

Results

Data Reduction and Overview of Analyses

Only data from participants who identified as monoracial and passed the manipulation checks ($N = 154$) were included in the analyses; this required knowing the racial composition of the interracial couple in the original Twitter post and the races of both confronters (White or Black). The data examining perceptions of the confronter were analyzed using 2 (Participant Race: White, Black) x 2 (Confronter Race: White, Black) x 2 (Confrontation Assertiveness: low, high) analyses of variance (ANOVA) with the first three factors as between-subjects variables and the average explicit attitudes toward interracial couples (Skinner & Rae, 2018) as within-subjects variables. Each dependent measure was tested individually with the ANOVA. The independent variables were coded as such: participant race (1 = White, 2 = Black), confronter race (1=White, 2=Black), and assertiveness (1 = Low, 2 = High). The ATB and ATW, attitudes towards the outgroup, were standardized to provide correlational analyses for both Black and White participants. Significant main effects, interactions, and correlations are reported below.

Perceptions of the Confronter

Friendly. There was a main effect of assertiveness, $F(1, 152) = 6.03, p = .015, \eta_p^2 = .041$, such that high assertive confronters ($M = 5.03, SE = .17$) were perceived as less friendly than low assertive confronters ($M = 5.69, SE = .17$). This main effect was qualified by a significant confronter race x assertiveness interaction, $F(1, 152) = 4.29, p = .040, \eta_p^2 = .029$, as seen in Table 1. This interaction was broken down by assertiveness. For the White confronters there was no effect of assertiveness. For the Black confronters, those who were higher in assertiveness ($M = 4.90, SE = .25$) were perceived as

less friendly than those lower in assertiveness ($M = 5.86$, $SE = .21$). As seen in Table 1, there was a significant participant race x assertiveness interaction, $F(1, 152) = 6.44$, $p = .012$, $\eta_p^2 = .043$. This interaction was broken down by assertiveness. For the Black participants there was no effect of assertiveness. For the White participants, they perceived the high assertive confronter ($M = 4.65$, $SE = .22$) as less friendly than the low assertive confronter ($M = 5.73$, $SE = .22$).

Table 1
Perception of the Confronter- Friendliness

	<i>df</i>	<i>F</i>	<i>p</i>	η_p^2
Confronter Race	1	.00	.997	.000
Assertiveness	1	6.03	.015*	.041
Participant Race	1	2.64	.106	.018
Explicit Attitudes Towards Interracial Couples	1	1.62	.205	.011
Confronter Race * Assertiveness	1	4.29	.040*	.029
Confronter Race * Participant Race	1	.76	.385	.005
Assertiveness * Participant Race	1	6.44	.012*	.043
Confronter Race * Assertiveness * Participant Race	1	2.32	.130	.016
Total	152			

Note. * $p < .05$.

Figure 1
Confronters' Ratings Based on Friendliness

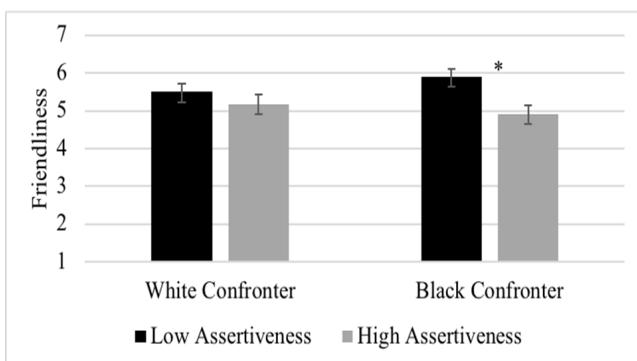
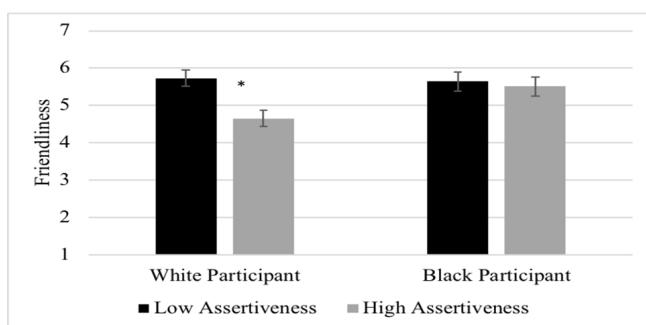


Figure 2
White Participants' Ratings of Friendliness



Respect. There were no main effects for respect. There was a significant correlation between attitudes towards the outgroup and respect for the confronter, $r = .23$, $p < .01$, such that participants who had less prejudice respected the confronter more.

Racist. As seen in Table 2, there was a main effect of assertiveness, $F(1, 152) = 4.73$, $p = .031$, $\eta_p^2 = .032$. High assertive confronters ($M = 3.09$, $SE = .24$) were rated as more racist than the low assertive confronters ($M = 2.54$, $SE = .23$). There was also a main effect of participant race, $F(1, 152) = 23.79$, $p = .000$, $\eta_p^2 = .143$. Black participants ($M = 3.56$, $SE = .24$) rated the confronter as more racist than the White

Table 2
Perception of the Confronter- Racist

	<i>df</i>	<i>F</i>	<i>p</i>	η_p^2
Confronter Race	1	1.66	.200	.012
Assertiveness	1	4.73	.031*	.032
Participant Race	1	23.79	.000**	.143
Explicit Attitudes Towards Interracial Couples	1	2.36	.126	.016
Confronter Race * Assertiveness	1	1.72	.192	.012
Confronter Race * Participant Race	1	1.35	.247	.009
Assertiveness * Participant Race	1	.20	.654	.001
Confronter Race * Assertiveness * Participant Race	1	.03	.875	.000
Total	152			

Note. * $p < .05$. ** $p < .01$. *** $p < .001$

participants ($M = 2.25$, $SE = .21$). Lastly, there was a significant correlation between attitudes towards the outgroup and perceiving the confronter as racist, $r = -.45$, $p < .001$. Participants who had more prejudice rated the confronter as more racist.

Sensitive. As seen in Table 3, there was a main effect of participant race, $F(1, 152) = 5.14$, $p = .025$, $\eta_p^2 = .035$, such that Black participants ($M = 4.92$, $SE = .21$) rated the confronter as more sensitive than the White participants ($M = 4.35$, $SE = .18$). Lastly, there was a significant correlation between attitudes towards the outgroup and perceiving the confronter as sensitive, $r = -.31$, $p = .001$. Participants who were more prejudiced rated the confronter as more sensitive.

Table 3
Perception of the Confronter- Sensitive

	df	F	p	η_p^2
Confronter Race	1	1.10	.297	.008
Assertiveness	1	.01	.921	.000
Participant Race	1	5.14	.025*	.035
Explicit Attitudes Towards Interracial Couples	1	1.14	.288	.008
Confronter Race * Assertiveness	1	.147	.702	.001
Confronter Race * Participant Race	1	.08	.784	.001
Assertiveness * Participant Race	1	1.45	.231	.010
Confronter Race * Assertiveness * Participant Race	1	.052	.819	.000
Total	152			

Note. * $p < .05$.

Discussion

The goal of the present study was to examine whether perceptions of individuals who confronted a racist comment about a Black-White interracial couple on Twitter would vary based on the race of the confronter, the race of the perceiver, the assertiveness of the confrontation, and prejudice towards the outgroup and/or Black-White interracial couples. The first hypothesis was not supported as there was no main effect of confronter race. This is inconsistent with previous research demonstrating that minority confronters in general are viewed more negatively than majority confronters (Czopp & Monteith, 2003; Dickter et al., 2012; Rasinski & Czopp, 2010; Zou & Dickter, 2013). However, confronter race did affect perceptions when the assertiveness of the

confrontation was considered, as discussed below. We speculate that confronter race may have yielded differences in perceptions if the confronter had been identified as a male; that is, Black men may have been perceived in a way that is consistent with negative stereotypes about their intersectional identity. In addition, whereas previous research focused on perceptions of a racist comment made towards an individual, the lack of significant effects of confronter race may have been because our research focused on a comment that was made about two individuals, one individual being an ingroup member and one being an outgroup member. Future research should take an intersectional approach to better understand this dynamic and investigate whether perceptions of confrontations to comments about interracial couples differ than comments about individuals.

Second, we found that assertiveness affected how the confronter was perceived. This finding is counter to our hypothesis, as other work has shown that confronters are favored regardless of the level of assertiveness (Dickter et al., 2012). Although our findings are inconsistent with this previous work, they are consistent with some research demonstrating that using a high assertive approach when confronting racism can cause individuals to have more negative perceptions of the confronter (Czopp et al., 2006). We speculate that the high assertive confronter was perceived as more racist due to the specific comment we chose to use in the current study. This comment was similar to that used in a study by Czopp et al. (2006), which used the phrase "...hate people like you." Future research should further investigate whether the specific language in the confrontation can negatively impact perceptions of the confronter.

Our results showed that Black participants viewed the confronter more negatively than White participants. That is, Black participants rated the confronter as more racist and sensitive than White participants. Within the Black participant sample only 15% of the men had ever been in a romantic relationship with a White person while only 7.8% of the women had a prior relationship with a White person. The increased negative perceptions of the confronter may be attributed to the lack of experience in a Black-White romantic relationship and upset feelings towards the decrease of eligible Black partners as romantic prospects (Chuang et al., 2020; Skinner & Rae, 2018). This in turn may be affected by the individual's prejudice towards Whites in addition to the history of the marginalization of Black communities by White people and the high prevalence of negative race-related events (i.e., police brutality, hate speech). As previous research has not tested whether there is a difference in perceptions of confronters as a function of racial identity, future

research should seek to replicate this finding and investigate potential mediators of this relationship. One factor that may have affected participants' ratings of the confronter was their individual level of prejudice.

The hypothesis stating that those with more prejudice towards the outgroup would perceive the confronter more negatively was supported. Participants with higher levels of racial prejudice towards their respective outgroup member perceived the confronter as more racist and more sensitive while those with less prejudice perceived the confronter as more respectable. In contrast, the hypothesis concerning explicit attitudes towards Black-White interracial couples was not supported. Explicit attitudes towards interracial couples did not play a significant role in perceptions of the confronter in comparison to examining prejudice towards the outgroup member. Therefore, our findings suggest that improving perceptions of those who confront discrimination towards interracial couples begins at the level of prejudice the individual has toward the outgroup. One way to improve attitudes may be through efforts to increase exposure to positive, counterstereotypical outgroup exemplars (Gonzales et al., 2017; Plant et al., 2009). This could foster better intergroup relationships which in turn could decrease prejudice towards interracial couples.

Lastly, our findings indicated that Black confronters who used a higher assertive approach were viewed as less friendly than Black confronters with a low assertive approach. The finding suggests that Black confronters are perceived more negatively regarding friendliness when they use a high assertive confrontation style while there was no effect seen in White confronters concerning friendliness. This suggests that using a highly assertive confrontation was possibly considered to be more direct and less polite when the confronter was a person of color; however, the assertiveness of the confrontation did not affect how the White confronter was perceived. These findings showcase how minority groups can be unfairly perceived as acting in a way that is consistent with negative racial stereotypes (e.g., angry Black woman) but that majority groups are not judged in this way. In addition, these results are consistent with previous work showing that minority group members are perceived more negatively than majority group members when they confront prejudice (Czopp & Monteith, 2003; Rasinski & Czopp, 2010; Zou & Dickter, 2013). Therefore, it is important that majority group individuals act as allies by confronting others when racist remarks are made. In addition, high assertive confronters were also perceived as less friendly in comparison to low assertive confronters by

White participants. This effect was not found in Black participants indicating that White individuals may be paying more attention to the confrontation style. White individuals may not see the value of the confrontation when its highly assertive such that they may prefer a more passive or potentially color-blind approach to confronting prejudice. Previous research has found that White individuals who possessed more color-blind ideology perceived the confronter more negatively (Zou & Dickter, 2013). Therefore, it is important to inform majority groups on the benefits of confronting to encourage positive perceptions of confronters regardless of assertiveness. Together, these findings demonstrated that assertiveness plays a dominant role in perceptions of confronters. This can be attributed to Twitter serving as a platform where users can make comments while their race can remain ambiguous, but when race of the user is evident, we can see how individuals' own biases are reflected in the perceptions of the confronter.

Limitations

Even though the current study can contribute to the literature on the confrontation of prejudice, there were several limitations. One is that this study has a large age range. Even though this increases generalizability due to having a diverse sample, most users of social media are typically younger and middle-aged adults with fewer elderly users. Future research may examine whether a younger sample or a sample with greater social media use yields different results. Additionally, future research should address our limitation of restricting the race and gender of the commenter, confronters, and interracial couple, as these particular identities may have made the results in this study unique to our study.

Another limitation of the current work is that the use of single adjectives (e.g., friendly) to assess one's perception of the confronter may have limited the ecological validity. Although some research suggests that single-item and multiple-item Likert-type measures of constructs do not differ in validity (Gardner et al., 1998), future research should use multiple items to assess perceptions of the confronter. Future studies should also include questions concerning actions the participants would have taken on Twitter (i.e., liking/retweeting the comment) to capture a more real-world experience.

Directions for Future Studies

Future studies should assess perceptions of confronters who identify as multiracial and use participants who identify as multiracial. Previous research has indicated even though multiracial individuals tend to favor interracial couples, there is a

possibility that multiracial individuals who self-identify as Black and not biracial/multiracial may have increased bias towards interracial couples (Skinner & Rae, 2018). There is a lack of research concerning this bias, but it is important to examine multiracial individuals' perceptions of confronters and whether this may be influenced by their own biases, based on their self-identified race.

Additionally, future research should take an intersectional approach to examine if there is a difference in the perceptions of Black male and White female marriages and Black female and White male marriages. Most previous research indicates that there is a preference for Black female and White male marriages due to Black women's feelings of competition for available Black men (Chuang et al., 2020; Skinner & Rae, 2018). This would also allow for examining the intersectionality of race and gender with perceptions of the confronter. Research has shown that White women have more biases towards interracial marriage than White men (Herman & Campbell, 2012) and this relationship is the same for Black women and Black men (Chuang et al., 2020; Crowder & Tolnay, 2000; Skinner & Rae, 2018). Also, future research should take an intersectional approach when examining the confronter and commenter to better understand the dynamic of confronting when the race and/or gender of the racist commenter and confronting commenters is different. Due to different gender and racial stereotypes, it would be important to examine if findings are consistent when there are different gender/race combinations.

Additionally, perceptions of confronters of dual minority interracial couples should be examined to better understand if these results are generalizable to couples that do not encompass a majority race partner. Overall, there is a lack of research examining the racism experienced by dual minority couples in addition to no prior research on perceptions of confronters with racism towards these couples.

Conclusions

The current study has implications for the confrontation of racist comments on social media. Our results suggest that confrontation style plays a dominant role in how confronters are perceived showcasing there may be negative consequences when confronting racist comments. Results also indicate that majority, non-target allies should confront prejudicial remarks since they are not held to these unfair standards and consequences in comparison to minority, target groups. Future research should continue to examine how confronters are being perceived on social media and how this is different based on who confronts and how they choose to

confront the situation. Research should also find ways to increase confrontations of -prejudice, especially by majority allies, which can help decrease discrimination to both outgroup members and interracial couples on social media. Confronting racism on social media can encourage more nonprejudiced social norms where racist remarks are less tolerated and can uplift targets of prejudice and make them feel welcome on these social media networks. Confrontation can also help Whites identify instances of racism on social media; as Whites are generally perceived positively for confronting, we encourage White allies to use their privilege to confront prejudice on social media outlets.

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Appendix A
Twitter Post - Race (White)/Assertiveness (Low) Condition



Mr. & Mrs. Anderson
@TheAndersons

We just want to take the time to say thank you to all of those who have been supporting our cause over the years. We appreciate all of your love, support, and dedication that you have had towards making the world a better place. You mean so much to us and we will forever be grateful for the impact you have helped the Anderson family have. We love you!
#thankyou #goals

2:54 PM • 6/12/20 • Twitter for iPhone

20.5K Retweets 32.1K Likes

Connor Smith @Connor_Smith • 4d

Replies to @TheAnderson

What do you have against dating your own race? I know your parents are disappointed in you, we already have affirmative action, we don't have to marry them too.

Holly Clark @Holly_Clark • 4d

Replies to @TheAndersons and @Connor_Smith

Honestly we should just be nicer to each other. I think they are a beautiful couple and have done a lot for their community #peace

Appendix B
Twitter Post - Race (White)/Assertiveness (High) Condition

Tweet



Mr. & Mrs. Anderson
@TheAndersons

We just want to take the time to say thank you to all of those who have been supporting our cause over the years. We appreciate all of your love, support, and dedication that you have had towards making the world a better place. You mean so much to us and we will forever be grateful for the impact you have helped the Anderson family have. We love you!
#thankyou #goals

2:54 PM • 6/12/20 • Twitter for iPhone

20.5K Retweets 32.1K Likes

Reply
Retweet
Like
Share

Connor Smith @Connor_Smith • 4d

Replies to @TheAndersons

What do you have against dating your own race? I know your parents are disappointed in you, we already have affirmative action, we don't have to marry them too.

20 replies 7 retweets 35 likes

Holly Clark @Holly_Clark • 4d

Replies to @TheAndersons and @Connor_Smith

I ABSOLUTELY HATE PEOPLE LIKE YOU! You don't have to be with a person of color but don't DEMEAN those who are. Im sick of people attacking interracial couples!

22 replies 9 retweets 40 likes

Appendix C
Twitter Post - Race (Black)/Assertiveness (Low) Condition

< **Tweet** ▼

 Mr. & Mrs. Anderson
@TheAndersons

We just want to take the time to say thank you to all of those who have been supporting our cause over the years. We appreciate all of your love, support, and dedication that you have had towards making the world a better place. You mean so much to us and we will forever be grateful for the impact you have helped the Anderson family have. We love you!
#thankyou #goals

2:54 PM • 6/12/20 • Twitter for iPhone

20.5K Retweets **32.1K Likes**

💬 ⚡ ❤️ ⬤

Connor Smith @Connor_Smith • 4d ▼
Replying to @TheAndersons
What do you have against dating your own race? I know your parents are disappointed in you, we already have affirmative action, we don't have to marry them too.

20 ⚡ 7 35 ⬤

 Connor Smith @Connor_Smith • 4d
Replying to @TheAndersons and @Connor_Smith
Honestly we should just be nicer to each other. I think they are a beautiful couple and have done a lot for their community #peace

22 ⚡ 9 40 ⬤

Appendix D
Twitter Post - Race (Black)/Assertiveness (High) Condition

Tweet



Mr. & Mrs. Anderson
@TheAndersons

We just want to take the time to say thank you to all of those who have been supporting our cause over the years. We appreciate all of your love, support, and dedication that you have had towards making the world a better place. You mean so much to us and we will forever be grateful for the impact you have helped the Anderson family have. We love you!
#thankyou #goals

2:54 PM • 6/12/20 • Twitter for iPhone

20.5K Retweets **32.1K Likes**

Reply
Retweet
Like
Share

Connor Smith @Connor_Smith • 4d

Replies to @TheAndersons

What do you have against dating your own race? I know your parents are disappointed in you, we already have affirmative action, we don't have to marry them too.

20 replies 7 retweets 35 likes

Ebony Jones @Ebony_Jones • 4d

Replies to @TheAndersons and @Connor_Smith

I ABSOLUTELY HATE PEOPLE LIKE YOU! You don't have to be with a person of color but don't DEMEAN those who are. Im sick of people attacking interracial couples!

22 replies 9 retweets 40 likes

The Experiences of Stigmatization and Discrimination in Autistic People of Different Genders and Sexualities

VALERIA KHUDIAKOVA & ALISON L. CHASTEEN, PH.D.

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Autistic people that hold other marginalized identities, such as being LGBTQ+, may be especially vulnerable to stigmatization and discrimination, and their experiences may be understood through the lens of intersectionality. This study aimed to explore the differences in the experiences of stigmatization and discrimination between LGBTQ+ and non-LGBTQ+ autistic people. Eighty-seven autistic adults, 41 of whom were LGBTQ+, responded to a survey that measured stigma centrality and salience, stigma consciousness, experiences of everyday discrimination, and awareness of intersectional stigmatization. Results showed that LGBTQ+ autistic participants expected to be stigmatized and discriminated against more often and saw their autism, gender, and sexuality as more important to their identity than non-LGBTQ+ autistic participants. The frequency of everyday discrimination did not differ between LGBTQ+ and non-LGBTQ+ autistic respondents. The findings suggest that further research is needed to fully understand the intersection of autism and LGBTQ+ identities.

Keywords: autism, stigma, discrimination, gender, sexuality

Les personnes autistes possédant aussi d'autres identités marginalisées (p. ex., LGBTQ+), pourraient être particulièrement vulnérables à la stigmatisation et à la discrimination, et leur expérience pourrait être comprise via l'intersectionnalité. Cette étude explore les différences de stigmatisation et de discrimination vécues entre les personnes autistes LGBTQ+ et celles ne l'étant pas. Quatre-vingt-sept adultes autistes, dont 41 LGBTQ+, ont répondu à un sondage mesurant la centralité, la saillance et la conscience du stigmate, les expériences de discrimination quotidiennes et la conscience du stigmate intersectionnel. Les résultats montrent que les participants LGBTQ+ s'attendent à vivre plus de stigmatisation et de discrimination. Leur genre et leur sexualité sont également plus intégrés à leur personnalité que pour les participants n'étant pas LGBTQ+. La fréquence des expériences de discrimination ne diffère cependant pas entre les participants LGBTQ+ et ceux ne l'étant pas. Davantage d'études devraient être effectuées pour comprendre l'intersectionnalité entre l'autisme et les identités LGBTQ+.

Mots clés : autisme, stigmatisation, discrimination, genre, sexualité

Autism is a heterogenous neurodevelopmental condition characterized by two key differences: those in social communication and interaction, and repetitive behaviours and intense circumscribed interests (American Psychiatric Association [APA], 2013). Autistic¹ people may have differences in eye contact and nonverbal communication; they tend to struggle with social reciprocity and forming and maintaining relationships. Other features present in autism are sensory sensitivities, as well as insistence on routines and rituals (APA, 2013). As a result of these differences, autistic people, especially lesbian, gay, bisexual, transgender, and queer (LGBTQ+) autistic people, experience rampant stigmatization and discrimination in society (Botha et al., 2020). The present study aims to investigate whether experiences of stigmatization and discrimination differ between

LGBTQ+ and non-LGBTQ+ autistic individuals.

Stigma and Autism

Goffman (1963) defines stigma as an attribute that is devalued and ascribed negative meanings by society, thus leading to an individual's alienation. Stigmatization is a multilayered process involving assigning a label to those who display differences deemed undesirable in a given social context, forming negative stereotypes or overgeneralizations about them, separating those people from mainstream society, and discriminating them through power differences (Link & Phelan, 2001). Discrimination, or enacted stigma, refers to the extent to which a person is treated unfairly in society through rejection and depreciation (Gray, A. J., 2002). Felt stigma, on the other hand, is an individual's feelings of shame and

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¹In accordance with the preferences of the autistic community, this paper uses identity-first language ("autistic person") as opposed to person-first language ("person with autism") (Kenny et al., 2016). However, the authors acknowledge that some people may prefer person-first language or other terms.

embarrassment due to their identity, as well as expectations of discrimination or prejudice (Scambler, 1998).

So far, research into stigma and autism has mostly focused on neurotypicals' perceptions of autistic people. For instance, Sasson and colleagues (2017) found that first impressions of autistic individuals engaging in social interactions tend to be overwhelmingly negative, with neurotypicals rating autistic individuals as less socially competent and reporting less desire to interact with them. Further, behaviours associated with autism elicit stigmatization and rejection in neurotypical-dominated society (Butler & Gillis, 2011). Dickter et al. (2020) found that neurotypical adults display negative implicit attitudes towards autistic adults and the behaviours associated with autism, which may contribute to their stigmatization in society.

As for the potential sources of anti-autistic stigma, negative and unrealistic stereotypes about autistic people can play a role. Such stereotypes include difficult personalities, social incompetence, or advanced abilities (Wood & Freeth, 2016). Furthermore, stereotypes about how autism presents may lead to people doubting a person's clinical diagnosis or self-identification due to their presentation of autism not fitting the stereotypes (Hurley-Hanson et al., 2020; Neely & Hunter, 2014). Even those who have not been formally or self-diagnosed with autism but display social and behavioural differences consistent with autism may be stigmatized due to their failure to fit into neurotypical society (Hurley-Hanson et al., 2020).

The stigmatization of autistic people may also be explained in terms of the power differences between the overwhelmingly neurotypical researchers who have historically constructed the social category of autism and those who get diagnosed with autism at some point in their lives (Botha et al., 2020). Autism falls under the neurodiversity umbrella, and autistic people differ from their neurotypical counterparts in terms of their cognitive processing style, a framework endorsed by autistic people themselves (Kapp et al., 2013). These differences have historically been pathologized, resulting in autism being seen as necessitating a cure or elimination hence the stigmatization of autistic people (Pearson & Rose, 2021).

The social nature of autism may affect the content of stigma autistic people experience when compared to other disabilities. Indeed, some researchers have found that the specific social identities a person holds can affect the specific ways they are perceived in society: for example, Pachankis et al. (2018) classified 93 stigmatized social identities, including autism, in

terms of five dimensions: disruptiveness, visibility, persistence over time, aesthetic unpleasantness, and origin. Autism was found to be highly visible—although autism is generally classified as an invisible disability as it does not manifest itself in terms of physical signs (Hatfield et al., 2017). The behaviours and social differences associated with autism may be conspicuous—aesthetically unremarkable, harmless, persisting throughout the lifespan, and being of uncontrollable onset (Pachankis et al., 2018). A follow-up survey which aimed to link the researchers' classification of stigmatized identities with different facets of stigma, including felt and enacted stigma, revealed that stigmatized statuses belonging to the same cluster as autism tended to be perceived by their holders as extremely impactful stigmas associated with health impairment and increased social distance. Therefore, the stigma associated with autism can have tangible impacts on one's health and quality of life, including social connections. However, this study by Pachankis et al. (2018) did not consider the impact of holding multiple stigmatized identities, especially those belonging to different clusters.

Research on how autistic people experience both felt and enacted stigma is still scarce. However, emerging studies have found that because of the stigma, autistic people experience widespread social ostracization and poorer mental health outcomes compared to their neurotypical counterparts (Botha & Frost, 2020). In fact, suicide rates are much higher in autistic people than in the general population (Cassidy et al., 2018a), a phenomenon that has been attributed to their social isolation and the societal pressure to mask their autistic traits in order to appear "normal" (South et al., 2020). Indeed, those who do not have an intellectual or language impairment are frequently expected to "[...] deal with the social world as if they were not disabled" (Gray, 2002, p. 735).

In response to the stigma associated with being autistic, some autistic people may deliberately employ camouflaging or compensatory strategies that would allow them to appear neurotypical in certain situations; examples of camouflaging include forcing eye contact, using prepared scripts in social situations, and imitating other people's social behaviour (Lai et al., 2017; Livingston et al., 2020). Camouflaging, however, comes at a cost. Autistic people, especially those who are assigned female at birth, who camouflage may "fly under the radar", their difficulties thus remaining unnoticed until much later in life (Bargiela et al., 2016). Camouflaging requires a lot of effort, which can be cognitively and emotionally taxing (Bargiela et al., 2016), leading to higher rates of anxiety and depression (Cage & Troxell-Whitman, 2019) and suicidal ideation (Cassidy et al., 2018b).

STIGMA AND LGBTQ+ AUTISTIC PEOPLE

Camouflaging may have an impact on the development of a positive or neutral social or individual identity, as it involves continuously hiding natural parts of oneself from others (Lai et al., 2017). Further, as a stigmatized and marginalized community (Botha et al., 2020), autistic people may experience *minority stress* (Botha & Frost, 2020; Meyer, 2003). Meyer (2003) defines minority stress as the excessive stress that people belonging to stigmatized social groups experience as a consequence of their social identities, which suggests that autistic people—especially those belonging to other minority groups—may experience stress and other mental health problems as a result of existing in a social environment that is hostile towards those who are different.

Albeit scarce, recent research has also investigated other aspects of the relationship between autism and stigma. Autistic people tend to embrace the neurodiversity paradigm, which proposes that autism is a naturally occurring variation in brain structure and function that does not necessarily lead to pain and suffering (Botha et al., 2020). The notion that autism is not a tragedy but another way of being is in line with the social model of disability, which distinguishes between disability and impairment and proposes that it is not one's impairment that causes the negative experience of disability, but rather, disability is constructed through an inaccessible and hostile society (Shakespeare, 2006). Indeed, Mandy (in press) argues that the difficulties autistic people experience are often attributed to their “deficits” as opposed to the rigidity of neurotypical society, which results in a mismatch between autistic people and the social environment they exist in. Arguably, conceptions of autism that rely on the neurodiversity paradigm and the social model of disability, as well as working towards a more accepting society, might result in less stigma directed towards autistic people.

In a small-scale qualitative study by Botha et al. (2020), autistic participants saw autism as a value-neutral characteristic akin to handedness which is central to their sense of identity but is also ascribed negative meanings and, hence, enacted stigma. Indeed, disability scholars have argued that society tends to shun those who do not fit the narrow definition of the normate—white, non-disabled, neurotypical, middle-class, cisgender, and heterosexual (Garland-Thomson, 2002). Since autistic people are less likely to be cisgender (Strang et al., 2014) and/or heterosexual (Dewinter et al., 2017), they may also experience stigma related to those identities as well as their intersections with autism, which is an emerging line of research.

In the face of such widespread stigmatization and discrimination, autistic people may experience

significant felt stigma, which means that they might absorb the negative attitudes about autism prevalent in society and try to distance themselves from the label of autism (Pearson & Rose, 2021). Felt stigma can also result in autistic people believing that the negative stereotypes about autism are true for themselves (Quinn et al., 2014). Furthermore, felt stigma can have adverse effects on mental health, such as increased levels of depression, social isolation, and decreased self-esteem (Drapalski et al., 2013). Pearson and Rose (2021) also argue that, in the context of autism, felt stigma can result in a reduced ability to identify when one is camouflaging one's autism so that one is subsequently able to choose not to camouflage and be themselves.

Although, to the authors' knowledge, there have been no published studies focusing specifically on felt stigma in autistic people, a brief survey of personal accounts by autistic self-advocates suggests that felt stigma is a major issue for the autistic community. For instance, Brown (2016) writes that while uncovering their own felt stigma and realizing that they do not always pass as neurotypical in social interactions, they have been feeling as if they should be ashamed if non-autistic people could notice their autism, Libas (2017) highlights that after finding out that they had been diagnosed with autism as a child, they felt extremely ashamed and subsequently internalized the negative stereotypes about autism: “I was discriminating against myself” (para. 3). Empirical research is needed to investigate the impacts of felt stigma on autistic people, especially those holding other marginalized identities, such as being racialized or LGBTQ+.

In a broader-scope study, Botha (2020) found that, in autistic people, felt stigma can be alleviated through political connectedness to the autistic community. However, based on that study, further research is needed on the experiences of felt stigma in autistic people and the mechanisms by which it can be decreased through autistic community connectedness and potentially other individual factors, such as self-acceptance, as well as the impacts of other stigmatized identities they may hold.

LGBTQ+ Autistic People and Intersectional Stigma

The term intersectionality was first coined by Crenshaw (1989), who defined it as a framework for understanding the unique experiences of oppressed people with multiple marginalized or devalued identities face. Evidence suggests that LGBTQ+ autistic people may have their gender identity or sexuality dismissed altogether based on the false assumption that autistic people do not have enough self-awareness to recognize their gender or sexual identity as something that deviates from the cisgender and heterosexual norm and falls on the LGBTQ+ spectrum (Hillier et al., 2019). The authors concluded that this invalidation of

LGBTQ+ autistic people is an experience of oppression qualitatively different from that of non-autistic LGBTQ+ people and an added layer of oppression when compared to cisgender heterosexual autistic people. Further, LGBTQ+ autistic people might experience some degree of *intersectional invisibility*—they may be perceived as non-prototypical members of the LGBTQ+ community due to them having another marginalized identity (Purdie-Vaughns & Eibach, 2008). Further, they may not be sufficiently represented in the media, suggesting that their invisibility may be representational as well as interpersonal (Neel & Lasseter, 2019). They might be invisible in LGBTQ+ communities; as such communities may not see autistic people as valid members due to harmful assumptions and stereotypes about them not being self-aware enough to declare themselves members of those communities (Hillier et al., 2019). This might also be due to LGBTQ+ autistic people being perceived as irrelevant to the goals of the broader LGBTQ+ community, thus resulting in them being intersectionally invisible (Neel & Lasseter, 2019).

Masking one's autistic traits may result in reduced visibility and disruptiveness from the stigmatizer's standpoint, which thus brings those experiences of autism closer to Innocuous Persistent Cluster in Pachankis et al.'s (2018) framework, which is the cluster where stigmas associated with homo- and bisexuality are located. Although people with identities located in that cluster seemed to have more positive outcomes in terms of mental and physical health than people in other clusters, camouflaging may still result in adverse health outcomes (Cage & Troxell-Whitman, 2019). However, as mentioned above, Pachankis et al. (2018) do not address how experiencing multiple stigmas belonging to different clusters can result in qualitatively different experiences of oppression and discrimination, which highlights the need for more research into the intersections of qualitatively different stigmas, such as the intersection of autism and LGBTQ+ identities.

The Present Study

The purpose of this study is to examine the stigmatization of autistic people through a gender and sexuality lens by measuring LGBTQ+ and non-LGBTQ+ autistic people's perceptions of stigmatization and discrimination related to their autism, gender, and sexuality. Due to the lack of research on the topic, no hypotheses were preconceived, and this study was approached as an exploration.

Method

Ethics Statement

This study was approved by the University of Toronto's Research Ethics Board (Protocol #00041014), and all participants gave informed consent before participating.

Participants

The sample was recruited from Prolific, an online participant recruitment service. A total of 98 people took part in the study, all of whom were compensated with \$0.40 (Canadian dollars) per minute spent participating. The responses of 11 participants were excluded due to incomplete, blank, or duplicate responses, leaving the final sample size to be 87. The inclusion criteria were being 18 years of age or older, having a formal diagnosis of autism or self-identifying as autistic, and fluency in English. Both LGBTQ+ and non-LGBTQ+ autistic people were welcome to participate.

Demographics. All participants were over 18 years old ($M = 27.28$, $SD = 7.80$, range = 18–60) and were either formally or self-diagnosed with autism. Including self-diagnosed participants ensured that the perspectives of those who are unable to access an official diagnosis due to equity-related barriers, such as race, gender, or immigration or financial status (Sarrett, 2016) were not excluded from the study. Slightly more than a third of participants (35.6%) had a formal diagnosis of autism. Thirty-seven percent were self-diagnosed and seeking a formal diagnosis; the remainder were self-diagnosed but not trying to get a formal diagnosis.

As for gender, most participants (57.5%) were men, including one transgender man, and 32.2% were women, including one transgender woman and four women who selected additional nonbinary gender identities. The remainder were nonbinary, genderfluid, agender, demigender, or genderqueer, or selected multiple non-binary gender identities. Participants' gender assigned at birth was not collected in favour of asking them about the gender they related to and identified with the most.

Slightly more than half of participants were heterosexual (52.9%). Thirty-two percent of participants were bisexual, 9.2% identified as asexual, and 4.6% were pansexual. Three participants each were gay and lesbian. The distribution of diagnostic status did not differ by gender ($\chi^2 = 32.47$, $df = 26$, $p = .18$). For the purposes of this study, those who reported a gender identity other than cisgender man or cisgender woman and/or a sexuality other than "heterosexual" were classified as LGBTQ+; the rest were classified as non-LGBTQ+. Overall, 41 participants were categorized as LGBTQ+, and the remaining 46 were classified as non-LGBTQ+.

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Most participants were white (88.5%); 11.5% were Hispanic or Latinx. One participant was Black, and one was mixed race. None were East, Southeast, or South Asian or Indigenous. The percentages do not add up to 100% as participants were encouraged to choose as many racial and ethnic identities as they felt the need to.

Participants represented a range of countries, albeit mostly European. The most common country of residence was Poland (20.7%), and the two next most common ones were the United Kingdom and Italy (10.3% each). Seven participants resided in Portugal, six in Hungary, five in Mexico and South Africa each, and four in Spain. Three participants each lived in Finland, Chile, The Netherlands, and Ireland, while the United States and Sweden were home to two participants each. Finally, Australia, Belgium, Canada, Estonia, France, Greece, Norway, and Slovenia each accounted for one participant.

The most common highest level of educational attainment was a high school diploma (37.9%), followed by bachelor's degree (28.7%) and some high school but no diploma (9.2%). Seven participants had completed trade or vocational training, six had attained a college diploma, five had a master's degree, two had a doctorate, and one held a postgraduate diploma or certificate.

Procedure

The study was administered online using Qualtrics software. The methodology was adapted from the second part of the study by Pachankis et al. (2018), in which participants were administered surveys about their experience of stigma, in addition to psychological and physical health measures. Three of the five stigma measures used by Pachankis et al. (2018) were selected for this study, in addition to a measure of intersectional stigmatization and discrimination partially adapted from the *Intersectional Discrimination Index* (Schein & Bauer, 2019). The four measures can be found in the Appendix. After completing the four measures, participants were invited to answer an optional open-ended question about their personal experiences with stigmatization and discrimination because of their autism, gender, and sexuality.

Measures. The first scale, the *Stigma Centrality and Salience (SCS) Scale*, included five questions measuring the extent to which participants considered their identities to be essential and important to their self-image, as well as how frequently they thought about their identities, regardless of whether they regarded their identities as positive or negative (Quinn et al., 2014). To form the first scale, items 1 and 2 from the *Importance to Identity Subscale of the Collective Self-Esteem Scale* by Luhtanen and Crocker (1992) were adapted for the purposes of this study (e.g., *Being*

autistic is an important reflection of who I am), and item 3, from the same scale, was used as is. This scale was scored on a Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

The second measure was the eight-item *Stigma Consciousness (SC) Scale* adapted from the *Stigma-Consciousness Questionnaire* (Pinel, 1999) which aimed to quantify how much participants expected to be stigmatized by others. Items 1, 4, 5, and 6 were selected as they had the highest factor loadings and were adapted to reflect the topic of the study (e.g., *Stereotypes about LGBTQ+ people have not affected me personally*). This scale was also scored on a Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Participants also completed Williams et al.'s (1997) *Everyday Discrimination Scale* (EDS) containing nine items measuring the frequency of experiences of stigmatization and discrimination in their daily life. An example item is *People act as if they think you are dishonest*, and the EDS was scored based on frequency, ranging from 1 (*never*) to 6 (*almost every day*).

The fourth and final scale, the six-question *Intersectional Stigma (IS) Scale*, measured participants' anticipated experiences of intersectional stigmatization specific to gender, sexuality, and autism as well as how much intersectional stigmatization they perceived to exist in society in general. The first two items were created by the author, while the final three were adapted from the *Intersectional Discrimination Index* created by Scheim & Bauer (2019). A sample item would be *People do not take LGBTQ+ autistic people seriously enough*, and a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*) was used to score the IS scale as well. All four measures can be found in Appendix 1.

Finally, in an optional open-ended question, participants were asked to share any stigmatization or discrimination they had experienced because of their autism, gender, or sexuality, if they felt comfortable doing so.

Results

Table 1 summarizes the average score on each measure broken down by group (LGBTQ+ and non-LGBTQ+). Overall, LGBTQ+ participants reported significantly higher levels of stigma centrality and salience than non-LGBTQ+ participants. It is important to note that this score reflects stigma centrality and salience in relation to autism, gender, and sexuality altogether: the way stigma centrality and salience differ for those identities is explored later in this section. LGBTQ+ respondents also had significantly higher scores on the *Stigma Consciousness Scale*. The reported frequency of everyday experiences of stigmatization

Table 1
Mean Scores on Each Measure

Scale	Mean Score per Item for All Participants (<i>SD</i>)	Mean Score per Item for LGBTQ+ Participants (<i>SD</i>)	Mean Score per Item for non-LGBTQ+ Participants (<i>SD</i>)	<i>p</i> -value for the Group Difference	Absolute Effect Size (Cohen's <i>d</i>)
Stigma Centrality and Salience	3.16 (0.77)	3.44 (0.72)	2.90 (0.73)	.001	0.74
Stigma Consciousness	2.94 (0.81)	3.23 (0.88)	2.68 (0.64)	.002	0.72
Everyday Discrimination Scale	2.82 (1.07)	2.79 (0.95)	2.84 (1.18)	0.81	0.05
Intersectional Stigmatization	3.19 (0.89)	3.49 (0.89)	2.92 (0.80)	0.002	0.68

Table 2
Pearson's Correlations Between the Measures

	Intersectional Stigmatization	Stigma Centrality and Salience	Everyday Discrimination Scale	Stigma Consciousness
Intersectional Stigmatization	-	0.47 ****	0.48****	0.56 ****
Stigma Centrality and Salience	0.47****	-	0.19 .	0.47 ****
Everyday Discrimination Scale	0.48****	0.19 .	-	0.35 ***
Stigma Consciousness	0.56****	0.47 ****	0.35 ***	-

Note.

.: .05 < *p* < .10

*: .01 < *p* < .05

**: .001 < *p* < .01

***: .0001 < *p* < .001

****: *p* < .0001

and discrimination did not differ significantly between LGBTQ+ and non-LGBTQ+ participants. Finally, LGBTQ+ participants reported more awareness and experiences of intersectional stigmatization in relation to their identities.

Table 2 demonstrates how scores on the four measures correlated with each other. Scores on all measures except for the EDS were significantly correlated with scores on the remaining three measures. However, everyday experiences of discrimination did not have a significant relationship with stigma centrality and salience. An a priori multiple regression analysis revealed no interactions between participant group (LGBTQ+ or non-LGBTQ+) and stigma centrality and salience when predicting scores on the EDS or the SC Scale.

Analysis of Subscales

Each of the four scales used in this study captures a wide range of experiences and can therefore be broken down into two or more subscales, each reflecting a dimension of the concept measured by the entire scale. For instance, items 1 and 2 on the SCS scale aim to capture how someone feels about their identity as an autistic person, while items 3 and 4 on the same scale deal with gender and sexuality, and item 5 asks about the general importance of social groups to one's sense of identity. Thus, the SCS Scale has three distinct dimensions. The full list of subscales and the items forming them can be found in the Appendix.

Table 3 summarizes the differences between scores on each subscale for LGBTQ+ and non-LGBTQ+ participants. Although belonging to social groups was equally important to LGBTQ+ and non-LGBTQ+ participants' identity, autism and gender/sexuality were significantly more salient in LGBTQ+ participants. LGBTQ+ participants also reported significantly higher stigma consciousness in relation to autism and gender/sexuality than non-LGBTQ+ participants. However, reported frequency of everyday experiences of discrimination was slightly, albeit not significantly, higher in non-LGBTQ+ participants. Finally, LGBTQ+ participants anticipated personally experiencing more intersectional stigmatization and discrimination, as would be expected. The level of awareness of intersectional stigmatization of LGBTQ+ autistic people did not differ significantly between the two groups.

Qualitative Responses

Overall, 39 participants responded to the open-ended question about any specific experiences of harassment/discrimination. Participants frequently reported experiences of social rejection, either because of their autism and their gender and/or sexuality. Many were closeted about their neurotype and gender and/or

sexuality in order to avoid discrimination and stigmatization. Some reported being treated differently when people found out about their autism, gender, or sexuality. For instance, one person wrote that they "have only told select people that [they] have autism and that [they are] bisexual specifically because people will and do treat someone different [sic] after learning those things." Experiences of bullying, infantilization, harassment, and physical or emotional abuse were commonly reported as well in both LGBTQ+ and non-LGBTQ+ participants.

Interestingly, three bisexual participants experienced "erasure" due to their autism and sexuality oftentimes not being visible to others. As one person wrote, "... I mostly experience erasure of both my autism and my sexuality because I 'seem' so 'normal'".

Finally, several participants reported that their gender and/or sexuality have been dismissed by other people due to their autism. One participant reported having their mother tell them that they "don't have enough self-awareness to know that [they are] asexual," and another participant wrote that their bisexuality has been invalidated by their girlfriend, possibly because "it had something to do with their autism."

Discussion

The present study aimed to investigate whether experiences and perceptions of stigmatization and discrimination, including intersectional stigmatization and discrimination, differ between LGBTQ+ and non-LGBTQ+ autistic adults. In this study, LGBTQ+ and non-LGBTQ+ autistic adults were administered a set of four measures of different aspects of stigmatization and discrimination and were invited to also describe their experiences in an open-ended question if they felt comfortable doing so.

It was found that participants who were LGBTQ+ considered their autism and gender/sexuality to be more salient and important to their identity than cisgender heterosexual participants, both with sizeable effect sizes, although there was no difference in the personal importance of belonging to social groups between LGBTQ+ and non-LGBTQ+ participants. LGBTQ+ respondents also expected to be stigmatized and discriminated against because of their autism, gender/sexuality, and their intersection to a greater degree than non-LGBTQ+ participants. This is not unexpected as unlike non-LGBTQ+ people, LGBTQ+ people might expect to be socially stigmatized because of their gender and sexuality. However, experiences of everyday discrimination did not differ significantly between the two groups, regardless of the type of discrimination. One potential explanation for this could be the degree to which LGBTQ+ people are perceived as LGBTQ+ by other people. LGBTQ+ people who 'pass' as cisgender

and/or heterosexual may not experience much overt stigmatization or discrimination due to their gender and/or sexuality. It should also be noted that choosing not to present oneself as LGBTQ+ in public can be a protective strategy against discrimination or harassment, especially in certain parts of the world. However, more research is needed to investigate this somewhat unexpected finding.

Another finding that should be replicated in future research is the significantly higher levels of autism identity salience and centrality, as well as autism-related stigma consciousness in LGBTQ+ participants as compared to non-LGBTQ+ participants. A possible explanation could be that LGBTQ+ people may view their gender and/or sexuality as inextricably linked to their autism (see Cain & Velasco, 2021; Mendes & Harris, 2019), and increased salience and centrality of gender and/or sexuality may result in autism becoming a more salient and central identity in LGBTQ+ autistic people.

A correlation analysis has revealed that those who considered their autism, gender, and/or sexuality as

more important to their identity expected to be stigmatized to a greater degree because of those identities and their intersections. However, there was no significant relationship between stigma centrality and salience and the actual frequency of discrimination experiences, which could be, in part, due to different levels of “outness” about those identities. The frequency of discrimination experiences was positively correlated with the degree to which participants anticipated stigmatization as indicated by the *Intersectional Stigmatization* and *Stigma Consciousness* scales, which could potentially indicate a causal relationship between the three scales: actually, experiencing stigmatization and discrimination may lead to expectations of more stigmatization. However, establishing causal mechanisms is beyond the scope of this study.

As for the qualitative analysis, out of the 39 participants who completed the final open-ended question, many endorsed the need to conceal their neurotype, gender, and sexuality in order to avoid stigmatization and discrimination, which is consistent with previous literature, including that on camouflaging

Table 3
Mean Scores on Each Subscale

Subscale	Mean Score per Item for All Participants (<i>SD</i>)	Mean Score per Item for LGBTQ+ Participants (<i>SD</i>)	Mean Score per Item for non-LGBTQ+ Participants (<i>SD</i>)	<i>P</i> -value for the Difference Between LGBTQ+ and non-LGBTQ+ participants	Absolute Effect Size (Cohen's <i>d</i>)
SCS-Autism	3.27 (0.99)	3.66 (0.93)	2.94 (0.92)	.0005	0.78
SCS-Gender/ Sexuality	3.15 (1.15)	3.52 (1.04)	2.82 (1.16)	.004	0.64
SCS-Overall	2.94 (1.32)	3.02 (1.31)	2.85 (1.34)	.56	0.13
SC-Autism	3.14 (0.96)	3.36 (1.07)	2.94 (0.81)	.042	0.45
SC-Gender/ Sexuality	2.73 (1.01)	3.09 (1.09)	2.41 (0.81)	.002	0.71
EDS-Less Courtesy	2.89 (1.21)	2.83 (1.20)	2.94 (1.22)	.666	0.09
EDS-Harassment	2.39 (1.21)	2.27 (1.07)	2.49 (1.33)	.394	0.18
EDS-Afraid of You	2.53 (1.53)	2.39 (1.36)	2.67 (1.67)	.386	0.18
IS-Personal	3.08 (0.94)	3.40 (0.92)	2.79 (0.87)	.002	0.68
IS-General	3.74 (1.05)	3.95 (1.07)	3.54 (1.00)	.072	0.39

and stigma (Bargiela et al., 2016; Botha et al., 2020). A particularly interesting finding that is in line with Hillier et al. (2019) was that some participants reported people dismissing their gender or sexuality because they are autistic, suggesting that there are intersecting effects of these minority stressors which should be explored in further research.

Implications

To the author's knowledge, this study was the first one to explore the stigmatization of autistic people specifically as it relates to gender and sexuality. It may therefore inspire future research on this topic, including qualitative and quantitative studies. A greater awareness of the issues LGBTQ+ autistic people face may inform interventions in the fields of education and social work; for instance, through providing LGBTQ+ inclusive sex education to autistic students and educating counselors working with autistic people on the intersection of autism and LGBTQ+ identities. Furthermore, since political connectedness to the autistic and the LGBTQ+ community can alleviate the adverse effects of felt stigma (Botha, 2020; Kaniuka et al., 2019), studies such as the present one can inform the creation of safe spaces for LGBTQ+ autistic people, such as support groups on university campuses.

Limitations and Future Directions

This study is not without its limitations. First, the sample was overwhelmingly white and European, which limits the generalizability of the findings to people of colour and/or those living in other parts of the world. It is, however, worth noting that even within Europe, cultures may differ in terms of social acceptance of both autistic and LGBTQ+ people, which can lead to qualitatively different experiences of stigmatization and discrimination. More research is needed to explore cultural differences in attitudes towards LGBTQ+ autistic people as well as their experiences of stigmatization and discrimination in different countries.

The EDS assesses all experiences of everyday discrimination, regardless of the identity characteristics that precipitated it. Therefore, one cannot conclude that participants' scores on the EDS reflected solely their experiences of discrimination related to being autistic and potentially LGBTQ+. Their responses could have been related to other demographic factors, such as race, immigration status, and other disabilities, which were not assessed in this study.

Finally, discrimination based on gender is not specific to transgender individuals, as it can also affect cisgender (and heterosexual) women (Fiske & Stevens, 1993), which could have potentially been a confounding variable in this study, as well as another

dimension of intersectionality. Future research can examine how gender-based discrimination can impact LGBTQ+ and non-LGBTQ+ autistic women.

To conclude, this study is part of an emerging line of research on the intersection of autism, sexuality, and gender. The results suggest that LGBTQ+ autistic participants endorse higher stigma consciousness and salience in relation to both autism and their gender and/or sexuality compared to their non-LGBTQ+ counterparts. Although experiences of everyday discrimination did not differ between the two groups, those who faced more discrimination reported higher degrees of stigma consciousness pertaining to their autism, gender, sexuality, and their intersections. Qualitative data analysis suggested that experiences of bullying, harassment, and invalidation were common in the sample.

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APPENDIX A
Scales and Subscales Used in the Study

Stigma Centrality and Salience (SCS; adapted from Luhtanen & Crocker, 1992)

Item Number	Item	Subscale
1	Overall, being autistic has very little to do with how I feel about myself.	SCS-Autism
2	Being autistic is an important reflection of who I am.	SCS-Autism
3	Overall, my gender and sexuality have very little to do with how I feel about myself.	SCS-Gender/Sexuality
4	My gender and sexuality are an important reflection of who I am.	SCS-Gender/Sexuality
5	In general, belonging to social groups is an important part of my self-image.	SCS-Overall

Stigma Consciousness Scale (SC; adapted from Pinel, 1999)

Item Number	Item	Subscale
1	Stereotypes about autistic people have not affected me personally.	SC-Autism
2	Most neurotypical people do not judge autistic people on the basis of their neurotype.	SC-Autism
3	My being autistic does not influence how neurotypical people act with me.	SC-Autism
4	I almost never think about the fact that I am autistic when I interact with neurotypical people.	SC-Autism
5	Stereotypes about LGBTQ+ people have not affected me personally.	SC-Gender/Sexuality
6	Most cisgender heterosexual people do not judge LGBTQ+ people on the basis of their gender or orientation.	SC-Gender/Sexuality
7	My gender and sexuality do not influence how cisgender heterosexual people act with me.	SC-Gender/Sexuality
8	I almost never think about my gender and sexuality when I interact with cisgender heterosexual people.	SC-Gender/Sexuality

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Everyday Discrimination Scale (EDS; Williams et al., 1997)

In your day-to-day life, how often do any of the following things happen to you?

Item Number	Item	Subscale
1	You are treated with less courtesy than other people are.	EDS-Less Courtesy
2	You are treated with less respect than other people are.	EDS-Less Courtesy
3	You receive poorer service than other people at restaurants or stores.	EDS-Less Courtesy
4	People act as if they think you are not smart.	N/A
5	People act as if they are afraid of you.	EDS-Afraid of You
6	People act as if they think you are dishonest.	N/A
7	People act as if they're better than you are.	N/A
8	You are called names or insulted.	EDS-Harassment
9	You are threatened or harassed.	EDS-Harassment

Response categories for all items:

Almost every day

At least once a week

A few times a month

A few times a year

Less than once a year

Never

Intersectional Stigma (IS; items 1 and 2 were created by the author, and the rest were adapted from Scheim & Bauer, 2019)

Item Number	Item	Subscale
1	People have dismissed my gender/sexuality because of my autism.	IS-Personal
2	People do not take LGBTQ+ autistic people seriously enough.	IS-General
3	Because of my gender/sexuality and being autistic, I worry about being treated unfairly by a teacher, supervisor, or employer.	IS-Personal
4	I worry about being harassed or stopped by police or security because of being my gender/sexuality and being autistic.	IS-Personal
5	I fear that I will have a hard time finding friendship or romance because of my gender/sexuality and being autistic.	IS-Personal
6	Because of my gender/sexuality and being autistic, I might have trouble finding or keeping a job.	IS-Personal

Investigating Mental Health During the COVID-19 Pandemic: A Conceptual Analysis of Thwarted Belongingness, Loneliness, and Social Isolation

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The coronavirus disease 2019 (COVID-19) has brought unprecedented challenges to global populations since its outbreak in December 2019. Given the strict quarantine mandates, many researchers and health experts have been concerned about the unknown immediate and long-term psychological effects of physical distancing. This article investigates this phenomenon by evaluating the constructs thwarted belongingness, social isolation, and loneliness through the method of conceptual analysis. First, linguistic attention is given to the clarification of conceptual overlap, vagueness, and inconsistencies in construct meaning and application. Second, phenomenological descriptions are used to examine the congruity between psychological constructs and lived experience during the pandemic. Third, the novel inclusion of identity and the significance of space are applied to ascertain the contextual dimensions and mechanisms of quarantine measures and physical distancing. Lastly, this article concludes by discussing the valuable role that philosophy and conceptual analysis have in the field of psychology and COVID-19 research.

Keywords: COVID-19, mental health research, conceptual analysis, philosophical psychology, thwarted belongingness

Depuis son éclosion, la maladie à coronavirus 2019 (COVID-19) apporte des défis sans précédent. Les mandats de quarantaine stricts ont inquiétés de nombreux experts sur les effets psychologiques immédiats et à long terme inconnus de la distanciation physique. Afin d'étudier cela, cet article évalue les construits d'appartenance contrariée, isolement social et solitude avec une analyse conceptuelle. Une attention linguistique est accordée à la clarification du chevauchement conceptuel, l'imprécision et les incohérences dans la définition et l'application des construits. Aussi, la congruité entre les construits psychologiques et l'expérience vécue pendant la pandémie sont examinés avec des descriptions phénoménologiques. La nouvelle inclusion de l'identité et l'importance de l'espace est appliquée pour définir les dimensions contextuelles et les mécanismes des mesures de quarantaine et de distanciation physique. Finalement, l'importance de la philosophie et de l'analyse conceptuelle dans le domaine de la psychologie et de la recherche sur la COVID-19 est discutée.

Mots-clés : COVID-19, santé mentale, analyse conceptuelle, psychologie philosophique, appartenance contrariée

Introduction

Although coronavirus disease 2019 (COVID-19) research can be appreciated for its rapid implementation, caution should be given to the quality and reproducibility of studies on the immediate and long-term psychological effects of the pandemic (Demkowicz et al., 2021). As publication graphs indicate, the number of health-related articles has increased exponentially since January 2020, with many journals offering higher acceptance rates and fast-tracking through the editorial process (Else, 2020;

Gustot, 2020; Kambhampati et al., 2020). As of March 2021, approximately 3.55 million COVID-19 articles have been published, equating to roughly 9,726 per day (Conley & Johnson, 2021). Considering the complexity and multifactorial nature of an unprecedented historical event like COVID-19, many in the research community have stressed the need for greater precaution and critical reflection (Demkowicz et al., 2021; Gustot, 2020). As a unique global phenomenon, the multidimensional nature of COVID-19 has made it challenging to accurately study and measure mental health risks and outcomes (Gruber et al., 2021).

From the initial stages of research, priority must be given to definition and demarcation, which are used to isolate one variable from another. Thus far, researchers have given considerable attention to loneliness and related variables, including social

I would like to thank instructor Katey Park for her incredible course Death, Dying and Bereavement and for sparking my interest in this topic. And, Dr. Paula Schwebel and Dr. John Caruana, I am always grateful for our conversations, as they have helped me to find my footing in interdisciplinary research. All correspondence regarding this article should be addressed to Jan Alexander Wozniak at alexander.wozniak@ryerson.ca.

isolation, physical distancing, and *thwarted belongingness*. According to Gratz et al. (2020), thwarted belongingness stems from “feeling disconnected from and lacking meaningful relationships with others” (p. 1141). However, Van Orden et al. (2012) define it as “an unmet need for social competence” (p. 2), and Raj et al. (2021) describe it as “a psychological state in which the need for social connectedness and the need for belongingness are not adequately met” (p. 2). Moreover, McCallum et al. (2021) define belongingness as “the need to belong, based on experiences of social interactions” (p. 2).

These definitions present inconsistencies that make it difficult to determine what precisely constitutes belongingness and its negation (i.e., thwartedness). In some of the aforementioned explanations, there is what is commonly referred to in philosophical terms as “circularity” or “circular definitions.” These can be viewed as problematic because such patterns break the *principle of clarity*. A circular definition occurs when the *definiens* (i.e., the meaning of “thwarted belongingness”) explicitly contains the *definiendum* (the term that is being explained) (Burgess, 2008). This means that the term being defined is being given to describe itself. With unclear definitions, the measured psychological or social phenomenon may not correspond with the language being used to represent it. In turn, the burden of interpretation then rests with the audience, who may misunderstand and misuse the research in future studies. According to Burgess, “circular definitions fail the informativeness norm about as badly as any definition possibly could” (p. 215).

Consequently, problems arise when expressing construct measures, as their meaning may be inconsistent or overlap with related variables. The inability to achieve mutual recognition between researchers has led to significant criticism over the validity, reproducibility, and replication of social scientific research. In the case of thwarted belongingness, the distinction between loneliness and social isolation is insufficiently demarcated in various research studies. For example, McCallum et al. (2021) describe loneliness as “a subjective feeling of having less social contact than one wants” (p. 2), while Gratz et al. (2020) define neither social isolation nor loneliness despite possible construct overlap. As Yanguas et al. (2018) claim, loneliness is a complex, multifactorial construct, and for these reasons, there have been many diverse definitions and reiterations of it from researchers over the years. According to Flake and Fried (2020),

If a target construct is not defined clearly at the outset of planning a study, the ambiguity in

what is being measured will make navigating all the future measurement decisions difficult, and many opportunities to exploit this ambiguity, knowingly or otherwise, will present themselves” (p. 460).

When researchers use vague constructs, especially to measure a highly complex global phenomenon with significant differences in factors such as infection rates, demographics, and quarantine measures, it leaves the data susceptible to numerous confounds. As psychological studies typically build on one another, a prospective risk of conceptual vagueness is a causal sequence of errors from researcher to researcher, which may be expressed through skewed results, misinterpretation, unsuccessful hypotheses, and research limitations.

However, in terms of scientific integrity and reliability, there has also been ongoing concern over the accuracy of psychological research study results (Aarts, 2015; Pashler & Harris, 2012; Stevens, 2017). During the “Replicability Crisis” that began in the early 2000s, an influx of researchers began questioning the accuracy of the methods and results of various scientific studies (Francis, 2012; Simmons et al., 2011; Vul et al., 2009). In 2015, a three-year research project attempted to replicate the findings of 100 studies in top-tier psychological journals (Open Science Collaborative, 2015). As the results indicated, the replications were statistically significant in only 39% of cases, while 61% failed to reproduce the original results. According to Freese and Peterson (2015), social psychology is at the centre of this concern, which can be attributed to the nature of the phenomena being studied and the methods being used to study them.

This article has developed to enhance conceptual clarity and phenomenological descriptions during the COVID-19 pandemic. More specifically, it aligns with the recommendations provided by three fellow research teams in the psychological community. First, according to Demkowicz et al. (2021), “as the pandemic continues to evolve, we must take time to reflect on our initial research response and collectively consider how we can use this to strengthen ensuing COVID-19 mental health research and our response to future crises” (p. 1). Second, Carel et al. (2021) suggest that “phenomenological reflection on our experiences, on what we have gained and lost during the pandemic, can also lead to a renewed and deeper appreciation of what we had previously taken for granted” (p. 88). Third, Holmes et al. (2020) propose that if progress is to be made in COVID-related health research, the process “will require integration across disciplines and sectors” (p. 556). Based on these proposals, this article incorporates (1) critical

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reflection on earlier COVID-19 research, (2) phenomenological considerations of lived experience during the pandemic, and (3) interdisciplinary critical psychological and philosophical research.

Focusing on the construct thwarted belongingness, relations and distinctions are drawn between social isolation and loneliness. With the novel inclusion of *identity* and what will be referred to as *the significance of space*, a Wittgensteinian conceptual analysis will be employed to elucidate the meaning and application of these concepts within the context of COVID-19. The basis for this analysis is most aptly described by Wittgenstein's (1958) description of *language games*:

For if you look at them you will not see something that is common to all, but similarities, relationships, and a whole series of them at that [. . .] And the result of this examination is: we see a complicated network of similarities overlapping and criss-crossing; sometimes overall similarities, sometimes similarities of detail (§66).

Although thwarted belongingness has a relationship or kinship with social isolation and loneliness, they are not synonymous nor entirely divisible. Consequently, this leaves them in a linguistic and phenomenological "gray area." This article sets out to better understand the similarities, differences, and contingencies of these concepts in relation to the pandemic. In doing so, this philosophical investigation should, as Hyman (1991) describes, "contribute to psychological science by extirpating conceptual confusions that have been woven into the fabric of empirical research" (p. 19).

COVID-19 Health Risks

Since initial reports of the outbreak in December 2019, prevention methods have maintained an essential role in controlling infection rates. Though government and healthcare officials have prioritized the need for social isolation, new research has suggested that these measures may pose short and long-term mental health risks (Reger et al., 2020; Sher, 2020). As Usher et al. (2020) have indicated, isolation is a known cause of psychosocial problems, especially when individuals are subjected to prolonged exposure. During past global pandemics, researchers identified an increased risk of psychological distress and suicide (Cheung et al., 2008; Wasserman, 1992). In a research study conducted by Hawryluck et al. (2004) during the Severe Acute Respiratory Syndrome (SARS) pandemic (2002–2004), symptoms of post-traumatic stress disorder (PTSD) and depression were reported in 28.9% and 31.2% of participants, with longer quarantine measures associated with greater PTSD risk. Both the Spanish Flu (1918–1920) and the

SARS outbreak were associated with higher rates of psychological distress and suicide (Wasserman, 1992; Zortea et al., 2021).

However, unlike previous pandemics, COVID-19 has posed additional challenges through rapid transmissibility and ubiquitous infection rates via globalization and international travel (Su et al., 2021; Zalsman et al., 2020). Since the emergence of cases in Wuhan, China, in December of 2019 (Huang et al., 2020), the virus spread to nearly every country and territory in the world (Rostami et al., 2021), with over 21 million cases and nearly 800,000 deaths attributed to the virus as of August 16, 2020 (World Health Organization, 2020a). Compared to more geographically isolated pandemics, COVID-19 caused immediate disruptions in global populations and economic markets (Kestha et al., 2021). With the onset of the virus and the heterogeneous differences in international rates and responses, it has been suggested that establishing connections and measuring variables between COVID-19 and mental health risk is challenging to determine (John et al., 2020; Zalsman et al., 2020). What has made the COVID-19 pandemic particularly deleterious for many individuals is the fact that mental health services were often unavailable in particular regions (World Health Organization, 2020b). Because of these significant disruptions, researchers should err on the side of caution when evaluating outcomes of the pandemic (Sher, 2020).

Given the extent of closures, lockdowns, restrictions, and cancellations, many individuals have experienced severe isolation and detachment from society (Ritchie et al., 2020), as well as from fundamental social units, including family, friends, peers, neighbours, and coworkers (Frenkel-Yosef et al., 2020; Holingue et al., 2020). This is particularly concerning from a public health standpoint, as studies have shown that loneliness and social isolation are associated with significant health risks (Heinrich & Gullone, 2006; Palgi et al., 2020; Zalsman et al., 2020), including poorer cognitive function (Cacioppo & Cacioppo, 2014), sleep disturbances (Altena et al., 2020), depression (Cacioppo et al., 2006; Czeisler et al., 2020; Xiang et al., 2020), anxiety (Alzueta et al., 2021; Mertens et al., 2020; Thakur & Jain, 2020), PTSD (Brooks et al., 2020), self-harm (John et al., 2020), and suicide (Druss, 2020; Gunnell et al., 2020). These risks may be more significant during the COVID-19 pandemic, as valuable social and communal institutions such as schools, clubs, committees, organizations, and places of worship such as churches, synagogues, mosques, and temples have suspended in-person gatherings (McCallum et al., 2021; Reger et al., 2020). Many of these networks, communities, and activities are essential for coping,

stress relief, social cohesion, and overall well-being (Reger et al., 2020; Zalsman et al., 2020).

With drastic alterations to virtually all dimensions of modern life, Reger et al. (2020) have referred to the COVID-19 pandemic as “a perfect storm” in terms of adverse mental health outcomes (p. 1093). Mental health, according to the World Health Organization (2004), is “a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community” (p. 12). With these dramatic changes in day-to-day life, most Americans have been unable to meet the social and leisure requirements necessary for sound mental health (Usher et al., 2020). In April 2020, 72% of the population indicated that they were experiencing either major or minor disruptions to their way of life (Kirzinger et al., 2020). Compared with pre-COVID mental health measures, McGinty et al. (2020) identified a significant increase in adverse mental health effects in the US. Given such outcomes, government and health officials must be mindful of the potential correlation between social isolation and psychological distress, especially when implementing strict and long-term social distancing and stay-at-home orders (Sher, 2020). According to Brooks et al. (2020), quarantine measures should only be used for as long as necessary, as ongoing isolation may contribute to unforeseeable long-term psychosocial problems.

Gratz et al. (2020) on Social Isolation and Thwarted Belongingness

In the study by Gratz et al. (2020), the researchers investigated how social isolation produced by stay-at-home orders and job loss were directly and indirectly correlated with depression and suicide. Specifically, the underlying mechanisms (i) thwarted belongingness, (ii) perceived burdensomeness, and (iii) loneliness were measured. For example, in the case of job loss, the researchers wanted to understand if suicide was correlated with (i), (ii), or (iii), or a combination of these factors. Two hypotheses were presented in the study. First, that increase in involuntary unemployment and social isolation would be positively correlated with suicide risk. Second, that social restrictions would be associated with greater feelings of thwarted belongingness and loneliness and thus lead to an increase in suicide risk. Furthermore, it was also expected that involuntary unemployment or job loss would equate to feelings of perceived burdensomeness, and therefore, correspond with increased suicide risk (Gratz et al., 2020). The researchers identified that the pandemic could potentially disrupt two dimensions of social cohesion. First, with COVID-19 restrictions and the threat of

unemployment and job loss, individuals may experience a growing concern for potential social isolation. This, in turn, could lead to a subsequent reduction in social ties and relationships. Second, with this increasing concern over unemployment and job loss, individuals may experience a dependency on others, which would lead to a conceivable increase in perceived burdensomeness rather than personal value (Gratz et al., 2020).

To conduct this study, the researchers focused on a cross-sectional design that measured the American population in a total of 45 states (Gratz et al., 2020). Using Amazon’s Mechanical Turk (MTurk) platform, a sample size of 500 individuals living in the United States completed the online self-report survey over 9 days between March 27, 2020 and April 5, 2020. With the MTurk online platform and model, individuals had the opportunity to participate in the research study for pay, and in this study, participants were given \$3.00 for completing the online survey. A total of four questionnaire rating scales were combined to explore variables such as recent job loss, stay-at-home order status, perceived burdensomeness, thwarted belongingness, loneliness, and suicide risk (Gratz et al., 2020). These subsections and scales included (i) experiences during the COVID-19 pandemic, (ii) thwarted belongingness and burdensomeness (*The Interpersonal Needs Questionnaire*), (iii) loneliness and social isolation (*UCLA Loneliness Scale – version 3*), and (iv) depression symptoms (*The Depression Symptom Index – Suicide Subscale*). From the results of the scales, correlational measures were applied to identify the relationship between the identified variables and suicide risk.

The results provided partial support for the proposed hypotheses of the research team. However, given that job loss, unemployment, and perceived burdensomeness were a primary focus of the paper, the lack of an independent association was surprising. Though the researchers presented multiple hypotheses, only thwarted belongingness showed a unique association with suicide risk. As the results identified, it is not that social isolation is necessarily detrimental in and of itself, but that a more pervasive disconnection must be mediating the increased association with increased suicide risk (Gratz et al., 2020). Though it was not fully explained or defined in the paper, thwarted belongingness somehow negatively impacts social cohesion and connection (Gratz et al., 2020). This concept becomes more convoluted and uncertain when considering that “thwarted belongingness overlaps with loneliness,” although “it is a broader construct that also captures the nature and extent of support and reciprocal interpersonal relationships” (Gratz et al., 2020, p. 1141). However, that description is quite vague and

can be attributed to any number of variables and confounds, which is further complicated when considering the variance in COVID-related geographic and demographic factors.

Overall, there appeared to be a lack of conciseness when defining and explaining some of the operationalized variables in this study. Rather than simply presenting the variables and measuring them, it would have been advantageous to elaborate on them in order to understand their mechanisms of action (e.g., how thwarted belongingness decreases social cohesion and increases suicide risk when compared to loneliness). Specifically, greater elucidation of the possible distinctions and the similarities of social isolation, loneliness, and thwarted belongingness would improve opportunities for interpretation and replication of these findings in future research studies. Moreover, the research methodology employed various self-report measures on thwarted belongingness, perceived burdensomeness, loneliness, social isolation, and suicide, which may be particularly difficult to measure without professional psychological assessments. Given the complexity of these variables and the potential for conceptual and measure overlap, the addition of clinical interviewing could enhance the accuracy of the measures.

Conceptual Analysis and Psychological Phenomena

A concern with COVID-19 research stems from potentially vague and overlapping concepts, making it difficult to fully grasp what is being measured or accounted for. In philosophical terms, it can be said that many researchers present constructs *prima facie* or “at/on first appearance” (Pring, 1982, p. 247). This outcome occurs when a researcher fails to adequately describe the construct and its meaning and mechanisms. According to Litwinski (1956), in psychological research, “we should avoid over hasty measurement of things which still lack conceptual clarity [. . .] Thus, the unifying concept of belongingness is distinct from, although connected with [. . .] various forms of integration or identification” (p. 131). Therefore, “thwarted” belongingness being the negation or privation of belongingness, infers the disintegration and disidentification of the aforementioned properties. However, Gratz et al. (2020) fail to demarcate the term from the potentially overlapping concepts of loneliness and social isolation, as these are “presupposed” when reading the article. Moreover, little acknowledgment is given to the interaction between concept and context. The results of the study provide research data, but the underlying meaning remains questionable in terms of what it represents and whether confounding factors were sufficiently controlled for.

According to Dallenbach (1953), conceptual vagueness in science often arises when the theoretical understanding of the measurement is lacking. Although an effect or phenomenon is being measured, the investigator, in failing to circumscribe its conceptual specificity, leaves the validity of the variable relationships susceptible to process or mechanism misattribution. As Toomela (2010) identifies, the employment of quantitative methods in psychology is inadequate for “answering questions about structures and processes that underlie observed behaviours” (p. 1). In contemporary psychological sciences, the use of quantitative methods often precedes consideration of the phenomenon and its context (Toomela, 2010). Because COVID-19 is such a complex global event, researchers should be particularly concerned with confounds and the implications of their measures. For this reason, conceptual analysis may be an underutilized tool for understanding the overall goal of the research being conducted. More specifically, as a method, conceptual analysis can be used to solidify accurate definitions, determine necessary and sufficient conditions, draw distinctions between related concepts, and evaluate underlying contextual factors (Glock, 2013; Racine, 2015). Primarily, the method aims to break down and deconstruct complex phenomena, measures, and concepts into concise linguistic components, which can then be used to explore meanings, contingencies, and interactions more effectively.

Wittgensteinian conceptual analysis would be the preferred form for psychological sciences, as it allows for interdisciplinary openness and the consideration of everyday phenomena (Glock, 2013; Racine, 2015). Because Wittgenstein’s approach is fundamentally anti-theoretical, it prioritizes the particularities of a given phenomenon, its constituent linguistic representations, and the circumstances in which we use it (Horwich, 2012). Consequently, the analysis is not subsumed by the abstraction of analytic theories and practices, but instead favours a reality-oriented approach fundamentally aware of contingency (Rorty, 1987). Instead of relying solely on a priori reasoning, which aligns with the analytic or Anglo-American philosophical tradition, the later works of Wittgenstein are rooted in a “common-sense” approach that is critically self-reflexive, meta-philosophically and meta-scientifically perceptive, and meticulously astute to detail (Glock, 2013).

Ushering in the ‘post-analytic turn’ in philosophy, Wittgenstein’s later thinking overcame many of the methodological constraints that relegated the discipline to limited topics and discussions (Bevir, 2011). Prior to Wittgenstein’s re-emergence at Cambridge University in 1929, “analytic philosophy was given a certain cast by the dogmas it inherited

from logical positivism. There was a sharp separation of philosophical analysis from empirical inquiry, [and] the sharp separation of the analytic from the normative" (Adel, 1972, p. 133). In its rigid, terse, and indoctrinated style, which prioritized a highly technical form of analysis, the analytic tradition furthered the discipline's isolation from other subjects (Glover, 1988; Miščević, 2006). Unlike more interdisciplinary and holistic approaches such as continental (i.e., critical theory, phenomenology, and existentialism) and postmodernism philosophy, known for integrating history, art, culture, and life-oriented concerns, analytic philosophers reinforced their identity through opposition to other forms of philosophy, which were viewed as less rigorous and reputable forms of philosophy (Norris, 2010). Because of its 'essentialist' view of what constitutes philosophy, the analytic tradition has often been regarded as contentious, dismissive, and at times, intolerant of other styles of philosophy. For this reason, the tradition has been criticized for its scholasticism, hair-splitting, and proverbial armchair intellectual concerns (Glover, 1988).

On the other hand, post-analytic philosophers began moving away from the perennial problems of philosophy that focused on transcendental and objective truths, certainty, essences, and unitary epistemic approaches. Instead, these thinkers started to engage with more dynamic, multidisciplinary concerns that prioritized contingency, utility, and social progress. For Wittgenstein, the clarification and determination of accurate descriptions of phenomena and concepts are the primary concerns of the philosopher. Rather than following in the scientists' footsteps, the philosopher's role should be devoted to elucidation and description rather than explanation and theorization. For Wittgenstein, the philosopher is not privy to a heightened epistemic stance that bestows them with the capacity to uncover 'truths' and 'theories' (Horwich, 2012). In terms of contingency, Rorty (1987) has suggested it is not possible to "step outside our skins—the traditions, linguistic and other, within which we do our thinking and self-criticism—and compare ourselves with something absolute" (p. 33). This has been a central weakness of the analytic tradition, which has traditionally fixated on absolutes, objective truths, and the soundness of argumentative claims.

In contrast, Wittgenstein's later works identified that many of the central problems in philosophy and science are just 'pseudo-problems' that exist due to faulty patterns of language and conceptualization (Kuusela, 2013). In the field of psychology, Wittgensteinian conceptual analysis can assist researchers in determining more precise "operational definitions of [...] phenomena" and develop "quasi-

technical concepts to classify or illuminate particular theoretical issues" (Racine, 2015, p. 39). Wittgenstein understood that scientists and philosophers often run into similar problems through the application and misapplication of language:

A scientist says he pursues only empirical science or a mathematician only mathematics and not philosophy, but he is subject to the temptations of language like everyone; he is in the same danger as everyone else and must beware of it (as cited in Kuusela, 2013).

Similar to the criticisms posed by Litwinski (1956) and Dallenbach (1953) about vague concepts and measures, Wittgenstein (2009) also skeptically stated that "in psychology there are experimental methods and conceptual confusion" (§371). Wittgenstein was aware of the risks involved in studying psychological phenomena and mental states, and as such, conceptual analysis and linguistic clarification are methods that can be used to enhance the methodological misgivings of the sciences.

Two methods of Wittgensteinian conceptual analysis may play a particularly vital role in better understanding psychological concepts. The first is to analyze the application of the words themselves and their meaning. According to Wittgenstein (1958), "we do not analyze a phenomenon (e.g., thinking) but a concept (e.g., that of thinking), and hence the application of a word" (§383). Our language is the basis for the concepts and constructs we use to represent the things, events, interactions, and effects in the world. Methodologically, Wittgensteinian conceptual analysis can assist researchers in comparing central properties and features of variables, which can be drawn out and isolated through the employment of analogies, disanalogies, inferences, and exclusionary criteria (Glock, 2010). Second, as Wittgenstein (1958) also notes, "concepts lead us to make investigations. They are the expression of our interest and direct our interest" (§570). Therefore, the way one establishes a concept and uses it is critical in determining "what differences we notice [...] and what sort of things we can take an interest in" (Glock, 2010, p. 91). This method allows researchers to reflect on the initial pragmatic application of the construct they wish to measure, as well as the contextual factors underlying its use.

An Overview of Space

The incomplete conceptualization of belongingness during COVID-19 can be partially attributed to the neglect of factors such as identity, embodiment, and space, as well as their dynamic interactions. Although belongingness may be tied to a lack of "meaningful relationships" (Gratz et al., 2020), philosophers such

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as Hannah Arendt would find this explanation incomplete. According to Arendt (1990), shared, communal space is where individuals engage in political and public affairs. Throughout history, in this space, individuals “appear and be real only when others saw them, judged them, remembered them” (Arendt, 1990, p. 31). To trace the etymology of the concept of space being described, one must think of the Greek word *agora* (Αγορά), which refers to “gathering, mass” or “gathered together” (Beekes, 2010).

When assembling, individuals would have the opportunity to discuss the collective duties and responsibilities of the city-state. These public affairs can only be manifested in set ‘political’ activities, and when they are absent, a person or citizen becomes detached from higher-order socio-political goals. Unlike the ancient Greeks, modern individuals have experienced a blurring of the household (*oikia*) and the public sphere (*polis*) or “the common world” (Arendt, 1958, p. 58). With this private-public demarcation, “the ancient Greeks located all activities concerned exclusively with survival, the needs of the body, and biological necessity in the household” (Pitkin, 1998, p. 11). However, what has since happened in the modern world is a phenomenon that Arendt refers to as “the rise of the social” (Pitkin, 1998, p. 10). This totalizing force, rather than conferring freedom, reduces individuals to the purely economic and household concerns of the *oikia*. Consequently, within the social sphere, individuals become enmeshed in the dual-sided nature of labour and consumption (Arendt, 1958). In the modern age, the lower-order activity of labour, which provides the sustenance, nourishment, and material necessary for life, has become the dominant form of human expression (Arendt, 1958).

Temporally, days and schedules are typically oriented towards employment, and upon completion, individuals then engage in the maintenance of ‘microeconomic’ concerns of the *oikia*. The social sphere reduces human interactions to instrumentality, wherein “the form in which the fact of mutual dependence for the sake of life and nothing else assumes public significance” (Arendt, 1958, p. 45–46). Although individuals may feel they have greater self-determination within the modern world, much of this is founded on the illusion of choice. Increasingly, the autonomy that persons have both individually and collectively is in terms of their occupation, leisure, and entertainment, which all fall under the category of labour-consumption. For Arendt,

the last stage of the laboring society, the society of jobholders, demands of its members a sheer automatic functioning, as though

individual life had actually been submerged in the overall life process of the species . . . the still individually sensed pain and trouble of living, and acquiesce in a dazed, “tranquilized,” functional type of behaviour (p. 322).

Amid the COVID-19 pandemic, individuals have been confronting such a reality, as the notions of “public” and “space” have ultimately vanished. Although modern people have shifted from Arendt’s idealized political reality, quarantine measures, lockdowns, restrictions, and social distancing have made it near impossible to exist in what Arendt (1990) refers to as the “space of appearances.” According to Marquez (2012), “a space of appearance is a setting where individuality emerges from self-disclosure among equals . . . Other spaces where visibility and its absence help individuals constitute selves, form subjects, or generate power can be readily imagined” (p. 7). In this “absence,” individuals not only feel as though they are not connected to one another. However, in a more holistic phenomenological sense, they also cannot engage in “collective action” or what Marquez (2012) refers to as “Arendtian power” (p. 7). When free to act, humanity has the capacity to bring forth innovation and change in the world with “startling unexpectedness” through the condition of *natality* (Arendt, 1958, p. 246). In the public sphere, the initiation of action represents potentiality and unpredictability akin to the process of “birth” (Arendt, 1958, p. 9). This capacity for creation and change has the power to disrupt “the inexorable, automatic course . . . of daily life” (Arendt, 1958, p. 246). During the COVID-19 pandemic, this capacity for natality has been significantly compromised.

When we think of space, Lefebvre (2016) argues that our discussion of space should not be divided from the physical, mental, and social fields, but as a ‘unitary theory’ governed by continuous interaction (p. 11). As Lefebvre states, “social relations, which are concrete abstractions, have no real existence save in and through space. Their underpinning is spatial” (p. 404). During the pandemic, it can be claimed that the inaccessibility of space has infringed on natural rights and desires for self-expression and action. Our ability to ‘be human’ in a social sense is thus reduced when physical space is removed. As Arendt (1990) identifies, political freedom is given in “deeds and words which are meant to appear” and “whose very existence hinges on [this] appearance” (p. 92). With the rise of quarantine restrictions and physical distancing, there has been a twofold disappearance in space and interaction. Extending Arendt’s concern for political life, COVID-19 has limited our already seemingly diminished

capacity to manifest both collective and individual interests.

Instead of being able to express plurality, which Arendt (1958) defines as “a basic condition of action” (p. 175), individuals during the pandemic have been considerably limited by deterministic factors. For Arendt, mutual recognition in the space of appearances is necessary for human differentiation because it allows individuals to express uniqueness and orient their identity. With the minimization of space and the erosion of shared intersubjective experiences, individuals end up losing their relatedness to others and the world around them. Belongingness, in the Arendtian conception of higher-order human affairs, represents not only connection but also contribution through action, duty, and connection to the common good (Arendt, 1958).

A Conceptual Analysis of Identity and its Interaction with Space

Taking a more liberal account of identity, space, and action beyond the political-public sphere, this Wittgensteinian analysis evaluates the linguo-conceptual conceptual basis of thwarted belongingness and investigates its phenomenological dimensions in the context of the COVID-19 pandemic. As this type of examination has yet to be conducted by other researchers, it is mainly exploratory and aims to establish possibilities for future multidisciplinary research. This analysis should, as Demkowicz et al. (2021) have claimed, help to increase limited qualitative research and clarify whether determined measures and constructs assess “what they are meant to be assessing” (p. 5). Methodologically, this approach deconstructs and explicates thwarted belongingness and uses *contrast categories* such as social isolation and loneliness. Following the later Wittgensteinian approach to conceptual analysis, prioritization is given to common language, clarity, and the connection between meaning and usage. For this intended purpose, *common language* preserves practicality and the rejection of obscure, technical language in favour of more accurate linguistic and phenomenological experiences. This aim aligns with the intent of being able to “experience the meaning” of words and concepts (Wittgenstein, 1958, §213). By employing analogy and reconsidering context, it is possible to approximate the meaning and usage of terms and concepts that apply to lived experience. Unlike the early analytic philosophers, this anti-essentialist approach is more concerned with a pragmatic understanding than one purely theoretical in nature.

According to Wittgenstein (1958), the role of the philosopher “is to bring back words from their metaphysical to their everyday use” (Wittgenstein,

1958, §116). By “metaphysical,” Wittgenstein refers to the belief that the meaning of a word logically connects to the *essence* of the thing being referenced. Instead, Wittgenstein asserts that the meaning of a word is constituted in daily use, and its function, therefore, is contextually contingent. As Read (2014) explains, “philosophy is about trying to make sense of things. (Trying to weave uses that we do not (as yet) find our feet within our existing grasp/use of our concepts)” (p. 64).

Based on the outcomes of the study, Gratz et al. (2020) claim that “it is not loneliness specifically but a broader sense of disconnection and absence of meaningful relationships that accounts for the relation of stay-at-home orders to greater suicide risk” (p. 1145). In the case of loneliness, an individual may feel lonely or psychologically distant from others even when they are physically or proximally present. Compared to social isolation, the sense or feeling of loneliness is bound to a more internal, subjective state rather than one directly tied to the presence or absence of another person. You can be lonely while being either around or away from other people. On the other hand, you cannot be socially isolated when surrounded by others, which implies a more objective determination than loneliness. Specifically, social isolation infers one’s removal from the physical presence of others. Based on the research of Gratz et al. (2020), social isolation itself is not necessarily bound to a positive or negative experience or outcome (i.e., depression or suicidal thoughts). It is not the physical distancing itself that leads to a particular adverse emotion or attitude, but that social isolation can contribute to more complex social consequences (i.e., thwarted belongingness). This means that the interaction between physical absence and thwarted belongingness is more dynamic and iterative than implied by the researchers. One may experience social isolation, which then leads to thwarted belongingness, which may then also lead to (i) loneliness, (ii) depression, and (iii) risk of suicide.

With stay-at-home orders, individuals may long for the opportunity to be around others and experience daily interactions, but due to mandated physical-proximal restrictions, these rights have been temporarily negated or prohibited. In this state, individuals may experience thwarted belongingness, as suggested by Gratz et al. (2020); however, it can also be claimed that the phenomenon has a far more complex and pervasive mechanism than social cohesion and collective interaction. Specifically, to understand the meaning of thwarted belongingness, one needs to consider the role that identity and self-concept have in conjunction with the significance of space. Without adequately understanding how social isolation leads to thwarted belongingness and why

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and elucidation. Consequently, it becomes difficult to understand what the measurements stand for, especially in the context of a complex social phenomenon, which in turn, brings forth challenges for possible COVID-related interventions and recommendations, as well as replication of the findings in future research studies.

In examining social isolation and thwarted belongingness during COVID-19, individuals have experienced social restrictions that have denied them the right and opportunity to live as they intend. Specifically, the principle of self-determination, which is a staple in a liberal democratic society, has been sacrificed to mitigate the spread of the virus. Many individuals have found this particularly challenging during the pandemic. This may be why many individuals have challenged social gathering restrictions. *Prima facie*, this appears to be a problem of social cohesion and desire for a collective community, but underneath this appearance, there are many personal concerns also taking place. Self-determination and intentional actions enable individuals to perform, express, and embody their identity and construct and reinforce a self-concept. Thwarted belongingness as a phenomenon does not just imply a hindrance to social cohesion and one's identity in a collective sense (e.g., as a student studying *x* at university *y* or as an employee at company *z*), but also to one's self-perception and self-value (e.g., I am *x* and I do *y*, and I also feel *z* about myself and my life).

Unfortunately, most studies and researchers have not fully explored the implications of thwarted belongingness, especially the confounds, mediators, and moderators that influence the construct's measurement. Beyond belongingness, researchers should consider how social isolation from COVID-19 restrictions may inhibit actions and behaviours that, when measured collectively, are crucial in forming identity and the manifestation of roles that signify who we are as persons. Underlying this model is the significance of space, as, without access to particular environments, necessary *physical-proximal interactions* and connections cannot occur. In their absence, individuals during COVID-19 have moved and connected less with their physical surroundings. 'Spaces' are fundamental physical locations that allow us to actualize or enact our social roles and functions through action and interaction. Thwarted belongingness is not limited to collective belongingness, but also deeper existential belongingness that occurs between an individual and their relationship to the world.

This personal belongingness infers that one accepts identity and self-concept in fundamental existential

terms (i.e., I am *x* and I do *a, b, c*, which bring my life meaning). If these vital actions are negated and an individual cannot engage in self-determination, then the sense of thwarted belongingness is not just in terms of others, but a disconnect from oneself and the world. For example, in finding oneself unemployed and unable to fulfill previously satisfying roles, an individual may question who they are and the direction of their life. COVID-19, in many ways, has disrupted dimensions of life that provide individuals with 'orienting effects.' According to Grondin et al. (2020), throughout the pandemic, individuals have experienced a loss of "temporal landmarks," which led to distortions in the perception of psychological time (p. 6). In a study by Escolà-Gascón et al. (2020), the researchers found that *depersonalization* and *derealization* were two types of perceptual disturbances that increased the most after individuals experienced social isolation. According to Ciaunica et al. (2022), depersonalization is "a common dissociative experience characterized by distressing feelings of being detached or 'estranged' from one's self and body," while derealization refers to a dissociative experience from "the world" or one's surroundings (p. 1). With increased reliance on digital and online communication, the "hyperdigitalized" nature of COVID-19 may also induce "feelings of living in one's 'head' (mind)" and being "disconnected from one's body, self, and the world" (Ciaunica et al., 2022, p. 1). When evaluating the meaning of thwarted belongingness, it may be valuable to investigate the *dissociative effects* that individuals have been experiencing. For many people, COVID-19 meant that they "were facing a blank page and invited to draw a new life" (Grondin et al., 2020, p. 6).

To elaborate on this phenomenon, one may consider the hypothetical example of a baseball player desiring to play their respective sport during long-term quarantine measures. First, baseball is a sport that involves various actions, including hitting, throwing, and catching, that can be done while alone or socially isolated. Individuals can perform these actions themselves; however, it can be determined that the complexity is also limited as a consequence. Collective involvement or participation affords greater unpredictability and the possibility of adding multidimensional facets to the activity. Now, 'to play' baseball as 'a game' requires a collective expression of action—typically in the form of competitions, scrimmages, or practices. In most instances, individuals would not call themselves 'a baseball player' if they were not engaging in the collective expression of a game. Beyond this, however, it could also be argued that identification as a baseball player requires engagement in baseball as a *sport*, which infers competition against others under a particular set

of rules rather than just being a recreational activity. In order to play a sport, one needs to have access to shared spaces that will allow them to engage and interact in the collective expression of the activity. However, with COVID-19 restrictions, social isolation prohibits this process from occurring. This results in the individual not only losing their personal sense of identity as a baseball player (i.e., a baseball player as a noun) but also the act of playing baseball (i.e., baseball as a verb), which includes collective interactions with others through ‘sport.’

With COVID-19 restrictions, it is not just *that I can't play baseball*, but also that *I am not being a baseball player*. For a collegiate-level baseball player, this means the prevention of actions that comprise the role of a baseball player, which in terms of a personal sense of identity, may lead to questions like *What will I do if I am not playing baseball?* and *What will I miss this year by not getting to play baseball?*. Moreover, in terms of a collective sense of identity, this can lead to questions like *How is my team?* and *When will I get to play baseball with them again?*. Though the collective sense of identity is significant, the personal sense of identity is a fundamental orientation in how persons relate to and perceive themselves as being in the world. In the absence of role enactment (e.g., as ‘a baseball player’ or ‘athlete’), one’s identity and conception of self can be disrupted. In turn, the individual can experience a feeling of disorientation in that they find themselves unsure of what to do with themselves. Many of the tasks and activities that individuals engage in provide them with the scaffolding of their identity. In the absence of these tasks and activities, people lose sources of meaning and value. Furthermore, what makes this personal sense of identity particularly challenging to overcome is its unpredictability or unforeseeability. For example, many individuals end up wondering, not only *When will life get back to normal?* but also, *Will life get back to normal?*.

Taking this a step further than what was proposed by Gratz et al. (2020), individuals cannot fully understand their identities or roles without some attention to the critical role that space plays. Given that persons have multiple roles and constituent parts that combine to form an overarching notion of self or identity (e.g., the concept of a work self, an academic self, a social self, etc.), it is vital to acknowledge the need for particular spaces and environments to actualize the actions and behaviours that comprise these various roles. A significant component of both identity and belongingness is accessibility to shared experiences and spaces. These spaces are the locations in which identities are crafted and reinforced (e.g., when a baseball pitcher throws to a batter on a baseball diamond). Though one may accomplish many

things online or virtually, space is still a necessity for a variety of roles, tasks, and functions. Without these spaces, which act as a terrain for identities to express or reveal themselves, people cannot fully actualize a sense of identity or role in a world governed by mass social-spatial restrictions.

In the aforementioned hypothetical notions of self, an employee may not feel like they are ‘employed’ in the absence of a common workplace, and a student may not feel like they are ‘in university’ in the absence of a classroom and campus. The interaction between space and identity is experientially grounded. If you were to ask a university student about virtual education versus in-person education, they would likely indicate that they feel entirely different from one another. Though you may still access information, read texts, interact with others, and receive a final grade, how you experienced the process of education is fundamentally different. If you were to ask a first-year student, *What is your university experience like?* they would probably say that it has not been a ‘university experience’ in that it has lacked many of the necessary and expected characteristics and properties associated with ‘being a student’ in university. They may not even feel like a university student because of the severe limitations of shared spaces and collective experiences. In the multiple absences of spaces and subsequent restrictions in experience, individuals during COVID-19 have not just been exposed to loneliness, social isolation, or thwarted belongingness—they have also lost access to many actions, behaviours, and roles that constitute their identity and sense of self. This loss has not just been to one facet or component of identity, but a simultaneous disturbance to multiple roles and ways of life. It can be argued that although one may use the terms loneliness, social isolation, and thwarted belongingness, such concepts require careful investigation to properly understand their uses and interactions. After conceptual analysis, it can be determined that these are more complex variables and interactions than what has been previously proposed.

Limitations

This study does present some potential limitations. First, because there is little to no research employing conceptual analysis in COVID-19 research, this study relies heavily on analysis and interpretation—the *modus operandi* of philosophical research. Although this may be advantageous for conceptual clarifications and critical appraisals, researchers may view these methods as being too far removed from the disciplinary boundaries of psychology to serve its intended goals. Specifically, the priority of linguistic and phenomenological concerns could be considered redundant or irrelevant when compared to quantitative

methods. As a discipline, psychology has sought to demarcate itself from its philosophical roots since the nineteenth century (Wakefield, 2007). Today, psychology is identified as a ‘science’ adhering to empirical and statistical methods. Because this research uses social psychology, critical psychology, and philosophy, the receptive audience may be reduced to those either fluent or interested in all three areas. However, this article has prioritized clear, concise descriptions and reduced obscure jargon to mitigate this risk.

A second potential limitation of this study is the breadth of its aims and objectives. Given its holistic, interdisciplinary research approach, particular sections of this article may provide insufficient supportive reasoning. Researchers always run this risk when taking a ‘generalist’ approach, which may incur criticisms such as oversimplification and overextrapolation, especially from specialists within respective fields of study. Because of the lack of critical psychological and philosophical research examining concepts such as thwarted belongingness, loneliness, and social isolation, this study had to rely on complex theories and methods that may have been beyond their original purpose. The further challenge of this research is to investigate these concepts and do so *within* the milieu of the COVID-19 pandemic. However, it should be noted that the aim of this study has been exploratory and critically reflective in nature, with the prospect of interdisciplinary researchers using it to better understand COVID-19 and its psychosocial implications.

Recommendations for Future COVID-19 Research

Like many of the sciences, psychology has faced criticism over the past twenty years regarding the validity and replicability of its studies. According to Lilienfeld (2017), the maximization of publications and grant funding has become the *primum principium* of the discipline. This priority has been reinforced by the indoctrinated auspices of ‘publish or perish’ mentalities, which make higher rates of publication necessary in competitive academic environments. With more pressure and less time, social sciences often succumb to a “single-minded focus on programmatic research” and “diminished time for thinking deeply” (Lilienfeld, 2017, p. 660). Since January 2020, the emphasis on mass publication has only increased, with some researchers indicating diminished quality in research designs, methodologies, analytics, and interpretation (Bramstedt, 2020; Jung et al., 2021; Raynaud, 2021). For these reasons, many researchers in psychology and health-related disciplines have requested that more multidisciplinary and critically reflective research be conducted (Carel, 2021; Demkowicz et al., 2021; Glasziou et al., 2020).

One concern this article addresses is the meaning and representation of constructs during the COVID-19 pandemic and the prospective risks of conceptual overlap, vagueness, and incompleteness. It is recommended that more interdisciplinary contributions be provided on these subjects, especially as the method employed can be extended to a wide range of psychologically-oriented constructs and concepts. Philosophy, in particular, may serve in the process of critically analyzing metatheoretical, metascientific, and contingent factors associated with COVID-19 and its subsequent research studies. Scientists may question the ‘interpretive’ nature of philosophy on the grounds of insufficient objectivism and empiricism. However, it is valuable to recall the disciplinary area of *hermeneutics*, which has a longstanding commitment to the theoretical and methodological development of *interpretation*. Although it was first established and utilized by philosophy, hermeneutics has since spread throughout the humanities and social sciences. According to Taylor (1971), interpretation endeavours “to make clear, to make sense of an object of study . . . which in some way is confused, incomplete, cloudy, seemingly contradictory—in one way or another, unclear” (p. 3).

Applying philosophy may assist the sciences in reconsidering its research designs, objectives, and measures. More specifically, conceptual analysis can benefit psychological researchers by identifying errors, triangulating data, and recalibrating measures and designs. Of course, for this to occur, greater permeability of ideas and cosmopolitanism between disciplines is needed, which, given the complexity and pervasiveness of COVID-19, should be viewed as a historical crisis meriting collective responsibility and cooperation.

Conclusion

This article has shown novel ways of investigating the underlying psychological and social effects of COVID-19, including thwarted belongingness, social isolation, and loneliness. After reviewing concerns regarding the quality of psychological and health research, the method of conceptual analysis was used to elucidate these concepts within the context of the pandemic. This analysis included the addition of identity and the significance of space to further clarify conceptual overlap, vagueness, and inconsistencies in meaning. Moreover, phenomenological considerations were provided to evaluate the connection between the aforementioned concepts, COVID-19 contingencies, and lived experience. Based on the outcome of the study, it has been proposed that conceptual analysis may be an undervalued method for exploring topics pertaining to COVID-19, as well as assessing pre-existing research literature. Philosophy, like many

other disciplines in the humanities and social sciences, may have an important part to play in furthering our understanding of this unprecedented global event.

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Living with Multiple Cultural Identities and its Effects on Self-Esteem

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The current research examines the role of balancing various cultural memberships during adolescence on identity development. We examine cultural coexistence abilities and internal cultural reconciliation as predictors of self-esteem in students living with multiple cultural identities. One hundred sixty university students ($M_{\text{age}} = 19.23$) completed the modified *Multicultural Identity Integration (MII) Scale*, the *Multicultural Identity Integration Scale (MULTIIS)*, and the *Rosenberg Self-Esteem Scale (RSES)*. The analysis revealed that higher MII scores, which indicate lower cultural compatibility, were associated with lower self-esteem. Moreover, increased MULTIIS integration scores, signifying higher identity integration, were associated with improved self-esteem. However, self-esteem was not predicted by gender or age. These findings support the existence of a relationship between one's capacity to hold multiple cultural identities and their self-esteem, but do not support previous findings linking gender to self-esteem.

Keywords: multicultural identity, cultural coexistence, identity integration, immigration, self-esteem

Cette recherche examine le rôle de l'équilibre entre diverses adhésions culturelles pendant l'adolescence sur le développement de l'identité. Les capacités de coexistence culturelle et la réconciliation culturelle interne sont étudiées comme prédicteurs de l'estime de soi chez des étudiants vivant avec multiples identités culturelles. Cent soixante étudiants universitaires ($M_{\text{age}} = 19,23$) ont complété l'échelle modifiée d'intégration de l'identité multiculturelle (MII), l'échelle d'intégration de l'identité multiculturelle (MULTIIS), et l'échelle d'estime de soi de Rosenberg (RSES). Les analyses ont révélé que des scores MII plus élevés, indiquant une compatibilité culturelle plus faible, étaient associés à une plus faible estime de soi. L'augmentation des scores d'intégration MULTIIS, signifiant une meilleure intégration identitaire, a été associée à une amélioration de l'estime de soi. Nos résultats appuient l'existence d'une relation entre la capacité d'une personne à posséder de multiples identités culturelles et son estime de soi, mais n'appuient pas les études antérieures ayant établi un lien entre le genre et l'estime de soi.

Mots-clés : identité multiculturelle, coexistence culturelle, intégration identitaire, immigration, estime de soi

Living with Multiple Cultural Identities and its Effects on Self-Esteem

Since the Industrial Revolution, connecting with others has become easier, consequently transforming the planet into a global village (Wang, 2007). More recently, international corporations and the global trade system have become the head of this phenomenon, turning the world into a multi-national market (Wang, 2007). Computers, the development of rapid transit systems, telephones, and other communication services have made the planet more interdependent and interconnected than ever. As the world transformed, it became easier to move between countries and across continents. Indeed, there were 341,000 immigrants to Canada in 2019, which was only the fifth time in history that over 300,000 individuals were accepted within a single year (El-Assal, 2021). With this trend toward globalization, it is becoming increasingly common for people to be exposed to many cultures throughout their lifetimes (Huynh et al., 2018).

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Understanding the Role of Culture

Culture refers to the way of life of a particular group of people through which they establish an accepted worldview, a value system, and a network of social relationships (Wang, 2007). Moreover, Wang argues that culture is not static; it is contested regularly and grows out of widespread acceptance of selected habits and customs. Culture can even change when brought into contact with other cultures, suggesting that people are not objects of cultural pressure, but rather are beings who can evaluate various influences and choose to reject or integrate them into their lives (Wang, 2007). With the rise in globalization, international moves have become more frequent and distant (Hoersting & Jenkins, 2011). These authors argue that families' openness and willingness to live abroad have drastically increased over the last few decades. Most Global North and many Global South countries are multi-ethnic (Tung, 2008). Due to this cultural heterogeneity, there is frequent inconsistency between what people express as their country's cultural norms and the values or behaviours they have internalized (Todeva, 1999). Zolfaghari and colleagues (2016) provided one of the first empirical demonstrations of how an individual juggling multiple cultural dimensions may yield situation-based behaviour, which is induced by the context of the individual's surroundings, enabling them to manage "flexible" identities.

The Intersectionality of Culture and Identity

Personal and social factors combine to form one's identity (Fearon, 1999). Identity is unique to each person and simultaneously related to a broader social group (Buckingham, 2008), discerned by unspoken rules that dictate membership. Thus, identity refers to personal attributes and characteristics that cannot be expressed in terms of group memberships, while concurrently representing the alignment with certain social categories.

One's ability to adapt their identity to function effectively in contrasting settings and contexts can be described as a tool for survival (Trueba, 2002). Trueba further stated that a unilinear acculturation process for immigrants moving directly from one culture to another is not functional or even possible. This construct reflects the extent to which people adapt when exposed to behavioural (e.g., lifestyles) and psychological (e.g., values) components of another culture through contact with different cultural contexts or groups (Han & Pong, 2015; Redfield et al., 1936). On the contrary, their resiliency and successful integration into a novel community are the results of their capacity to participate in new ways of life. They are expected to fit the mould that employers and other societal power-holders desire, and often must acquire novel verbal and non-verbal communicative skills without depriving their instinctual self that is accustomed to their home culture. Cultural identity can thus be understood as the dynamic experience of aligning with as well as enacting the beliefs and actions, among other aspects, of a particular group (Chen & Lin, 2016; Yampolsky et al., 2016). Chen and Lin (2016) explained that immigrants commonly balance identifying with, or seeking acceptance into, multiple groups. Furthermore, the way one experiences his or her intersecting cultural identities could vary depending on the physical context, the people involved, or the matter at hand (Chen & Lin, 2016; Downie et al., 2004). This idea of navigating multiple cultures is known as cultural coexistence.

Implications on Self-Esteem

Biculturalism, referring to the coexistence of two distinct cultural identities, can invoke a sense of pride, uniqueness, as well as community, and yet still cause greater expectations of the self, identity confusion, and internal conflict (Haritatos & Benet-Martínez, 2002). This conflict is heightened when experiencing particular types of threats to the acculturation process, like discrimination and strain on intercultural relations (e.g., being labelled, alternatively, as too "white-washed" or too dissimilar from others). Haritatos and Benet-Martínez (2002) observed that low levels of proper bicultural coexistence correlated with greater

cultural distance, where the identities are more distinct and compartmentalized. The authors stated that it may worsen when participants feel culturally isolated, putting these individuals at risk of undergoing adverse repercussions. In summary, some individuals who identify as bicultural perceive their dual identities as integrated and compatible, while others see these identities as oppositional and challenging to integrate (Benet-Martínez et al., 2002).

Studies have found that successful integration of cultural identities leads to a mature sense of self, which is beneficial to mental well-being by aiding adolescents with attaining higher levels of self-esteem (e.g., Chen et al., 2008; Marcia, 1980). Genkova et al. (2014) reviewed work that has also found that acculturation into a new culture while maintaining one's heritage cultures can predict positive adaptation and higher life satisfaction through improved self-sufficiency. However, another study showed that conflicting cultural identities are linked to greater psychological distress (Ward et al., 2011). Such identity crises may occur when an incompatible aspect of a new identity is being integrated into the existing self-representation, leading to adjustment difficulties (Szabo et al., 2016). Consequently, negative feelings surrounding identity can be observed when people enter into a system representing novel values and norms. Understandably, attachments to these existing images of the self are present during moments of intercultural contact. Szabo and colleagues suggested that self-esteem, which is the evaluative feature of the self-concept (Baumeister, 1997), might function as a protective factor throughout periods of life where there are greater demands and obstacles on one's social identity.

Youth who fall into these scenarios of balancing more than two cultural memberships are often labelled as "third culture kids" (Gillies, 1998, p. 36). These can be children of missionaries, businesspersons, diplomats, and military personnel who temporarily or permanently live outside of their native country. The process of resettlement involves an ecological transition, requiring an adjustment to novel physical and socio-cultural contexts (Genkova et al., 2014, p. 84). This results in changes to one's existing perceptions of norms and values, the network of interpersonal relationships, living conditions, or even social position and economic status, possibly yielding adverse effects such as feelings of inferiority, anxiety, grief, depression, and low self-esteem (Miller et al., 2020). Baumeister (1997) wrote that people with lower self-esteem are more likely to state that their behaviour differs across situations, compared to individuals on the higher end of the self-esteem spectrum. If a sense of alienation from the host culture develops, then a person may feel disconnected and

withdraw from the process of establishing norms and novel values. Regarding differences in gender, Khanlou and Crawford (2006) found that while immigrant adolescent women shared similar experiences to men, variability in self-confidence existed where newcomer men were perceived as having more confidence than women. These mixed findings lay out a base that we can use to advance the ways we think of multiculturalism and self-esteem.

The Present Study

Despite the work reviewed thus far, few studies have examined biculturalism and having more than two cultures in one's identity. Additionally, when examining young migrants, few studies focus on their psychological adaptation. Self-esteem may be a subjective evaluation of personal worth but is a key dimension to consider in the context of mental well-being. There is uncertainty surrounding whether the ease with which individuals navigate multiple cultures is associated with varying levels of self-esteem. This study attempted to account for these gaps in the literature by investigating one's internal conflict when navigating multiple cultures and the methods used for personal identity configuration.

The goal of our research was to further examine the implications of living with multiple cultural identities on self-esteem. The main interest lies in the role of balancing multiple cultural memberships on identity development during late adolescence, which may have repercussions on general well-being later in life. These early experiences play an important role in consolidating a representation of the self, particularly the experiences that involve belonging to various ethnic, cultural, and racial groups (Hoersting & Jenkins, 2011), as they provide individuals with social rules and appropriate behaviours for specific cultural situations. The process by which these guidelines are assimilated affects competence and well-being (Downie et al., 2004). However, as illustrated before, divergent information from cross-cultural environments or being born into multi-ethnic families can cause a person to encounter difficulties in forming a solid cultural identity. This paper seeks to add to the existing work in this field by establishing a stronger understanding of the problems faced by those living with multiple cultural identities. Given the above literature, two research questions were formed: 1) how is self-esteem affected by having multiple cultural identities, and 2) how is self-esteem among individuals with more than one cultural membership affected by their ability to consolidate those identities? The hypotheses were as follows:

1. a) There will be no difference in self-esteem levels between individuals identifying with

one, two, and more than two cultures.

2. a) Participants with poor internal cultural coexistence will be associated with lower ratings of self-esteem (Haritatos & Benet-Martinez, 2002; Szabo et al., 2016; Ward et al., 2011).

Participants with better integration and reconciliation of multiple cultural identities will be associated with higher ratings of self-esteem (Chen et al., 2008; Marcia, 1980).

Method

Participants

The participants were students from University of Toronto Scarborough, recruited from the introductory psychology participant pool. Additionally, students that filled out a mid-semester pre-screening survey during the preceding semester who had indicated that they identified with three or more cultures were emailed a targeted invitation to participate in the study, and 199 responses were collected through Qualtrics software. After filtering out outlying data using the procedure outlined in the statistical analyses section, the final sample consisted of 160 participants: 129 women, 29 men, and two identifying as other (e.g., non-binary, more than one gender, etc.). Age ranged from 17 to 43, with a mean of 19.13 years of age ($SD = 2.92$).

Measures

Demographic Information. Participants were asked to indicate their gender, their age, their spoken languages, the countries that they have lived in for at least four months and their respective lengths of stay, their birth country, their current country of residence, their level of belongingness to each country as a percentage adding up to 100, as well as their perception of which cultures they identify with the most (maximum of 3). First, subjects selected between one, two, or more than two memberships, then were asked to type out their cultures with no ranking necessary. If more than two were chosen, they were instructed to put down the ones they identified with most. To allow for a variety of answers and alleviate any confusion about what cultural identity is, students were told to not worry about answering in a way that satisfies a textbook definition. They were encouraged to count any associations they have with any particular group of people. Of the 160 students, 22% of responses endorsed having one cultural identification ($N = 35$), 61% were bicultural ($N = 98$), and 17% indicated having more than two cultures ($N = 27$). The most frequent cultures endorsed were as follows: 69% of individuals self-identified with Western culture (including, but not limited to, Anglophone Canadian,

French Canadian, U.S. American, British, and Dutch); 36% listed an East Asian culture (including, but not limited to, Chinese, Japanese, Korean, and Hong Kongese); 29% listed a South Asian culture (including, but not limited to, Pakistani, Indian, Sri Lankan, Nepali, and Bengali); 11% recorded a Southeast Asian culture (including, but not limited to, Malaysian, Vietnamese, Filipino, and Indonesian); another 11% identified with a West Asian culture (including, but not limited to, Arab, Middle Eastern, Persian, Armenian, Qatari, and Afghan); 8% listed a Black American culture (including Black-Canadian, Jamaican, Guyanese, and West Indian); and 6% listed an African culture (including, but not limited to, Egyptian, Sudanese, Eritrean, Ghanaian, and Congolese).

Cultural Coexistence. A modified version of the *Multicultural Identity Integration (MII) Scale* from Downie and colleagues (2004) was used to measure one's perception of the ease with which they navigate their multiple cultures, as well as their strategy for interacting with individuals from other cultures (i.e., simultaneously, or separately). The MII is an expanded version of the *Bicultural Identity Integration Scale–Pilot Version* (BIIS-P) from Benet-Martínez and colleagues (2002), created to detect differences in identity integration among bicultural individuals and understand the underlying psychological processes with acculturation. Both the BIIS-P as well as the MII illustrate the implications for the social adjustment and well-being of ethnic minorities and immigrants. The modified version of the MII used in this study, containing 15 items, was included to determine the participant's perceived compatibility between their heritage culture(s) and dominant Canadian culture. Scores were calculated by averaging all 15 values from the measure, with increased scores suggesting poor cultural harmonization abilities. With permission from one of the original authors, three statements were reworded to reflect an anglophone Canadian culture in Ontario, as the questionnaire was originally designed to examine harmonization with francophone Canadian culture in Québec. Examples of items used were "My behaviour changes based on which culture I am interacting with" and "In general, my heritage culture(s) could be described as conflicting with North American culture." Participants rated the extent to which they agreed with each item on a 9-point Likert-type scale (1 = *strongly disagree* to 9 = *strongly agree*).

Identity Integration. Yampolsky and colleagues' (2016) *Multicultural Identity Integration Scale (MULTIIS)* was used to investigate one's capacity to balance multicultural identification. It has been utilized to understand the identity configuration experiences that multicultural individuals of various

backgrounds and combinations often undergo. This 22-item measure asked participants to indicate how much each type of statement represented their personal experience on a 7-point scale (1 = *Not at all* to 7 = *Exactly*). Questions were designed to collect data across three subscales: categorization (identifying with a predominant cultural group over others), compartmentalization (keeping multiple cultural identities isolated from each other within the self), and integration (cohesively connecting and reconciling all cultural identifications). All prompts were administered in random order. Examples of a categorization and compartmentalization item included, "One of my cultures is more relevant in defining who I am than the others," and, "When I'm in one cultural context, I feel like I should play down my other cultural identities," respectively, while "My cultural identities fit within a broader identity" demonstrated an integration item. Only integration items were analyzed. The integration scores were determined by averaging the provided values of the eight items from the respective subscale. Higher scores demonstrate better identity reconciliation.

Self-Esteem. The *Rosenberg Self-Esteem Scale* (RSES) (Rosenberg, 1965) was chosen as the dependent variable measure to gather one's perception of worth and acceptance by gauging both positive and negative feelings about the self. The RSES has been commonly used to collect self-esteem data from adolescents that may be balancing divergent information regarding cultural memberships and navigating acculturation while developing an ethnic identity (e.g., Giang & Wittig, 2006; Hoersting & Jenkins, 2011; Phinney & Chavira, 1992), as well as in a variety of other contexts and populations. The measure employed a 4-point Likert-type scale (1 = *strongly agree* to 4 = *strongly disagree*), where half of the statements were worded positively (e.g., "I feel that I have a number of good qualities") and the rest were negative (e.g., "I certainly feel useless at times"). Scores were computed by reverse-coding negative self-esteem items, assigning each of the four scalar points a new value (*Strongly Agree* = 3, *Agree* = 2, *Disagree* = 1, *Strongly Disagree* = 0), and summing them, with higher total scores reflecting greater levels of self-esteem.

Procedure

Upon signing up for the study, participants gained access to a Qualtrics survey link that automatically assigned them an ID to anonymously award credit upon completion. The survey contained all necessary materials. After reading through the digital consent form and agreeing to participate in the experiment, students shared their demographic information. Following that portion, individuals were presented

with the modified Multicultural Identity Integration (MII) scale. Next, the Multicultural Identity Integration Scale (MULTIIS) was administered. Finally, participants completed the Rosenberg Self-Esteem Scale (RSES). Once finished, students read through a debriefing form and were prompted to select the confirmation button at the bottom of the screen. The individuals then received their credit through the Qualtrics-SONA integration function.

Statistical Analyses

The dataset was first filtered for unusual lengths of completion time. In this study, 24 participants were removed that fell outside of the upper and lower limits, which were 30 minutes (the length of the study that students agreed to complete and for which ethics review approval was granted) and 4.61 minutes, respectively. The lower limit was set by taking the total word count for the shortest version of the survey (1843), where the participant has only lived in one country, and dividing it by 400. This generous cut-off was selected by using Brysbaert's (2019) meta-analysis regarding the average reading speed. While a speed of over 400 words per minute is plausible, it is more likely to indicate inattention, ultimately contributing to the variance in error (Aguinis et al., 2013). The next criterion ensured that the remaining sets of data were completed entirely. Accordingly, the data of seven students were removed because they had either left some questions blank or did not disclose all of their cultures. Lastly, given that culture is a complex, frequently shifting idea, we chose to define it following the methodology of the creators of the MULTIIS (Yampolsky & Amiot, 2016). This included having an affiliation with a country, ethnicity, religion, or language. Eight individuals did not provide a valid cultural identity by describing memberships that fell outside this framework (e.g., being a part of a particular age group, holding a certain sexual identity, or participating in a specific hobby) and their data were excluded. The final 160 data sets were scored and analyzed using R (R Core Team, 2021) operating within RStudio (RStudio Team, 2021).

Results

A preliminary analysis that examined the relationship between gender and self-esteem was performed. A boxplot was created to help visualize the distribution, which can be seen in Figure A1. Participants that had identified as other were excluded as there were too few responses. A Kruskal-Wallis test was conducted to determine any statistical significance between the two groups ($H(1) = .115, p = .734$). Since this finding was not significant, data was collapsed across genders to test the first research question. Another boxplot, illustrating the association

between RSES scores and the number of self-declared cultural identities, can be seen in Figure A2. As expected, the Kruskal-Wallis test revealed that there was no significant difference in self-esteem across the varying levels of identities (one, two, or more than two) ($H(2) = .390, p = .823$), supporting hypothesis 1a. For the second research question, monocultural individuals were removed from the analysis as it would be unclear what their responses to the two measures of interest reflected, considering that the scales were designed to capture attitudes towards and views on balancing more than one cultural identity. Several scatterplots were made to compare age, MII scores, and MULTIIS integration scores with RSES scores, which can be found in Figures B1, C1, and C2, respectively. Higher scores on the MII ($M = 5.33, SD = .93$) denote lower cultural compatibility, while increased MULTIIS integration scores ($M = 4.15, SD = 1.04$) indicate higher identity integration. Totals on the RSES closer to 30 reflect greater levels of self-esteem (women: $M = 17.95, SD = 5.48$; men: $M = 18.41, SD = 5.48$). Another Kruskal-Wallis test for gender and self-esteem amongst individuals with more than one cultural identity showed no significant difference so the gender data was collapsed once again ($H(1) = .799, p = .372$). An additional plot can be seen in Figure B2, displaying the MII and MULTIIS integration scores together. To better test the strength of their relationship, a correlation analysis between the two was implemented ($r(123) = -0.299, p < .001$). Given that the two were significantly related, separate additive models were set up to examine each variable without violating the assumption of non-collinearity. Both multiple linear regressions were conducted using age and gender as predictors of self-esteem ($M = 17.88, SD = 5.60$), with one including MII scores and the other MULTIIS integration scores. Results indicated that the overall model with the MII scores was significant ($F(3,119) = 3.525, p = .017, R^2 = .06$), while the MULTIIS integration score one was not ($F(3,119) = 2.256, p = .085, R^2 = .03$). Hypothesis 2a was supported, as it was found that MII score negatively predicted self-esteem ($\beta = -1.57, t = -2.88, p = .005$). Evidence for hypothesis 2b was also established, as the MULTIIS integration score positively predicted self-esteem ($\beta = 1.03, t = 2.14, p = .035$).

Discussion

The current study investigated the relationship between cultural identity and self-esteem. As hypothesized, there was no significant effect between the number of cultures and self-esteem. The models had a very low overall adjusted R^2 of .06 for the MII scores and .03 for the MULTIIS integration scores, which means that only about six and three percent of the findings were explained by the independent

variables used, respectively. Since whether the individual spoke the language associated with the identified cultures, whether the participant lived in a country that is predominantly made up of that culture, birthplace, and ratings of belongingness were excluded from the analyses, the lack of explanatory power of the remaining variables is understandable. Many other factors, such as the ones listed prior, are likely playing a role in moderating the effect of multiple cultural identities on self-esteem. Surprisingly, there was no significant relationship between gender and self-esteem. Previous research has demonstrated that gender differences in self-esteem are well known and accepted. Khanlou and Crawford (2006) found that while newcomer female youth share similarities to men in their adjustment to life in a new country, they also differ in areas such as their circumstances, resources, and self-perceptions, leading the authors to suggest that newcomer males have greater confidence. Similarly, Guruge and Butt (2015) explained that female youth experience greater mental health challenges compared to male youth. Given these past findings, it was initially expected that women students would show lower levels of self-esteem compared to men. However, the preliminary analyses did not reveal a significant difference between genders. This could be due to the unevenness in sample size for each gender identity, such that there was over four times the number of women in this study compared to men. Additionally, self-esteem is shaped by various factors and social contexts (Nguyen & Hale, 2017). Self-esteem may likely be impacted by the experiences of feeling isolated or culturally alone in a certain area, leading one to lack a sense of belonging, which contrasts with being perceived as included (Moore & Barker, 2012). Nguyen and Hale (2017) use educational institutes to illustrate an environment where factors, like the racial composition of a student body, influence the relationship cultural identity has on self-esteem. Considering that the COVID-19 global pandemic has largely transitioned the structure of educational institutions to a virtual setting, many individuals were able to study in their home country. If the location of where the participant completes the survey is where they feel like they belong most, their self-esteem might be higher than if they felt less connected to their heritage culture by being away from home.

The second hypothesis of there being a negative effect of cultural coexistence on self-esteem was supported, suggesting that as one's ability to navigate multiple cultures improves, positive self-perception increases (see Figure C1). This effect can be understood as evidence that those with a stronger ability to balance their multiple cultural identities experience greater levels of self-worth and less psychological distress. Of course, it makes sense that

the way one deals with conflicts that could arise from having several cultural memberships would have implications for well-being (Szabo et al., 2016; Ward et al., 2011). The third hypothesis, that integration and reconciliation of cultural identifications would positively predict self-esteem, was weakly supported. This establishes a trend demonstrating that self-esteem levels rise with an increased capacity to balance multicultural identities. Whether a student can integrate all aspects of their differing cultures into a larger self-concept or struggles to find a way to bring them together affects their subsequent positive affect and overall self-esteem (Chen et al., 2008). Further insight might have been gained by comparing the influence of the other MII subscale scores: categorization and compartmentalization.

While a pattern of relationships was observed through the analyses, the findings do not indicate causality. Given that this study was run using a correlational self-report design, the variables of interest would need to be tested experimentally to demonstrate the causal directions. Other major limitations stem from the quality of the sample. After cleaning the data, 20 percent of the sets were omitted. The 160 participants remaining comprise a relatively small sample consisting of students from a single university. Future studies should incorporate participants from several institutions across the country. With a larger sample, there could also be a more equal distribution of the number of cultures endorsed, which would assist in strengthening the analysis. Furthermore, the geographical environment when filling out the survey might yield changes in the levels of self-esteem experienced, specifically by those away from their native/dominant country. Thus, the next step could be controlling for differences in location. Additionally, having multiple collection points to work with would improve reliability in MII scores, MULTIIS scores, and RSES scores. This is because other factors may affect responses (e.g., mood, receiving a poor grade, household environment). Thus, being able to average together many measures of a particular value, at different test times, could form a more convincing case for the relationships that these variables have with each other. Moreover, hidden internal timers within the survey system itself might make it easier to gauge participant carelessness and response bias, such as neutral responses or acquiescence bias. Finally, on its own, self-declaring the number of cultural identities is weak. To correct this, a more sophisticated method should be implemented, such as examining if the national language is spoken, the amount of knowledge one has about the customs, as well as their ratings of belongingness, among other factors. This would help establish whether that culture is truly impacting the individual and collect insight into the level of

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commitment, which could aid in gauging how familiarity and attachment may impact an individual's overall cultural identity and subsequent self-esteem.

Despite these shortcomings, the findings of this study provide evidence of a relationship between one's capacity and proficiency to live with multiple cultural identities and self-esteem. Reduced internal cultural compatibility predicted lower self-esteem, while improved integration marginally predicted higher self-esteem. These data advance research on multicultural identity integration as well as spark insightful discourse about the challenges faced by these individuals, particularly in adolescence, and how they experience identity development. These integrative experiences of being a member of various racial, ethnic, or cultural groups play a crucial role in forming a representation of the self and may affect overall well-being throughout life

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MULTIPLE CULTURAL IDENTITIES

Appendix A

Figure A1

Distribution of Self-Esteem Scores Across Genders

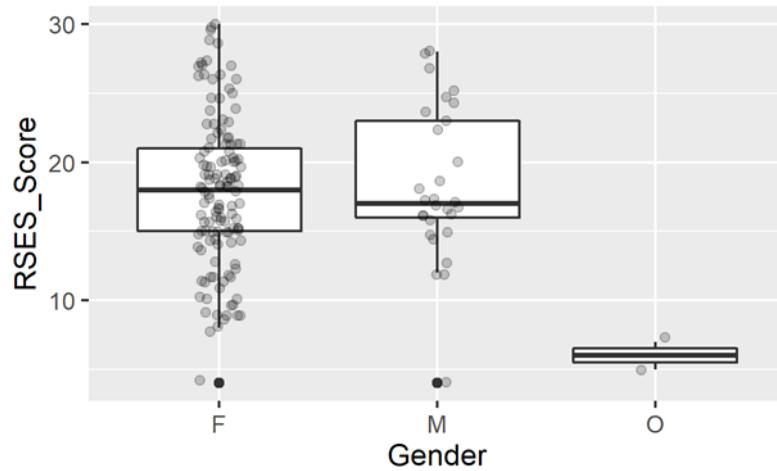
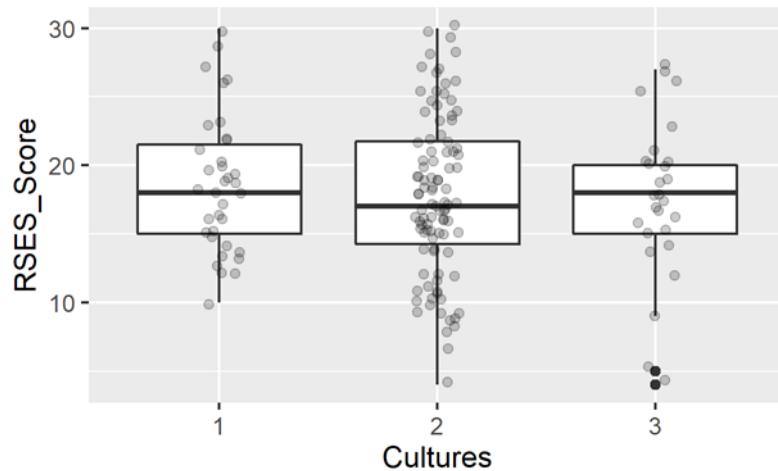


Figure A2

Distribution of Self-Esteem Scores across Number of Cultural Identities



Note. 3 refers to holding more than 2 identities.

Appendix B

Figure B1

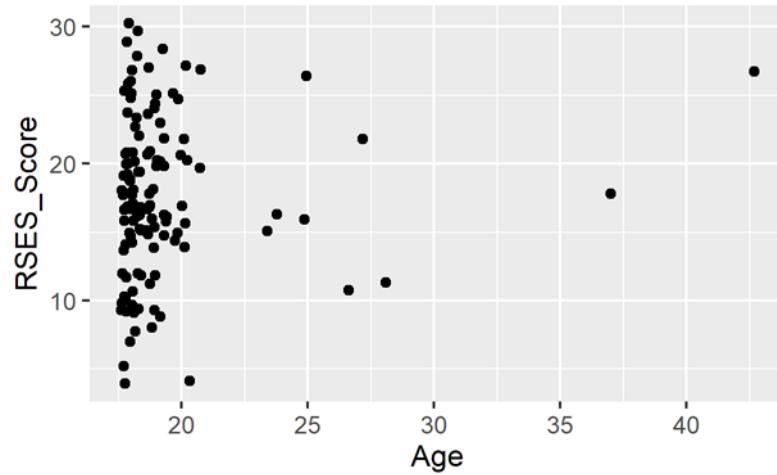
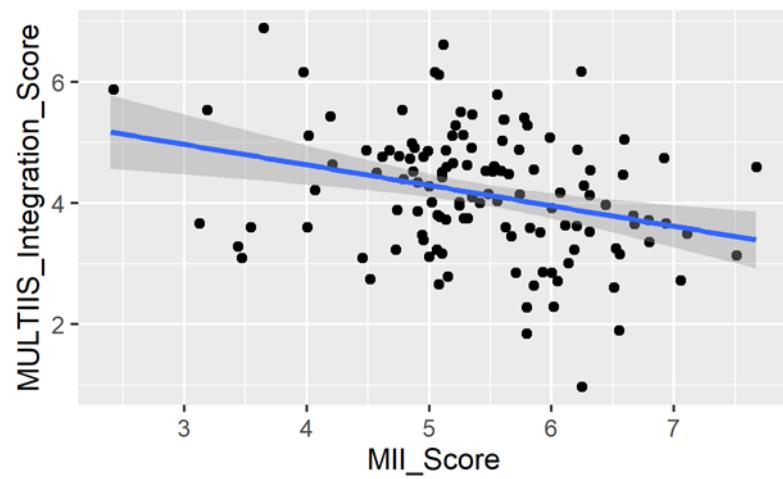
The Relationship between Age and Self-Esteem Scores

Figure B2

The Relationship between Multicultural Identity Integration (MII) Scores and Multicultural Identity Integration Scale (MULTIIS) Integration Item Scores

MULTIPLE CULTURAL IDENTITIES

Appendix C

Figure C1

Multicultural Identity Integration (MII) Scores Displayed as a Predictor of Self-Esteem.

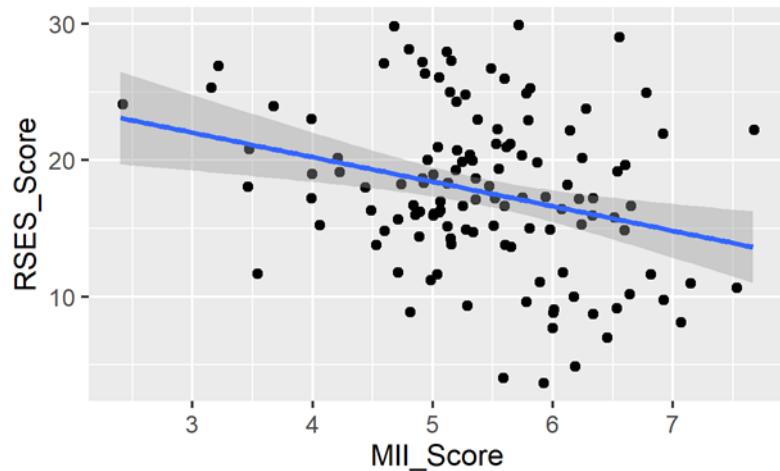
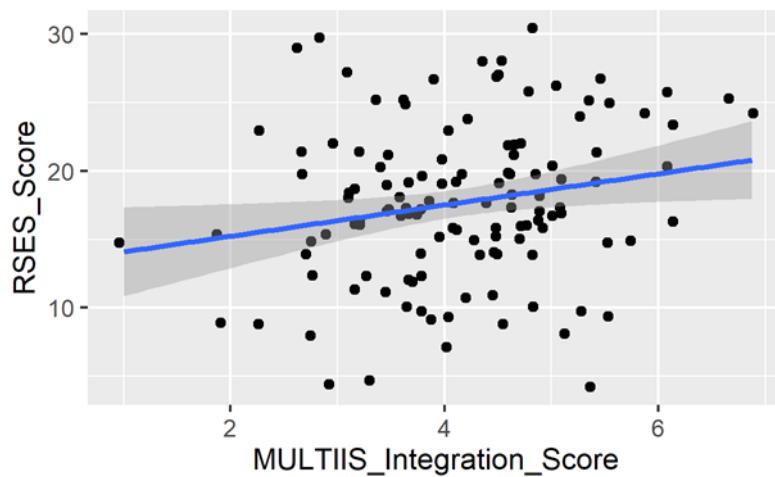


Figure C2

Multicultural Identity Integration Scale (MULTIIS) Integration Item Scores Displayed as a Predictor of Self-Esteem



Équipe éditoriale - *Editorial Board*

2021 - 2022



(de gauche à droite, de haut en bas/ from left to right, starting from the top)

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