# GROUP IDENTITY AND COLLECTIVE DYSFUNCTION

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## CONTRIBUTION OF AUTHORS

The present program of research makes a contribution to knowledge by providing empirical evidence for a link between the phenomenon of collective dysfunction and group identity processes. Additionally, the present program of research also provides evidence for the novel proposition that victimized groups may be more likely to experience collective dysfunction because powerful perpetrator groups often deny the collective traumas of victimized groups and/or their impacts.

As the first author on both manuscripts, I led the development, design, implementation, and interpretation of all studies. Additionally, I conducted all data collection and analysis, and led the writing of the manuscripts. Due to his substantial inputs, advice, and invaluable guidance at every stage in the research process, my supervisor, Donald M. Taylor, is the second author on both manuscripts.

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# ABSTRACT

There are some groups in society that engage in what can only be described as collective dysfunction. Collective dysfunction, as I define it, is a phenomenon that occurs when a particular behaviour is recognized by individuals both inside and outside of a group to be dysfunctional, but nevertheless, becomes so widespread within a group that it may even be considered normative. For example, high prevalence rates of binge-drinking within Indigenous communities are widespread, yet both Indigenous and non-Indigenous peoples recognize this behaviour to be highly dysfunctional (Taylor & de la Sablonnière, 2014). Efforts to empirically investigate collective dysfunction have taken on a wide range of theoretical perspectives, from large macro-level factors such as socio-economic status, to individual difference factors such as self-control capacities, and personal beliefs and attitudes. Inspired by Oyserman's (2009) theory of identity-based motivation, the present program of research was designed to offer insights into the link between group identity, and the dysfunctional behaviour of group members. The present thesis provides evidence for two distinct, identity-based pathways to collective dysfunction. Manuscript I evinces the first identity-based pathway in two studies: a field study conducted among working-class, Francophone patrons of a "fast-food" poutine restaurant in Montreal and an experimental laboratory study conducted among non-Native English speaking undergraduate students. The results of these two studies suggest that collective dysfunction is more likely to occur when group members can be led to re-construe a dysfunctional behaviour as (a) a positive aspect of group identity, in that the dysfunctional behaviour reflects positively on them and other members of their group, and (b) a distinctive aspect of their group identity, in that the dysfunctional group behaviour helps to distinguish their group from other groups. These findings are consistent with propositions arising from Social Identity Theory (Tajfel & Turner, 1979) and with a number of

different examples of collective dysfunction in society. Yet, in many real world contexts, there are groups that experience such severe collective dysfunction that it is not possible for group members to simply redefine the behaviour as a positive aspect of group identity. In these cases, dysfunctional group behaviour cannot be easily re-construed so as to increase the positive distinctiveness of group identity. What other important group identity function might a dysfunctional group behaviour serve? I theorize that dysfunctional behaviours sometimes come to symbolize a traumatic group experience. For example, excessive drinking in an Indigenous community might symbolize the magnitude of the collective community trauma that was wrought by colonialism. In Manuscript II, I therefore explore a second identity-based pathway to collective dysfunction that is founded on possible links between present dysfunctional behaviour and past traumas. Specifically, I hypothesize that victimized groups may be more likely to experience collective dysfunction when (a) a dysfunctional group behaviour is perceived to symbolize their collective trauma, and (b) the group's collective trauma(s) is denied by powerful out-groups. I find support for the existence of this second identity-based pathway among a representative sample of women online, non-Native English speaking undergraduate students in the laboratory, and online Jewish respondents. Together, the findings of Manuscript I and Manuscript II suggest that instead of a collection of individual failings, collective dysfunction should be conceptualized as a collective issue driven, in part, by collective factors. As such, interventions may be improved by the addition of group identity-based strategies. For one, interventions should aim to deconstruct any link that may exist between positive group evaluation, group distinctiveness and dysfunctional behaviour. More importantly though, for groups that face a genuine collective trauma, a more profound link may exist between a dysfunctional group behaviour and the experience of collective trauma. This link may be

especially problematic when out-groups deny the victimized group's collective trauma, or its lasting negative impacts. As such, the efficacy of interventions may be improved by the addition of group based strategies that not only target victimized groups, but also address the tendency for powerful out-groups to deny collective intergroup traumas.

# RÉSUMÉ

Certains groupes s'engagent collectivement dans des comportements inadaptés, ce qui se traduit par une dysfonction collective. La dysfonction collective, telle que je la définissons, est le phénomène par lequel un comportement qui se produit fréquemment est reconnu par les membres d'un groupe comme étant dysfonctionnel. Comme le comportement est répandu au sein de la communauté, il peut parfois même être normatif. Par exemple, les communautés autochtones du Canada présentent souvent des taux de prévalence élevés de consommation excessive d'alcool, et les peuples autochtones et non autochtones reconnaissent que ce comportement est dysfonctionnel (Taylor & de la Sablonnière, 2014). Les études sur la dysfonction collective ont adopté un vaste éventail de points de vue théoriques. Par exemple, des chercheurs ont examiné le rôle des facteurs macro-économiques, tels que le statut socioéconomique, alors que d'autres ont examiné l'importance des différences entre individus, telles que la maîtrise de soi, les croyances et les attitudes personnelles. Inspiré par la théorie de l'identité de Oyserman (2009), le présent programme de recherche a pour objectif d'examiner le lien entre l'identité collective et la dysfonction collective. La présente thèse présente deux façons par lesquelles l'identité est susceptible de mener à une dysfonction collective. Le premier manuscrit présente un premier mécanisme à travers lequel l'identité est reliée à la dysfonction collective: la première étude a été menée sur le terrain auprès de Québécois francophones fréquentant un restaurant reconnu pour sa poutine; la seconde étude a été menée en laboratoire auprès d'étudiants d'une université anglophone dont la langue maternelle n'est pas l'anglais. Les résultats de ces deux études suggèrent que la dysfonction collective est plus susceptible de se produire lorsque les membres du groupe sont amenés à réinterpréter un comportement dysfonctionnel comme (a) un aspect positif de l'identité du groupe (c.-à-d., le comportement

dysfonctionnel reflète positivement sur eux et les autres membres de leur groupe), et (b) un aspect distinctif de leur identité de groupe (c.-à-d., le comportement dysfonctionnel permet à leur groupe de se distinguer des autres groupes). Ces résultats sont compatibles avec les propositions issues de la théorie de l'identité sociale (Tajfel & Turner, 1979). Pourtant, dans de nombreux contextes, la dysfonction collective est si sévère qu'il est difficile pour les membres du groupe de réinterpréter les comportements dysfonctionnels de façon à augmenter le caractère distinctif et positif de l'identité du groupe. Quelle autre fonction identitaire ces comportements dysfonctionnels peuvent-ils servir ? Je propose que les comportements dysfonctionnels viennent parfois symboliser une expérience traumatique. Par exemple, la consommation excessive d'alcool dans une communauté autochtone pourrait symboliser la magnitude de l'impact d'un trauma collectif, comme le colonialisme, ayant affecté les membres de la communauté. Dans le second manuscrit, j'explore les liens possibles entre le comportement dysfonctionnel actuel d'un groupe et les traumatismes passés. Plus précisément, je postule que les groupes abusés par d'autres groupes risquent d'être plus susceptibles de vivre une dysfonction collective lorsque (a) un comportement dysfonctionnel est perçu comme un symbole de leur traumatisme collectif, et (b) les traumatismes collectifs sont niés par les membres du groupe les ayant perpétrés. Des résultats empiriques soutenant l'existence de ce second mécanisme identitaire ont été retrouvés dans une première étude auprès d'un échantillon représentatif, en ligne, de femmes, une seconde étude auprès d'étudiants dont la langue maternelle n'est pas l'anglais étudiant dans une université anglophone, ainsi qu'une troisième étude en ligne auprès de participants de la communauté juive. Ensemble, les résultats du Manuscrit I et du Manuscrit II suggèrent que, plutôt qu'être examiné comme un problème individuel se présentant chez plusieurs individus d'une même communauté, le dysfonctionnement collectif devrait être conceptualisé comme un

problème collectif entraîné, en partie, par des facteurs collectifs. De ce fait, les interventions ciblant ces comportements pourraient être renforcées par des stratégies axées sur l'identité de groupe. Ces interventions devraient viser à déconstruire tout lien existant entre l'évaluation positive du groupe, le caractère distinctif du groupe et le comportement dysfonctionnel. Plus important encore, pour les groupes qui font face à un véritable trauma collectif, un lien plus profond peut exister entre le comportement dysfonctionnel et l'expérience d'un traumatisme collectif. Ce lien peut être particulièrement problématique lorsque les groupes ayant perpétré les actions à l'origine de ce traumatisme nient l'existence de ce traumatisme collectif ou ses effets négatifs. Conséquemment, les interventions devraient être adaptées au contexte et viser non seulement l'identité du groupe victime d'abus, mais aussi réduire les incidences où les membres des groupes ayant causé des traumatismes collectifs nient l'existence de ces traumatismes.

# INTRODUCTION

The genesis of the research described in the present thesis is my personal experiences growing up in the city of Yellowknife in the Northwest Territories, and later, conducting research in Indigenous communities across Canada's North. The North is a place of a great diversity of people, culture, and landscape. Northern cultures though also share certain features. For one, the harshness of northern climes has prevented the proliferation of large Southern-like settlements in the area, leaving vast territories of pristine wilderness, and, remote, close-knit communities characterized by a spirit of genuine candour and casual familiarity. For Indigenous peoples, the freedom afforded by geographic isolation has, in some ways, facilitated the practice and preservation of their cultures and languages. As a result, Indigenous cultures still largely shape Northern Canadian societies (Brody, 2000). Yet, Indigenous peoples in Canada's North were not untouched by assimilationist government policies, including forced settlement and residential schools (Truth and Reconciliation Commission of Canada, 2015). The legacy of these injustices – including tragically high rates of academic underachievement, violence, domestic abuse, suicide, substance abuse, and sexual assault – is devastating and pervades nearly every community across the country (Taylor & de la Sablonnière, 2014). The high degree of interconnectedness among people in Indigenous communities means that when tragedy occurs, it is not only individuals or their families, but entire communities that are affected and traumatized by these issues. The members of these traumatized communities more often fall victim to despair and then become more likely to drop-out of school, drink or use drugs, and experience all the negative consequences these attend. For those who have never lived in small communities suffering from alcohol and substance abuse issues, the profound impact that tragedies have on community members may be difficult to imagine. In an interview about his book, 'Firewater:

How alcohol is killing my people (and yours),' Harold Johnson effectively conveys some of this despair: "We tried to hold community meetings last winter to get people to talk [about addressing issues with alcohol]. Whenever we scheduled community meetings we had to adjourn it because the building we were using was needed for a wake or funeral. Many of those wakes or funerals were for people who died from alcohol" (Johnson, 2016). As a result of the cycle of traumas from tragedies, Indigenous communities in the North are in a state of crisis characterized by what may be described as extreme collective dysfunction (Taylor & de la Sablonnière, 2014).

Of all these issues faced by Indigenous peoples in the North and Canada in general, there are several indications that alcohol and substance abuse require foremost and immediate attention. The excessive and dangerous consumption of alcohol has been identified by some as the "root of all other social problems" in Indigenous communities (Graham, 2008 as cited by Taylor & de la Sablonnière, 2014). For example, intoxication is identified as a factor primarily responsible for high numbers of imprisonment of Indigenous peoples (Vanderburg, 2004), and high rates of violent acts and sexual assaults in Indigenous communities (Hylton, 2002). Indigenous children with parents who use alcohol or drugs are three times as likely to be physically or sexually abused and four times as likely to suffer from neglect compared to children whose parents do not drink (Chansonneuve, 2007). The intergenerational impacts of excessive alcohol use give rise to very high incarceration rates among Indigenous youth, who are nearly eight times as likely to be incarcerated as non-Indigenous youth. Moreover, approximately eighty percent of incarcerated Indigenous youth also experience substance abuse problems themselves (Latimer & Foss, 2004). These issues are complex and interwoven; some have argued that the only possibility for healing all the pain in traumatized communities is a (relatively) sober community (Four Worlds, 2011). Hence, for Indigenous communities in crisis,

reducing rates of alcohol abuse has been identified as the first step towards redressing other community issues, including the aftermath of violence and sexual assaults that have occurred in the community (Four Worlds, 2011). Finally, a recent survey conducted by Statistics Canada (2014) provides the most conclusive evidence that there is a dire need to address issues with alcohol; in this survey, it was found that a full 75% of Inuit and First Nations respondents believe that substance abuse is a problem in their community.

To date, alcohol and drug interventions in Indigenous communities have been guided by best practice approaches in the research literature. These approaches are individually-oriented and designed for non-Indigenous populations where addictions and issues with alcohol are relatively rare compared to those in Indigenous communities (e.g. 12-step programs, CBT, etc.; Ogborne, Paglia-Boak & Graves, 2005). In the past, there has been some awareness of the need to render these individually-oriented, mainstream, traditionally western, treatments more culturally appropriate for Indigenous populations (Brady, 1995). For example, the Alcoholics Anonymous model of treatment and 12-step approach to abstinence has been widely adopted by First Nations, Inuit and Metis organizations in Canada, but altered to reflect their world-views (Chassoneuve, 2007). Yet, even models that can be rendered culturally-consistent like the 12-step approach are still based on treatment models designed for individuals. Individual-based models for the treatment of alcohol abuse have only led to minimal success among Indigenous populations. The most recent report from Health Canada, now twenty years old, finds that decades of individual-based approaches failed to reduce the prevalence of dangerous and excessive alcohol consumption among Indigenous peoples in Canada (Health Canada, 1998). Indeed, a report from Health Canada (1998) documenting the efficacy of Canada's National Native Alcohol and Drug Abuse Program found that after eleven years and 30 million dollars

invested annually into the program funding over 700 positions, no significant progress had been made in the treatment of problematic alcohol use in Indigenous communities. Discouraging results such as these have led some to conclude that the treatment measures taken by majority cultures to address alcohol abuse in Indigenous communities have been, and continue to be, misguided and counterproductive (McCormick, 2000). Yet, treatment measures employed to date have been based on empirically validated, best-practice approaches demonstrated to be effective among other western populations. Moreover, these best-practices approaches have been typically altered to seem relevant and culturally-consistent for Indigenous peoples; So, why do nearly two-thirds of Indigenous peoples feel that with regards to substance abuse issues in their communities, no progress is being made (First Nations Centre, 2005)?

The present program of research is based on the proposition that to be effective, the foundation of treatment approaches for substance abuse in Indigenous communities must shift from a focus on individual-level factors to a focus on collective-level factors. This idea is not my own; A report published by the Aboriginal Healing Foundation of Canada in 2007, finds that "[although] there is now widespread awareness that social and economic conditions contribute to addictions and substance abuse [in Aboriginal communities], the focus of prevention and interventions has relied too narrowly on individual solutions versus social and economic solutions (Chansonneuve, 2007). Moreover, a review of literature evaluating the success of alcohol and substance abuse programs in Indigenous communities finds that intervention success is associated with programs that focus on change at the community level, and address the socio-cultural norms that promote and reinforce alcohol and substance abuse (Jiwa & Kelly, 2008). For example, the community of Alkali Lake in British Columbia was able to reduce prevalence rates of alcohol abuse among adults in the community from approximately 100% to approximately

17% with a zero-tolerance policy (Four Worlds, 2011), which targets dominant and problematic socio-cultural norms (Taylor & de la Sablonnière, 2014). Individual interventions may be an effective and important step towards well-being for some. The documented scope of the problem though suggests that instead, collective, community-level approaches may be the most promising way forward for healing communities in crisis.

The present program of research aims to uncover new insights regarding collective-level factors perpetuating collective dysfunction in Canada's Indigenous communities. Conducting the present analysis through the lens of social psychological theory, my theorizing has been driven by recent developments regarding the role of group identity on the motivation of group members to engage in dysfunctional group behaviours. However, my theorizing has also been guided by the voices of Indigenous peoples, and their accounts of the realities, and intergroup contexts in which they live. Integrating social psychological theory with Indigenous perspectives has given rise to the present theoretical perspective. The present program of research therefore explores two specific identity-based pathways by which group members may come to *internalize,* or ingrain in one's self-concept (Ryan & Connell, 1989), dysfunctional behaviours associated with their group identity, thus increasing their motivation to engage in these dysfunctional behaviours: (1) Consistent with the central tenet of the influential Social Identity Theory (Tajfel & Turner, 1979), Manuscript I investigates the possibility that group members sometimes adopt dysfunctional behaviours as part of their group identity because these behaviours help distinguish their group from other groups in a positive way (i.e. increase positive distinctiveness), and (2) Manuscript II investigates whether group members sometimes internalize dysfunctional behaviour because these behaviours serve to validate their group's collective trauma experiences when these experiences are denied by a powerful out-group.

To begin, I will first define what the present research considers to be a 'dysfunctional' behaviour. I will then review the relevant literature concerning why individuals might engage in dysfunctional behaviours, as well as the collective level factors that might influence an individual's dysfunctional behaviour. Before I begin, I must note that to do justice to the issue at hand, I have felt it necessary to explore research literatures outside the field of social psychology. My investigation has brought me as far afield as anthropology, ethno-biology, clinical psychology and the sociology literatures, and the writings of Indigenous scholars, and people. The strict word limitations of most academic journals do not normally allow one to lay the groundwork for one's theoretical propositions, so I have not been able to include many important influences in my manuscripts. To properly describe the root origins of my concepts and theorizing though, I have included many of these programs of research in the present review which as a result, may at times seem like a fusion of social psychology and other disciplines.

**Dysfunctional Behaviour and Collective Dysfunction**

Generally speaking, I will employ the term dysfunctional throughout the present dissertation to refer to behaviours that are risky, dangerous, harmful, and/or counter to important life goals. However, a few qualifications about this definition need to be made. For one, when it comes to the behaviours of other groups, researchers and others can easily fall into the trap of making judgments based on their own cultural perspectives. For example, in the Western world, highly conspicuous tattoos on one's face, neck, or hands effectively limit an individual's upward social mobility for the rest of their lives (Hart, 2014). Hence, most Westerners would consider opting for extensive face tattoos to be dysfunctional. Yet, in other cultures, including the Maori of New Zealand, or Inuit women of the Arctic, face tattoos are considered important badges of honour which are respected and revered by group members, facilitating upward mobility (e.g.

Carmen, Guitar & Dillon, 2012). As such, face tattoos might only be considered dysfunctional for *some* cultural groups. The cultural significance of face tattoos among the Maori is more commonly known, but there are other cultural norms or values demonstrated by particular behaviours that are less understood by outsiders. In these cases, outsiders can sometimes judge other cultures based on their own cultural norms and values without even being aware of their bias (Spiro, 1986). However, incorrect assessments on the part of interventionists regarding the social and personal implications of certain behaviours for other groups may crucially impact treatment outcomes. For example, among Euro-American samples, the use of physical punishment in child rearing is associated with dominance-style parenting and an increase in negative externalizing behaviour among children (i.e. physical punishment seems to have negative psychological consequences for these children). Western perspectives on physical discipline therefore deem spanking to be a harmful display of parental dominance. Yet, the use of physical discipline in child rearing among the Black community in the United States is not always found to have the same negative psychological consequences for Black children. This is likely because many Black families do not consider physical discipline to be an indication of parental dominance, but instead a symbol of the parent's desire to protect their children and ensure their survival (Whaley, 2000). Incorrect assumptions in this case would lead to inappropriate interventions. Hence, to avoid any ethnocentric bias on my part, my theorizing regarding dysfunctional behaviours in the present research has been based on the following idea: dysfunctional behaviours are those behaviours that *both* in-group and out-group members recognize to be risky, harmful, dangerous, and/or counter-productive to important life goals. My primary exemplar, excessive alcohol use in Indigenous communities, is consistent with this definition. Both Indigenous leaders and community members, and mainstream, non-Indigenous

academics and health-care professionals agree that there is a crisis in terms of how alcohol is used in Indigenous communities that needs to be addressed.

This conceptualization was guided by a framework proposed by Taylor and de la Sablonnière (2007) regarding different types of group norms. They propose that group norms, or standards of conduct widely shared among a social group, fall into one of four categories: norms that are universal and shared by all groups (e.g. the norm of reciprocity widely shared across cultures), norms that are unique to one particular subgroup and respected by other groups (e.g. bowing in Japanese culture), norms that are unique to one particular subgroup and not respected by other groups (e.g. female circumcision), and over-arching norms that are shared by all relevant and regularly interacting groups and sub-groups in a nation (e.g. education is important for children in Canada). It is this last category that has guided my conceptual understanding of dysfunctional group behaviour. The present analysis therefore considers dysfunctional behaviours as those that both in-group, and out-group members recognize to be counter to the health, well-being, personal safety and/or self-actualization potential of individuals. This definition also accords with clinical perspectives of dysfunctional behaviour rooted in Rosenhan and Seligman's (1989) influential work on the subject. Also recognizing the difficulty of defining dysfunction across different normative contexts, dysfunctional behaviours, Rosenhan and Seligman propose, are those that cause suffering, maladaptiveness, and/or violation of agreed upon standards.

Within this category of 'dysfunction' though, there are different degrees of 'dysfunction' associated with different behaviours. Alcohol abuse use is widely recognized by Indigenous peoples in Canada as a serious issue in their communities due to the significant loss of life, crime, and other negative outcomes with which it is associated. Hence, alcohol abuse in this

context is considered highly dysfunctional. In other examples though, such as tattooing one's neck or face in the Western world, the in-group may consider these behaviours to have some negative consequences, but not be extremely dysfunctional given the tattooed individual's overall life goals. For example, if the tattooed person works in a tattoo parlor, or is a musician in a successful punk band, then a face tattoo would not necessarily impact their career goals and their significant personal relationships. However, face tattoos may still be considered dysfunctional, as they attend some negative outcomes for oneself and one's life recognized by both in-group and out-group members, such as prejudicial treatment (Jetten, Branscombe, Schmitt & Spears, 2001). So, the behaviour may be considered dysfunctional, but to a lesser degree. Finally, behaviour can become widespread within a particular social group, such that the majority of group members engage in the behaviour or are negatively affected by it; I have termed this phenomenon as *collective dysfunction.*

Lastly, the term 'dysfunctional' invokes the issue of functionality with regards to behaviour. When I use the term dysfunctional, am I suggesting that the behaviours in question do not serve a function? The answer is no. Just as smoking calms the nerves, other dysfunctional behaviours also serve some important functions. In the following section, I review literature describing some of the possible functions dysfunctional behaviour may serve for individuals and group members. Importantly though, the aim of the present program of research is to offer insight into novel functions of certain dysfunctional behaviours not previously considered in the research literature. Given these theoretical perspectives on the function of dysfunctional behaviours, one might reasonably challenge, or take issue with the term 'dysfunctional' applied to the behaviours described herein.

Yet I contend that I have not employed the use of a misnomer in this case. The present investigation is focused on behaviour at the group level. The simple explanation for the appropriateness of this term is therefore that any group-level need considered is not uniquely satisfied by behaviour that threatens a group's well-being. If this were the case and a particular dysfunctional behaviour was the only method by which to satisfy a particular group-level need, this particular dysfunctional behaviour would have been integrated as a universal, ubiquitous feature of human cultures long ago. The present program of research defines dysfunctional behaviour as behaviour that all relevant social groups consider to be risky, harmful, dangerous or counter-productive to important life goals. So why do some groups appear to integrate dysfunctional, as opposed to non-dysfunctional behaviour to satisfy certain group-level psychological needs? Although there are some interesting theories regarding the importance of costly, compared to non-costly behaviours in groups (for examples please see Henrich, 2009), the present research was not designed to answer the question of why groups satisfy some group-level needs with dysfunctional, as opposed to non-dysfunctional behaviours. Instead, the present research aims to investigate functions of some dysfunctional behaviours not yet articulated by researchers that are so potentially important to group members that they may actually internalize the dysfunctional behaviour, and lead their group to experience collective dysfunction.

**Collective Dysfunction**

Collective dysfunction is not a phenomenon that applies exclusively to disadvantaged cultural groups, such as Indigenous peoples, or fringe cultures, such as the tattooed community; Greek fraternities are known to have many high-risk rituals associated with binge drinking (Chauvin, 2012), sorority sisters have been known to intentionally engage in massive binge-eating cycles together (Crandall, 1988), blue collar workers in Africa have been found to

willingly and deliberately engage in unprotected sex with high-risk partners (Campbell, 1997), teenagers are found to adopt the pro-smoking norms of their peer group (Schofield, Pattison, Hill & Borland, 2001), longshoremen along the wharves of Newfoundland have been demonstrated to engage in nearly ritual-like nightly seaside tavern drinking (Mars, 1988), a number of different tribal groups are found to submit initiates to painful and sometimes life-threatening initiation rites (Henrich, 2009), and the parents of newly registered students at Waldorf schools are found to adopt the school's norms and stop vaccinating their children shortly after enrollment (Sobo, 2015). However, many examples of collective dysfunction do occur among disadvantaged groups. In addition to our primary exemplar, dangerous use of alcohol and drugs in Indigenous communities, other disadvantaged communities also experience collective dysfunction. For example, there is a very high prevalence rate of different dysfunctional behaviours among the Black community in the United States of America including unhealthy eating and/or an unwillingness to seek medical attention (Oyserman, Fryberg & Yoder, 2007). Other cases are more extreme; in an anthropological investigation on initiation rites in gangs, Vigil (1996) documents the phenomenon of 'street baptisms' where gang members willingly submit to brutal beatings for the sake of group membership. Similarly, young racialized men in the United States have been found to disengage from their academics as a means to validate their group membership when it is called into question (Oyserman, Brickman, Bybee, & Celious, 2006). In the majority of the examples described above, the dysfunctional group behaviour is found to serve an important group function typically related to group acceptance (Hurt, 2012; Mars, 1988; Schofield, et al., 2001; Sobo, 2015), social status (Campbell, 1988; Campbell, 1997; Chauvin, 2012), or group membership (Henrich, 2009; Oyserman et al., 2006; Vigil, 1996).

## Theories of Collective Dysfunction

In mainstream societies, the dysfunctional behaviour of individuals typically has a negative impact on society as a whole. Hence, many public resources are focused on, and much attention is paid to the dysfunctional behaviour of individuals (i.e. crime, addiction, and unemployment). As a result, there are many theories and frameworks proposed to understand why individuals engage in dysfunctional behaviour. Although the present program of research does not necessarily contribute to the body of literature for most of these theories, they are not irrelevant to the present investigation. Many of the observations and ideas that have given rise to the present research's theoretical perspective were informed by these bodies of literature. As such, I feel that it important to review the work that has been done to address collective dysfunction thus far, and describe how the focus of the present investigation is different from or inspired by these other research areas.

### Health Disparities and Disadvantaged Groups

The reason why groups adopt dysfunctional group norms as part of their group identity is not clear. However, there is some indication that particular behaviours become prevalent within certain social groups due to differences in social and economic factors. First and foremost, there is a large body of evidence that suggests that health disparities exist among groups of different socio-economic status. For example, smoking, alcohol use, obesity, and other indications of poor health are typically higher among lower socio-economic classes, yet the reason for this relation is not clear (Pampel, Krueger & Denney, 2010). A recent review of the literature concerning SES and health disparities classifies potential explanations for this relation into nine different categories, ranging from increases in life stress -coping resulting in greater substance use, limited access to healthier choices, lack of knowledge regarding the utility of health behaviours and

more (Pampel, Krueger & Denney, 2010). However, despite its breadth, the authors conclude that there is a lack of support for any one explanation. Similarly, a study investigating the relation between education level and health disparities among British and American adults finds that SES associated factors, such as family income, cognitive ability and health insurance, can account for nearly 60 percent of the relation between education level and health behaviours. Controlling for age, gender, parental background and economic resources, this study also finds that an additional 10 percent were related to social networks and social relations, yet the authors acknowledge that they have no explanation for this effect (Cutler & Lleras-Muney, 2008). Finally, an additional 25% of the variance in health behaviour could not be explained by educational background, or related factors measured including economic resources, cognitive ability, social networks, age, gender, personality and life satisfaction (Cutler & Lleras-Muney, 2008). In sum, some macro-level factors, namely lower SES or having less education, have been associated with an increased likelihood of engaging in dysfunctional behaviours over one's lifetime. Yet, the reason why these associations exist is not clear. Although the investigation of group-level factors accords with the present program of research's theoretical perspective, its scope does not. Collective dysfunction is not limited to disadvantaged groups characterized by lower SES and less education. Advantaged groups also experience collective dysfunction. Additionally, while this literature indicates that group level factors may be associated with dysfunctional behaviour, experts agree that more specific theories regarding the mechanisms responsible for the relation are required (Pampel, Krueger & Denney, 2010).

*The literature examining health disparities between advantaged and disadvantaged groups provides compelling evidence that collective factors are implicated in dysfunctional behaviour among certain groups. However, the reason for the link between economic disparities*

*and dysfunctional group behaviour remains unclear, and further does not explain why advantaged groups sometimes succumb to collective dysfunction. In the present program of research, I investigate one new possible link between disadvantaged group status and collective dysfunction; specifically, Manuscript II explores the relation between the experience of collective trauma, and out-group denial of collective traumas on the internalization of dysfunctional behaviour among victimized (disadvantaged) group members.*

**Self-Control**

One of the proposed mechanisms for the relation between lower SES and health disparities is chronically lower self-control resources confronted by disadvantaged groups due to increased daily stress (Pampel, Krueger & Denney, 2010). This proposition accords with much social psychological literature concerning the importance of self-control in the health and well-being of individuals. Indeed, many studies have associated lack of self-control with various dysfunctional behaviours, including aggression, smoking, and dysfunctional alcohol consumption (Muraven, Tice, & Baumeister, 1998). The importance of self-control for abstaining from dysfunctional behaviour has been well-demonstrated among individuals that are self-regulating to achieve goals that promote their health and well-being (Tangney, Baumeister, & Boone, 2004). For example, if one is on a diet, self-control is a valuable resource that facilitates an individual's ability to resist the temptation of consuming non-diet friendly foods. Furthermore, the importance of self-control for well-being has also been extended to the group level, as the perceived control of the group over their particular circumstances has been demonstrated to also impact individual group members and their well-being (Taylor & de la Sablonnière, 2014; Tiessen, Taylor & Kirmeyer, 2009). Yet, self-control is not always applied towards health-promoting ends. In an extensive review of the literature on dysfunctional

behaviour, Rawn and Vohs (2010) propose that higher self-control does not always translate into less dysfunctional behaviour, because individuals do not always self-regulate towards healthful life goals. Sometimes, individuals self-regulate towards self-harm. Indeed, Rawn and Vohs (2010) propose that much dysfunctional behaviour is not the result of an inadequate amount of self-control resources among individuals, but instead, an act of purposeful, focused self-control. For example, they point out that very few individuals enjoy their first taste of alcohol or their first drag of a cigarette. Upon tasting alcohol or tobacco for the first time, one's natural impulse is to avoid the bad tasting substance. Yet, many individuals strive to overcome this initial impulse, and many do. The desire and purposeful effort used to overcome avoidance responses such as these, they argue, demonstrates the tendency for individuals to sometimes use self-regulation towards self-destructive ends. In line with the findings of other researchers investigating collective dysfunction, Rawn and Vohs (2010) conclude that the reason individuals self-regulate towards self-harm is for the sake of social acceptance. Certain behaviours become associated with social status or belonging among particular social groups because the behaviour itself is considered key for group membership. When this occurs, self-regulatory processes are engaged to enact the dysfunctional behaviour. Hence, while self-control is an important psychological factor that can explain why individuals with healthful goals may sometimes fail to achieve these goals, theories of self-control cannot explain why individuals sometimes use self-control to engage in dysfunctional behaviours. More insights are needed to better understand why self-regulation is sometimes employed to enact self-harming, dysfunctional behaviour.

*Lapses of self-control are pervasive explanations for why individuals engage in dysfunctional behaviour and fail to achieve their health goals (i.e. giving into temptation and smoking a cigarette when trying to quit). Psychological literature demonstrates that differences*

*in self-control have a high degree of predictive power with regards to which individuals will engage in this type of dysfunctional behaviour. However, not all individuals have healthful goals and indeed, some individuals strive to engage in dysfunctional behaviour when the behaviour is considered to be relevant for their group membership or group status. Thus, to fully understand collective dysfunction, an examination of the factors that lead some groups to adopt dysfunctional behaviours as key aspects for group membership or acceptance is also required. At this point, group members may use their self-control resources to engage in dysfunctional behaviour instead of abstain from it. In the present program of research, I aim to uncover the specific contexts in which group members will autonomously self-regulate to enact dysfunctional group behaviour.*

**The Theory of Planned Behaviour and Other Theories of Individual Differences**

A number of different psychological theories have aimed to understand and describe why individuals do not always act in their own best interest. For one, the Health Belief Model, developed in the 1950s, was designed to address the question of why so many people at the time failed to seek medical treatment for diseases or seek out preventative medicine (Janz & Becker, 1984). To understand why individuals would not act in the interest of their physical health, a group of investigators in the public health service in the United States began focusing on the importance of: the perceived susceptibility to a medical condition, the perceived severity of a medical condition, the perceived benefits of medical intervention, and the perceived barriers to undertaking recommended actions on the health behaviours of individuals (Rosenstock, 1974). For example, it may be the case that individuals engage in high-risk sexual activity and fail to use condoms because they do not perceive that they are at risk of contracting a sexually transmitted infection. This model, known as the Health Belief Model, finds empirical support

(e.g. Janz & Becker, 1984), demonstrating the importance of taking into account an individual's perception of dysfunctional behaviour when aiming to understand his or her behaviour.

Similarly, the Theory of Planned Behaviour (Ajzen, 1991) also takes into account the attitudes, beliefs and other important individual-level differences that lead to an individual's behaviour. The Theory of Planned Behaviour proposes that an individual's intention to engage in specific behaviours can be predicted from three different factors: an individual's perceived control over his or her actual behaviour, an individual's attitudes regarding the behaviour, and the perceived subjective norm, i.e. the perceived social pressure to perform a given behavioural norm (Ajzen, 1991). In this way, the Theory of Planned Behaviour takes into account the importance of the social group for explaining the behavioural intentions of individuals. Indeed, a meta-analysis of 161 journal articles testing the Theory of Planned Behaviour finds overall support for its efficacy in predicting behavioural intentions and behaviour, finding that the Theory of Planned Behaviour model explains approximately 20% of the variance in observed behaviour (Armitage & Conner, 2001). However, the results of this meta-analysis also suggest that subjective norms, as they are measured by researchers using this model, have little predictive power when it comes to an individual's behaviour. The authors suggest that the weak relation between subjective norms and behavioural intentions, or actual behaviour, in this case may be accounted for by the fact that the important variables of group identification, perceived social pressure, and type of norm are not traditionally taken into account by the Theory of Planned Behaviour (Armitage & Conner, 2001). Yet, these additional factors may moderate the impact of a subjective norm on an individual's behaviour. First, group identification has been demonstrated to moderate the effects of a group norm on one's intention to engage in both healthy group-relevant behaviour (Fielding, McDonald, & Louis, 2008; Terry & Hogg, 1996) and dysfunctional

group behaviour (Louis, Davies, Smith, & Terry, 2007). Second, the Theory of Planned Behaviour has in large part, only taken into account (injunctive) norms - what social groups say people should do – and has not measured descriptive norms (i.e. what social groups actually do). Yet, there is a significant amount of evidence to suggest that descriptive norms function as group identity-based behavioural guides, and thus exert a powerful influence over individuals in contexts where group identity is made particularly salient or important (Gelfand & Harrington, 2015). Finally, individuals have also been demonstrated to engage in a variety of different dysfunctional health behaviours when the behaviour is valued by socially relevant individuals, and thus, helps them project a positive self-image to others (Leary, Tchividjian & Kraxberger, 1994). For example, the willingness of individuals to engage in risky behaviour may be especially high when individuals are highly concerned about their self-image (e.g. Martin & Leary, 1999). As such, taking these additional factors into account may be required in order to adequately measure the influence of a subjective group norm on an individual's behaviour. To respond, a number of studies have sought to develop models based on the Theory of Planned Behaviour that also take an individual's identity, or his or her perceptions of not injunctive, but descriptive norms into account. Meta-analyses conducted to evaluate the role of self-identity (Rise, Sheeran, & Hukkelberg, 2010) and perception of descriptive norms (Rivis & Sheeran, 2003) in models of the Theory of Planned Behaviour generally find support for the predictive value of these collective factors with regards to an individual's behaviour or behavioural intentions. However, the addition of these factors only increases the predictive value of the Theory of Planned Behaviour by 6%, and 5% respectively. Importantly, studies based on this model generally measure constructs in broad terms. Are there subtler nuances regarding dysfunctional group norms that may be unaccounted for in these general models?

Some insight into this question may be gained by examining another meta-analysis that examined the overall predicted effect of the Theory of Planned Behaviour on different types of behaviours (McEachan, Conner, Taylor & Lawton, 2011). An examination of 237 tests of the theory finds that 'type of behaviour' moderates the theory of planned behaviour's predictive power on an individual's behaviour, with health-promoting behaviour (i.e. physical activity and dieting) being better explained, and dysfunctional behaviours (i.e. abstinence from harmful behaviours and engaging in risky behaviours such as binge drinking) being only weakly predicted (McEachan et al, 2011).

The Theory of Planned Behaviour provides a conceptual framework for understanding how individual perceptions of behaviour influence an individual's actual behaviour intentions, or behaviour, and has given rise to a proliferation of literature demonstrating the role of beliefs and attitudes in predicting a wide variety of different behaviours. However, together, the research literature investigating the Theory of Planned Behaviour's predictive power with regards to dysfunctional behaviour demonstrates that the willingness of group members to engage in a dysfunctional behaviour specifically may not be fully accounted for by subjective norms, individual beliefs and attitudes regarding the behaviour. Concretely, this means that knowing whether an individual perceives he or she has control over their behaviour, recognizes a behaviour to be harmful and/or generally confer negative outcomes, and considers the behaviour to be mostly undesirable or disapproved of by others still only weakly predicts the likelihood that they will actually engage in that behaviour. This is in line with what is observed in many cases of collective dysfunction; group members seem to be fully aware that their behaviour is dysfunctional and the majority of their fellow group members also understand the behaviour to be dysfunctional, yet, group members still engage in the behaviour. So, if collective dysfunction

cannot be fully explained by individual self-control resources, perceptions of group norms, group identity or individual attitudes and beliefs regarding dysfunctional behaviour, what can?

*Faulty cognitions, beliefs and/or attitudes have been considered as underlying factors giving rise to many different varieties of dysfunctional behaviour by influential theories of behaviour including the Theory of Planned Behaviour, and the Health Belief Model. Acknowledging that these cognitions, beliefs and attitudes are not independent from group-level processes, models rooted in the Theory of Planned Behaviour do take group identity and group norms into account as well. In doing so, Theory of Planned Behaviour research has demonstrated the importance of these group-level factors in predicting the behaviour of individual group members. Yet, meta-analysis reveals relatively low predictive power for these models with regards to dysfunctional behaviour. Furthermore, the Theory of Planned Behaviour's approach has necessitated fairly narrow and abstract conceptualizations of group identification and group norms, leaving subtleties regarding the interplay between attitudes, beliefs, and cognitions and group identity and group norms largely unexplored. Yet, impression management research indicates that beliefs regarding the meaning of certain behaviours for fellow group members does exert an effect on an individual's behaviour. This is found to be true even when the group member recognizes that their behaviour is dysfunctional, and seen as such by their group as well. In the present program of research, I integrate insights from these programs of work but explore a new proposition: even though behaviours may be seen as generally dysfunctional, they may also be construed by groups to have important group-level connotations that can exert a powerful influence on the behaviour of group members as a result of their group identity.*

**Social Influence, Group Conformity and Group Norms**

The study of social influence, conformity, and social identity within the field of social psychology has extensively demonstrated the powerful influence that groups exert on the beliefs, attitudes and behaviours of individual group members. In a seminal study, Sherif (1936) employed the use of the autokinetic effect, an optical illusion where a stationary spot of light appears to be moving in a dark space, to demonstrate the influence of group judgments on the beliefs of individual group members. In this experiment, Sherif found that when asked to judge the distance travelled by the spot of light, individual group members tended to bring their judgments in line with the judgments of other group members. This finding, he argued, may be a natural consequence of the human tendency to rely upon other individuals as reliable sources of information, especially in the context of uncertainty. Thus, when it is not clear how one should act or what one should believe, we have a tendency to look to others for guidance. However, normative influence is not limited to contexts of uncertainty. In 1951, Asch went on to demonstrate that individuals were also inclined to bring their judgments regarding non-ambiguous stimuli in line with the judgments of their fellow group members. In the Asch conformity paradigm, group members were asked to complete multiple experimental trials where they would judge the length of different lines and decide which two lines were the same lengths. In this case, the answer was unambiguously clear; two of the lines were always the same length and two other lines were always clearly different lengths. When participants were tested privately, group members would easily make the correct judgment. However, in an experimental condition, participants were asked to make their judgments in the presence of other group members. The other group members in this experiment were confederates that were trained to report the wrong judgments on some of the trials. The group order was such that participants

were always asked to report their judgment last, after the rest of the group would report the incorrect answer. Asch found that a large majority (75%) of participants publically conformed to the incorrect judgments of their fellow group members on at least one trial, even though they knew the judgments to be incorrect. As such, these early experiments demonstrated that group members will not only conform to group judgments when they are uncertain about their own beliefs; group members will also conform to the incorrect judgments of their fellow group members that they know to be wrong. Why would anyone promote a judgment they know to be incorrect? Follow up interviews indicated that in the case of the Asch (1951) conformity experiment, group members sometimes conformed to group behaviour they know to be incorrect for the sake of social acceptance. Building on this finding, a subsequent study by Dittes & Kelley (1956) on social conformity provided direct experimental evidence that individuals sometimes conform to group norms they know to be incorrect when they were threatened with social rejection. Desire for positive social outcomes therefore motivates individuals, under certain contexts, to conform to incorrect group norms.

These early studies on social conformity went on to stimulate a proliferation of literature demonstrating the powerful impact that group norms exert on the behaviour of individual group members (Chung & Rimal, 2016). In a comprehensive review on the literature regarding the impact of group norms on individual behaviour and attitudes, Chung & Rimal (2016) consolidate a large body of research demonstrating that group members are more likely to engage in dysfunctional behaviour, including binge-drinking, smoking and other risky behaviours, when they perceive the behaviour to be normative. The influence of group norms on individual group members has also been found to be moderated by a variety of different behavioural, individual difference and context-dependant factors. One might unpack these different factors to determine

when a group member may be most likely to conform to a particular group norm. For example, group members are most likely to conform to a particular norm when that norm is made salient, and/or when an individual is unsure of how to behave because the situational context is ambiguous (Chung & Rimal, 2016). However, the breadth of contemporary work on the role of group norms on the behaviour of group members suggests that many of the moderating factors determining the strength of normative influence in any given situation can be accounted for by the group identity and the strength of one's personal association with a group of individuals promoting the norm.

In social psychological literature, many contemporary theories regarding the influence of group identity on an individual's self-concept and behaviour can be traced back to Social Identity Theory (Tajfel & Turner, 1979). Social identity theory posits that individuals derive their sense of personal identity from the groups to which they belong (Tajfel & Turner, 1979), and that individuals typically belong to multiple social groups, the unique composition of which comprises one's social identity. Knowing what it means to be a member of a group permits individuals to develop a clear sense of personal identity that guides their actions and behaviours in their everyday lives (Taylor, 2002; Usborne & Taylor, 2010). Hence, much of an individual's personal beliefs, behaviour, values, and attitudes are derived from his or her group identities. Moreover, due to the importance of group identities for our self-concept, much of our self-esteem is derived from collective esteem, or evaluation of our group(s) (Ashmore, Deaux &McLaughlin-Volpe, 2004). Finally, the more an individual identifies with a particular group, the more that individual will be influenced by the attitudes, behaviours, values, and norms associated with the group identity (Taylor, 2002; Usborne & Taylor, 2010). Thus group conformity and norm research suggests that individuals may be motivated to engage in

dysfunctional behaviour that they know to be incorrect for the sake of social acceptance, but mostly when a dysfunctional group norm is promoted by individuals with whom they share an important group identity and/or when socially relevant others are present.

The idea that individuals may be willing to engage in dysfunctional behaviour for the sake of their group identity may seem outlandish. Indeed, for those who have never been faced with deficits in intergroup distinctiveness or collective esteem, the import of group identity in our daily lives may be difficult to grasp. Yet, within recent world history, there are all too many unfortunate examples of great sacrifices and heinous acts committed in the name of protecting or promoting one's group identity. As one distressing example, in 1994, regular everyday Rwandan Hutus turned on their neighbours, friends and family members to perpetrate genocidal killings of Tutsi men, women and children. Within 100 days, an estimated one million Tutsis had been killed and countless barbaric atrocities committed. Yet, the only real difference between Hutus and Tutsis were the group identities thrust upon them previously by German colonialists (Zimbardo, 2007). German colonialists created these categories and then decided that Tutsis were racially superior, and should occupy higher ranks in Rwandan society and government. Ultimately, the status imbalance between these fictitious groups provoked the inter-group conflict which precipitated the genocide (Zimbardo, 2007). Group identity, although often lurking beneath the surface of awareness in everyday life for many, is a powerful motivational tool that can impact an entire collection of individuals. Hence, group identity and group norms are reasonable candidates for the motivating factors underlying many cases of collective dysfunction. The idea that group identity is a motivating factor that sometimes leads groups towards self-destructive ends has been expertly introduced by Daphne Oyserman in her theory of Identity-Based Motivation.

*Half a century of social conformity research demonstrates the powerful influence that group norms exert on the behaviour of group members. This influence is exerted in two ways: for one, the self-concept of group members, which dictates much of the individual's behaviour, is in part derived from their perception of their groups' norms. Second, group members generally aim to appear normative and thus are more likely to act in accordance with group norms in the presence of other group members. The present program of research is firmly rooted in the tradition of social conformity research and theories of group identity. For one, drawing from the insights of conformity research, I have made a distinction between the public and/or private conformity of group members. This distinction has been crucial for my understanding and measurement of dysfunctional group norm internalization. Second, insights from the field of social influence and group identity have led me to appreciate the weight of our group memberships with regards to motivation. These insights led me to the theory of Identity-Based Motivation which has been the organizing framework for the present program of research.*

**The Theory of Identity-Based Motivation**

Importantly, group identities incorporate the behaviours that group members perceive as being normative within their group. Consolidating the influence of group identity on the behaviour of group members, the Theory of Identity-Based Motivation proposed by Oyserman (2009, 2015) implicates group identity as a factor that can motivate group members to engage in behaviour that they recognize as dysfunctional such as alcohol abuse. Her Theory of Identity-Based Motivation suggests that behaviours become prevalent within a group because group members are motivated to enact behaviour they perceive to be part of their group identity, or *identity-congruent.* For example, in a study conducted within the Identity-Based Motivation framework, Black Americans were found to report unhealthy behaviours as more in-group

defining than healthy behaviours. Moreover, when primed with intergroup comparisons to White middle-class Americans, Black Americans who believed unhealthy behaviours to be more in-group defining decreased their beliefs in the utility of health behaviours (Study 5, Oyserman, Fryberg, & Yoder, 2007), which likely, ultimately impacts their motivation to engage in these behaviours. In another study based on Identity-Based Motivation framework, the desire to self-identify as a member of their ethnic group was found to motivate young Black and Hispanic males to engage in dysfunctional behaviours in the classroom, because these dysfunctional academic behaviours were perceived as characteristic of their respective ethnic groups (Oyserman, Brickman, Bybee, & Celious, 2006). Similar to contemporary theories regarding normative influence, Oyserman (2009) proposes that group members experience a 'readiness' to act in an identity-congruent manner when their group identity becomes salient, and doing so fulfills both the group member's epistemic and relatedness needs (Oyserman et al, 2006; Oyserman, Fryberg, & Yoder, 2007). From this perspective, the reason why individuals consume unhealthy food, or threaten their academic success, or engage in other types of collective dysfunction, is because these dysfunctional behaviours somehow came to be integrated as aspects of the group identity; and, once integrated, group members' perceptions of these behaviours are altered in such a way that increases the likelihood that these behaviour are enacted.

These bodies of research therefore serve to initiate a conversation regarding not only why the fundamentally social nature of our health behaviours is important, but why a reconceptualization of collective dysfunction as a collective issue is essential. From this perspective, dysfunctional behaviours are not the result of faulty individual cognitions, but rather, our actions are the result of identity-fit processes. If dysfunctional behaviour is accepted

as an identity-congruent norm, it simply feels right to the actor (Oyserman, 2007); group members may not even be consciously aware of the influence of group identity on their behaviour. As such, we are beginning to appreciate the challenge that faces certain groups: if a dysfunctional behaviour is integrated as part of a group's identity, group members will be motivated to engage in this behaviour both because the behaviour will feel like the 'thing to do' and may even confer importance feelings of in-group relatedness. Consequently, these motivating factors make eradicating a dysfunctional group norm far more difficult than could be imagined by any individual-based approach, and hence, may lend insight into why nearly all interventions in these contexts fail. However, the reason why groups adopt dysfunctional behaviours in the first place as characteristics congruent with their group identity, is not clear (Oyserman, Fryberg, & Yoder, 2007). Indeed, group members even sometimes reject and dissent from group norms that they perceive to be harmful (dysfunctional) to their social group (Packer, 2007). So how is it that some groups come to integrate dysfunctional behaviours as part of their group identity?

*The Theory of Identity-Based Motivation proposes that once a behaviour becomes integrated as part of a group's identity, the members of that group will generally be more motivated to enact that behaviour because doing fulfills epistemic and relatedness needs, and simply 'feel right'. Hence, the Theory of Identity-Based Motivation has put a spotlight on group identity as a factor underlying the phenomenon of collective dysfunction. Yet, to address the social crises of collective dysfunction experienced by many groups, I argue that we need to understand why group members internalize dysfunctional group behaviours because this is what ensures that a behaviour ultimately becomes part of a group's identity. Existing social psychological theory does not provide an easy answer to this question. For example, if*

*integrated, dysfunctional behaviour would be a negative aspect of group identity, but Social Identity Theory posits that group members strive to incorporate only positive and distinctive elements into their group identity (Tajfel & Turner, 1979) and a number of different studies demonstrating this principle provide evidence for this proposition (Jackson, Sullivan & Hodge, 1996). As such, the present research turns to group-level factors that can provide insight into why group members internalize dysfunctional group behaviours.*

**Collective Dysfunction: Distinctive Group Identities?**

It has been proposed that the reason certain groups adopt dysfunctional behaviours as part of their group identity is because these behaviours serve important group identity functions. Specifically, Oyserman, Fryberg & Yoder (2007) propose that dysfunctional group norms may function as a means of increasing the distinctiveness of group identity, and thus aid in distinguishing in-group members from out-group members. Generally, group members have a need to maintain a high degree of distinctiveness from other groups (Brewer, 1991) and sometimes do promote distinctive group traits at the expense of their collective self-esteem (Mlicki & Ellmers, 1997). However, it is unclear why some groups adopt dysfunctional but distinct group behaviours or traits, and others adopt distinct but healthy group behaviours or traits.

One possbility is that the need for intergroup distinctiveness may be especially high when group members experience a sense of intergroup threat, and that this may lead to a greater tendency to integrate dysfunctional behaviours as part of the group identity. One consequence of intergroup threat is an increase in the need to belong or relate with similar others (Bowles, 2009; Buss, 1990). Following an intergroup threat, individuals may aim to achieve an increased state of belonging within a social group by exaggerating the perceived similarity between themselves and

an in-group prototype (Spears, Doosje, & Ellemers, 1997), or increasing their identification with their in-group (i.e. the Rejection-Identification Model; Branscombe, Schmitt, & Harvey, 1999; Jetten, Branscombe, Schmitt & Spears 2001; Schmitt, Harvey & Branscombe, 2003). As disadvantaged groups experience greater intergroup threat than others, the members of disadvantaged groups may also experience chronically higher belongingness needs. However, threatened groups are also especially careful as to who they admit and accept as one of their own (Blascovich, Wyer, Swart, & Kibler, 1997; Pauker et al., 2009; Pauker, Rule, & Ambady, 2010; Pettrigrew, Allport, & Barnett, 1958). Disadvantaged group members may therefore be required to consistently and effectively demonstrate their group membership to others.

To this end, enacting group-distinctive norms may be a highly effective way of communicating one's social identity to others (Rimal & Real, 2003); indeed, behavioural norms have been found to affect the emotional responses of group members, but only after acquiring identity-relevance by differentiating the in-group from a rival out-group (Christensen, Rothgerber, Wood, & Matz, 2004). For example, in a study on bullying among schoolchildren, Ojala and Nesdale (2004) found that undesirable group members (i.e. bullies) were judged to be more likely to be retained as group members when their undesirable behaviour (i.e. bullying) was perceived to protect the distinctiveness of the group identity (i.e. the victim threatened in-group distinctiveness). Moreover, anthropological evidence compiled and analyzed by Henrich (2009) suggests that chronic intergroup threat leads groups to increase the threshold for group membership by adopting more severe initiation rites (i.e. scarification). Finally, testing the hypothesis that increased saliency of religious group membership might activate differential responses in pain tolerance behaviour, Lambert, Libman & Poser (1960) found that when their collective esteem was threatened through an unfavourable comparison to a relevant outgroup,

Jewish and Protestant participants exposed themselves to unnecessary physical pain in order to challenge this threat. Hence, group members who experience a sense of intergroup threat may be more likely to enact distinctive group norms to satisfy their need for intergroup differentiation and belonging, even when these norms are dysfunctional. As disadvantaged group members tend to experience greater intergroup threat, research demonstrating the importance of enacting distinctive group norms for social acceptance may partially explain why collective dysfunction tends to affect disadvantaged groups more so than advantaged groups.

Given the importance of maintaining one's position within a social group for our daily lives and well-being, it may not be surprising that individual's choose to engage in dysfunctional behaviour once the behaviour becomes widely accepted within the group as an important indicator of group status or membership. The mystery though is why some groups adopt these dysfunctional behaviours to serve these functions in the first place when other more functional behaviours might serve the same purpose. Many groups adopt customs, rituals, or norms that are not dysfunctional but do effectively validate group membership, and increase one's social status. For example, group membership is ritualized among the Jewish community by the bar-mitzvah for young men, or bat-mitzvah for young girls, both of which generally requires Jewish adolescents to deepen their understanding and knowledge of Judaism in some way, and includes a community celebration, sometimes accompanied by gifts (Rich, 2011). These customs are designed to increase the initiate's well-being and personal success as a member of the group. Given the many different non-dysfunctional and distinctive behaviours that may serve as indications of group membership, why for some groups do distinctive *dysfunctional* behaviours come to serve this purpose? This question has been the driving force of the present program of research.

*Group members strive to achieve group identities that allow them to easily distinguish their group from other groups. The ability to easily determine who is, and who is not a group member is especially important for groups under threat, such as disadvantaged groups. To this end, enacting distinctive group behaviour may be a means through which to reliably demonstrate one's group membership. As such, dysfunctional group norms that serve to increase group distinctiveness would provide some benefit to group members and may then be more likely to be integrated as part of the group identity by group members. Yet, why would groups adopt dysfunctional (as opposed to non-dysfunctional) behaviours as a means to increase intergroup distinctiveness? In the present program of research, I explore the conditions under which group members will internalize dysfunctional, but distinctive group norms. This proposition was tested among a variety of different groups, and in some cases, in contexts where an intergroup threat is made salient (Manuscript II). However, my review of the literature pertaining to collective dysfunction has led me to believe that the attributions for dysfunctional group norms, or the way in which group members construe dysfunctional group norms, may also play a role in the internalization process. Insights from attribution research therefore led me to also test the influence of different construals that can be made by group members with respect to dysfunctional, but distinctive group norms.*

**Attributions for Collective Dysfunction**

Much research attests to the importance of following group norms for group members to relieve intergroup threat, manage the impressions they make on others, and achieve power and dependence in a social group (Gelfand & Harrington, 2015). Yet, little empirical research to date has addressed the meaning group members associate with dysfunctional group norms, and how this meaning impacts their decision to engage in, or internalize the behaviour or not. However,

this may be crucial. For example, Lambert, Libman, and Poser (1960) investigated intergroup comparisons on an individual's willingness to experience pain, and found that threats to a religious group member's group identity increased their willingness to engage in a dysfunctional behaviour. Although not tested directly, the subtext of dysfunctional behaviour, in this case exposing oneself to unnecessary pain, was considered to be key. Specifically, the authors believed that withstanding pain would feel relevant to the participants due to the religious connotations associated with physical suffering. In this case, the dysfunctional behaviour perhaps symbolized religiosity, and therefore, felt consistent with their religious identity. When their religious identity came under threat, the contextualized meaning associated with pain tolerance in this case may have acted as a motivating factor for group members. Would the authors have obtained the same results with another dysfunctional behaviour that did not feel consistent with the participants' religious identities? No study conducted to date has experimentally manipulated and measured the impact of different construals for dysfunctional group norms on the behaviour of group members.

Given the absence of empirical research on this topic, I was compelled to investigate the impact of group-level construals of dysfunctional group norms on the motivation of group members for two reasons. For one, there is considerable evidence to suggest that the way in which we interpret the behaviour of ourselves and others has significant consequences for how we will behave in the future. Since Heider's (1920; as cited by Malle, 2004) proposition that individuals make causal inferences regarding the behaviour of others, theories of behavioural attribution and motivation have been fine-tuned by influential psychologists including Kurt Lewin, Harold Kelley, John William Atkinson, Julian Rotter and Edward Jones and Roger Nisbett (Weiner, 2010). These theories are predicated on the common underlying assumption

that when the behaviour of another individual is made salient and relevant, human beings will reliably make sense of that behaviour based on certain reliable principles, determining our reaction to this behaviour (for review of attribution theory and its theoretical underpinnings, see Weiner, 2012). Hence, in the case of collective dysfunction, group members likely do assign some form of meaning to their own dysfunctional behaviour, and the dysfunctional behaviour of their fellow group members.

Second, although much of the research concerning behavioural attributions focuses on interpersonal situations, there are several indications that individuals also take group-level information into account when making judgments regarding the underlying cause of an individual, or group's behaviour. Integrated theoretical models of causal attribution processes suggest that individuals are more likely to make attributions to group-level causes for group-level behaviour (Hewstone & Jaspars, 1987; Kelley, 1967, as cited by McArthur, 1972), and there is some support for this proposition. For example, McArthur (1972) found that when a target individual was believed to react the same way to a particular stimulus as other individuals, the cause of the target individual's behaviour tended to be attributed to group factors. On the other hand, when a target individual's reaction to a particular stimulus differed from other individuals, participants tended to attribute his or her behaviour to personality, or individual differences. Similarly, a study by Griffin & Buehler (1993) demonstrates that group members tend to rationalize even incorrect (in this case unnecessarily risky) group behaviour by constructing behaviourally-consistent construals of the situation that justify the group's response. Moreover, in-group members may be especially likely to attribute the dysfunctional behaviour of their fellow group members to external, situational factors compared to out-group members. This is because the attributions individuals make regarding the behaviour of their fellow group

members have important practical consequences for the collective esteem, intergroup relations, and personal esteem of group members (Pettigrew, 1979).

In short, some research suggests that group members are motivated to understand the behaviour of their fellow group members, are more likely to attribute dysfunctional group behaviour to group-level factors and rationalize the behaviour in such a way so as to protect their collective esteem. When it comes to collective dysfunction, therefore, group members may often aim to either (1) interpret the dysfunctional behaviour of their fellow group members as either a reaction to an external cause, such as a collective experience, or (2) redefine the behaviour so it reflects positively on the group, thereby maintaining collective esteem. Would group members who construe a dysfunctional behaviour as a reaction to a collective experience, or as a behaviour that reflects positively on the group, be more likely to internalize this behaviour? These two questions are the foundations of the two manuscripts presented in the present thesis.

*Theories of attribution suggest that attributions regarding the underlying cause of group behaviour, including collective dysfunction, likely differ in nature from attributions made in interpersonal situations. Specifically, group members are more likely to attribute in-group collective dysfunction to collective, external factors, or, somehow redefine the dysfunctional group behaviour as a positive aspect of group identity. The present program of research explores the possibility that group members are also more likely to internalize a distinctive, dysfunctional group behaviour once it is construed to be the result of a collective experience and/or construed to reflect positively on the group. The latter proposition – that behaviour is more likely to be internalized by group members when it is seen to reflect positively on the group - is more consistent with influential theories of social psychology, and may feel more intuitive. However, the former proposition perhaps requires further explanation. In the following section, I*

*present different examples of collective dysfunction that share a common feature: group members in all cases tend to attribute their group's collective dysfunction with a particular collective experience, namely, collective intergroup trauma.*

**Collective Dysfunction & Collective Intergroup Trauma**

Several qualitative studies and anecdotal accounts have been conducted among groups experiencing collective dysfunction. Many of these accounts suggest that group members do associate, and construe their group's collective dysfunction to be the result of their group's collective intergroup trauma(s). For example, unhealthy eating habits among Southern Black Americans are perceived to symbolize Black resilience in the face of collective suffering during Slavery and the period leading up to the civil rights era (Hurt, 2012). Similarly, qualitative interviews conducted among a sample of Ukranian survivors of the Holodomor Genocide and their descendants indicates that these survivors and their families attribute dysfunctional behaviours in their group to the genocide. Specifically, they attribute high rates of risky sexual activity and drug and alcohol abuse among young Ukrainians to intergenerational trauma rooted in the survivor mentality necessitated by the horrors of Holodomor genocide of 1932-33 (Bezo & Maggi, 2015). Returning to my primary exemplar, much evidence attests to the real psychological links that exist between the many traumatic experiences subsumed under the term of 'colonialism' for Indigenous peoples, and substance abuse in their communities (Beauvais & Laboueff, 1985; Brave Horse, 1992; Johnson, 2016; Shkilnyk, 1989; Taylor & de la Sablonnière, 2014; Truth and Reconciliation Commission of Canada, 2015a; Whitbeck et al., 2004). Other anecdotal evidence of the link between collective trauma and dysfunctional behaviour exist as well. For example, Toma (2011) describes the way in which systemic 'genocide, slavery, religious persecution, colonialism and gender oppression' in Egypt has given rise to endless

cycles of violence which are perpetuated by a lack of acknowledgement for the collective traumas experienced by the population. At least in some cases of collective dysfunction, the dysfunctional behaviour of group members is considered undesirable in nature, but does appear to carry some profound significance for group members through their association with a collective intergroup trauma. Does an association between a dysfunctional group behaviour and a collective intergroup trauma lead to greater internalization of the dysfunctional group behaviour among group members? This question has yet to be empirically investigated. I explore this question in the present thesis.

**Internalizing Dysfunctional Group Behaviour**

Why do some groups persist in engaging in behaviour that is clearly, both to themselves and others, dysfunctional? An examination of collective-level factors suggests that groups that experience collective dysfunction have likely integrated the dysfunctional group behaviour into their group identity. When this occurs, group members are more likely to be motivated to engage in the dysfunctional group norm, rendering the behaviour more difficult to change and more resilient to traditional intervention approaches. Understanding why some groups integrate dysfunctional behaviours as part of their group identity requires greater understanding of why some group members internalize dysfunctional group behaviours.

Previous research has demonstrated that group members will comply with group norms with which they do not agree, and have not internalized, in the presence of other group members (e.g. Abrams & Hogg, 1990; Asch, 1951; Dittes & Kelley, 1956). So without internalization, an individual's dysfunctional behaviour can be extinguished by removing him or her from a dysfunctional social environment, or by simply changing his or her perception of the group norm. For example, Goldstein, Cialdini & Griskevius (2008) used signs in hotel rooms to

promote a desirable towel-reuse norm, and found that this approach effectively increased towel reuse. However, altering behaviour which has been internalized by individuals is far more difficult. Internalized behaviour is behaviour that an individual has integrated into his or her self-concept, such that the individual is autonomously motivated to enact they behaviour, across a variety of situations, and even in the absence of any social pressure to do so (Ryan & Connell, 1989). The importance of the internalization of a behaviour in predicting the likelihood that an individual will reliably engage in this behaviour has been demonstrated by influential theoretical frameworks, namely, Self-Determination Theory (SDT) (Deci & Ryan, 2000). However, although SDT also demonstrates that the presentation of certain norms may impact the likelihood that they will be internalized by individuals (i.e. information presented in an autonomy-supportive manner is more likely to be internalized), little is known about why certain behaviours become internalized in the first place (Etzioni, 2000). Specifically, a growing awareness regarding the 'irrational' nature of many social norms, has led to a surging interest in the topic of how norms are transmitted socially. In the case of 'irrational' norms, historical forces, including traditions, customs and habits of the group appear to be a key factor in the transmission of social norms. The transmission of a social norm in this way though has been proposed to depend on the internalization of the norm among individuals of influence (Etzioni, 2000). For example, it has been demonstrated that the internalization of values among children largely depends on which values have been internalized by their parents, and communicated in the home environment. On a social scale, the internalization of group norms may be manifested in institutions or organizations that promote group norms (i.e. through churches, or justice systems). Groups or individuals who have internalized a norm act as a kind of 'keeper of the flame' in that they continue to promote the norm even through social change, time, and across

different contexts (Etzioni, 2000). Hence, those who have internalized a dysfunctional group norm are both (a) those individuals whose behaviour will be the most resistant to change and (b) those individuals whose own behaviour is most likely to maintain a dysfunctional group norm across time and space. The internalization of dysfunctional group behaviours by group members, therefore, is a foundation upon which collective dysfunction can develop, and be maintained across different contexts and time. For this reason, the present program of research is primarily concerned with what group-level factors are most likely to lead to the internalization of a dysfunctional group norm among group members.

When measuring the internalization of a group norm, researchers have made the distinction between the public behaviour of group members, and the private behaviour of group members. Public behaviour has been traditionally considered subject to the social pressure to conform, and therefore not perceived as indicative of any internalization on the part of the actor. On the other hand, private behaviour has been operationalized as a measure of internalization because group members enact private behaviour freely, in the absence of any social pressure to conform (Abrams & Hogg, 1990). Hence, the present program of research investigates how different group-level construals of dysfunctional group norms influence the private behaviour of group members.

**The Present Program of Research**

Why would group members internalize dysfunctional group behaviour? One possibility tested here is that group members internalize behaviour to the extent that it can be construed so as to reflect positively on their group, and increase intergroup distinctiveness. Furthermore, the present program of research introduces a novel proposition: as a result of group-attributional processes, dysfunctional behaviour becomes psychologically linked to a collective intergroup

trauma for victimized group members. As such, the dysfunctional behaviour itself may signify a pivotal point in a group's definition, thus further cementing its role in group identity. In short, I will aim to demonstrate that understanding why group members internalize dysfunctional group norms requires insight into what these dysfunctional group norms actually represent to group members.

Specifically, in Manuscript I, I test the hypothesis that group members are more likely to internalize a distinctive dysfunctional group norm if this group norm is also perceived to reflect positively on the group. In Manuscript II, I present a new proposition and provide evidence for this proposition across four studies: in the context of a specific threat to group identity, namely out-group denial of a collective intergroup trauma experience, group members will be more likely to internalize a dysfunctional group norm that symbolizes their trauma.

# MANUSCRIPT I: INTERNALIZING COLLECTIVE DYSFUNCTION: WHEN GROUP MEMBERS CONSTRUE DYSFUNCTIONAL GROUP NORMS TO BE POSITIVE AND DISTINCTIVE ASPECTS OF GROUP IDENTITY

Cooper, M.E. & Taylor, D.M. (2017). Internalizing collective dysfunction: When group members construe dysfunctional group norms to be positive and distinctive aspects of group identity. Unpublished Manuscript.

Abstract

Groups strive towards positive and distinct identities (Tajfel & Turner, 1979); yet, group members do sometimes integrate negative (dysfunctional) behaviours into their group identity (e.g. Hurt, 2012), thus becoming motivated to enact these behaviours (Oyserman, 2009). Yet, why would group members, who strive towards positive and distinctive group identities, internalize dysfunctional (negative) group behaviours? The present study explores the possibility that group members internalize dysfunctional group behaviour when it is construed to bolster the positive distinctiveness of their group identity. We test this proposition in two ways: first, we explore the link between frequency of eating poutine, an unhealthy but culturally relevant dish, and positive and group identity-distinctive construals among working-class French Canadians (N=69). Next, using an experimental paradigm and a modified cold-pressor task, we investigate the conditions under which group members internalize a dysfunctional group norm in the laboratory. Consistent with previous research (Abrams & Hogg, 1990), we measured internalization by comparing private vs. public dysfunctional norm adherence. Across three different norm-construal conditions (non-distinctive norm vs. distinctive/positive vs. distinctive/ negative), we found support for our hypothesis. Internalization was only observed when the dysfunctional group norm was construed to increase the positive distinctiveness of group identity.

## Introduction

There is an assumption that for the most part, people seek reward and look to avoid harm. Yet, there are many examples of groups comprised of seemingly rational people who engage in, en masse, what even they consider to be, unhealthy, risky, costly, dangerous, or in short, *dysfunctional* behaviours. For example, some members of the tattooed community choose to display highly conspicuous tattoos on their face, neck, or hands that effectively limit their upward social mobility for the rest of their lives (Hart, 2014). Yet, for these individuals, getting a neck or face tattoo may feel like an important part of their identity as a tattooed person. The tattooed community could be considered marginal yet *collective dysfunction*, the phenomenon of when a dysfunctional behaviour becomes so widespread within a particular group that it could almost be considered normative, is not limited to fringe cultures; sorority sisters have been known to intentionally engage in massive binge-eating cycles (Crandall, 1988), gang members submit to brutal beatings referred to as 'street baptisms' (Vigil, 1996), blue-collar workers in Africa have been found to willingly and deliberately engage in unprotected sex with high-risk partners (Campbell, 1997), and, there are seemingly many examples of youth engaging in high-risk activities (Rawn & Vohs, 2010). For example, a 2014 meme referred to as "Neknominating" led youth from all over the world to nominate their online friends to engage in increasingly dangerous drinking behaviour and then post videos or pictures of the behaviour on their social media accounts. Found to be responsible for at least two deaths, (Kuruvilla, 2014), the phenomenon of Neknominating, like many cases of collective dysfunction, underscores the importance of understanding how dysfunctional behaviours become *internalized* by group

members, or so ingrained in an individual group member's sense of who they are (Ryan & Connell, 1989), that they willingly engage in this behaviour, despite considerable personal risk.

**Dysfunctional Behaviour in Groups**

The field of social psychology provides a number of different perspectives on the reasons why individuals might choose to engage in dysfunctional behaviour (e.g. self-presentation concerns; Martin-Ginis & Leary, 2004; the theory of planned behaviour, Ajzen, 1991; the health-belief model, Rosenstock, 1974). However, until recently, frameworks designed to understand why individuals engage in dysfunctional behaviour have been largely focused on individual-level factors. Recent theorizing by Oyserman (2009) though highlights the importance of considering one group-level factor, namely, group identity, when determining the motivational antecedents of the dysfunctional behaviour of group members. Comprised of the perceived knowledge, values, attitudes, and beliefs that we associate with a group, a group identity also incorporates behaviours that group members perceive as being normative within their group (Tajfel, 1982). As the psychological engine of group behaviour, the study of social influence, conformity, and social identity has extensively demonstrated the powerful influence that group identity and group norms exerts on the beliefs, attitudes and behaviours of individual group members (e.g. Oakes, Haslam & Turner, 1991). Extending these findings within a motivational framework, identity-based motivation research proposes the following: when an individual group member perceives a particular behaviour, even a dysfunctional one, as being congruent with their group identity, they will experience greater motivation to engage in this behaviour (Oyserman, 2009). Moreover, enacting a group identity-congruent behaviour may also fulfill epistemic and relatedness needs (Oyserman, Fryberg & Yoder, 2007). This proposition accords with many observations pertaining to the interplay between collective dysfunction and social status in groups.

Specifically, engaging in dysfunctional group behaviour seems to confer some social benefits such as increased in-group acceptance, or social status (Crandall, 1988; Mars, 1987; Rawn & Vohs, 2010; Vigil, 1996). Hence, group members may sometimes internalize dysfunctional behaviour that they perceive to be part of their group identity.

However, group members do not always internalize all dysfunctional behaviour that they perceive to be part of their group identity. In the case of dysfunctional group norms specifically, highly identified group members may instead reject, and dissent from these group norms that they perceive to be harmful to themselves and other members of their group (Packer, 2007; Packer, Fujita & Chasteen, 2013). Yet, in other cases, greater in-group identification has also been found to lead to an increased motivation among group members to enact dysfunctional group norms that they perceive to be part of their group identity (Louis, Davies, Smith & Terry, 2007). Thus, a crucial next step in this line of work is to identify the conditions under which group members are most likely to internalize a dysfunctional group behaviour. Taking a group identity perspective, the goal of the present research is to identify group factors that promote the internalization of a dysfunctional group norm among group members.

**Internalizing Dysfunctional Group Norms**

To address this question of internalization, we make an important distinction between two different types of dysfunctional behaviour: dysfunctional behaviour enacted *privately* by group members, and dysfunctional behaviour enacted *publically* by group members. Although group members may be willing to enact dysfunctional group norms in the presence of other group members in order to be accepted within the group, the classic group conformity literature demonstrates that they are often not willing to enact these same behaviours privately (Abrams & Hogg, 1990; Asch, 1956; Dittes & Kelley, 1956). When a group member conforms publically but

privately dissents from group norms, researchers have typically considered this group member to be engaging in strategic compliance. That is, he or she acts to appear normative in the presence of other group members, but does not personally endorse the norm. On the other hand, a group member conforming both publically and privately to a group norm signals *internalization* of this norm (Abrams & Hogg, 1990). As such, assessing the internalization of a group norm requires measurement of norm adherence among group members in both public and private settings.

In the literature concerning dysfunctional behaviour in groups, a distinction is rarely made between the behaviour group members enact publically, and the behaviour group members enact privately. This may be due to the fact that much dysfunctional behaviour takes place in the presence of other group members. However, we would argue that this is not always the case; Group members carry the contents of their group identity around with them both in public and *private* spheres. For example, some groups have internalized unhealthy eating as part of their group identity (i.e. Black Americans; Oyserman, Yoder & Fryberg, 2007). People often dine in the presence of others; in this case, an individual's choice of meal may represent strategic compliance, *or* internalization of their group's dysfunctional norm. However, people also often eat alone. The choice of meal an individual makes privately is an indication of whether they have internalized the dysfunctional group norm may act as a barometer of the degree to which they have internalized a dysfunctional group norm (Abrams & Hogg, 1990). To date though, no study has investigated the factors that may lead individuals to enact dysfunctional group behaviour under both public and private conditions, signaling internalization of the behaviour. Yet we argue that this question is critical: once an individual internalizes a behaviour, that individual will be motivated to engage in the dysfunctional behaviour when other members of their social group are present, and even when they are not present. Without internalization, helping group

members overcome dysfunctional behaviour is much simpler. For example, intervening to alter an individual's dysfunctional behaviour may be as simple as removing that individual from the detrimental social environment. However, once internalization takes place, any alteration to this individual's behaviour requires a different approach altogether (Etzioni, 2000). At the group level, understanding which factors lead to mass internalization of dysfunctional behaviour by group members, leading to collective dysfunction, may provide important insights into how these issues can be addressed.

**Why do Group Members Internalize Dysfunctional Group Norms?**

Adopting a Social Identity Theory (SIT; Tajfel & Turner, 1979) perspective, we propose that the motivation to maintain a positive and distinctive group identity leads group members to internalize dysfunctional norms, or behaviours associated with their group identity. A fundamental assumption of SIT is that group members strive to achieve a positive and distinct group identity. Generally speaking, group members want their group to be held in high esteem by other groups, and want the distinction between their group and others groups to be clear. Indeed, positive group evaluation in the form of collective self-esteem has been found to be an important predictor of well-being for group members (studies 4 & 5; Jetten et al., 2015). Additionally, having a clear concept of what it means to be a member of a social group has been linked to higher self-esteem and well-being (Usborne & Taylor, 2010), whereas an ability to distinguish one's group from other groups is required for a healthy sense of self (Brewer, 1991). Dysfunctional group norms, as we define them, are characterized by negative consequences for group members and/or the group. At first glance then, the phenomena of group members internalizing dysfunctional group behaviours appears to be at odds with propositions from SIT. However, dysfunctional behaviours may not always be perceived to reflect negatively on the

group and group members. Sometimes, dysfunctional group norms may be reinterpreted so as to reflect positively on the group. Binge-drinking, for example, may be interpreted by group members to be either a demonstration of toughness and resiliency (positive reflection), or, as a lapse in self-control (negative reflection) (e.g. Mars, 1987). Furthermore, like other group behaviours, dysfunctional group norms can also be perceived to be group distinctive or not. Some group members may feel that the way they binge drink, because it involves a certain type of alcohol and/or a specific ritual, is distinctive group-identity relevant behaviour (Mars, 1987). Other groups though may perceive no difference in the way they binge drink compared to the way other groups binge drink. As such, dysfunctional group norms may, in some cases, be framed to increase the positive distinctiveness of group identity.

With regards to dysfunctional group behaviour, there is some indication that the distinctiveness of the behavioural norm alone may be sufficient for internalization to take place. Specifically, Oyserman, Fryberg & Yoder (2007) suggest that the promotion of unhealthy behaviours as part of ethnic minority identity may be the result of this norm being framed in opposition to White middle-class group norms, thereby increasing intergroup distinctiveness. Similarly, other researchers have also found that groups sometimes emphasize negative group attributes at a cost to positive social identity if these attributes also serve to increase group-identity distinctiveness. Specifically, Mlicki and Ellemers (1996) found that Polish participants promoted negative traits as aspects of their Polish identity in order to maintain distinctiveness from a relevant outgroup, the Dutch. However, the authors propose that the need for intergroup distinctiveness in this case may have been inflated due to the unique history of the Polish people in Europe. Although this suggests that the need for positive group identity is not necessarily universal, decades of research on intergroup comparisons and in-group bias, which is considered

as a means by which group members achieve and maintain positive collective esteem, suggests that groups generally do strive for positive group evaluation. Specifically, taking into account different strategies used to achieve positive group evaluation by low vs. high status groups, a meta-analysis by Mullen, Brown and Smith (1992) finds wide support for the phenomenon of in-group bias in general. Alternatively, group members may also employ social creativity strategies in order to maintain positive group evaluation. In a series of studies, Jackson, Sullivan and Hodge (1996) presented group members with negative in-group traits. In response, group members altered their interpretations of these traits in order to decrease their perceived negativity and maintain positive group evaluation. These studies support propositions from SIT that group members strive for positive and distinct social identities. Hence, when presented with dysfunctional, but distinctive group norms, group members may also tend to construe the behavioural norms more positively. Yet, to date, no research has explored whether construals regarding a group's dysfunctional behaviour – and specifically whether this behavior is perceived to increase the positive distinctiveness of group identity or not – influences the tendency for group members to internalize this behaviour. Consistent with these studies and SIT, we propose that group members will be most likely to internalize dysfunctional group behavioural norms – i.e. enact it both privately and publically - when it is construed to increase the positive distinctiveness of their group identity.

**The Present Research**

Our theorizing was predicated on the assumption that group members have clear associations that link dysfunctional behaviours to their group identity. Hence, before testing our hypothesis in a laboratory experiment, we first conducted a survey in a real-world context to validate the basic underlying assumption of our hypothesis: group members do in fact, associate

dysfunctional group behaviour with their group identity, and these associations impact their behaviour. In Study 1, therefore, we explored the significance of publicly and privately eating poutine, a well-known unhealthy dish, for French Canadian identity. The documentation of an association between a real group identity and a real dysfunctional behaviour in the context of group members' living out their everyday lives would set the stage for a more controlled investigation of the factors related to the internalization of dysfunctional group behaviour. Thus, the aim of Study 2 was to generate a group identity among participants in the laboratory, and then introduce a new, dysfunctional group behaviour (norm) to the group. We then sought to measure the influence that different construals of the dysfunctional group norm, in terms of valence and distinctiveness, would have on the public and private behaviour of group members.

## Study 1

To explore the link between group identity and dysfunctional group behaviour, we aimed to conduct a survey among a real-world group members regarding their associations with a dysfunctional group behaviour, and the frequency with which they enact this dysfunctional behaviour. To this end, we conducted surveys regarding poutine consumption among patrons of a well-known restaurant chain in a working-class French-speaking area of Montreal. Poutine is a traditional French-Canadian dish that is very popular in Québec and has become more popular outside of Québec in recent years (Wong, 2010). A classic poutine consists of a base of French-fried potatoes topped with cheese curds and covered in hot velouté, a gravy-like sauce. A regular-sized classic poutine is a bewitching medley of fat, sodium, cholesterol and carbohydrates, containing between 510-1110 calories (Bergeron, 2015). Poutine is therefore a revered, but notorious Québec dish served regularly in restaurants across the province, and often a favorite of late night party-goers and gourmands alike. Yet, by nutritional health standards,

poutine should not be eaten by anyone more than a few times a year (Ogilvie, 2010). As such, consuming poutine regularly is a dysfunctional, yet highly significant cultural norm among citizens of Québec. In the present study, therefore, we explore whether the cultural connection individuals have with poutine are associated with the frequency with which they consume poutine.

As we were interested in both the private behaviour and public behaviour of group members, we surveyed participants regarding both the frequency with which they ate poutine in general, and ate poutine alone. We hypothesized the more group members (1) associate poutine with their group identity and (2) construe poutine to be a positive and distinctive aspects of their group identity, the more likely that group members will be to report higher private and general poutine consumption. To help us further interpret our results in the context of dysfunctional behaviour, we also measured participants' general beliefs regarding how unhealthy they believe poutine to be.

## Method

### Participants

We surveyed 69 patrons of a well-known Québec restaurant chain specializing in poutine in a working-class, Francophone-dominated borough in Montreal, Québec, Canada. Three of the surveyed customers indicated to us that they did not eat poutine for medical reasons (e.g. allergies). As such, we removed these three individuals from our correlation and ordinal regression analyses but retained their responses regarding what poutine represents to them, as they may still be aware of poutine's cultural significance even if they cannot eat it. Of the 66 individuals retained in our primary analysis, 58% indicated that they spoke French only, another 18% indicated that they spoke French and a little English, and 24% reported that they were fully

bilingual, speaking both French and English. The majority of our sample was male (65%), and all participants had lived in Québec for a significant amount of time (ranged from 18-85 years, *M*=42.36, SD=16.28).

**Procedure**

We surveyed individuals who had ordered food in the poutine restaurant. Our data collection was spread over 11 different data collection days beginning in mid-summer and ending in mid-autumn. Individuals were approached and asked if they would like to participate in a brief survey about their attitudes and beliefs about poutine, and their eating habits. If they agreed, participants completed the surveys at the tables in the restaurant alone.[1] All surveys were completed in French.

**Measures**

We aimed to investigate the link between the construal of poutine as a positive and distinctive aspect of group identity and the frequency of poutine consumption. Given the unique setting and population studied, we felt it necessary to develop our own items that asked about the positivity and group-distinctiveness associated with poutine in a straightforward manner. Hence, we created our own positive distinctiveness of poutine scale, and group identity relevance of poutine scale. We also sought to measure both the association between an individual's general beliefs regarding the unhealthiness of poutine on the frequency of their poutine consumption. We therefore also asked participants to report their feelings regarding the unhealthiness of poutine. All surveys were conducted in French. All materials presented in this paper have been translated from French into English (please see Appendix A for all measures).

[1] One customer had a hard time reading the survey due to a medical condition so they completed the survey with the help of a research assistant.

**Positive distinctiveness of poutine.** We measured the degree to which participants construed poutine as a positive and distinctive aspect of their group identity using six items; three measuring positive associations (e.g. *"Poutine signifies something positive about Québec culture"*), and three measuring perceived cultural distinctiveness of poutine (e.g. "*Poutine is a distinctive element of Québec culture").* All items were rated on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Combining these items, we found our scale to be highly reliable, ($\alpha$ =.83).

**Group identity relevance.** To quantify poutine's relevance for group identity, we developed four straight-forward items designed to measure the extent to which poutine carries some group identity relevance for our participants, (e.g. "*Real Quebecers eat poutine because it is part of the culture*"; $\alpha$ =.72). All items were rated on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

**Positive poutine associations.** To gain greater insight into the positive associations individuals in our study made with poutine, we included one open-ended item in our survey. This item asked participants to answer the following question: *"What, if any, positive associations do Quebecers have with poutine?"* We translated their answers to this question into English and used qualitative data analysis to categorize their answers into 3 different categories: non-cultural associations (e.g. it's delicious), group-identity associations (e.g. Québec traditions), and absence of positive association.

**Health beliefs regarding poutine.** To determine the health beliefs of our participants regarding poutine, we asked participants the following leading question: "*How unhealthy is poutine?"* Participants responded using a 7-point scale ranging from 1 (*very unhealthy*) to 7 (*very healthy*).

**Frequency of poutine consumption.** We sought to measure both the general frequency of poutine consumption, as well as the frequency of private poutine consumption. To measure the frequency of general poutine consumption, we simply asked participants to report how often they ate poutine in general. To measure the frequency of private consumption, we asked participants to report how often they ate poutine alone. Participants responded to these questions using an ordinal frequency scale, with ten different possible categories of response ranging from once a day to never. To simplify and increase the reliability of our regression models, we combined some of these frequencies to create four different categories of frequency: (1) Frequent consumers (once a week or more), (2) occasional consumers (once every few weeks to once every few months), (3) rare consumers (once a year to once every few years), and (4) non-consumers (never).[2]

## Results

### Data Analyses Strategy

To determine the impact of group identity relevance, health beliefs, and positive distinctiveness construals on the frequency of an individual's general and private poutine consumption, we performed an ordinal regression analysis with proportional odds. In doing so, we were able to determine the effects of our predictor variables on the likelihood that an individual would be in a higher frequency of general and private poutine consumption category. One of the assumptions of ordinal regression analysis is no multicollinearity among predictor variables. Group identity-relevance, positive distinctiveness construal, and health beliefs of poutine measures were highly correlated (please see table 2). As such, we were required to run a separate analysis with each predictor variable on frequency of general poutine consumption and

[2] Please note that using the ten original categories does not change our overall results.

frequency of private poutine consumption to avoid violating the assumption of multicollinearity. The results of all our regression models are presented in Table 3.

| Response category | % |
|---|---|
| Quebec-specific/Cultural associations<br>*e.g. simplicity, resourcefulness, agricultural traditions, community, joie de vivre, "a Quebec dish."* | 34.78 |
| Only food-specific associations<br>*e.g. delicious, gastronomy, "Fine cuisine"* | 13.04 |
| Answered "no associations" | 7.24 |
| Other response not categorized | 5.80 |
| Did not answer | 39.13 |

*Table 1. Frequency of response categories for what poutine represents to participants*

**Positive poutine associations**

To ascertain the type of associations participants in our study might have with poutine, we considered the responses of all participants (N=69) to the open-ended question: *"What, if any, positive aspect of Québec culture does poutine represent to you?"* Over half of the participants in our study answered this question (60.8%). Of those that answered, a few individuals indicated that poutine did not represent anything positive to them (11.9%). Of those who answered, 57.14% indicated that they had some type of specific positive association(s) with poutine that would link the behaviour to Quebec identity. Common responses in this category includes: community, simplicity and Quebec-distinctive food. Another 21.4% simply reported positive attitudes towards poutine that were food-specific, for example: "delicious," and "young people like it!" Four individuals wrote other responses that could not be categorized. A complete list of responses (translated from French), with their response categories are provided in Appendix A.

**Correlations**

We computed bivariate correlations for ordinal data using Spearman's rho (N=66). The results of our correlation analyses indicate that group identity relevance of poutine, positive distinctiveness construals of poutine, and health beliefs regarding poutine are all moderately-highly correlated. These results are presented in Table 2.

| | Identity Relevance | Health Beliefs | Private Frequency | General Frequency |
|---|---|---|---|---|
| Positive Distinctiveness | .544*** | .269* | .248* | .371** |
| Identity Relevance | | .380** | .360** | .264* |
| Health Beliefs | | | .170 | .090 |
| Private frequency | | | | .641*** |

Note: *p<.0.05, **p < 0.01, ***p<0.00

*Table 2. Spearman correlation matrix among positive distinctiveness, group identity relevance of poutine, health beliefs and the private and general frequency of poutine consumption*

**Ordinal Regression Analyses**

We ran six separate ordinal regression analyses to determine the predictive power of (1) health beliefs regarding poutine (range=6.0, *M*=3.13, SD=1.62), (2) group identity relevance of poutine (range=5.5, *M*=4.37, SD=1.38), and (3) positive distinctiveness of poutine (range=5.33, *M*=4.94, SD=1.34), on the frequency of (a) private or (b) general poutine consumption. Regarding private poutine consumption, 24.6% of participants said they frequently ate poutine privately, 47.7% said that they occasionally ate poutine privately, 12.3% said that they rarely ate poutine privately and 15.4% said that they never ate poutine privately. When asked about their

general poutine consumption, 38.7% of participants said they ate poutine frequently, 50.0% said that they ate poutine occasionally, 8.1% said that they ate poutine rarely and 3.2% said that they never ate poutine.

With regards to positive distinctiveness of poutine, and the identity-relevance of poutine, an ordinal regression analysis revealed the predicted relations: an increase in positive distinctiveness of poutine was associated with an increase in the odds of eating poutine more frequently (both privately and in general). Moreover, an increase in identity-relevance of poutine was also associated with an increase in the odds ratio of eating poutine more frequently (both privately and in general). Additionally, we did not find that an increase in health beliefs regarding poutine was associated with an increase in the odds ratio of eating poutine more frequently (both privately and publically). For the results of our ordinal regression analyses, please see Table 3.

| Type of Poutine Consumption | % in category | | | | Odds ratios | | |
|---|---|---|---|---|---|---|---|
| | Frequent | Occasional | Rare | Never | Positive Distinctiveness | Identity Relevance | Health Beliefs |
| Private | 24.6 | 47.7 | 12.3 | 15.4 | 1.52* | 1.45* | .907 |
| General | 38.7 | 50.0 | 8.1 | 3.2 | 2.0** | 1.77** | .826 |

Note: *p<. 05, **p<.01

*Table 3. Percentage of patrons in each frequency category and odds ratios from three ordinal logistic regression models on frequency category of general or private poutine consumption*

## Discussion

The results of Study 1 provide evidence to suggest that group members do sometimes associate dysfunctional group behaviour with their group identity, with subsequent impacts on

their behaviour. Our analyses found that the more a Quebecer associates poutine with their Québec identity, and construes poutine to be a positive and distinctive aspect of this identity, the more likely he or she is to eat poutine frequently. We obtained these results among a real-world cultural group reporting their feelings and attitudes towards a real dysfunctional group behaviour despite a large amount of "noise" associated with conducting a field study of this nature. As such, we found support for our over-arching hypothesis that individuals internalize dysfunctional group norms when they feel that these behaviours reflect positively on, and are distinctive aspects of, their group identity.

We also found that overall, our participants believed poutine to be fairly unhealthy. However, we did not find that an individual's belief regarding the unhealthiness of poutine was associated with the frequency with which they reported eating poutine. As such, it appears that group members recognized the dysfunctional nature of poutine consumption, but still ate poutine fairly regularly, as 88.7% of our participants reported eating poutine at least occasionally or more. What predicted the frequency of their private and general poutine-consumption instead was the degree to which they ascribed some group-identity relevance to this behaviour. However, to keep our surveys short so as to increase response rates and data quality, health beliefs regarding poutine were based on only one item. Moreover, there may be other factors that interact with health beliefs to predict the frequency of poutine consumption (e.g. whether the individual is on a diet). We did not account for any such factors in our survey. These results should therefore be interpreted with caution.

Yet, a significant portion of our sample reported that poutine carried some relevance for their group identity. For one, our open-ended question indicated that individuals do have some real concrete cultural associations with poutine. Second, our quantitative measures of group

identity-relevance and positive distinctiveness construals were found to be related to an individual's tendency to enact the dysfunctional behaviour. The natural setting and design of our study provided valuable real-world insight into the connection between these factors and the dysfunctional behaviour of group members. Thus, Study 1 plainly demonstrates that associations between a dysfunctional group norm, group identity, and the frequency of a particular behaviour exist. Two important questions remain that require an investigation in the controlled environment of the laboratory. First, among our participants, general poutine and private poutine consumption were highly correlated, as one would expect with internalized behaviour. The results of Study 1 cannot then speak to the influence of positive distinctiveness on general adherence to the dysfunctional group norm, vs. private adherence to the dysfunctional group norm. Second, we were not able to determine the role that positive vs. negative distinctiveness play for the internalization of dysfunctional behaviour. Study 2 was designed to provide insight into the role of positive and negative distinctiveness on the private and public behaviour of group members by manipulating group construals of a newly introduced dysfunctional group norm among group members in a laboratory setting.

## Study 2

Having established a link between group identity, and adherence to a dysfunctional group norm in a real-world context, we turned our attention to addressing the theoretical challenge of teasing apart the impact of positive (vs. negative) and group-identity distinctive construals of a dysfunctional group norm on the internalization of this norm. As such, we needed to design an experiment to be conducted in the controlled environment of the laboratory. To do so, we were required to develop a paradigm that would lend itself to the laboratory setting, but also permit a measure of a group member's motivation to adhere to a dysfunctional group norm under both

public and private conditions. We chose to use the cold pressor test. A classic measure of pain tolerance, the cold pressor test asks participants to hold their hands in ice-cold water to the limit of their pain tolerance, measured in this case in seconds (von Baeyer, Piira, Chambers, Trapanotta & Zeltzer, 2005). Experiencing pain unnecessarily can be considered dysfunctional as the individual puts his or herself at risk of injury by doing so. Moreover, the test itself is designed to induce discomfort and pain. For our experiment, we operationalized motivation to engage in the dysfunctional behaviour as the number of seconds that an individual left their hands in the water above and beyond their baseline level of pain tolerance.

For the present experiment, willingness to endure pain was linked to the group identity of being a non-Native English speaking student at an English University. We chose to recruit groups of participants who shared this identity because studying in a second or third language impacts many different aspects of student life. As such, this identity was likely to be of some importance to participants. However, our 'non-Native English speakers' group identity was not associated with any one ethnicity or language so individuals should have a fairly flexible view of what it means to be a non-Native English speaking student. Making salient a group identity that was credible but lacked a clear set of norms, behaviours, attitudes and beliefs was advantageous for our experimental aim. Doing so decreased the possibility that the behaviour of group members would be impacted by their group identity in unforeseen ways. For example, previous studies using the cold pressor paradigm have found that the salience of gender identity influences the length of time men are willing to leave their hands in the water, as male identity is laden with norms regarding pain tolerance and expectations for one's performance on pain tasks (Pool, Schwegler, Theodore & Fuchs, 2007). We hoped to avoid such effects by instead priming participants with a meaningful, but less historically concretized group identity. We deemed that

the identity of being a "student not studying in your first language" fit both these criteria, rendering this group identity ideal for testing our hypotheses. After measuring baseline tolerance scores, all participants were made aware of the dysfunctional group norm: participants were told that it was normal for students not studying in their first language to leave their hands in the water for ten seconds longer than baseline on their second trial.[3] Next, groups of participants were presented with one of three different types of construals for the dysfunctional group norms. Dysfunctional group norms were construed to represent: (1) a positive and distinct aspect of group identity, (2) a negative and distinct aspect of group identity, or (3) a non-distinct and neutral aspect of group identity. Across all construal conditions, half of our groups of participants were told that other members of their experimental group would see their scores on both the trials of the cold pressor test (public condition) and half were told that their scores would never be seen by anyone (private condition). Thus, we employed a 3 (positive/distinct norm vs. negative/distinct norm vs. non-distinct norm) by 2 (private behaviour vs. public behaviour) design. In line with the findings from the research literature on group conformity (e.g. Abrams & Hogg, 1990) we expected that group members would conform to a dysfunctional group norm when their behaviour was public, regardless of the perceived valence or distinctiveness of the norm. On the other hand, we hypothesized that group members would only privately adhere (i.e. internalize) to the dysfunctional group norm when the dysfunctional group norm was construed to increase both positive group evaluation (vs. negative group evaluation) and group distinctiveness (vs. non-distinctiveness).

[3]In reality, exertions of self-control required to complete tasks like the cold pressor test should result in a state of ego-depletion. A state of ego-depletion should actually lower an individual's ability to self-regulate and withstand pain on a second trial (Baumeister, Vohs & Tice, 2007). As such, the number of seconds that an individual would leave his or her hands in the ice-cold water over their baseline pain tolerance score was conceptualized as a measure of their motivation to engage in the dysfunctional group norm.

## Method

*Participants*

One-hundred and twenty-six McGill undergraduate students who identified as non-Native English speakers participated in our study in exchange for course credit, or $10 CAD. Twenty-one participants were excluded from our analysis as they did not conform to our inclusion criteria[4]. The participants were 86% female, and 58% Asian, 28% White and 14% multiracial or other. They identified their mother tongue as a Chinese dialect (31%), French (20%), Korean (16%), Arabic (5%), or another language (29%).

**Procedure**

Participants were recruited online and came into the laboratory in groups of three to seven individuals. They were told that the study was designed to validate the cold pressor test as a measure of pain tolerance and that while there is a great amount of variability between people on ratings of pain tolerance, it is important because it can predict other life outcomes. Critically, we emphasized that: "having a higher pain tolerance is highly dysfunctional, as it is far more adaptive to have greater self-protective instincts and lower pain tolerances". With this in mind, participants were led to the testing room one by one and asked to perform the cold pressor test. We recorded the amount of time each participant left their hands in the water in seconds which served as a baseline pain tolerance measure for each participant. After, participants returned to the waiting room until every group member had completed this baseline measure of their pain tolerance.

**Manipulations**

[4] Specifically, participants either exceeded the pain time threshold permitted by our ethics license on their baseline trial so we could not ask them to persist an additional 10 seconds on a second trial, or they indicated in a questionnaire during the experiment that they were indeed native English speakers.

**Dysfunctional Group Norm.** When all the participants had completed their baseline pain tolerance trial on the cold pressor test, they were given a handout to read quietly to themselves and told that after, they would perform a second cold pressor test. At this point, each group of participants was randomly assigned to one of six conditions. The information sheet contained information about the participants' group and the task. Specifically, the same group norm was provided in all six conditions, which was to leave their hands in the water at least 10 seconds longer on a second trial of the cold pressor test than the participant's original baseline score.

**Distinctiveness Construal Manipulations.** Distinctiveness was manipulated by describing why the dysfunctional group norm existed among their group. In the 'distinctive norm' conditions, participants were told that the group norm existed as a result of their unique experiences as non-Native English speakers studying in English. In the 'non-distinctive norm' conditions, participants were told that the group norm existed because there is a practice effect associated with the cold pressor test, and that this practice effect was not unique to non-Native English speakers.

**Valence Construal Manipulations.** The valence of the dysfunctional group norm was manipulated by elaborating on why the dysfunctional group norm exists among non-Native English speakers studying in English. In the positive/distinct group norm conditions, participants received an information sheet stating that the dysfunctional group norm exists among non-Native English speakers because they have greater self-control as a result of having to constantly switch between languages. In the negative/distinct group norm conditions, participants received an information sheet that explained that the dysfunctional group norm exists among non-Native English speakers because they have greater stress as a result of having to constantly switch between languages. In the non-distinctive norm condition, we did not want to manipulate

valence. As such, we simply referred to the group norm as the result of a neutral "practice effect."

**Visibility of Behaviour Manipulations.** Finally, half of our experimental groups in each norm condition (non-distinct vs. positive/distinct vs. negative/distinct) were tested publicly, in that they were told that their scores would be shared with the other members of their experimental group after the test was completed during a study wrap-up session and snack. The other half of our norm condition groups were told that their scores would be kept private and that no one from their experimental group would ever see their scores on the cold pressor tests.

After reading the information sheet, participants performed their second trial of the cold pressor test one at a time in the same manner in which they did the first. As our main dependent variable, we measured the number of seconds that each participant left their hands in the water over their baseline measure (i.e. the difference in time from the experimental trial and the baseline trial on the cold pressor test).

## Results

To test the effect of each condition on participants' behaviour, we calculated the amount of time, in seconds, that each participant exceeded his or her baseline time on the second trial of the cold pressor test (i.e. second trial time – baseline trial time). To test our hypotheses, we analyzed our data in two ways: first, we compared the mean seconds over baseline pain tolerance scores from each experimental group to the value of 10 with a one-sample t-test. As participants were told that the norm of their group was to leave their hands in the water 10 seconds over their baseline, comparing the means of each group to the value of 10 allowed us to assess whether each group acted in accordance with the dysfunctional group norm or not. In the second step of our analysis, we aimed to investigate the relative level of adherence to the dysfunctional group

norms across experimental conditions. To test these group differences, we performed a two-way ANCOVA to investigate main effects, and then addressed interaction effects with a test of simple effects.

**Assessing Group Member's Motivation to Act Normatively**

To test whether our groups of participants acted in accordance with the dysfunctional group norm, we performed a one sample mean t-test and compared the mean seconds over baseline pain tolerance score of each group to the value of 10. In this analysis, a group would be considered to be acting in a normative manner when the group mean was statistically equal to, or greater than 10 seconds. A group would be considered to not be acting in normative manner when the group mean was significantly lower than 10 seconds. We compared each group's mean to the value of 10. Table 4 below displays our results.

| Group | Mean (SD) | t-test value | p value |
|---|---|---|---|
| Non-Distinctive Norm | | | |
| *Private* | 5.49 (8.03)* | t(18)=-2.45 | *p*=.03 |
| *Public* | 18.10 (30.05) | t(20)= 1.24 | *p*=.23 |
| Distinctive/Negative Norm | | | |
| *Private* | -1.77 (19.03)* | t(16)=-2.55 | *p*=.02 |
| *Public* | 15.00 (28.21) | t(17)= .748 | *p*=.47 |
| Distinctive/Positive Norm | | | |
| *Private* | 23.28 (24.06)* | t(22)=2.65 | *p*=.02 |
| *Public* | 24.23 (41.81) | t(16)=1.40 | *p*=.18 |

*Table 4. Mean of seconds over baseline pain tolerance across conditions, compared to dysfunctional group norm of 10 seconds*

The results presented in Table 4 demonstrate that first, all groups tested publicly acted normatively; the group means of all publicly-tested experimental groups did not significantly

differ from 10 seconds over their baseline pain tolerance score. Under private testing conditions, only the group in our positive/distinctive construal condition enacted the dysfunctional group norm: only the mean score of this group was higher and significantly different from the value of 10. When the dysfunctional group norm was construed to be a negative but distinctive group trait, or when the norm was described as non-distinctive of their group, group members privately dissented from the dysfunctional group norm. The scores of these groups were significantly different and lower than the value of 10.

**Assessing the Relative Motivation of Group Members to Act Normatively Across Groups**

In the first step of our analysis, we investigated general adherence and found that among our privately tested groups, only the group of participants in our positive/distinct norm condition also enacted the dysfunctional group norm of persisting at least 10 seconds beyond their baseline pain tolerance on the second trial of the cold pressor test. However, we also wanted to test whether these groups of participants behaved differently from each other. As such, in the second step of our analysis, we performed a two-way ANCOVA with norm conditions (non-distinct vs. positive/distinct vs. negative distinct) and the visibility of behaviour (private vs. public) as our independent factors on seconds over baseline pain tolerance scores. There was a positive skew in our data that resulted in a significant violation of our assumption of homogeneity of variance, as revealed by the results of Levene's test, $F(5,99) = 2.59$, $p=.030$. We first added a constant to each participant's score to ensure positive values (i.e. 100) and then applied a weak square-root transformation to correct this violation. We will herein refer to this transformed variable as seconds over baseline pain tolerance scores. We included water temperature as a covariate. Although it had no significant effect on the data, $F(1,98) = .72$, $p=.40$, slight variations in water temperature have been found to dramatically effect performance on the cold pressor test

(Mitchell, MacDonald & Brodie, 2003). As such, we left it in our final model to remove some of our subject variation, because our data was highly variant.[5]

We first examined the main effect for norm construal conditions on seconds over baseline pain tolerance scores. Our analysis revealed a significant main effect of norm construal condition on the number of seconds over baseline pain tolerance scores that participants left their hands in the water, $F(2, 98)=4.814$, $p= 0.010$, $\eta^2=.089$. Tukey's post-hoc test revealed that participants in the positive/distinct norm conditions ($M=11.129$, $SE=.205$) had significantly higher seconds over baseline pain tolerance scores than those in the negative/distinct norm conditions ($M=10.220$, $SE=.204$), $p=.003$. The difference between seconds over baseline pain tolerance scores was also significantly higher in the positive/distinct norm condition than the non-distinct norm condition ($M=10.522$, $SE=.204$), $p=.042$. This suggests that overall, participants were most likely to act in accordance with a dysfunctional group norm when it was perceived to be distinct and reflect positively on their group, a finding consistent with Social Identity Theory. There was no significant difference between seconds over baseline pain tolerance scores between the negative/distinct norm condition (M=10.256, SD=1.230) and the non-distinct norm condition (M=10.554, SD=1.024), $p=.302$.

We also found support for our hypothesis regarding the impact of visibility of behaviour: There was a significant main effect of visibility of the behaviour on seconds over baseline pain tolerance scores, $F(1, 98)=4.218$, $p=.043$, $\eta^2=.041$, as participants in the public conditions (M=10.865, SE=.168) had higher seconds over baseline pain tolerance scores than those in the private conditions (M=10.382, SE=.164). In other words, group members were more likely to

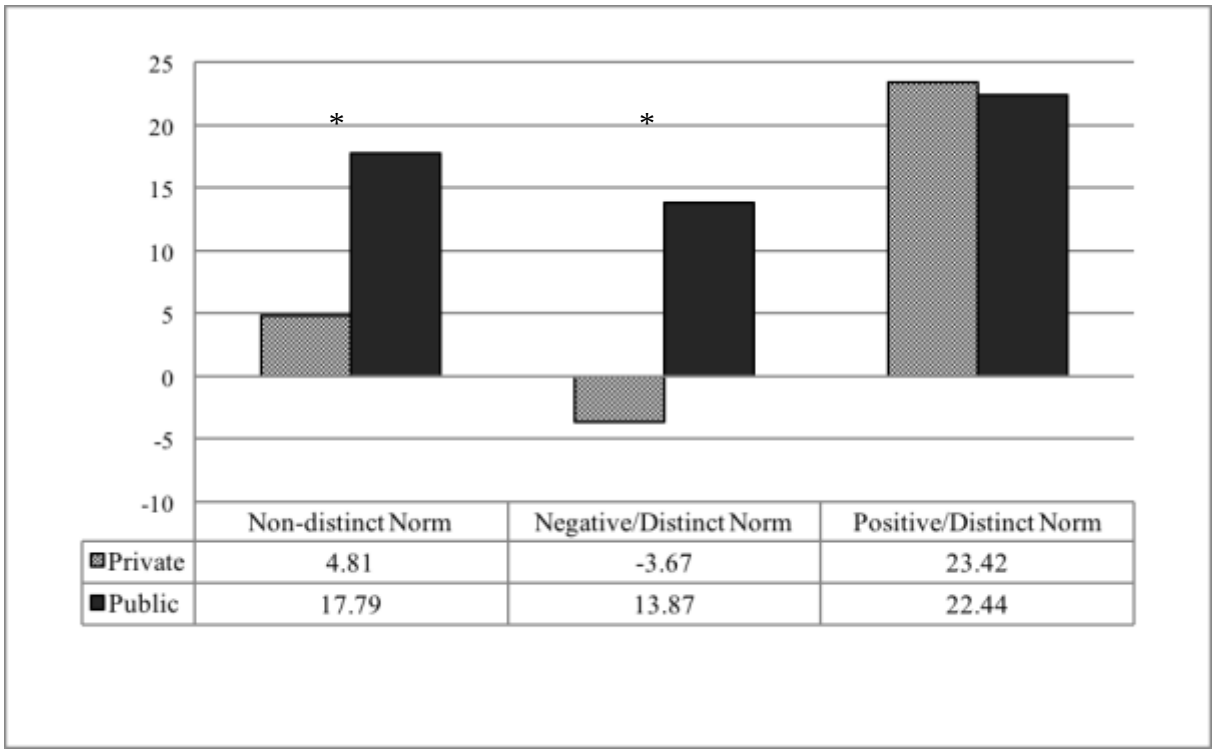
[5]We also considered other confounding variables, including self-report measures of self-control, competitiveness, identification with other non-Native English Speaking students and the need to belong, but none of them proved to have a significant impact of our data. As such, we decided to retain only water temperature as a covariate for elegance.

conform when their behavior was public compared to when their behavior was private. This finding is consistent with the literature on social influence and group conformity.

**Planned Comparisons**

The focus of our investigation was to identify the conditions under which group members would internalize a dysfunctional group norm, enacting it both privately and publicly. First, we hypothesized that participants in our public behaviour conditions would conform to the dysfunctional group norm in equal measure across all norm conditions. As expected, in our *public* behaviour conditions, there was no significant difference between the mean seconds over baseline pain tolerance scores between any of our norm construal conditions, $F(2, 48)=.45$, $p=.640$. As such, different descriptions of the norm were not found to have an effect on the motivation of group members to adhere to the dysfunctional group norm when their behaviour was public.

However, at the level of *private* behaviour, there was a significant difference between our norm conditions, $F(2,98)=5.72$, $p=.004$. Tukey's post-hoc test revealed that the mean seconds over baseline pain tolerance scores of participants in the positive/distinct norm condition ($M=11.110$, $SD=1.098$) were significantly higher than the mean scores of participants in the non-distinct norm condition ($M=10.237$, $SD=.400$), $p=.007$, and the negative/distinct norm condition ($M=9.815$, $SD=1.112$), $p=.000$. The mean seconds over baseline pain tolerance scores in the non-distinct norm condition was not significantly different from the negative/distinct norm condition, $p=.206$. Participants tested privately in the positive/distinct norm condition persisted beyond their baseline pain tolerance on the cold pressor test significantly longer than participants tested privately in the negative/distinct norm or non-distinct norm condition.




| | Non-distinct Norm | Negative/Distinct Norm | Positive/Distinct Norm |
|---|---|---|---|
| Private | 4.81 | -3.67 | 23.42 |
| Public | 17.79 | 13.87 | 22.44 |

Note: *p<.05

*Figure 1: Mean number of seconds over baseline pain tolerance score participants left their hands in the water during the second cold pressor test across conditions.*

Most importantly though, only participants in the positive/distinct norm conditions were equally motivated to enact the dysfunctional group norm privately as they were publicly; There was no significant difference between the seconds over baseline pain tolerance scores of group members in the positive/distinct norm and public condition (M=11.065, SD=1.691) and the positive/distinct norm and private condition (M=11.110, SD=1.098), F(1,36)=.009, *p*=.924. On the other hand, participants tested privately in the negative/distinct norm condition (M=9.815, SD=1.112) had significantly lower seconds over baseline pain tolerance scores than those participants tested publicly in the negative/distinct norm condition (M=10.671, SD=1.220), F(1,31)=4.44, *p*=.0432. Our analysis revealed the same pattern of results for participants in the non-distinct norm conditions. When tested privately, participants in the non-distinct norm

condition (M=10.237, SD=.400) had significantly lower seconds over baseline pain tolerance scores compared to participants in the non-distinct norm condition tested publicly (M=10.853, SD=1.324), and this difference was marginally significant, $F(1,33)=3.38$, $p=.075$. These results suggest that group members are most likely to internalize a dysfunctional group norm when this group norm is construed to be a positive and distinct aspect of their group identity. These results are presented in *Figure 1*, but have been back-transformed into seconds from baseline to facilitate the interpretation of our findings.

## Discussion

The goal of the present experiment was to investigate factors leading group members to internalize a dysfunctional behaviour associated with their group identity. To test this question in the controlled environment of the laboratory, we designed a paradigm that would measure the willingness of group members to enact a dysfunctional group norm, and persist beyond their baseline of pain tolerance. To this end, we were able to effectively employ the cold pressor test. By first measuring our participant's baseline pain tolerance, we were able to easily measure their motivation to persist beyond the limits of their pain tolerance under different testing conditions, and compare differences among experimental groups. As such, this paradigm may be useful in future studies wishing to investigate dysfunctional, or self-harming behaviours in the laboratory.

To test our main research question with this paradigm, we operationalized the internalization of a dysfunctional group behaviour as the level of group members' private adherence to a dysfunctional group norm. Specifically, we tested the hypothesis that group members would be equally motivated to enact a dysfunctional group norm when it was construed to increase the positive distinctiveness of their group identity under both private and public testing conditions. We examined this hypothesis in two ways. First, we tested whether our

experimental group general adhered, overall, to the dysfunctional group norm under different testing conditions. Second, we compared relative differences in the behaviour of group members between different testing conditions. In this way, we were able to determine whether groups of participants were equally motivated to enact a dysfunctional group norm across different norm construal and visibility conditions.

First, in line with the research on conformity in groups, we found that under public testing conditions, group members always acted in accordance with the group norm, even though it was clearly described to them as dysfunctional. When they believed that their behaviour was private though, group members in our study were not as motivated to enact the dysfunctional group norm. When the dysfunctional group norm was described to them as a negative but distinctive group trait, or simply a non-distinctive group trait, group members privately dissented from the dysfunctional group norm. However, group members who believed that the dysfunctional group norm did reflect positively on their group, and was group-distinctive, did privately adhere to the dysfunctional group norm. Consistent with our prediction stemming from SIT, these results suggest that group members only privately adhere to, or internalize, a dysfunctional group norm when the behaviour is construed to increase the positive distinctiveness of their group identity.

The results of our analysis comparing different testing conditions reveal a similar pattern of results. When group members believed that other members of their experimental group would see their scores on the cold pressor test, they conformed to the dysfunctional group norm in every case. Indeed, we found no difference between our groups tested publically. This is likely due to the fact that group members are generally motivated to appear normative (Abrams & Hogg, 1990). Thus, the social pressure to conform to a group standard may have been so strong

that it drove group members to exert themselves to the limit of their self-regulation capacities across every construal condition. If this were the case, it would have been difficult to observe any effect of different descriptions of the dysfunctional group norm on our participant's public behaviour, and indeed, we saw no differences. However, the behaviour of group members in our public conditions did enable us to observe the powerful influence of the social pressure to conform to the dysfunctional group norm on the behaviour of our group members. As such, this provided a set-point to which we could compare the influence of our different norm conditions on the private behaviour of group members. In short, it enabled us to test which norm condition(s) would motivate group members to act in accordance with the dysfunctional group norm privately to the same degree as those tested publicly.

Comparing the private behaviour of group members to the public behaviour of group members across different norm conditions, it was clear that group members were not equally motivated to privately enact dysfunctional group norms across the board as they were publicly. Following the theorizing of other researchers (Abrams & Hogg, 1990), we considered the internalization of the dysfunctional group norm to take place when there was a null difference between the private and public behaviour of group members. In this case, we tested the hypothesis that participants would privately enact the dysfunctional group norm when the behaviour was construed to be a trait that increases the positive distinctiveness of their group identity (only in the positive/distinctive conditions). We found support for this hypothesis. Under private testing conditions, only group members in the positive/distinct norm condition conformed to the group norm to the same degree as group members in *any* of the public conditions. As such, these findings demonstrate that dysfunctional group norms may indeed exert a strong effect on group members' behaviours even when they are alone, and not directly under

the force of social pressure to conform to group behaviour. On the other hand, participants in the negative/distinct norm or non-distinct norm conditions were significantly less motivated to enact the dysfunctional group norm privately than those participants in the same norm conditions tested publicly. Hence, these results suggest that group members only internalize a dysfunctional group norm, enacting it both publicly and privately, when it is construed to increase the positive distinctiveness of their group identity.

## General Discussion

The results of our studies provide insight into why certain group members may internalize a dysfunctional behaviour they perceive to be part of their group identity. In line with Social Identity Theory and research, our results provide experimental and correlational evidence to suggest that group members are most likely to internalize a dysfunctional group behaviour when this behaviour is construed to increase the positive distinctiveness of their group identity. These results are somewhat inconsistent with findings from Mlicki & Elmers (1996) demonstrating that groups sometimes internalize negative characteristics into their group identity when these characteristics are perceived to help distinguish their group from other groups. Similarly, some theorists have proposed that, if required, group members will prioritize the distinctiveness of their group identities over positive group evaluation (Brewer, 1991; Hogg & Terry, 2000). Taken together though, the results of our studies point to the importance of positive in-group evaluation for group members; the behaviours in our studies were perceived to be dysfunctional. One would not normally expect that an individual would actually enact these dysfunctional group norms without some form of external pressure. Yet, we observed *private* adherence to dysfunctional group norms when the dysfunctional group norms were perceived as distinctive *and* positive aspects of the group identity. Thus, it may be that for internalization of a

dysfunctional group norm to take place, group members may need to first construe the dysfunctional group norm as both distinctive and positive aspects of group identity. It is possible that there are moderating factors not measured here, such as a perceived threat to intergroup distinctiveness (as suggested by Mlicki & Ellmers, 1996) that may explain these inconsistencies. As such, future research may help to integrate the findings and perspectives from social identity theorists that emphasize the preeminence of distinctiveness, and the results of the present study. That being said, our results do provide insight into the most likely conditions under which group members would internalize a dysfunctional behaviour into their group identity.

Extending our findings to real-world group contexts, it may be that group members internalize dysfunctional group norms to the extent that their group identity allows them to put a positive spin on a dysfunctional group norm. For example, in a documentary on soul food, Hurt (2012) explores the meaning of Black cuisine, or soul food, notorious for being high in fat, starches, cholesterol, sugar, and calories. Despite its present day devastating health impact, soul food, he discovers, maintains an important place within Black identity because it is remembered as the food that Black slaves scraped together to survive the harsh conditions of their reality. As such, it is a lasting symbol of Black resilience, resourcefulness, and community in the face of adversity. The results of our studies suggest that those group members who perceive the consumption of soul food as a distinctive group behaviour that stands as a lasting symbol of their group's cohesion and resilience are most likely to internalize this group behaviour. Once internalized, it is these group members that are most likely to engage in this group behaviour in their everyday lives; and, as a result of its negative impact on the health of group members when regularly consumed, it is also these group members who will experience the worst health outcomes as a result of their group identity.

The results of the present studies may also provide some insight for interventionists working to address collective dysfunction. For one, our results underscore the importance of considering group identity content as an underlying factor driving dysfunctional behaviours in groups. Second, our results also point to specific contents of group identities that may be targeted by interventions. For example, finding ways to undermine any group narratives that paint a dysfunctional group norm as a distinctive and positive aspect of a group's identity may decrease the extent to which group members will internalize a dysfunctional group behaviour. Yet, future studies should also focus on understanding the role of threats to intergroup distinctiveness and the possible interactions that these threats may have with construals that could impact the internalization of dysfunctional group behaviour. Doing so may provide additional insight into the realities of group members affected by dysfunctional group norms, and identify other targetable factors that serve to maintain these behaviours within affected social groups. Although there is still much to learn, the results of the present studies provide some initial evidence to suggest that groups sometimes internalize dysfunctional behaviours as part of their group identity; and, the internalization of dysfunctional group norms is likely facilitated by the presence of construals that help group members conceive of dysfunctional behaviours as positive, and distinctive aspects of their group identity.

## TRANSITION FROM MANUSCRIPT I TO MANUSCRIPT II

The studies presented in Manuscript I provide evidence for the proposition that collective dysfunction and group identity are linked. Cases of collective dysfunction are often conceptualized to be a number of individuals struggling with the same dysfunctional behaviour. Yet, if collective dysfunction and group identity are linked, it is not only individual-level factors driving the dysfunctional behaviour of group members. Instead, there is another layer of factors that also need to be addressed. As such, interventions may need to pay greater attention to the role of group identity processes with regards to collective dysfunction.

The actual findings that demonstrate this link are consistent with influential perspectives from the field of social psychology and intergroup relations; namely, that group members strive to increase the positive distinctiveness of their group identity. As such, Manuscript I provides evidence for the overarching proposition of the present program of research: Group identity processes are implicated in the phenomenon of collective dysfunction. This finding was first derived from survey data collected in a real-world context, where an association between group identity, positive distinctiveness and dysfunctional group behaviour was found. Next, the impact of group identity on the internalization of dysfunctional group behaviour was tested in the laboratory using an experimental paradigm that was developed for this purpose. The findings from the laboratory experiment confirmed the associations found in the field: group members were more likely to internalize dysfunctional group behaviour when it was construed to increase the positive distinctiveness of group identity. Hence, Manuscript I established group identity as a factor worthy of further investigation, and offered an experimental paradigm that could be used to explore other important hypotheses regarding the link between group identity and collective dysfunction.

In many real world contexts, there are groups that experience such severe collective dysfunction that it is not possible for group members to simply redefine the behaviour as a positive aspect of group identity. In these cases, dysfunctional group behaviour cannot be easily re-construed so as to increase the positive distinctiveness of group identity.

What other important group identity function might a dysfunctional group behaviour serve? I theorize that dysfunctional behaviours sometimes come to symbolize a traumatic group experience. For example, violent behaviours in the Latino community may be perceived as a common response to the systematic maltreatment Latinos have faced in the United States (Smokowski & Macallao, 2006). Or, the gang beatings given to teenage initiates in Chicano street gangs has been proposed to symbolize the trauma and rage pent up by gang members as a result of having faced the threats and fears of the inner city throughout their childhood, most often without any parental protection (Vigil, 1996). Finally, for Indigenous peoples, alcohol abuse may be perceived to be a reaction to the many traumas associated with colonialism (Heart, 2003; Whitbeck et al, 2004). When group members then engage in these dysfunctional behaviours, they may be effectively signalling that they too have experienced maltreatment and discrimination from mainstream Americans, or faced the trials of the streets during their own difficult childhood, or that they have also experienced the trauma of colonialism. By extension, it may also be that the more an individual acts in a dysfunctional manner, the more trauma that individual is signalling to have experienced. Based on this theorizing, I hypothesize a second identity-based pathway to collective dysfunction that is founded on a possible link between present-day dysfunctional behaviour and past traumas. I explore this proposition in Manuscript II, while capitalizing on the experimental paradigm established in Manuscript I.

# MANUSCRIPT II: WHEN HISTORY IS DENIED: THE IMPACT OF OUT-GROUP DENIAL OF COLLECTIVE TRAUMAS ON THE BEHAVIOUR OF VICTIMIZED GROUP MEMBERS

Cooper, M. E. & Taylor, D. M. (2017). When history is denied: The impact of out-group denial of collective traumas on the behaviour of victimized group members. Manuscript submitted for publication.

Abstract

Many groups that have experienced a collective intergroup trauma (e.g. genocide) also tend to struggle with dysfunctional behaviours (e.g. alcohol-abuse). Yet, out-groups often deny the traumas of victimized groups and/or the lasting impacts of these traumas. Previous research suggests that group members may cope with threats to their group identity, such as out-group denial, by enacting behaviour that is symbolic of the threatened aspect of their identity. The present research tests the hypotheses that: (1) people intuitively associate past trauma with present-day dysfunctional behaviour, and (2) group members will be more willing to engage in dysfunctional behaviour associated with group stressors or traumas when presented with out-group denial (vs. acknowledgement or no denial) of their experiences. Support was found for both hypotheses.

## Introduction

Native Americans, and Canadian Indigenous peoples are among the most disadvantaged of all groups living in North American society and often experience extreme social and economic malaise (Taylor & de la Sablonnière, 2014). The excessive and dangerous consumption of alcohol has been identified by Indigenous leaders as a 'crisis' facing their communities and has been targeted by some as the "root of all other social problems" (Taylor & de la Sablonnière, 2014). The need for new effective solutions to this problem is echoed in the voices of Indigenous community members themselves. A full 75% of Inuit and First Nations Canadian respondents believe that substance abuse is a problem in their community (Government of Canada, 2006). Yet 63.6% of Indigenous peoples in Canada feel that no progress has being made towards reducing alcohol and drug use in their communities (First Nations Centre, 2005). Surveys conducted among Native Americans (Whitbeck, Adams, Hoyt & Chen, 2004) suggest that like Canadian Indigenous peoples, Native Americans also struggle with persistently high prevalence rates of alcohol and substance abuse in their communities.

Interventions in Indigenous communities have been guided by best practices approaches in the research literature. These approaches are individually-oriented and designed for non-Indigenous populations where issues with alcohol are relatively rarer (e.g. CBT; Ogborne, Paglia-Boak & Graves, 2005). This individual-based approach has failed to reduce the prevalence of dangerous and excessive alcohol consumption among Indigenous peoples in Canada (Taylor & de la Sablonnière, 2014). Its persistent failure indicates that a new approach is required. What if issues regarding excessive and dangerous alcohol consumption in Indigenous communities are not simply the case of many individuals struggling in parallel? What if instead, these issues are rooted in group identity and the intergroup context in which Indigenous peoples

find themselves? In this case, an examination of these collective level factors - that can give rise to collective-level solutions - is required.

Research in social psychology has implicated *group identity* as one potential collective-level factor that might explain the high prevalence rates of problematic behaviours in groups. Comprised of the beliefs, attitudes, and, behaviours that one associates with their social group, group identity is the psychological engine of group behaviour (Taylor, 2002). Recently, a framework proposed by Oyserman (2009) puts the spotlight on group identity as a factor that can motivate group members to engage in behaviour that they themselves recognize as unhealthy, risky, self-destructive, or generally, *dysfunctional,* (e.g., alcohol abuse). Her theory of identity-based motivation suggests that even dysfunctional behaviours become prevalent within a group because group members are motivated to enact behaviours that they perceive to be part of their group identity. For example, in a study by Oyserman and her colleagues (2007) Black Americans were found to report unhealthy behaviours as more in-group defining than healthy behaviours. Moreover, when primed with intergroup comparisons to White middle-class Americans, Black Americans who believed unhealthy behaviours to be more in-group defining decreased their beliefs in the utility of health behaviours (Study 5, Oyserman, Fryberg & Yoder, 2007), which may impact their motivation to engage in these behaviours. As such, identity-based motivation research has advanced our understanding of how dysfunctional behaviour may become widespread in a group, and put the spotlight on group identity as a collective-level factor worthy of serious investigation.

We propose that a critical next theoretical step is to comprehend why group members sometimes integrate a dysfunctional behaviour into their group identity in the first place. Social psychological theory does not provide an easy answer to this question. For example, if

integrated, dysfunctional behaviour would become a negative contribution to group identity. But the highly influential Social Identity Theory posits that group members strive to incorporate only positive and distinctive elements into their group identity (Tajfel & Turner, 1979). Attempting to reconcile this incongruity, we conducted an initial set of studies (Cooper & Taylor, In prep) that tested the hypothesis that group members are likely to internalize a dysfunctional group norm if it is (a) perceived to be a distinctive group trait, and (b) reinterpreted to reflect positively (vs. negatively) on their group. We found support for this hypothesis. As such, part of the answer to the question of why group members internalize dysfunctional group behaviour, and ultimately integrate it as part of their group identity, may be simply because groups sometimes put a 'positive spin' on distinct, but dysfunctional group behaviours.

This positive distinctiveness explanation, however, is but a starting point. Clearly, it does not reflect the profundity of what dysfunctional behaviours represent for some groups, including Indigenous peoples. Instead, the informal voices of Indigenous peoples speak to a much more complex process that has not yet been explored by social psychology research. Multiple accounts indicate that for Indigenous peoples, dysfunctional drinking behaviour in their communities is psychologically linked to collective intergroup traumas suffered as a result of colonialism (Heart, 2003; Whitbeck et al., 2004). Defined as a trauma inflicted on a group of people who share a common identity, *collective intergroup trauma* encompasses a diverse set of complex experiences, including: persecution, enslavement, and cultural genocide (Evans-Campbell, 2008). Hence, Indigenous peoples are far from the only group to have experienced a *collective intergroup trauma*. They are also not the only victimized group to associate their collective trauma experience with dysfunctional group behaviour (e.g. Bezzo & Maggi, 2014; Hurt, 2012). Moreover, evidence suggests that the members of certain victimized groups do internalize

dysfunctional group behaviour associated with collective trauma (e.g. Heart, 2003; Hurt, 2012). Why would group members internalize a dysfunctional group norm that reflects a collective trauma, a very negative aspect of their group identity? In the present research, we aim to address this question.

**Collective Intergroup Trauma, Dysfunctional Behaviour and Out-Group Denial**

The present research aims to investigate the following question: under which circumstances are group members most likely to internalize a dysfunctional group norm associated with a collective trauma? Among different groups, we find a common pattern: many groups that struggle with dysfunctional behaviours associate these behaviours with their unique history of collective trauma. Crucially, however, these traumas are perceived to be *denied*, or inadequately acknowledged by powerful out-groups. Observed commonalities among different groups suggest a universal psychological process. Based on these observations, we propose that: (1) an individual's present day dysfunctional behaviour can serve as a signal for his or her past traumatic experiences, and (2) when powerful out-groups deny the existence, or lasting impact of collective traumas, victimized group members are more likely to internalize a dysfunctional behaviour because this dysfunctional behaviour serves to validate the collective trauma, thereby protecting their group identity. Based on this proposition, associating dysfunctional drinking with colonialism might not alone motivate group members to engage in dysfunctional drinking behaviour. However, this association, coupled with the perception that an out-group, for example mainstream Canadians, denies colonialism or its impact on Indigenous people would.

For victimized groups, recognition of collective traumas may be paramount to recognizing their group identity. Collective traumas often change the lives of group members profoundly. For example, collective traumas stemming from colonialism decimated Indigenous

cultures (Alfred, 2005). Most Indigenous languages are now either extinct or on the brink of extinction (Taylor, 2002), and this loss of language would forever change Indigenous world views and ways of life (Brody, 2000). Hence, although very negative, collective traumas are often core aspects of a victimized group's identity (e.g. Klar, Schori-Eyal & Klar, 2013). For example, Yildiz & Verkuyten (2011) find that without a clear consensus of what it means to be Alevi, Alevi group membership is defined on the basis of being impacted by a collective trauma (i.e. the 1993 Sivas Massacre in Turkey). Hence, collective traumas are sometimes core aspects of group identity, and may even be the foundation upon which group membership is defined.

Despite their importance for victimized groups, powerful out-group members often downplay, or outright deny collective traumas or their lasting impact (Leach, Zeineddine & Cehajic-Clancy, 2013). This tendency is partially the result of psychological processes; When one's group has perpetrated harm or wrong-doing to another group, one may feel a sense of guilt (Doosje, Branscombe, Spears & Manstead, 1998), a more fragmented sense of self, and reduced self-esteem (Morton & Sonnenberg, 2011). To cope with these threats to their identity, perpetrator group members often revise collective trauma events to decrease their negativity (Baumeister & Hastings, 1997). Competing group-identity based interests often result in dramatically different construals of collective traumas between perpetrator and victimized groups. As perpetrator groups are usually more powerful, their narrative of collective trauma events may become dominant, influencing how collective traumas are remembered and perceived in general.

Social psychology research has documented the tendency for perpetrator groups to downplay negative history. However, the impact of out-group denial of collective trauma on victimized group members has received very little empirical investigation. Only a single set of

studies by Vollhardt, Mazur, and Lemahieu (2014) has investigated perpetrator group acknowledgement (vs. denial) of collective trauma on victimized group members. Across four experiments conducted with Armenian and Jewish participants, they found that perpetrator group acknowledgment (vs. denial) of collective intergroup traumas led to increased well-being and greater willingness for reconciliation with the perpetrator group. This set of studies effectively demonstrates the direct impact of out-group denial (vs. acknowledgment) of collective trauma on the psychological well-being and intergroup attitudes of victimized group members. Yet, the process of how out-group denial of collective trauma comes to impact the behaviour of victimized group members has not yet been explored. The present set of studies aims to investigate possible relations between out-group denial and internalization of dysfunctional behaviour among victimized group members.

We propose that the reason that out-group denial of collective trauma may have a negative impact on the well-being of victimized group members may be due to identity processes. The experience of having central aspects of one's self-concept denied by others would be highly threatening. As such, individuals who perceive a threat to their self-definition will engage in compensatory behaviours to restore their identity sometimes by self-symbolizing, i.e. engaging in behaviour that serves as an alternative indicator of this aspect of self-definition (Wicklund & Gollwitzer, 2013). Moreover, group members may also act to restore identity completeness following a threat to their *group* identity (Ledgerwood, Liviatan & Carnevale, 2007). Powerful out-groups that deny another group's collective trauma are effectively threatening the victimized group's identity, and subsequently, group members' sense of self-definition. Hence, group members who do feel that a collective trauma is a core aspect of their group identity, may then engage in compensatory behaviours symbolizing this aspect of their

identity as a means by which to restore group identity completeness. Due to the important psychological function these behaviours serve, we hypothesize that out-group denial of collective trauma may lead some victimized group members to enact and internalize these compensatory behaviours as part of their group identity.

Lastly, we propose that victimized group members are more likely to enact dysfunctional, as opposed to non-dysfunctional behaviours, as a means to restore identity completeness in the face of out-group denial of their collective traumas. This, we propose is because individuals have a natural tendency to associate another individual's past experiences of trauma with his or her present dysfunctional behaviour.

Attribution research demonstrates that we are motivated to understand the behaviour of socially relevant others (Weiner, 2012). Yet, there are many reasons to refrain from dysfunctional behaviours, including the social and health costs they often attend. So why would anyone enact dysfunctional behaviour? When trying to answer this question, individuals perceiving the behaviour of others may draw from the real associations that exist between the experience of trauma and the risk of developing dysfunctional behaviours, such as substance abuse or tobacco dependency (Pascoe & Richman, 2009). Doing so would create a tendency for individuals to attribute an individual's dysfunctional behaviour to their traumatic experiences. This may be especially true when a particular trauma is made salient, for example, by the contextual activation of a victimized group's identity. Thus, the experience of collective trauma may more often become associated with dysfunctional group behaviour among victimized groups. Consequentially, dysfunctional group behaviour may then serve to validate the existence of a collective trauma, and function to restore identity completeness in the face of out-group denial in a way that non-dysfunctional behaviour cannot.

## Research Overview

We present four studies designed to provide insight into the psychological intergroup process that we believe to be relevant among many of society's most disadvantaged groups. In Study 1, we test the general premise that individuals have a propensity to perceive that an individual's present dysfunctional behaviour signals past experiences of trauma. Next, across three studies, we build on group conformity research indicating that the private (but not public) behaviour of group members denotes the degree to which group members have internalized group norms (Abrams & Hogg, 1990). As a means of exploring the role of out-group denial on the internalization of dysfunctional group behaviour then, we explore the impact of out-group denial of collective trauma (Study 4) and collective stressor (Studies 2 & 3) experiences on the private behaviour of group members among three different populations using online and laboratory paradigms. Our approach was guided by the need to test our proposition among groups who can, on the one hand, appreciate issues regarding collective trauma and out-group denial, but on the other hand, are not experiencing extreme social dysfunction that would obscure our findings, pose unnecessary risk to participants, and complicate our conclusions. Moreover, testing our proposition among these different populations allows us to test the assumption that the psychological process we have proposed is not unique, but may be relevant to many groups who have been victims of collective trauma.

## Study 1

Study 1 was designed to test the proposition that individuals naturally associate past traumatic experiences with present dysfunctional behaviour. We hypothesized that from the perspective of a perceiver, another individual's dysfunctional behaviour is intuitively linked with his or her experience of trauma to the point where an increase in the perceived severity of one

leads to a perceived increase in severity in the other. The present study also included group status as a potential moderator of this effect; disadvantaged group members tend to experience more personal traumas than members of advantaged groups, and rates of dysfunctional behaviour tend to be higher among disadvantaged groups (e.g. Pascoe & Smart, 2009). Thus, we included two conditions (target individuals were from advantaged vs. disadvantaged group) to ensure that any differences in judgments made on the part of our participants was not the result of stereotypes regarding disadvantaged groups.

## Method

### Participants

82 undergraduate students from McGill University were recruited to take part in our study. The data from 8 participants were removed because they failed to pass our instructional manipulation checks.[6] Our final sample consisted of mostly women (72%). The age of participants ranged from 18 to 58 years old ($M_{age}$ = 23.54, $SD$ = 6.64).

### Procedure

Participants read four vignettes, each describing a different individual suffering from an addiction to alcohol. Vignettes were created to represent four different levels of addiction severity (low, low/moderate, moderate/high and high severity; see Appendix C). Participants were asked to read these vignettes one at a time, presented in random order, and make judgments regarding each target individual. Specifically, participants rated the perceived severity of each target individual's addiction, and the severity of a trauma that individual may have lived through.

**Group Status**. Participants were randomly assigned to one of two conditions. In the disadvantaged condition, participants were told that the targets were members of a cultural group

[6] We removed participants who thought that group members were from a disadvantaged group (i.e. Indigenous people) in the advantaged group condition, or vice-versa.

where addictions to alcohol and traumatic experiences were common. In the advantaged condition, participants were told that the target individuals were members of a cultural group where addictions to alcohol and traumatic experiences were rare. No specific groups were mentioned.

**Severity of Addiction.** Participants rated addiction severity by responding to seven questions assessing their impacts on different aspects of one's life (e.g. *Please rate the impact of this person's addiction on their legal status).* Each question was answered using a scale of 1(least severe) – 10(most severe). We averaged all 7 of these items to compute an addiction severity score. These scales were found to be highly reliable, $\alpha$ = .80 - .92.

**Trauma.** Participants rated trauma severity by responding to a single item: *"[The patient] reports experiencing some trauma as a child that has contributed to their addiction. Please rate the severity of the trauma this person reports suffering as a child".* This question was also answered using a scale of 1(least severe) – 10 (most severe).

## Results

### Manipulation Check

As a manipulation check, a 2 (condition: disadvantaged or advantaged group) by 4 (vignette type) ANOVA was conducted to compare the mean perceived severity of addiction scores for each vignette. Mauchly's test of sphericity indicated that sphericity could not be assumed in our sample, $p$=.000. As such, we interpreted our results based on the Greenhouse-Geisser correction. As expected, there was a significant overall effect of vignette type on mean ratings of overall addiction severity, $F(2.16,155.36)=309.81$, $p$=.000, $\eta^2$=.81. Pairwise comparisons conducted using the Bonferroni correction revealed significant differences between each individual mean (see Table 5). As intended, ratings of perceived addiction severity increased with each level of vignette. No other significant effects were found.

| (I) Vignette | (J) Vignette | Mean Diff (I-J) | Std. Error | 95% Confidence Interval Lower Bound | Upper Bound |
|---|---|---|---|---|---|
| L | L/M | -2.217*** | .159 | -2.533 | -1.901 |
| | M/H | -3.483*** | .191 | -3.863 | -3.103 |
| | H | -4.713*** | .206 | -5.124 | -4.302 |
| L/M | M/H | -1.266*** | .130 | -1.525 | -1.007 |
| | H | -2.496*** | .152 | -2.799 | -2.193 |
| M/H | H | 1.230*** | 0.113 | -1.456 | -1.005 |

Note: * p < 0.05, **p <0.00, *** p <0.000; L=Low Severity, L/M=Low/High Severity, M/H = Moderate/High Severity, H=High Severity

*Table 5. Tukey HSD Comparison for Addiction Severity Ratings*

**Perceived Severity of Past Traumatic Experience**

To investigate whether participants in our study would infer the severity of an individual's past trauma from the perceived severity of an individual's addiction, we ran a 2 (disadvantaged vs. advantaged group) x 4 (vignette type) ANOVA to compare trauma severity scores across vignettes and conditions. The results revealed a significant main effect of vignette type, $F(3,216) = 57.438$, $p<.000$, $\eta^2=.44$. No other significant effects were found. As such, the association between perceived addiction severity and perceived trauma severity was not impacted by a target individual's group membership, suggesting that participants judged the perceived severity of a disadvantaged or an advantaged group member's trauma based on his or her perceived addiction severity alone.

We further probed the effect of vignette type on ratings of perceived trauma severity for each target individual. As expected, all mean rating scores increased steadily across vignettes, and were found to be significant (see Table 6). To demonstrate the strong link between perceived

trauma severity and perceived addiction severity, we have included mean ratings for both judgments across all vignettes on the same graph in *Figure 2*.

| (I) Vignette | (J) Vignette | Mean Diff (I-J) | Std. Error | 95% Confidence Interval Lower Bound | 95% Confidence Interval Upper Bound |
|---|---|---|---|---|---|
| L | L/M | -1.757*** | .251 | -2.256 | -1.257 |
| | M/H | -2.405*** | .285 | -2.973 | -1.838 |
| | H | -3.419*** | .270 | -3.957 | -2.881 |
| L/M | M/H | -.6490* | .252 | -1.151 | -.147 |
| | H | -1.662*** | .268 | -2.197 | -1.128 |
| M/H | H | -1.014*** | .272 | -1.555 | -.472 |

Note: * p < 0.05, **p <0.00, *** p <0.000; L=Low Severity, L/M=Low/High Severity, M/H = Moderate/High Severity, H=High Severity

*Table 6. Tukey HSD Comparison for Trauma Severity Ratings*

## Discussion

In Study 1, we experimentally manipulated the perceived severity of fictional individuals' addictions to alcohol. Our experimental design required us to provide contextual information, and thus led participants to make attributions of a certain kind for each target individual's dysfunctional behaviour (i.e. childhood trauma). However, we did find that participants in our study inferred the severity of this past trauma from the severity of an individual's present dysfunctional behaviour. This association was not impacted by the target individual's group status. These results suggest that individuals naturally infer the nature of one's past trauma experiences from the nature of his or her dysfunctional behaviour.

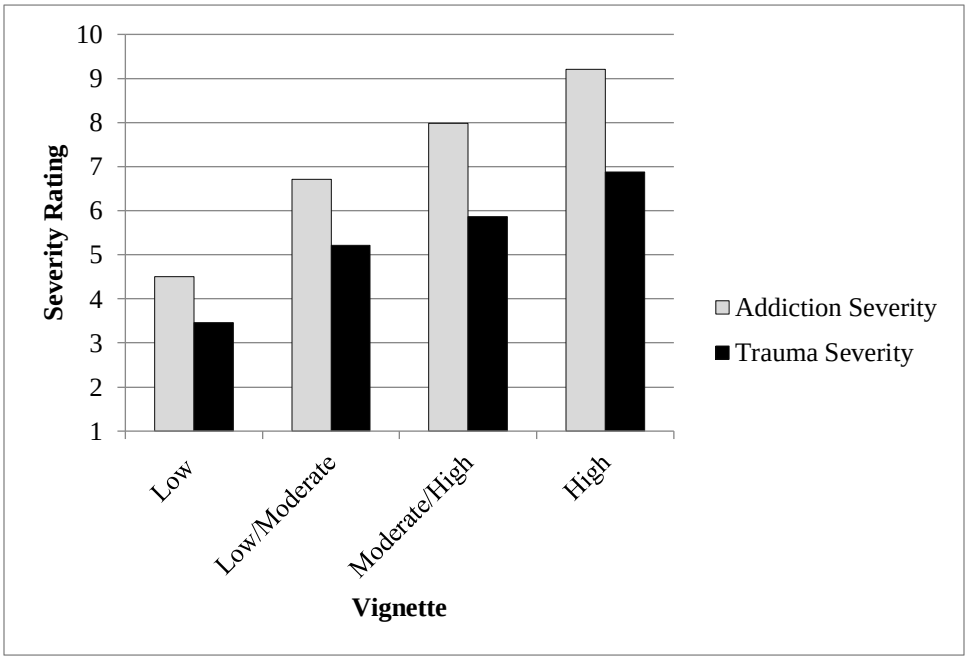



*Figure 2. Addiction Severity and Trauma Severity ratings across each level of vignette*

Building on the premise that dysfunctional behaviour can signal an individual's trauma, the next three studies explore the possibility that enacting dysfunctional *group* behaviour associated with a *collective* trauma may be a means by which group members may act to restore their group identity when an outgroup denies this collective trauma.

## Study 2

As a first test of the impact of out-group denial on the dysfunctional behaviour of group members, we turned to the pervasive issue of gender equality. Many individuals believe that sexism is no longer an issue in Western society, and in some cases, women do not differ greatly from men on this view (Campbell, Schennenberg & Senn, 1997). However, individuals who subscribe to liberal feminist ideologies do believe that as a result of a persistent patriarchal system, women are still subordinate to men (Morgan, 1996). For women who endorse this ideology, these beliefs likely play an important role in their gender identity, such that out-group denial of this perceived systemic oppression may represent a significant threat to their gender

identity. In the present study, we investigated whether women who endorse liberal feminist ideology (vs. those who do not), would be more willing to demonstrate the lasting impact of systemic oppression on themselves when the perpetrating out-group (i.e. men) denies that this oppression still impacts women.

## Method

### Participants

116 women were recruited through Crowdflower, a crowd-sourcing platform used to recruit participants for online studies. The data from six participants were removed at their request. Another six participants were removed from our final data set because they did not pass our instructional manipulation checks. Finally, in line with the recommendations of Tabachnick & Fidell (2013), we identified 14 participants as potential outliers (d>.035) using Cook's distance. Further investigation indicated that based on a range of average reading speeds (Rayner, Slatterly & Bélanger, 2010) and the amount of time these individuals spent on our manipulation page, five of these individuals could not have read our manipulation page articles. We removed these individuals from our analysis, leaving 99 female participants in our analysis ($M_{age}$ =37.03, SD=12.93), the majority of which identified as Caucasian/White (73.7%).[7]

### Procedure

After signing up for our study, participants were asked to complete an online survey at the end of which was a task they were told was designed to measure their pain tolerance in an online setting: TyPain.

[7] Please note that our effects become marginal with the inclusion of outliers who spent less than the average reading speed time on our manipulation page.

## Measures

**Liberal Feminist Attitudes and Ideologies**. During the first part of our survey, participants reported their liberal feminist beliefs (LFB) by responding to 33-items from the liberal feminist attitudes and ideology scale developed by Morgan (1996). We included the following subscales: rejection of traditional gender roles (10 items), goals of feminism (3 items), discrimination and subordination of women (10 items), and belief in the 'sisterhood' (10 items). A total LFB score was computed based on each participant's answers to all 33 of these items.

**Out-group Denial Manipulation**. Participants received our experimental manipulations in the form of a brief information sheet they were asked to read before starting TyPain. The information sheet (a) associated women's pain tolerances with their experiences of systemic oppression and (b) made salient the ambiguity regarding whether or not women in our society were still impacted by this oppression. Finally, in the out-group denial condition, the information sheet additionally informed our participants that the results of a recent survey indicate that most men do not believe that women are still oppressed (see Supplemental Appendix). [8]

**TyPain Task.** After reading this information sheet, participants were then asked to demonstrate their online pain tolerance by typing "I can take pain," as many times as they could into a text box. They were told that the more times they typed "I can take pain", the higher pain tolerance they had. As participants could technically copy and paste the phrase instead of typing it, we instead recorded the amount of time, in seconds, participants spent completing this task. Women in our study were aware that the amount of time they spent completing our tasks did not impact their compensation in any way. As such, we reasoned that the amount of time that our participants were willing to spend typing "I can take pain," would provide an indication of their

[8] This study originally included three other conditions omitted here. These other conditions were designed to test alternative explanations for our results but are beyond the scope of the present analysis. Please see supplemental materials for more information.

willingness to invest personal time, with no additional benefit, to cope with the threat of out-group denial of a collective trauma (stressor). Finally, all participants were debriefed, thanked, and compensated for their time.

## Results

To test the impact of out-group denial (vs. no out-group denial) of a collective (stressor) on the amount of seconds our female participants high (vs. low) in LFB spent on TyPain, we ran an analysis using Process (model 1) from Hayes (2012; 2013). Specifically, we input condition as our independent variable, and LFB as our moderating variable. As predicted, the result of our moderation analysis revealed a significant interaction effect of LFB and condition on the amount of time that participants spent typing out "I can take pain" online to demonstrate their pain tolerance, β=151.55, SE=69.55, $t(3,95)=2.18$, $p=.032$, 95% CI[13.49, 289.62], $r=.22$. Effects of condition were found at the level of 1SD above the mean of LFB); participants in the out-group denial group spent more time on TyPain, β=133.22, SE=51.77, $t(1,95)=2.57$, $p=.012$, 95% CI[30.44, 235.99], $r=.25$ . No effect of condition was found at the mean level of LFB or at the level of 1SD below the mean of LFB, $p=.15$ and $p=.60$ respectively. Only women high in LFB were willing to spend more time demonstrating their pain tolerance in response to out-group denial of this collective stressor (trauma). On the other hand, women who are lower (-1SD) or hold moderate liberal feminist attitudes and ideologies were not found to spend more time demonstrating their pain tolerance in response to out-group denial. Also consistent with our predictions, there was no significant main effect of condition β=52.76, SE=36.78, $t(3,95)=1.43$, $p=.15$, 95% CI[-20.26, 125.80], and no main effect of LFB on the amount of time that women spent on TyPain, β=27.65, SE=48.03, $t(3,95)=.57$, $p=.57$, 95% CI[-67.70, 123.00].

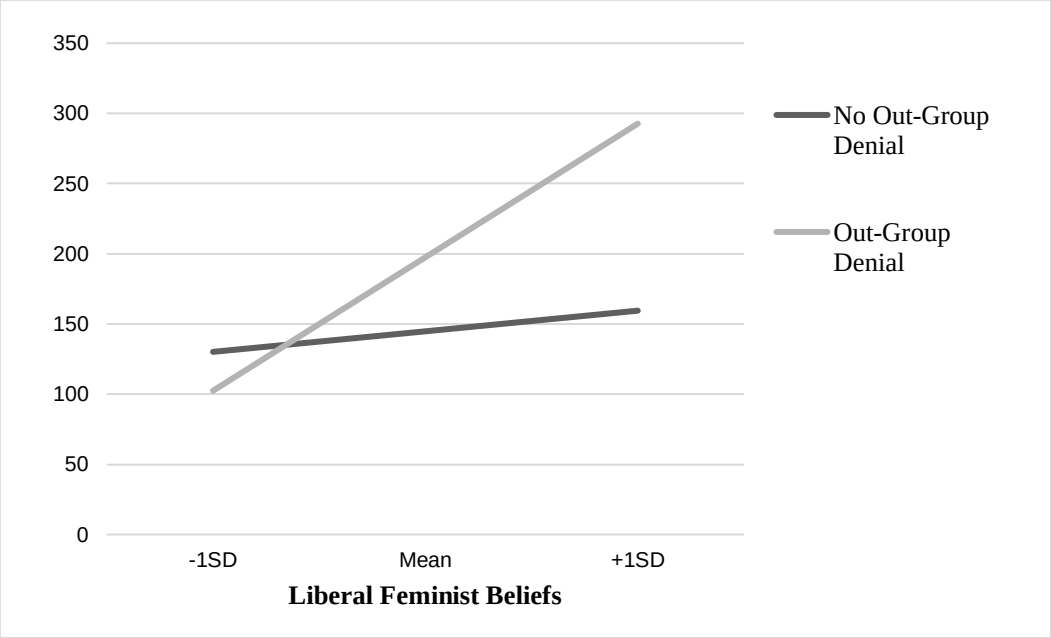



*Figure 3. Seconds spent on TyPain task between conditions and as a function of liberal feminist beliefs*

## Discussion

Study 2 demonstrates that group members are sometimes more willing to invest their personal time in order to demonstrate the lasting impact of a collective intergroup stressor (trauma) when this stressor is denied by the outgroup. However, we did not find that out-group denial of a collective trauma (or stressor) increased the motivation of individuals to engage in the associated behaviour across the board. As such, associating a particular behaviour with a collective intergroup stressor (trauma) is not sufficient to produce a dysfunctional response, even from group members who feel highly impacted by the collective intergroup stressor (trauma). Instead, the results of Study 2 suggest that the key factor motivating even highly impacted group members to engage in any associated behaviour in this case is the presence of out-group denial of the collective intergroup stressor (trauma). These results provide initial support for our overarching proposition. As a first exploration into our research question, we were able to

increase a woman's willingness to spend extra time on a boring task. However, our behaviour of interest in this case did not require the participant to experience excessive pain or threaten their physical well-being in order to validate their collective experiences. In Study 3, we sought to replicate these results using a pain-inducing task.

## Study 3

Study 3 investigated the impact of out-group denial of a collective stressor on individuals within a controlled laboratory setting. In this case, we capitalized on the diverse language environment of a Canadian university. The study was designed to test whether the out-group, in this case English-speaking students at a Canadian university, denying a relevant collective stressor (working in a language different from your native language), would motivate non-native English speaking students to engage in dysfunctional behaviour. Once again, we created an association between greater stress as a result of the collective intergroup stressor with greater pain tolerance scores. This time however, participants had to experience real pain using the cold pressor test, a task that asks them to hold their hands in ice-cold water to the limit of their pain tolerance (von Baeyer et al., 2005), in order to demonstrate greater pain tolerance. Based on the results of Study 2, we hypothesized that there would be no main effect of out-group denial and no main effect of perceived personal impact of the collective stressor on an individual's willingness to engage in a dysfunctional associated behaviour. Instead, we hypothesized an interaction between these two factors: only group members who feel impacted by the collective stressor will be willing to engage in the associated dysfunctional behaviour, but only when they believe that this collective intergroup stressor is denied by the out-group.

## Method

### Participants

95 undergraduate students who did not identify English as a first language participated in our study for course credit or compensation. 15 participants were removed from our analysis because they did not pass our instructional manipulation check. Six participants were removed because they reached the 3-minute safety limit on both trials of the cold pressor test, so we could not compute a difference score. Seven individuals were removed because they were identified as multivariate outliers[9], leaving a total of 67 participants in our final sample (75% female; $M_{age}$=20.61, SD=2.66). The majority of our sample identified as being Asian (53.7%) or Caucasian (32.8%), and a native French (30%) or Chinese dialect (37%) speaker.

### Procedure

Participants entered a laboratory facility in groups of 2 to 9 individuals. Upon arrival, participants were taken one at a time to a separate testing room where their baseline pain tolerance was measured using the cold pressor test. In this test, participants were asked to place their hands in ice-cold water chilled to 5-degrees Celsius until the pain was such that they could no longer leave their hands in the water. For ethical reasons, we asked any participant to remove their hands from the water if they reached the 3-minute mark. A small counter clock made participants aware of the number of seconds they were leaving their hands in the water. We recorded the total number of seconds participants left their hands in the water. Next, participants returned to the computer laboratory and completed a questionnaire measuring their perceived stress level[10].

[9] Outliers identified using Cook's distance, in the same manner as Studies 2 & 4. Removal of outliers does not change the overall results of Study 3. The inclusion of outliers in this case only increases the mean difference between experimental groups.
[10] Please see Appendix C for all measures included in questionnaires.

Next, participants read an information sheet about our study that informed them about the *Multilingual Stress Effect* (MLSE), a phenomenon we fabricated whereby multilingual students experience more stress than native English speaking students. We associated this collective stressor with a group norm they were told was also dysfunctional: being able to persist 10 seconds beyond one's baseline pain tolerance score on the cold pressor test. Participants in our *out-group denial condition* were also told that the outgroup (Native English speaking students at the same university) did not believe multilingual students experienced more stress than other students. Finally, participants were assured that their cold pressor test scores and answers would remain completely private (see Appendix C).

Afterwards, participants were returned to the testing room one at a time and completed a second trial of the cold pressor test. We recorded the total number of seconds participants left their hands in the water on their second trial. After completing their second cold pressor test, all participants completed a second questionnaire before being debriefed and compensated for their time.

**Perceived Stress Scale.** Because of our research design, we were unable to ask directly about the MLSE without having first introduced our manipulations. Not wanting participant responses to be impacted by our manipulations and/or their performance on the second cold pressor test, we measured the amount of stress that the participant felt in general before they received our manipulations and information about the MLSE. Stress was measured using 9 items from Cohen's (1983) perceived stress scale, e.g. *"In the last month, how often have you found that you could not cope with all the things that you had to do?"* A reliability analysis indicated that our scale was sufficiently reliable in our sample, $\alpha = .77$. As such, we averaged participant's responses over these 9 items to create one perceived stress score.

**Willingness to engage in dysfunctional behaviour.** Contemporary models of self-regulation propose that initial acts of self-regulation deplete personal resources (Muraven & Baumeister, 2000) and/or create temporary shifts in an individual's motivation or attention (Inzlicht & Schmeichel, 2012), reducing one's ability to self-regulate on subsequent tasks. As such, persisting beyond one's baseline pain tolerance on the cold pressor test is likely not due to spurious momentary differences in one's ability to withstand pain, but instead a measure of one's willingness to do so. Willingness to engage in the dysfunctional group norm was therefore assessed using a difference score for each participant based on their time on both trials (second trial seconds – baseline trial seconds). A positive score indicates that an individual persisted beyond the limits of their baseline pain tolerance level on a second trial of the cold pressor test.

## Results

Using the process macro (model 1) from Hayes (2012; 2013), we ran a moderation analysis with group (out-group denial or no out-group denial) as our main predictor, and participant stress level as our moderating variable. The results of our analysis revealed a significant main effect of group, $\beta$=6.70, SE=2.81, $t$(3,63)=2.38, $p$=.020, 95% CI[1.07, 12.31], $r$=.28, such that those in the out-group denial condition persisted beyond their baseline pain tolerance for longer ($M$=9.24 seconds, SD=13.96) than those in the no out-group denial condition ($M$=2.56 seconds, SD=8.00). Hence, greater adherence to the dysfunctional group norm was observed in our out-group denial condition. Furthermore, we conducted an independent-samples t-test to test whether the average seconds over baseline pain tolerance score from our two groups was significantly different from the value of 10, corresponding to the dysfunctional group norm of 10 seconds over baseline. The mean of our out-group denial condition was not significantly different from the value of 10, $t$(34)=-.32, $p$=.75. However, the mean of our no out-group denial

condition was significantly different and smaller than the value of 10, $t(32)=-5.33$, $p<.000$, $r=.68$. As such, participants in our out-group denial condition were not only *more* motivated to enact a dysfunctional group behaviour associated with the collective stressor than those in the no out-group denial condition, they also generally demonstrated private adherence. The simple addition of a small amount of information indicating that the outgroup did not believe that multilingual students experience more stress than native English-speaking students motivated our participants in this case to experience pain and discomfort, persist beyond the limits of their pain tolerance, and engage in a behaviour that was described to them as dysfunctional.

Unlike Study 2, stress level in this case did not interact with condition to significantly predict seconds over baseline pain tolerance scores, $\beta=4.53$, SE=5.71, $t(3,63)=.79$, p=.43, 95% CI[-6.88,15.94], $r=.10$. However, tests of simple effects did reveal a significant effect of condition at the mean value of the moderator, with the estimated conditional mean of the

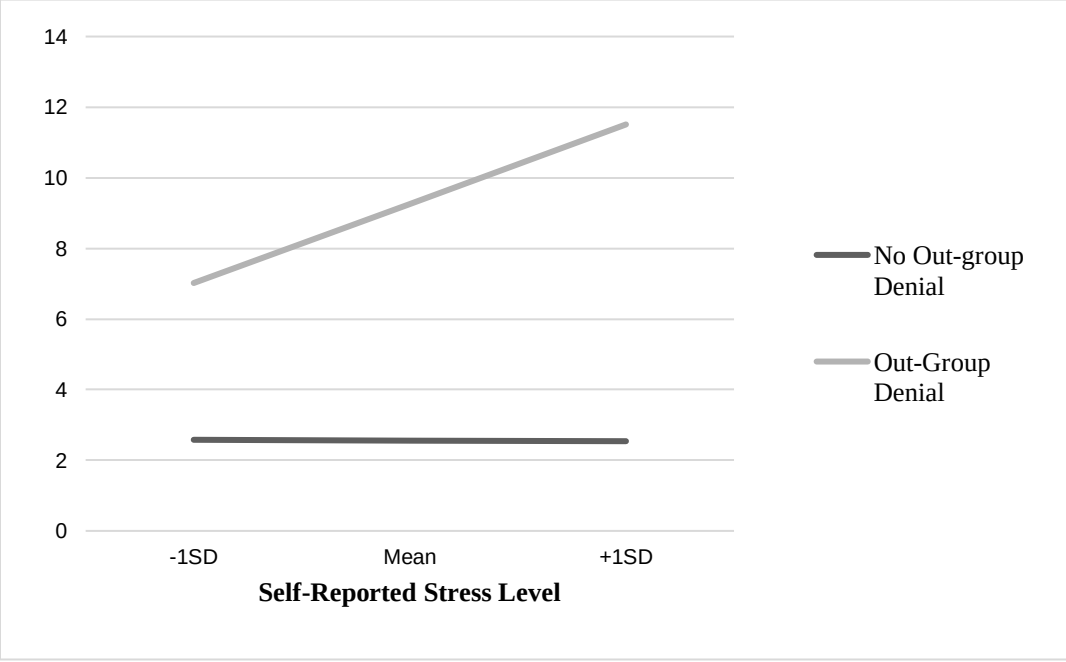



*Figure 4. Seconds over baseline pain tolerance between conditions and as a function of self-reported stress level.*

outgroup denial condition (*M*=9.26) being significantly larger than the estimated condition mean of the no out-group denial condition (*M*=2.56), β=6.69, SE=2.81, *t*(1,63)=2.38, *p*=.020, 95% CI[1.07, 12.31]. Moreover, at the level of 1SD above the mean of the participant stress level, the difference between the estimated conditional means between the out-group denial group (*M*=11.51) and the no out-group denial condition (*M*=2.54) was even greater, and this difference was also found to be significant, *β*=8.97, SE=4.01, *t*(1,63)=2.23, *p*=.03, 95% CI [.94, 16.98], *r*=.27. Condition had no significant impact at the value of 1SD below the mean perceived stress level, *β*=4.42, SE=4.00, *t*(1,63)=1.10, *p*=.27, 95% CI[-3.58, 12.43].

The overall interaction between stress level and condition was not significant. This may be due to the non-specificity of our stress scale, as it does not pertain directly to the collective stressor, thus reducing its predictive power in this case. However, we do find the same pattern as in Study 2: those who are most likely to feel impacted by the collective stressor – that is, those who experience more stress in general – are also more likely to react to out-group denial of the collective stressor by engaging in a dysfunctional group behaviour.

Finally, as in Study 2, the results of our moderation analysis indicate that the degree to which participants felt affected by the collective stressor alone, as measured by their stress level over the past month, did not significantly predict seconds over baseline pain tolerance scores, β=-.04, SE=3.75, *t*(3,63)=-.01, *p*=.99, 95% CI[-7.52, 7.45], again replicating the finding that feeling affected by a collective stressor is not sufficient to motivate group members to internalize an associated dysfunctional behaviour. We present these results in figure 4.

## Discussion

In Study 3, we employed the use of a decontextualized experimental paradigm using the cold pressor test that allowed us to study the willingness of group members to privately engage

in a dysfunctional group behaviour associated with a collective stressor in the controlled environment of the laboratory. The results of this study indicate that individuals are willing to enact a dysfunctional group norm, and experience unnecessary physical discomfort and pain, when their group's collective stressor was denied by a powerful outgroup. Moreover, our results also suggest that those who feel most impacted by the collective stressor are most willing to enact a dysfunctional group norm in response to out-group denial of their collective stressor. These results accord with the findings of Study 2.

Although Study 3 does measure genuine dysfunctional behaviour, one potential limitation of this study is that it explores the impact of out-group denial of a collective stressor rather than a severe, real-world collective trauma. Hence, this study can only begin to approximate the profound impact of a collective trauma on the lives of group members and their group identity. So, how would out-group denial of a collective trauma impact a victimized group member's willingness to engage in a dysfunctional behaviour already associated with the collective trauma? Study 4 was designed to address this question.

## Study 4

In Study 4, we investigated the impact of Holocaust denial on a personality trait associated with this history of persecution among a sample of Jewish respondents: Neuroticism. For many, this group trait represents a stereotype, and in some cases, they may feel that it is unfounded in reality. However, this depiction of Jewish identity has been popularized by Jewish people themselves in relation to their historic oppression and persecution (Smith, 2012), and has been described as prominent features of modern Jewish identity (Firestone, 2014). As such, many Jewish people may associate neurotic traits among their group with their group's history of victimization.

Neurotic individuals are more emotionally unstable than others and thus, more likely to experience more negative life events such as mental illness, disease and victimization (Magnus, Diener, Fujita & Pavot, 1993) and general lower well-being (Hayes & Joseph, 2003). Increasing one's neurotic tendencies is therefore dysfunctional. However, for Jewish people, this dysfunctional trait may be associated with their group's history of victimization. As such, we investigated the role of out-group denial (vs. acknowledgement) of the Holocaust, arguably the most salient and impactful trauma event for present day Jewish people, on subsequent neuroticism scores among a sample of Jewish respondents.

Previous studies by Vollhardt et al. (2014) have measured the impact of a Holocaust denial vs. Holocaust acknowledgment news article on the well-being and willingness for reconciliation among Jewish respondents. We employed the same design as Vollhardt et al. (2014), measuring neuroticism scores immediately after presentation of the articles. In accordance with the findings of Studies 2 and 3, we also measured the degree to which our respondents felt that Jewish people were still impacted by their history of persecution and oppression.

## Method

### Participants

We recruited a total of 269 participants who identified themselves as Jewish to participate in our study through Crowdflower. Of our 269 participants, 111 (41% of our sample) were removed as they failed our instructional manipulation check. Others who have used similar procedures have also found similar failure rates (i.e. up to 46%; Oppenheimer, Meyvis & Davidenko, 2009). Of our remaining participants, 29 asked to have their data removed from our study. We used the same protocol as we did in Study 2 to identify and remove outliers, which

required us to remove an additional 11 individuals from our final analysis. Finally, one participant in a comments section reported that they had an anxiety disorder so would have very high neuroticism scores. This individual was also found to be an outlier and so was also removed.[11] Our final sample consisted of 113 individuals who identified themselves as Jewish (56% female; age not reported).

**Procedure**

After signing up for our study, participants were asked to complete a survey about their Jewish identity. At the end of this survey, they were asked to read and respond to an article they were told was from the Holocaust Museum Website. After responding to questions on the article, participants were then asked to complete a personality test measuring their level of neuroticism. Participants were made aware that these questions were a real test of neuroticism.

**Impact of Collective Trauma.** To measure the degree to which participants felt that they were affected by their group's historical traumas, we averaged scores on the following two items: "Jews have been the target of prejudice in the past," and, "The historical oppression of Jews still affects Jews today." Participants rated these items using a scale from 1 (strongly disagree) to 5 (strongly agree).

**Neuroticism.** Neuroticism was assessed using all ten items from Sato's (2005) brief version of Eysenck's neuroticism subscale (e.g. *"Are you a worrier?"*), demonstrated to have good internal consistency, test-retest reliability and concurrent validity ($\alpha = .92$). Participants rated all 10 items using a scale from 1 (not at all) to 5 (extremely).

**Out-group Denial of Collective Trauma.** All participants were asked to read a brief article about the Holocaust. In the out-group denial condition, participants read a brief paragraph

[11] Please note that failure to remove outliers who spent less than the average reading speed time on our manipulation page removes the interaction effect reported in our main results section.

describing Holocaust denial in Germany. In our out-group acknowledgement (of collective trauma) condition, participants read a brief paragraph regarding holocaust acknowledgment in Germany (see Appendix C). After reading one of these articles, participants completed the scale of neuroticism, were debriefed, compensated, and thanked for their time.

## Results

Using the process macro (model 1) from Hayes (2012; 2013), we ran a moderation analysis with group (Holocaust denial vs. Holocaust acknowledgment) as our main predictor, and *impact of collective trauma* scores as our moderating variable. The results of this analysis revealed a significant interaction effect between condition and impact of collective trauma scores on neuroticism scores, β=.60, SE=.26, $t(3,109)=2.27$, $p=.0251$, 95% CI[.08, 1.12], $r=.21$.

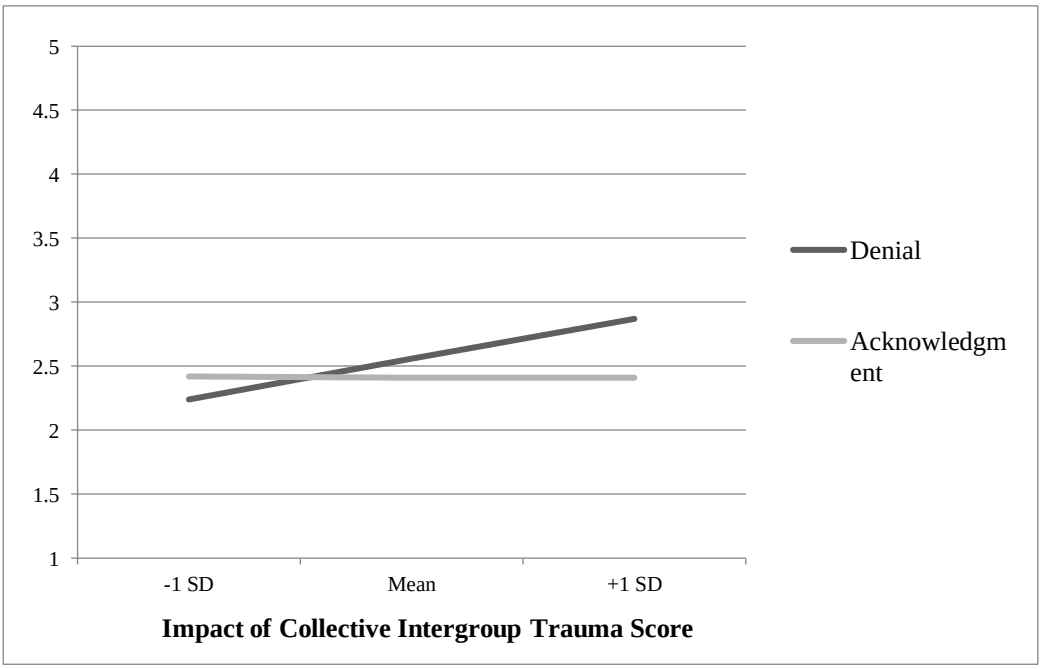



*Figure 5. Neuroticism scores between conditions and as a function of impact of collective intergroup trauma score*

Further investigation indicated that at lower and mean levels of impact of collective trauma scores (-1SD/mean), there was no significant difference in neuroticism scores between individuals in our out-group denial or acknowledgement condition, $p$=.37 and $p$=.31 respectively. However, at the level of +1SD above the mean of impact of collective intergroup stressor scores, the neuroticism scores of our participants in the out-group denial condition (M=2.87) were significantly higher than the neuroticism scores of participants in our acknowledgement condition (M=2.41), β=.46, SE=.20, $t$(1,109)=2.31, $p$=.023, 95% CI[.07, .86], $r$=.22. Hence, out-group denial alone did not have a significant impact on neuroticism scores, as there was no difference between the average neuroticism score in the out-group denial (M=2.56, SD=.78) vs. acknowledgement groups (M=2.41, SD=.75), β=.14, SE=.14, $t$(3,109)=1.00, $p$=.314, 95% CI[-.14, .42]. Moreover, impact of collective trauma scores did not significantly predict neuroticism scores, β=-.01, SE=.20, $t$(3,109)=-.08, $p$=.94, 95% CI[-.41, .38]. Only group members who felt that they were impacted by their group's history of oppression reacted to perceived out-group denial of their group's collective trauma by exaggerating their neuroticism scores, an undesirable personality trait. These results are consistent with the findings of Study 2 and 3 *(Figure 4).*

**Discussion**

In Study 4, we were able to demonstrate that in response to out-group denial of a collective trauma, group members actually increased their scores on an associated undesirable personality trait, neuroticism, representing a host of different dysfunctional behaviours (i.e. worrying excessively, inefficient coping with stress). Personality measures, including neuroticism, have been demonstrated to be very stable in the short term (Watson, 2004). As such, the difference between average neuroticism scores in our brief online study is significant, albeit small. Reading short paragraphs regarding out-group denial of the Holocaust led Jewish

respondents who felt that their group was still impacted by their history of victimization to increase their neuroticism scores. Importantly, for individuals who regularly face denial of the Holocaust and/or other collective traumas Jewish people have suffered, the association between the experience of these traumas and neuroticism may gravely impact their lives. For example, the tendency to exaggerate one's neurotic tendencies in response to out-group denial of collective trauma may eventually translate into stable personality characteristics and all the negative outcomes neuroticism attends. Importantly, information regarding out-group acknowledgement of the Holocaust did not significantly impact neuroticism scores at any level of the moderator; when the out-group was perceived to acknowledge the impact of the Holocaust, participants did not increase their neuroticism score, no matter how impacted they felt by the collective trauma.

**Statistical Power and Meta-Analytical Results**

We performed post-hoc power analyses using the G*Power program (Erdfelder Faul, & Buchner, 1996). Using this program, the observed effect of vignette type on trauma severity ratings in Study 1 was determined to have statistical power of 1. Our analyses also revealed that based on the effect size of our regression models, Study 1 and Study 3 were sufficiently powered at .93 and .85 respectively. However, the statistical power of Study 2 was .57 and thus did not reach the recommended threshold of .80. Thus, to assess the reliability of our findings, we computed the mean effect size of the observed interaction effects in Studies 2-4, based on the recommendations of Wilson (2010). Doing so, we found that our average effect size for the observed interactions effects was $r$=.18, corresponding to an overall satisfactory statistical power of .87.

## General Discussion

In the present series of studies, we aimed to explore the possibility that out-group denial of collective trauma increases the likelihood that victimized group members will be willing to enact and internalize dysfunctional behaviour associated with their group's collective trauma. Our theorizing was predicated on the idea that engaging in dysfunctional behaviour is a means to validate one's experience of trauma, because individuals do naturally associate an individual's past trauma with his/her present-day dysfunctional behaviour. We explored the tendency for individuals to attribute dysfunctional behaviour to trauma in Study 1 and found support for this proposition; individuals with more severe addictions to alcohol were also perceived to have experienced more severe past trauma, and this association was strong.

Building upon the finding that enacting dysfunctional behaviour can signal one's past trauma experiences to others, we then sought to test our primary research question: are victimized group members more likely to enact and internalize dysfunctional behaviour associated with their group's collective trauma when this trauma is denied by an out-group? Across Studies 2-4, we found support for the proposition that out-group denial leads victimized group members to engage in a dysfunctional behaviour believed to be associated with a collective trauma (or stressor). Our theorizing for this hypothesis was rooted in identity research (Oyserman, 2009) and self-completion literature (Wicklund & Gollwitzer, 2013), indicating that individuals would be motivated to engage in behaviour that can restore the completeness of their group identity when the out-group undermines their experiences by denying their existence.

Crucially, across all three studies, we found the same pattern of results: only group members who felt impacted by the collective trauma (or stressor) reacted to out-group denial. Indeed, those who did not feel impacted by the collective trauma (or stressor) did not appear to

be impacted by out-group denial. These findings are consistent with the theorizing of self-completion literature. Hence, our results suggest that there may be a new factor exacerbating dysfunctional behaviour among victimized groups: the need for victimized groups to restore threatened group identity in the face of out-group denial of their collective intergroup traumas.

**Theoretical Implications**

The findings of the present set of studies extend the work of self-completion researchers in two ways. First, our results are consistent with the work of Ledgerwood et al. (2007) demonstrating that a threat to one's sense of group identity, as opposed to personal identity, also motivates individuals to engage in self-completion strategies. However, Legerwood, et al. (2007) investigated threats to collective esteem. As such, the present series of studies also extends the theoretical implications of self-completion research as it is the first to explore the impact of a threat to collective identity in the form of an out-group denying a central, but negative aspect of collective identity. Across three studies with three different populations, we found that when this negative aspect of their group identity was challenged by an out-group, group members were more willing to incur personal costs (Study 2) and physical harm (Study 3), and exaggerate an undesirable aspect of their personality (Study 4) than those who did not perceive that the existence of this negative aspect of their group identity was threatened. To our knowledge, no other study has explored the self-completion strategies of group members in response to threats to a negative aspect of their collective identity. However, our results suggest that in a similar manner to threats to positive aspects of collective identity or positive aspects of personal identity, group members are motivated to engage in self-completion strategies that restore their sense of identity, even at the cost of their own personal health and well-being.

**The Impacts of Collective Traumas – an Intergroup Issue**

Overall, our results point to the powerful role that out-group attitudes regarding another group's collective stressors may play in the health and well-being of that group. Denying an entire group of people's negative experiences may on the surface appear inconsequential – after all, affected group members know what they have been through better than anyone and can validate their experiences among each other. It may also be that in denying a group's collective trauma/stressor, out-group members might perceive that they are actually helping the affected group overcome their circumstances. For example, out-group members may feel that treating an entire group of people like victims prevents the group from achieving their collective potential. Our results do not support this claim; instead, our findings suggest that out-group denial of a collective trauma/stressor is neither inconsequential, nor helpful for victimized groups.

When powerful out-groups fail to adequately acknowledge, or outright deny the collective trauma of another group, they put the onus of commemoration on the victimized group. Importantly, these groups are often disadvantaged, and lack the power to determine the dominant narrative surrounding the collective trauma event. Unfortunately, psychological research demonstrates that perpetrator groups are likely to cope with their own negative group history by downplaying, or denying their role in a collective trauma. Hence, our findings may shed light on realities faced by many. Specifically, our results suggest that part of the reason that groups that have experienced collective traumas continue to experience pervasive issues with associated dysfunctional behaviour – including binge drinking, substance abuse and risky sexual behaviour – may be because out-groups fail to adequately acknowledge the impact of a collective trauma on the victimized group. For example, these findings may help to explain why victimized groups are more likely to experience persistent dysfunctional behaviour and social disadvantage,

even long after the worst of the collective trauma has taken place (e.g., the intergenerational impacts of slavery and discrimination on African Americans). Thus, the disavowed attitudes and beliefs of a powerful out-group may have new harmful consequences for victimized group members not previously considered.

Yet, the onus of the past need not rest solely on the shoulders of survivors of collective traumas and their descendants. Our results also provide support for the following conclusion: the prevalence of dysfunctional group behaviours among victimized groups is not an individual-level problem, nor it is a community problem, or even a group-level problem. It is an intergroup issue. Fortunately, out-group members can play a constructive role in the recovery of groups that have experienced a collective trauma by taking steps to promote their group's acknowledgement of a victimized group's struggles. For one, education programs that promote awareness regarding the collective traumas of victimized groups have been proposed to be a crucial step towards reconciliation (TRC, 2015b). Education programs may also reduce the tendency for out-groups to deny or downplay the impact of these events, and thus may also form an effective component of any intervention program targeting dysfunctional behaviour among victimized groups. For Indigenous groups, African Americans and others, effective solutions to the devastatingly high prevalence of dysfunctional behaviour in their communities may be those that broaden the scope of the issue from the individual, to the group, and indeed, the intergroup context in which the behaviours take place.

# GENERAL DISCUSSION

In the present program of research, I set out to uncover collective-level factors promoting collective dysfunction not yet explored in the scientific research literature. Building on recent insights from Daphne Oyserman's (2009) theory of identity-based motivation, my aim was to identify group identity factors that might explain why members of any group would internalize behaviour that they and others believe to be dysfunctional. I focused on the *internalization* of dysfunctional group behaviours for two reasons. For one, the question of why some group members internalize dysfunctional group norms and come to autonomously enact these harmful behaviours is a genuine mystery. Other social psychological research has underscored the influence of group norms on the behaviour of group members in the presence of other group members (Abrams & Hogg, 1990; Asch, 1956). Yet, no research to date had conclusively identified the conditions under which group members would be most likely to internalize a dysfunctional group behaviour, and enact it even when other group members are not present. Second, there is some indication that it is the *internalization* of dysfunctional behaviours that may be the driving force behind collective dysfunction. When behaviours are internalized, they are promoted by group members, passed down between generations, and bolstered by the roles they sometimes occupy in social relations and cultural institutions (Etzioni, 2000). Therefore, to address cases of persistent collective dysfunction, I believed that it was necessary to identify factors leading to the conditions under which group members would internalize dysfunctional behaviour.

Why would anyone internalize a behaviour that they know to be detrimental to their life goals, personal safety and well-being, or the safety and well-being of those they love? One answer to this question, as demonstrated by this program of research, is for the sake of identity.

Within the historical record, and indeed recent memory, there are many examples of individuals and groups who have killed, been killed, sacrificed, endured inhumane conditions and trials to maintain the integrity of their personal and group identities (Zimbardo, 2007; Volkan, 1997; 2001). The present program of research finds that individuals are also willing to put themselves at risk and internalize a dysfunctional behaviour, subsequently autonomously enacting this behaviour, when doing so serves to protect and bolster their group identity.

Merging first-hand accounts of collective dysfunction with influential theories of identity, attribution and social influence from social psychology, I tested two distinct hypotheses related to group identity and the internalization of dysfunctional group norms. First, I tested the hypothesis that group members internalize dysfunctional group behaviour because the dysfunctional group behaviour functions to increase the positive distinctiveness of their group identity. Second, I tested the hypothesis that group members internalize a dysfunctional group norm when an important aspect of their group identity (i.e. collective trauma) is threatened (i.e. by out-group denial of the collective trauma). I found evidence for both pathways.

The results of this program of work have both theoretical implications for knowledge and applied implications for interventionists, health-care professionals and/or policy makers. As both pathways have some unique implications, I will address the implications of each manuscript separately.

**Manuscript I**

The results of Manuscript I demonstrate that in order for the internalization of a dysfunctional behaviour to take place, some cognitive reinterpretation of the dysfunction behaviour may first be required. Specifically, Manuscript I suggests that two conditions must be met. First, group members must construe a dysfunctional group behaviour to be group-

distinctive, in that it helps to distinguish their group from other groups. Second, group members must construe a dysfunctional group behaviour as one that somehow reflects positively on themselves and their group. Once these conditions are met, group members are more likely to internalize the dysfunctional group norm. Conducting research within a discipline that is presently dominated by experimental research conducted in artificial environments, I first aimed to begin my inquiry into dysfunctional behaviours among a real-world group. Doing so, I found evidence for the link between group identity and the motivation to engage in dysfunctional behaviour using correlational data collected among working-class French-Canadians who were surveyed about a genuine dysfunctional group norm: eating poutine. This field research provided valuable insight into the interplay between group identity and dysfunctional group norms among people in a natural environment going about their everyday lives. The demands of this project, which required me to sit in a poutine restaurant for long periods of time over many months, also created opportunities to gain some valuable insights. For example, most customers who were approached at the restaurant were delighted to hear that we were conducting a study on the importance of poutine for Quebecers. Indeed, a common immediate response to our survey request was spontaneous laughter followed by a frank admission of an admiration for, but recognition of poutine's unhealthiness. Many customers also suggested that if we wanted to know about poutine, we had come to the right place, in that the Francophone patrons of the restaurant would be the authority on the issue. Beyond the evidence produced from the quantifiable survey data, these minor interactions served to validate my overarching research assumption: Group members can accept that a group behaviour is dysfunctional, but still internalize that behaviour and even be proud to link it to their group identity. Building on the insights gained from the research on poutine, a laboratory experiment was conducted among

non-Native English speaking students at McGill University, using a novel paradigm inspired by the work of Lambert, Libman and Poser (1960) and Buss and Portnoy (1967) that employed the cold pressor test. This paradigm was an effective means of measuring an individual's autonomous motivation to subject themselves to unnecessary physical pain under different experimental conditions. As such, future researchers wishing to investigate the internalization of dysfunctional behaviours may employ a similar research design.

In this experiment, additional support for the hypothesis that group members would internalize a dysfunctional group norm when it was perceived as group-distinct, and represent a positive aspect of group identity was found. In the presence of other group members, group members were willing to enact a dysfunctional behaviour, and experience unnecessary physical pain in order to appear normative. However, internalization was only observed when the dysfunctional group norm was construed to represent a positive and distinctive aspect of the group's identity. Given these conditions, group members acted in accordance with a group norm they believed to be dysfunctional, willingly subjecting themselves to unnecessary physical pain, even though they knew no one from their group would ever see their behaviour. In short, I was able to create a condition in the laboratory where participants would reliably engage in a dysfunctional group behaviour because doing so simply felt right.

**Theoretical Implications**

Since first proposed, the central tenet of Tajfel and Turner's (1979) influential social identity theory – that groups strive towards positive and distinct group identities – has been an integral perspective in the field of intergroup relations and group processes. More recent theoretical advances made in the tradition of social identity theory though (i.e. Optimal distinctiveness theory, Brewer, 1991; or social categorization theory, Hogg & Terry, 2000), seem

to put an emphasis on a group member's need for intergroup distinctiveness over their need for positive evaluation. Moreover, it has been suggested by identity-based motivation researchers (i.e. Oyserman, Fryberg & Yoder, 2007) that groups internalize dysfunctional behaviours as part of their group identity because these behaviours serve to maximize intergroup distinctiveness. As such, these influential theoretical perspectives perhaps would have predicted that group members would be equally likely to internalize negative, or positively – construed dysfunctional group behaviours as long as they functioned to increase the distinctiveness of their group identity. My results cannot, nor are they meant to, dispute this propositions. Yet, in Manuscript I, I do find that the valence of associations with the dysfunctional group norm exerted a unique effect on the tendency for group members to internalize the behaviour as well. At least among the participants in our studies, only behaviours construed to be group-distinctive *and* represent positive aspects of the group were internalized.

However, social identity theorists and identity-based motivation theorists do not deem positive evaluation motivations among group members inconsequential. These theorists simply present intergroup distinctiveness as sometimes being prioritized over collective esteem by group members, especially when distinctiveness is threatened (Hogg & Terry, 2000). Moreover, threats to group distinctiveness have been found to alter behaviour among group members, for example, by increasing the threshold for group membership to exclude less-prototypical individuals (Pauker, Rule & Ambady, 2010). As such, it is possible that the *valence* of a group-distinct, but dysfunctional group norm only exerts a unique effect on the internalization of this dysfunctional group norm in the absence of intergroup threat. The results of Manuscript I may therefore demonstrate the conditions under which group members may be most *likely* to internalize a dysfunctional group norm. Future research might consider perceptions of intergroup threat as a

potential moderator for the findings of Manuscript I: for example, it may be that threatened group members are willing to internalize even negatively-construed dysfunctional group norms if they are perceived to increase intergroup distinctiveness. This research may help to integrate our findings with previous studies demonstrating that group members sometimes do internalize generally negative characteristics as distinctive elements of their group identity (e.g. Mlicki & Ellmers, 1997).

Furthermore, Manuscript I measured the internalization of dysfunctional group norms only after they had been construed to be positive and distinctive elements of the group identity. Although previous research does demonstrate the power of social creativity among individuals presented with negative in-group information (Jackson, Sullivan & Hodge, 1996), the process of how group members come to associate a dysfunctional in-group behaviour with positive group qualities is not currently understood. Of course, it may be more challenging to put a positive spin on some dysfunctional behaviour than others. Admittedly, the dysfunctional behaviours explored in Manuscript I are not extremely dysfunctional; so, finding a way to present the dysfunctional behaviour in a positive light was not too taxing. In the real world though there are some examples of extremely dysfunctional group behaviours, such as gang beatings.. In cases like these, it may be very difficult to reinterpret these behaviours as reflections of a positive aspect of the group identity. How do groups, such as gangs for example, put a positive spin on extremely dysfunctional behaviour? The present research cannot address this question. Yet, future research that can identify specific mechanisms related to this process would represent significant advancement in this research area.

Finally, the results of Manuscript I may have some theoretical implications for other areas of research investigating why individuals sometimes engage in dysfunctional behaviour.

Specifically, in a review of the interplay between self-control and dysfunctional behaviour, Rawn and Vohs (2010) propose that individuals often self-regulate towards self-harm for the sake of social acceptance. We found evidence to support this claim; namely, in our laboratory experiment, we found that individuals did self-regulate to push themselves beyond their baseline pain tolerance in order to appear normative to other group members. However, the results of Manuscript I also provide another explanation as to why group members may use self-regulation to engage in dysfunctional behaviour: individuals may also self-regulate towards self-harm to bolster the positive distinctiveness of a salient group identity. Future research might explore this possibility across different groups and with a variety of different self-harming behaviours.

The findings of Manuscript I are also in line with insights from the Theory of Planned Behaviour (Ajzen, 1991) in that the way in which an actual dysfunctional behaviour was construed by group members was found to impact the likelihood that the dysfunctional behaviour would be enacted by group members. However, the Theory of Planned Behaviour measures broad conceptualizations of behaviour (i.e. whether a behaviour is seen as generally positive or negative). As such, the present investigation differed from the Theory of Planned Behaviour approach by focusing on more specific construals for behaviour (i.e. not just whether the behaviour was generally good or bad, but whether the behaviour was perceived to be a distinctive element of group identity, and increase the positive evaluation of group identity). Differences in specific construals were associated with differences in internalization of dysfunctional group behaviour among group members. It may be that the predictive value of models based on the Theory of Planned Behaviour framework may be increased by also measuring the degree to which an individual construes dysfunctional group behaviour to reflect

positively on their group, and increase the distinctiveness of their group identity. Future research might explore this possibility.

**Applied Implications**

The finding that many group members may internalize a dysfunctional group norm when the dysfunctional group norm is construed to increase positive distinctiveness of group identity accords with a number of examples of collective dysfunction. Some examples include: longshoremen on the wharves of Newfoundland who engage in nightly sea-side tavern drinking to demonstrate their capacity for hard work and dedication to their crew, gang members who consider the brutal beatings they give and receive as unique demonstrations of gang loyalty, and teenagers who simply perceive substance abuse, risky driving, and risky sex as behaviours that make them look 'cool' and set them apart from younger and older generations. First, the results obtained in Manuscript I suggest that in order to address widespread dysfunctional behaviour in groups, interventions must also contend with the strength of the group's identity. To date, interventions are predominantly individual-based. When it comes to changing an individual's behaviour, even addressing the plethora of individual factors is challenging enough. The present research though suggests that interventions must additionally address the fact that a dysfunctional behaviour is linked to a group's identity. Once a dysfunctional behaviour is perceived to be identity-congruent and a particular group identity is situationally cued, enacting the dysfunctional behaviour may simply feel right to group members (Oyserman, 2009), and group members may be highly motivated to engage in the behaviour despite considerable personal risk (Rawn & Vohs, 2010). Thus, in order to address collective dysfunction, interventionists must create a disconnect between a dysfunctional behaviour and a group's identity. The results of Manuscript I indicate that dysfunctional group norms are most likely to

be internalized by group members when they are construed as positive and distinctive aspects of the group identity. Therefore, it may be that to de-link a dysfunctional behaviour from a group identity, a group must first start to construe dysfunctional group behaviour as non-distinctive of their group, and as a reflection of an undesirable aspect of the group identity.

These insights may be used to compliment other interventions that have been demonstrated to be effective for changing group behaviour. For example, Paluck, Shepherd and Aronow (2016) investigate the impact of highly influential group members and peer influence on widespread behavioural change regarding bullying norms at schools. Their results suggest that one of the most effective methods for changing an undesirable 'climate' involving dysfunctional behaviour is to recruit the most connected, high-status individuals within a social group to communicate alternative social norms. The results of Manuscript I indicate that encouraging highly influential group members to also promote alternative associations with dysfunctional group norms may be particularly effective in preventing the internalization of these dysfunctional group norms among more group member. Doing so may also lead group members who have already internalized dysfunctional group norms to alter their behaviour.

In sum, Manuscript I is a straightforward demonstration that group members do strive towards positive distinctiveness in their group identity, to the point that they may actually internalize a dysfunctional behaviour that has been construed to reflect positively on their group, and increase their group's distinctiveness. These findings accord with many instances of collective dysfunction, and with the central tenet of Social Identity Theory. However, future studies may investigate whether intergroup threat moderates the impact of positive distinctiveness construals of dysfunctional group norms on the internalization of these norms among group members. Moreover, future studies that investigate how group members come to

create positive associations with dysfunctional group behaviour would provide important insight for interventionists addressing some cases of collective dysfunction.

**Manuscript II**

Living and working as a non-Indigenous person in communities where the majority of individuals identify as Indigenous has given me some insight into the attitudes of out-group members regarding victimized groups. When I was a young person growing up in the Northwest Territories, a few issues became the focus of Northern political conversations. For one, the territorial government implemented affirmative action policies that prioritized the hiring of Indigenous over non-Indigenous Northerners. Second, the federal government began making financial reparations to residential school survivors. Some Non-Indigenous Northerners made arguments against these policies, often behind close-doors or in the privacy of select company. Sadly, I remember many arguments against affirmative action, or residential school reparations that were based on overtly racist and/or hateful ideologies. Yet, racist arguments could be quickly dismissed by most as ignorant opinions that should not be given any real consideration. However, the most insidious and effective argument against these policies was: it didn't happen to them. This phrase had the power to change the hearts and minds of even tolerant and good-willed non-Indigenous Northerners.

What people meant when they said "it didn't happen to them," was that the abuse suffered in residential schools, and the traumas associated with colonialism that oppressed Indigenous peoples in the North, were the plight of generations past *only*. The younger, present-day generations of Indigenous peoples benefitting from the policies had not been abused at residential schools, and had not been directly traumatized by colonialism, so therefore should not receive any 'hand-outs'. Why should non-Indigenous Northerners be disadvantaged only to give

these new generations of Indigenous people a leg up? No one denied that there were problems in Indigenous communities that needed to be addressed, but I was witness to many agreeing that enacting policies based on a harkening back to the collective traumas of the past was not the way forward.

The problem with this argument is not necessarily that it is objectively right or objectively wrong; the problem with this argument is that it is fundamentally based on an out-group denying the impact of another group's collective trauma experiences. As a result of the testimonies gathered during the Truth and Reconciliation Commission hearings in Canada (2015a), it has become clear that for many Indigenous peoples, the collective traumas suffered by their group in the past are ever-present and ongoing, and/or directly impacting present members of their groups, including and perhaps especially the younger generations. Hence, at least in the context of the last thirty years of Northern society, a dominant out-group's narrative surrounding the collective trauma events differed greatly from the narratives of Indigenous groups; and, the dominant out-group narratives existed as the predominant theme in common social, and sometimes political, discourse.

What is the consequence of a victimized group perceiving that their experiences with collective trauma have been are denied by a powerful out-group? Previous studies suggest that out-group denial of collective traumas has an overall negative effect on the well-being of victimized group members, and decreases their willingness for reconciliation with the perpetrator group (Vollhardt, Mazur & Lemahieu, 2014). Thus, the out-group belief that younger generations aren't affected by residential school traumas because "it didn't happen to them," likely has a negative impact on the general well-being of younger Indigenous people. Manuscript II suggests though that out-group denial of their group's collective intergroup trauma may lead to

greater internalization of dysfunctional group norms associated with the collective trauma among this group as well. This is because, like many groups that have suffered a collective trauma (Volkan, 2001) many young Indigenous peoples may feel that their group's historical and present-day collective traumas form a central component of their group's identity. For these individuals, being confronted with out-group denial of their collective trauma would be highly threatening; essentially, a dominant out-group with decision-making power is communicating to young Indigenous peoples that the experiences and emotions they confront in their daily lives are not real. As demonstrated in Study 1 in Manuscript II, dysfunctional behaviour is likely an effective means of symbolizing one's trauma. The more a young Indigenous person struggles with drugs or alcohol then, for example, the more he or she may feel they are expressing the magnitude of their trauma. Hence, young individuals may therefore be more likely to enact, and internalize dysfunctional behaviours as a means to restore the completeness of their group identity in the face of out-group denial.

**Theoretical Implications**

The theoretical perspective of Manuscript II on the impact of out-group denial on victimized group members was rooted in symbolic self-completion theory (Gollwitzer & Wicklund, 1982; Wicklund & Gollwitzer, 2013). However, these findings regarding out-group denial of collective trauma extend the theoretical implications of symbolic self-completion theory in three ways. First, symbolic self-completion theory is focused on the individual, and was originally intended to describe individuals' self-symbolizing actions when personal goals related to self-definition are threatened (Wicklund & Gollwitzer, 2013). Only one study to date has examined self-symbolizing behaviours as reactions to threats at the group level, and specifically to threats to the group identity (Ledgerwood, Liviatan & Carnevale, 2007). As such,

Manuscript II provides additional evidence to suggest that group members strive for identity completeness at the group level, just as they strive for identity completeness at the individual level. Hence, some group behaviour may be conceived as group-symbolizing in reaction to group identity threats.

Second, in the one study examining group-level threats to identity, the authors examined threats to positive aspects of group definition. The results of Manuscript II, on the other hand, were based on threats to negative aspects of a group's definition. As such, symbolic self-completion processes may not only be extended to include threats to group-identity, it is also possible that group members will engage in group-symbolizing behaviour to validate even negative aspects of their group identity. Although these results do not easily accord with social identity theory (Tajfel & Turner, 1979) suggesting that group members aim to only incorporate positive and distinctive elements into their group identity, they do accord with research regarding the role of group threat. Many groups that have experienced a collective intergroup trauma are disadvantaged, and feel a constant source of threat from higher-power groups (e.g. Firestone, 2004). When groups are under threat, some social identity theorists propose that groups prioritize the distinctiveness of their group identity over their collective esteem (e.g. Hogg & Terry, 2000); and, many victimized groups center their identity around their 'chosen trauma' (Volkan, 2001) that defines group membership (e.g. Yildiz & Verkuyten, 2001). Hence, for disadvantaged groups under threat, it may be that validating and maintaining the place of a collective intergroup trauma in their group identity is of greater priority than maintaining collective esteem. As such, the results of Manuscript II speak to one circumstance in which group members may actually protect negative aspects of their group identity.

However, there may be other examples where groups under threat are willing to enact dysfunctional behaviour in order to validate negative, but group-defining aspects of their group identity. For example, would disadvantaged group members be similarly threatened if an out-group denies a negative stereotype that has been internalized as part of their group's identity? Many disadvantaged groups are characterized by negative stereotypes, and one typically thinks of these negative stereotypes as social barriers that must be overcome. For example, Latinos are often depicted as violent in popular media (Gates, 2012). Well-meaning out-group members, perhaps out of guilt or a desire to create social equality, may vehemently deny the veracity of this negative stereotype depicting Latinos as violent. Yet, what if a Latino person feels that their group *is* violent and that this stereotype accurately reflects their group experiences, thus forming an important component of group identity? If this were the case, denial of this negative stereotype on the part of a well-meaning out-group member could be threatening. In this situation, a Latino man may even be motivated to act in accordance with the negative stereotype (i.e. act more aggressively). Doing so may be a means by which to validate the veracity of the negative stereotype and restore the completeness of their group identity. Future research may be useful in order to determine whether the effect of out-group denial observed in Manuscript II may extend beyond threats to denial of collective trauma and be applicable to the denial of other negative aspects of a group's identity as well.

Although conceptualizations of self-symbolizing behaviour have been broad, dysfunctional behaviour specifically has never been considered as a means by which to restore identity-completeness. In this way, Manuscript II contributes some new perspectives on the role of symbolic-self completion in the lives of group members. Why would individuals engage in dysfunctional behaviour they know to be counter to important life goals like staying alive,

getting along and getting ahead? When dysfunctional behaviour is considered an individual-level issue, as it is in most of social psychology, there are many factors that can be measured and used to predict an individual's behaviour, including: the individual's socio-economic status, his or her general attitudes regarding the behaviour, the amount of control that individual feels they have other the behaviour, the individual's actual self-control capacities, his or her beliefs regarding the efficacy or beneficial health effect of a behaviour, and the perceived norms of that individual's important social groups. By pointing to identity issues that could reasonably predict the behaviour of groups, not individuals, Daphne Oyserman changed the focus of the conversation regarding dysfunctional behaviour from the individual to the group. The results of Manuscript II focus exclusively on group-identity factors associated with collective dysfunction, and has thus, make a case for two new factors to be added to this list: the symbolism attached to a dysfunctional behaviour, and out-group denial of a victimized group's collective trauma experiences.

Once a dysfunctional behaviour is perceived to symbolize an important aspect of a group identity, the stage is set for dysfunctional self-symbolizing to take place among group members. To take an example from Manuscript II, once neuroticism is associated with their group's history of persecution and victimization, Jewish people may be more likely to be neurotic. However, Manuscript II indicates that group members will only internalize a dysfunctional behaviour when the dysfunctional behaviour serves to validate a collective trauma experience denied by an out-group. So, Jewish people may only internalize neurotic tendencies when they believe that out-groups deny the Holocaust, and/or other traumas Jewish people have experienced. This proposition may sound highly specific, but, out-groups regularly deny the collective traumas of victimized groups. There are many examples of genuinely victimized groups that report denial

on the part of out-groups (e.g. Alfred, 2005; Bezo & Maggi, 2015; Leach, Zeineddine & Cehajic-Clancy, 2013). These accounts are in line with social psychological research demonstrating that the members of powerful perpetrator groups reliably downplay their own negative group history (Baumeister & Hastings, 1997). Out-group denial of collective trauma experiences may therefore be a more common than presently imagined, but underexplored motivating factor implicated in collective dysfunction. The results of Manuscript II indicate however, that the symbolic value of dysfunctional group norms in the face of out-group denial of collective trauma experiences may be two important collective-level factors worthy of future study and consideration for interventions programs. Indeed, the finding that group members were willing to engage in dysfunctional behaviour for the sake of their group identity completeness suggests that protecting one's group identity may be of greater importance to individuals than is presently considered, and perhaps even prioritized by some individuals to come before their physical health.

However, there are two important points that should be mentioned with regards to the results of Manuscript II that may also identify new avenues for future research. For one, in all cases, group members were threatened by the denial of *powerful* out-groups. Would victimized group members also be threatened by a less powerful out-group denying their collective intergroup trauma? This question was beyond the scope of my investigation. Yet, some have suggested that self-harming behaviours represent a group's last resort when their identity is taken from them by a *higher* status group (Alfred, 2005). Moreover, there is some evidence to suggest that groups engage in different group-strengthening strategies in response to threats from high vs. low status groups (e.g. Wohl, Branscombe & Reysen, 2010; Jetten & Wohl, 2012). Power imbalance may also be applicable here, as out-group denial from a lower-status group, who does not have the power to dictate the dominant narrative surrounding the in-group's experiences,

may not be perceived as a genuine threat to group identity. As such, group members may engage in different strategies in order to cope with threats to group identity from a group of equal or lower status, than a threat to group identity from a higher-status, more powerful group. For one, threats from lower-status groups may incite other types of dysfunctional behaviour directed at the lower-status out-group, including intergroup violence or prejudicial behaviour (Wohl, Branscombe & Reysen, 2010; Jetten & Wohl, 2012). Hence, future studies building on these results might aim to elucidate the role of relative group power with regards to group identity threats and their impact on dysfunctional behaviour of victimized group members.

Second, the paradigms employed in Manuscript II only presented group members with an opportunity to engage in one type of behaviour, a dysfunctional behaviour, as a means to restore identity completeness. This was due to my overarching aim, which was to understand the processes underlying collective dysfunction specifically. However, it may be that group members are less likely to engage in dysfunctional group behaviour as a means to self-symbolize in the face of out-group denial when other self-symbolizing options are available. Due to the strong link that exists between trauma and dysfunctional behaviour, as exhibited by Study I (Manuscript II) and elsewhere (e.g. Volkan, 1997; 2001), I maintain that these results are likely applicable to many groups struggling with the aftermath of collective intergroup traumas. Yet, future studies might explore whether group members can achieve identity-completeness in the face of out-group denial by enacting symbolic non-dysfunctional behaviour such as: helping promote one's group history, enacting traditional cultural behaviours, and/or engaging in the healing of one's community through out-reach work and volunteerism. Indeed, this type of research may highlight different intervention approaches for groups struggling with collective dysfunction and out-group denial of their collective intergroup trauma experiences.

Finally, the research designs of studies in Manuscript II were focused on identifying factors leading to the internalization of dysfunctional behaviour, and therefore employed experimental designs. Due to the nature of field research, these designs did not easily lend themselves to real groups that have experienced a collective trauma and report out-group denial of this collective trauma. As such, only Study 4 (Manuscript II) was conducted among a genuinely victimized group (Jewish people) with a clear and distinct collective trauma (the Holocaust). Future studies may need to investigate the association between the role of out-group denial of a collective trauma and the dysfunctional behaviour of real victimized group members. Many groups that have experienced collective traumas also experience high rates of addiction, poverty and other social problems that will complicate interpretation of results pertaining to the impact of out-group denial alone. Yet, exploring perceptions of out-group denial of collective trauma among real groups may also give insight into potential interactions between out-group denial and other realities faced by victimized groups that impact the internalization of dysfunctional behaviours among these populations. To further understand the interplay between group identity and collective dysfunction, a crucial next step may be to take the experimental findings observed here to the field.

**Applied Implications**

Oftentimes, when groups experience a collective intergroup trauma, attempts at reparations include: Truth and reconciliation commissions tasked with gathering and documenting testimonies of collective trauma survivors, and, commitments on the part of perpetrator groups to promote awareness and educate the public about the collective intergroup trauma event. These actions are typically construed to be reparative in nature, demonstrating the genuine willingness for peace and restoration of justice to the victimized group on the part of the

perpetrating group. Yet these actions may also be seen as stepping stones towards healing for the victimized group because by their nature, they involve some conceding of power from the perpetrator group back to the victimized group that restores faith in the possibility of intergroup peace. Yet, the results of Manuscript II suggest that truth and reconciliation commissions, and education programs promoting awareness regarding collective intergroup trauma events, are even more important to a victimized group's recovery than presently considered.

For one, truth and reconciliation commissions provide an opportunity for survivors and their descendants to take back control of the narratives surrounding collective intergroup trauma events, by testifying openly to the historical and present-day impacts of these events on their lives. Without a formal method by which to gather and make available these testimonies, narratives surrounding the intergroup events are too easily determined by the most influential voices: typically, those of powerful, high-status outgroup members. Out-group narratives regarding intergroup trauma events tend to differ greatly from the narratives of victimized groups; and, the results of Manuscript II suggest that differences between out-group/in-group narratives of collective trauma events sometimes lead to an increase in dysfunctional behaviours among the victimized groups. Hence, Manuscript II reveals another benefit of truth and reconciliation commissions. By functioning as a means to amplify, and increase the weight of actual victimized group member's narratives surrounding a collective intergroup trauma, truth and reconciliation commissions may reduce the threat of out-group denial, and thereby, may even reduce the tendency for victimized group members to engage in dysfunctional behaviour.

The results of Manuscript II also indicate that the education of out-group members regarding collective trauma should form an important component of any intervention designed to address collective dysfunction among victimized groups. Education programs promoting

awareness of collective intergroup trauma events are often stipulations required by victimized groups for reconciliation purposes with perpetrator groups. For example, the Truth and Reconciliation Commission of Canada's calls to action include an entire section on education for Canadian children regarding colonialism and the residential school era in Canada (TRC, 2015b). To the extent that education programs like these can curtail out-group denial tendencies among younger generations, these programs may prove essential in both the quality of future intergroup relations, and ability of victimized groups to overcome collective dysfunction.

However, these programs must be administered with care. Presenting younger generations of the perpetrator-group with their group's negative history, when they have no prior knowledge of events, may be overwhelming. Too much knowledge of negative group history at one time may be extremely threatening. To cope with this great amount of personal threat, young members of perpetrator groups may engage in psychological processes that justify harm-doing to the victimized group, increase discrimination, and/or increase their tendency to deny collective intergroup trauma events. This may be especially true in cases where the trauma events of the past are still presented as an ongoing intergroup issue, and lines delineating perpetrator groups from victimized groups are still given substantial weight. Instead, presenting negative group history in a manner that encourages present perpetrator and victimized group members to think of each other with a certain degree of 'oneness' have been found to be especially conducive towards positive intergroup relations, and help out-group members accept appropriate feelings of collective guilt (Wohl, Branscombe & Klar, 2006). As such, education programs need to both educate perpetrator out-groups about the plight of victimized group members, but also promote superordinate identities that help victimized and non-victimized group members move forward peacefully. If carefully designed to present a negative group history in this manner though,

education programs that promote the victimized group's narrative regarding collective intergroup traumas may be a very important tool for interventionists. Specifically, carefully designed education programs may increase empathy for victimized groups, and help perpetrator out-group members to accept their group's collective guilt regarding the collective trauma event. To the extent that this reduces out-group denial of collective intergroup traumas, education programs like these may also be crucial for the well-being of victimized group members (Vollhardt, Mazur, & Lemahieu, 2014), and as demonstrated by the results of Manuscript II, for addressing collective dysfunction among victimized groups

In sum, the findings of Manuscript II indicate that in cases of collective dysfunction among groups that have experienced a collective trauma, intervention programs should be designed with some consideration given to the symbolic value of the dysfunctional behaviour, and the intergroup context as well. As Manuscript II finds that out-group denial of a collective intergroup trauma leads some group members to internalize dysfunctional behaviour, intervention programs should include a component that targets perpetrator out-group attitudes as well. Truth and reconciliation commissions and education programs are only two strategies by which to reduce out-group denial of a victimized group's collective trauma. These results may also shed light on the importance and value of erecting monuments in memory of collective trauma events, or taking part in ceremonies commemorating past traumas (e.g. Remembrance day or Veterans day ceremonies). Future researchers and policy makers may devise other campaigns or methods to increase general awareness and acknowledgement of a victimized group's plight. Doing so may prove to be an important step in addressing persistent collective dysfunction among some of society's most disadvantaged groups.

## Conclusions

The present program of research provides evidence for two distinct, group identity-based pathways leading to the internalization of dysfunctional group behaviour among group members. As such, the present program of research has shed light on new collective-level factors driving the internalization of dysfunctional group behaviour among group members, and hence, collective dysfunction. Drawing from the central tenet of social identity theory, Manuscript I suggests that group members may sometimes internalize dysfunctional group behaviour when the dysfunctional behaviour is perceived to increase intergroup distinctiveness, and increase collective esteem. On the other hand, Manuscript II finds that group members may internalize dysfunctional behaviour as a means to symbolize and validate a group trauma, when this trauma is denied by an out-group. Taken together, these pathways suggest that the motivational impact of group identity should be conceptualized to include construals, or symbolic associations held by group members' vis a vis their group's dysfunctional behaviour. To make a final point about the implications of these findings, and conclude on their significance, I would like to return to my original example, which has been the genesis of this research.

When I was growing up in the Northwest Territories, I was aware that Indigenous communities suffered from a variety of serious social issues. With two parents in the justice system, I knew bad things happened, and I knew that binge drinking was often associated with those bad things. I was, though, blind to the root cause of those issues - i.e. the historical injustices perpetrated upon them, and, the ongoing impacts of those historical injustices on their communities, families and lives. I was taught to respect and be empathetic towards those less fortunate and so I tried to be. Yet, if pressed to describe why Indigenous peoples should have been given priority in hiring policies, or be given "special treatment" as it was often referred to

by critics, I would have no doubt been stuck for a satisfying answer. As such, I too, like many well-meaning non-Indigenous peoples living in the North, may have easily endorsed the narratives of some non-Indigenous people: "It's not fair that we should be penalized just because we're not Indigenous. Why should the Indigenous kids get special treatment? We all grew up in the same town, go to the same school!"

As young Northerners, we were never taught about colonialism or residential schools in the classroom. Presumably in an effort to shelter us from those harsh realities, Northern parents also rarely seemed to talk to their children about the more difficult parts of our collective history, and what white settlers had done to the Indigenous peoples whose descendants were now our neighbours and friends. So, for example, the term "residential schools" didn't mean too much to me as a teenager in Yellowknife, nor my peers. It wasn't until I found myself at McGill University at 20 years old in a lecture on social psychology given by Donald M. Taylor that I heard for the first time the stark truth about the treatment of Indigenous peoples in Canada. Suddenly, my experiences in the North came into focus.

From there, my chosen educational path and doctoral program of research have functioned to ground my empathy for Indigenous peoples in truth. I now see the unique culture and diversity of the North differently. The realities of the collective traumas that occurred there, and are ongoing for Indigenous peoples in the North, are signalled every day in the collective dysfunction plaguing their communities. That truth was always real to *them*, but most of *us* were oblivious to it. The legacy of those injustices is destructive binge-drinking norms, community violence, domestic abuse, suicide, teen pregnancy, and academic underachievement. To *us*, these issues represented present challenges requiring future-oriented solutions. To Indigenous people, these issues also represented past traumas requiring solutions designed within a historical

perspective. For a long time though, our voices, that is, the voices of mainstream Canadians, were louder.

Recent years have brought opportunities for understanding among mainstream Canadians. Starting with Harper's 2008 Apology for the Canadian Residential School system, and the Truth and Reconciliation commission hearings that followed, Indigenous perspectives on these issues have become more dominant. For Indigenous peoples, I now understand that I am an individual representing a group which has perpetrated profoundly inhuman acts upon them. It is not helpful nor constructive for me to make judgments about their experiences nor let my opinions regarding their realities guide my behaviour. Narratives regarding a group's experiences, including their resilience, and healing, must be authored by them. My role as a non-Indigenous Canadian who has the opportunity to live and work in Indigenous communities is to listen to and respect their voices, empower group members to share their truths when I can, and acknowledge the collective traumas of our collective past with genuine respect and empathy.

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# APPENDIX A

## MANUSCRIPT I
## Supplementary Materials

### Study 1

Open-Ended Responses to the question:

"What if anything, does poutine signify (positive) about Quebec culture?"

| Original Response | English Translation | Category |
|---|---|---|
| C'est la tradition des Québecois | It's the tradition of Quebecers | QS |
| les jeunes aime cela | Young people like it | QS |
| Le sexe | Sex | OT |
| Très bon | Very good | FS |
| That Quebec is a friendly and comfortable place | That Quebec is a friendly and comfortable place | QS |
| joie de vivre | Joie de vivre | QS |
| débrouillardise, diversité, inventivité | Resourcefulness, diversity, inventiveness | QS |
| Vite fait, bouche un coin | Made quickly, will surprise you | FS |
| La fine gastronomie | Fine cuisine | FS |
| Emblème de la nourriture | Symbol of food | QS |
| simplicitée | Simplicity | QS |
| le gout | tasty | FS |
| la simplicite | simplicity | QS |
| met distinctif; unique | distinctive and unique dish | QS |
| Unicité | Unity | QS |
| Aucune | nothing | NA |
| Les vieilles traditions simples | old, simple traditions | QS |
| Un plat unique | A unique dish | QS |
| Traditions, (after 3h00 A.M.) | Traditions (After 3am) | QS |
| Gastronomie | Cuisine | QS |
| une certaine notoriete | A certain notoriety | QS |
| l'agriculture | Agriculture | QS |
| bonne fourchette | Good food | FS |
| Rassablement | Coming together | QS |
| l'aspect communautaire | Community aspect | QS |
| Curiosité des visiteurs étrangers | The curiosity of visitors | OT |
| Taste and Proude | Tasty and Proud | QS |
| pour les touristes | for Tourists | OT |
| la simplicite | simplicity | QS |

| | | |
|---|---|---|
| le coté travailleur qui travail de ces mains/a besoin d'énergie | the working class who work with their hands and therefore need energy | QS |
| l'originatlité | originality | QS |
| l'étlhecticité (?) | ? | OT |
| Rien | nothing | NA |
| convivial | Convivial | QS |
| Les enfants adores | Kids love it | FS |
| les gens adore la poutine au Quebec | People in Quebec love poutine | QS |
| rien de tres positif | nothing too positive | NA |
| la nourriture | food | FS |
| :a bonne bouf du Quebec | Good quebec food | QS |
| Plat distinctif | a distinctive dish | QS |

**QS**=Quebec Specific/Cultural Associations; **FS**=Food specific attitudes; **NA**=Nothing; **OT**=Other

**Study 1 – Measures included**

Poutine Positive Distinctiveness Scale

1. When I think of poutine I am proud to be a Quebecker. (positivity)
2. Poutine signifies something positive about Quebec culture. (positivity)
3. For me, eating poutine gives me a good feeling. (positivity)
4. Poutine is a quebec dish. (distinctiveness)
5. Poutine is a distinctive element of Quebec culture. (distinctiveness)
6. Imagine you were going to prepare a dish for others representing your culture... how likely to be poutine? (distinctiveness)

Cultural Significance of Poutine Scale

1. Poutine represents a part of Quebec culture that is not really understood by those that come to Quebec.
2. People who come to Quebec eat poutine because it's delicious, but it's not a cultural act like it is for the Quebecois.
3. Real Quebeckers eat poutine because it is part of the culture.
4. Some people only eat poutine on special occasions or when other people are around = real Quebeckers will eat poutine anytime, even when they are alone.

Frequency of Poutine Consumption items:

1. How often do you eat poutine?
   a. Everyday
   b. 5-6 times per week
   c. 3-4 times per week

d. 1-2 times per week
e. once a week
f. once a month
g. once every few months
h. once a year
i. once every few years
j. never

2. How often do you eat poutine alone?
a. Everyday
b. 5-6 times per week
c. 3-4 times per week
d. 1-2 times per week
e. once a week
f. once a month
g. once every few months
h. once a year
i. once every few years
j. never

**Measures beyond scope of present analysis:**

- frequency of eating poutine at home
- frequency of eating poutine in public
- Who, where and why are they eating poutine *today?*
- Their normal poutine order
- Estimate of the calories and fat in a regular poutine

## Study 2

Manipulations used across conditions

**Non-distinctive construal/public condition**

**Cold Pressor Test Instructions Information Sheet – Part two**

Welcome to the second part of the study. In the next part of this study, you will redo the cold pressor test a second time. It is unclear whether or not there is a practice effect with this test. Previous studies have found that on their second time, participants are sometimes able to keep their hands in the water at least 10 seconds longer than their baseline. However, individual differences were not measured. Therefore, in this study, we are retesting this to see if a practice effect is present, taking into consideration individual differences. There are four steps to this part of the study:

1) Cold Pressor Test 2
   - You will go to the experimental room again and see how long you can leave your hands in the cold water for the second time.
2) Post-experimental Questionnaire
   - Then, you will go to another room and fill out a brief questionnaire. After you are finished the questionnaire, you will play a word game until all participants are finished.
3) Score review and Warm up
   - Afterwards, when everyone is done, you will review your scores together and enjoy a snack.
4) Group Discussion
   - Finally, you will be randomly divided into two groups for the purpose of having a group discussion about what's like to study at McGill.

**Please initial here to indicate that you have read and understood the instructions.**

_____

**Non-distinctive construal/private condition**

**Cold Pressor Test Information Sheet – Part two**

Welcome to the second part of the study. In the next part of this study, you will redo the cold pressor test a second time. It is unclear whether or not there is a practice effect with this test. Previous studies have found that on their second time, participants are sometimes able to keep their hands in the water at least 10 seconds longer than their baseline. However, individual differences were not measured. Therefore, in this study, we are retesting this to see if a practice effect is present, taking into consideration individual differences.

There are four steps to this part of the study:

1) Cold Pressor Test 2
   - You will go to the experimental room again and see how long you can leave your hands in the cold water for the second time.
2) Post-experimental Questionnaire
   - Then, you will go to another room and fill out a brief questionnaire. After you are finished the questionnaire, you will play a word game until all participants are finished. Then, you will all enjoy a snack together.
3) Group Discussion
   - Finally, you will be randomly divided into two groups for the purpose of having a group discussion about what it is like to study at McGill.

***** Please note that all your data and responses to the questionnaire and scores on the cold pressor test will remain confidential. Every effort is made to prevent anyone other than the researcher from knowing what you scored on the cold pressor test. Moreover, your answers on the questionnaire will never be associated with your name and therefore remain anonymous.******

**Please initial here to indicate that you have read and understood the instructions.**

_____

**Negative-distinctive construal/public condition**

**Cold Pressor Test Information Sheet – Part two**

Welcome to the second part of the study. You were recruited for this study because English may not be your first language. Previous studies have shown that bilingual or multilingual people are less sensitive to pain in repeated pain experiences. It was found that this is because they typically experience greater stress as a result of constantly switching from one language to another and this has a dulling effect on the pain response to repeated pain experiences. As a result, bilinguals or multi-linguals were found to be able to keep their hands in the cold water for at least 10 seconds longer than their baseline on the cold pressor test. This effect was not found among monolinguals. However, individual differences were not measured. Therefore, in this study, we are retesting this finding while taking individual differences into account.

There are four steps to this part of the study:

1) Cold Pressor Test 2
   - You will go to the experimental room again and see how long you can leave your hands in the cold water for the second time.
2) Post-experimental Questionnaire
   - Then, you will go to another room and fill out a brief questionnaire. After you are finished the questionnaire, you will play a word game until all participants are finished.
3) Score review and Warm up
   - Afterwards, when everyone is done, you will review your scores together and enjoy a snack.
4) Group Discussion
   - Finally, you will be randomly divided into two groups for the purpose of having a group discussion about what it is like to study in a second language.

**Please initial here to indicate that you have read and understood the instructions.**

_____

**Negative-distinctive construal/private condition**

**Cold Pressor Test Instructions Information Sheet**

Welcome to the second part of the study. You were recruited for this study because English may not be your first language. Previous studies have shown that bilingual or multilingual people are less sensitive to pain in repeated pain experiences. It was found that this is because they typically experience greater stress as a result of constantly switching from one language to another and this has a dulling effect on the pain response to repeated pain experiences. As a result, bilinguals or multi-linguals were found to be able to keep their hands in the cold water for at least 10 seconds longer than their baseline on the cold pressor test. This effect was not found among monolinguals. However, individual differences were not measured. Therefore, in this study, we are retesting this finding while taking into account individual differences.

There are four steps to this part of the study:

1) Cold Pressor Test 2
   - You will go to the experimental room again and see how long you can leave your hands in the cold water for the second time.
2) Post-experimental Questionnaire
   - Then, you will go to another room and fill out a brief questionnaire. After you are finished the questionnaire, you will play a word game until all participants are finished. Then, you will all enjoy a snack together.
3) Group Discussion
   - Finally, you will be randomly divided into two groups for the purpose of having a group discussion about what it is like to study at McGill.

***** Please note that all your data and responses to the questionnaire and scores on the cold pressor test will remain confidential. Every effort is made to prevent anyone other than the researcher from knowing what you scored on the cold pressor test. Moreover, your answers on the questionnaire will never be associated with your name and therefore remain anonymous.******

**Please initial here to indicate that you have read and understood the instructions.**

_____

**Positive-distinctive construal/public condition**

**Cold Pressor Test Instructions**

Welcome to the second part of the study. You were recruited for this study because English may not be your first language. Previous studies have shown that bilingual or multilingual people have greater self-control because they are required to constantly switch from one language to another, requiring them to constantly exercise their self-control. As a result, they were able to keep their hands in the cold water for at least 10 seconds longer than their baseline on a second trial of the cold pressor test. This effect was not found among monolinguals. However, individual differences were not measured. Therefore, in this study, we are retesting this finding while taking individual differences into account.

There are four steps to this part of the study:

1) Cold Pressor Test 2
   - You will go to the experimental room again and see how long you can leave your hands in the cold water for the second time.
2) Post-experimental Questionnaire
   - Then, you will go to another room and fill out a brief questionnaire. After you are finished the questionnaire, you will play a word game until all participants are finished.
3) Score review and Warm up
   - Afterwards, when everyone is done, you will review your scores together and enjoy a snack.
4) Group Discussion
   - Finally, you will be randomly divided into two groups for the purpose of having a group discussion about what it is like to study in a second language.

**Please initial here to indicate that you have read and understood the instructions. _____**

**Positive-distinctive/private condition**

**Cold Pressor Test Instructions Information Sheet – Part two**

Welcome to the second part of the study. You were recruited for this study because English may not be your first language. Previous studies have shown that bilingual or multilingual people have greater self-control because they are required to constantly switch from one language to another, requiring them to constantly exercise their self-control. As a result, they were able to keep their hands in the cold water for at least 10 seconds longer than their baseline on a second trial of the cold pressor test. This effect was not found among monolinguals. However, individual differences were not measured. Therefore, in this study, we are retesting this finding while taking individual differences into account.

There are four steps to this part of the study:

1) Cold Pressor Test 2
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    - Then, you will go to another room and fill out a brief questionnaire. After you are finished the questionnaire, you will play a word game until all participants are finished. Then, you will all enjoy a snack together.
3) Group Discussion
    - Finally, you will be randomly divided into two groups for the purpose of having a group discussion about what it is like to study at McGill.

***** Please note that all your data and responses to the questionnaire and scores on the cold pressor test will remain confidential. Every effort is made to prevent anyone other than the researcher from knowing what you scored on the cold pressor test. Moreover, your answers on the questionnaire will never be associated with your name and therefore remain anonymous.******

**Please initial here to indicate that you have read and understood the instructions.**

_____

**Pre-measures beyond the scope of the present analysis:**

- Extraversion (revised EPQR-A; Francis, Brown & Philipchalk, 1992)*
- Self-Control (Tangney, Baumeister & Boone, 2004)*
- Competitiveness (Helmreich & J.T. Spence, 1978)*
- Self-esteem (Rosenberg, 1965)*
- Agency/Communion Values (Trapnell & Paulhus, 2012)*
- Need to belong scale (Leary, Kelly, Cottrell, & Schreindorfer, 2013)*
- Language proficiency*
- Identification (Cameron, 2004)*
- Pain Catastrophizing Scale (Sullivan, Bishop & Pivik, 1995)*
- Enjoyment of experiment **
- Bondedness with other group members **
- Mood (BMIS; Mayer, 1995) **
- Conformity motivations **

**measured before the experiment began. No differences found between experimental groups on measure.*
*** measured after experiment.*

# APPENDIX B

MANUSCRIPT II
Supplemental Materials

## Study 1

Materials

**Introduction to study (read by all participants):**

Some theorists have argued that translating information from the first person point of view to a clinician's point of view omits important information that can help others make accurate decisions about a patient. In this experiment, you will be given four clinician accounts written according to the Addiction Severity Index guidelines, which is the current standard in clinical psychology. Each paragraph describes the patient's drinking behaviours, and its effect on various areas of his/her life. Based on the information provided to you, you will be asked to first assess the severity of the person's addiction, estimate the circumstances of their upbringing and answer a few questions about your perceptions of them.

**Manipulation for Conditions (Advantaged group or disadvantaged group):**

Condition 1: Patients are from an advantaged group

The following four descriptions were written by clinicians about a number of patients from a certain ethnic group in society. This group experiences high rates of unemployment, poverty, illiteracy, and academic underachievement. The average lifespan of this group's members is well below the national Canadian average, with a higher number of violent or accident-related deaths, or suicides per capita than any other group. As a result, addiction pervades the social fabric of this ethnic group. To control for the effects of gender, age and ethnicity, this information has been removed.

Condition 2: Patients are from a disadvantaged group

The following four descriptions were written by clinicians about a number of patients from a certain ethnic group in society. This group experiences high rates of employment, literacy, academic achievement and higher on average household incomes. The average lifespan of this group's members is well above the national Canadian average, with the lowest rates of violent or accident related deaths, and suicide among any other ethnic group in Canada. Typically, addiction within this ethnic group is rare. To control for the effects of gender, age and ethnicity, this information has been removed.

**Vignettes presented in random order to all participants**
N.B. After each vignette, participants were asked to answer the same set of questions presented in the questionnaire below.

Low Severity Vignette

[Subject S1] is a [age and gender omitted]. [Subject S1] reports regularly drinking on the weekends with friends and only seldom alone. [Subject S1] admits to drinking in excess on a number of occasions, but has rarely experienced "blackouts" or periods of temporary memory loss. [Subject S1] has admitted to driving while under the influence on several occasions but has not experienced any legal problems as a result. The family has expressed some concern over [Subject S1]'s recent absences from family occasions, and [Subject S1] reports feeling demotivated and sluggish at work. In both cases, alcohol use does seem to play a role. Otherwise, [Subject S1] physically healthy person.

Low/Moderate Severity Vignette

[Subject N4] is a [age and gender omitted]. [Subject N4] reports regular drinking in the evenings after work, often alone, and on the weekends, but mostly in a social context. However, [Subject N4]'s social drinking has resulted in numerous absences from work which has been noted by coworkers. [Subject N4] has only been arrested once, for the charge of public intoxication, and so this is noted in this report as relevant information. However, the family report (attached) reveals their concern over [Subject N4]'s recent weight-loss that they believe may be caused by regular consummation of alcohol, as well as [Subject N4]'s tendency to "shut them out" of what is going on in their life.

Moderate/High Severity Vignette

[Subject V2] is a [age and gender omitted], who was referred to me by [physician's name removed] for suspected alcohol addiction, as the [Physician]'s exam revealed certain potentially serious signs of excessive alcohol consumption. Upon clinical evaluation, [Subject V2] admitted to drinking alcohol nearly every day, and constantly, although often in small amounts, but even while at work. [Subject V2] hides their consummation of alcohol from coworkers, family and friends, however, a recent drinking and driving charge has caused considerable tension between [Subject V2] and their family, as well as numerous problems at work. At work, [Subject V2] has recently received a warning as a result of absences and suspected drinking on the job, and is now being threatened with termination.

High Severity Vignette

[Subject F8] is a [age and gender omitted]. [Subject F8] reports consuming large quantities of alcohol on a daily basis, and experiences regular "black outs." It is during one of these blackout periods that [Subject F8] was arrested while operating a motor vehicle. This is [Subject F8]'s third infraction of this type. [Subject F8] is currently unemployed, having been fired a year ago after a number of alcohol-related accidents. [Subject F8] is currently single and reports a decreased number of active relationships with family members and friends as a result of their addiction. After reviewing [Subject F8]'s medical evaluation, it is clear that drinking alcohol has had a number of serious impacts on [Subject F8]'s health, including cirrhosis of the liver, which will require immediate medical intervention.

**Measures included in Study 1**

**Scale measuring severity of addiction (Based on Addiction Severity Index, McLennan, 1980):**

On a scale of 1 - 10, where 1 is least severe and 10 is most severe:

1. Please rate the severity of [Individual described in vignette]'s physical addiction (cravings & withdrawals).
2. Please rate the severity of [Individual described in vignette]'s psychological addiction (emotional, mental).
3. Please rate the impact of [Individual described in vignette]'s addiction on his/her family life.
4. Please rate [Individual described in vignette]'s addiction on his/her physical health.
5. Please rate the impact of [Individual described in vignette]'s addiction on his/her employment status.
6. Please rate the impact of [Individual described in vignette]'s addiction on his/her legal status.
7. Please rate the overall severity of [[Individual described in vignette]'s addiction - taking into account all factors.

**Item measuring severity of trauma:**

[Individual described in vignette] reports experiencing some trauma as a child that has contributed to their addiction. On a scale of 1 - 10, where 1 is least severe and 10 is the most severe, please rate the severity of the trauma this person reports suffering as a child.

**Instructional Manipulation Check:**
At the beginning of this study, I told you that all subjects were from the same ethnic group. Which ethnic group do you believe they are from?

**Other measures beyond the scope of present analysis:**

- Specific type of trauma experienced by individual
- Specific type of trauma experienced by individual's fellow group members
- Believed prevalence of addiction in individual's cultural group
- Social approval for individual's behaviour
- Some demographics: field of study, familiarity with addictions

## Study 2

Manipulations
Information given to all participants in Study 2 in the Out-group Denial condition:
In this study, we are interested in measuring your online pain tolerance score using a new measure called TyPain. Women have been oppressed by men for thousands of years. Throughout history, the roles of women in society have been such that women were forced to cope with much greater amounts of stress than men. Due to the greater amounts of stress women experience as a result of this oppression, women historically developed greater pain tolerances than men.
Many men now deny that women are still affected by this history of oppression. Yet, although many of the overt demonstrations of sexism are gone in our society, some subtle forms of this oppression may still exist and negatively affect women on a daily basis. If this is true, women should still have higher pain tolerances than men.

We are interested in investigating this phenomenon because having higher pain tolerance is highly dysfunctional, as it often causes these individuals to experience greater harm and risk than others.

Information given to all participants in Study 2 in the no Out-group Denial condition:
In this study, we are interested in measuring your online pain tolerance score using a new measure called TyPain. Women have been oppressed by men for thousands of years. Throughout history, the roles of women in society have been such that women were forced to cope with much greater amounts of stress than men. Due to the greater amounts of stress women experience as a result of this oppression, women historically developed greater pain tolerances than men.

Although many of the overt demonstrations of sexism are gone in our society, some subtle forms of this oppression may still exist and negatively affect women on a daily basis. If this is true, women should still have higher pain tolerances than men.
We are interested in investigating this phenomenon because having higher pain tolerance is highly dysfunctional, as it often causes these individuals to experience greater harm and risk than others.\

***Manipulations from Study 2 conditions beyond scope of present research***

*Non-contextualized norm condition*

*In this study, we are interested in measuring your online pain tolerance score using a new measure called TyPain. Women have been oppressed by men for thousands of years. Throughout history, the roles of women in society have been such that women were forced to cope with much greater amounts of stress than men. Due to the greater amounts of stress women experience as a result of this oppression, women historically developed greater pain tolerances than men.*
*As such, most women have higher pain tolerances than men.*
*We are interested in investigating this phenomenon because having higher pain tolerance is highly dysfunctional, as it often causes these individuals to experience greater harm and risk than others.*

*In-group and Out-group denial condition*

*In this study, we are interested in measuring your online pain tolerance score using a new measure called TyPain. Women have been oppressed by men for thousands of years. Throughout history, the roles of women in society have been such that women were forced to cope with much greater amounts of stress than men. Due to the greater amounts of stress women experience as a result of this oppression, women historically developed greater pain tolerances than men.*
*However, a recent survey indicates most people feel that women are no longer oppressed or affected by this history of oppression. As such, most people believe that modern women experience the same stress levels as men.*
*We are interested in investigating this phenomenon because having higher pain tolerance is highly dysfunctional, as it often causes these individuals to experience greater harm and risk than others.*

*Control condition*

*No information given.*

**Instructions for TyPain task:**

The following is an online task designed to measure your pain tolerance. To demonstrate your pain tolerance, please type "I can take pain" as many times as you are able to in the box below, up to 200 times.

**Measures included in Study 2**

**Liberal Feminist Attitude and Ideology Scale (Morgan, 1996)**

All items rated on a 6-point scale from strongly agree to strongly disagree.

**Gender Roles subscale**

1. It is insulting to the husband when his wife does not take his last name.
2. Of the husband is the sole wage earner in the family, the financial decisions should be his.
3. When they go out, a man and woman should share dating expenses if they both have the same income.
4. As head of the household, the father should have final authority over his children.
5. Both husband and wife should be equally responsible for the care of young children.
6. The first duty of a omwan with young children is to home and family.
7. A man who has chosen to stay at home and be a house-husband is not less masculine than a man who is employed full time.
8. An employed woman can establish as warm and secure a relationship with her children as a mother who is not employed.
9. A woman should not let bearing and rearing children stand in the way of a career if she wants it.
10. Women should be more concerned with clothing and appearance than men.

**Goals of Feminism sub-scale**

1. A woman should have the same job opportunities as a man.
2. Although women can be good leaders, men make better leaders.
3. Equality between the sexes is a worthwhile goal.

**Discrimination and Subordination sub-scale**

1. Even though some things have changed, women are still treated unfairly in today's society.
2. Women have been treated unfairly on the basis of their gender throughout most of human history
3. The achievements of women in history have not been emphasized as much as those of men
4. Men have too much influence in American politics compared to women.
5. People who complain that pornography treats women like objects are overreacting
6. Men still don't take women's ideas seriously.
7. Women are already given equal opportunities with men in all important sectors of their lives.
8. Women have fewer choices available to them as compared to men.
9. Women in the U.S. are treated as second-class citizens.
10. All men receive economic, sexual and psychological benefits from male domination.

**The Sisterhood sub-scale**

1. What happens to women generally in this country will have something to do with what happens in my life.
2. Things that are true of my life as a woman are true for most women.
3. When I hear about a woman who was raped, I think " that could have been me."
4. When I talk to other women, I frequeantly feel as if we have a lot in common just by being female.
5. As women, we particularly need to support legislation that helps other women.
6. Women really cannot trust most other women with their boyfriends or husbands.
7. One should never trust a woman's account of another woman.
8. It is a shame when a woman neglects her female friends for her male friends.
9. Women have a bong with one another that is stronger than women's bond with men.
10. The only thing that women have in common is the fact that they can give birth to children.

**Other measures beyond the scope of present analysis:**

- Identification (Cameron, 2004)
- Status of women in society
- Perceived discrimination and disadvantage faced by women
- Attitudes towards pain
- Some demographics: religion practiced, household income, political affiliation, social class, languages spoken

## Study 3

Manipulations

Out-group Denial condition

Welcome to our study!

**Why are you here?**

You, and all the other members of your experimental group, have been recruited to take part in this study because you have all indicated that English is not your first language, but you all study in English at an English university.

**The Multilingual Stress Effect**

Some studies demonstrate that working or studying in a language that is not your mother tongue increases the daily stress levels of these individuals. This has become widely recognized as the "Multilingual Stress Effect."

**Is the Multilingual Stress Effect a Myth?**

A recent poll in the McGill Daily indicates that most Anglophone students and many of the professors and administrative staff at McGill do not think that non-Anglophone students experienced more stress than Anglophone students. Indeed, on the surface it does not appear that multilingual students have a harder time than students studying in their first language: e.g. there are no differences in overall GPA between these groups. Yet, there may be some subtle signs that multilingual students *do* experience more stress than their monolingual peers: i.e. self-report data indicates that this may be true. If this is true, multilingual students should have greater pain tolerances than monolingual students.

**Multilingual Stress Effect and Pain Tolerance**
One way of examining whether multilingual students are actually affected by the Multilingual Stress Effect at the university level is by examining pain tolerance on *repeated pain tasks*. Specifically, students not studying in their first language have been found to leave their hands in the water 10 seconds longer than their baseline, on average, on the cold pressor test. This is because the type of stress experienced by multilingual students causes multilingual students to have greater pain tolerance on repeated pain tasks. This effect was not found among students studying in their first language.
However, having higher progressive pain tolerance isn't necessarily a good thing, as it can be harmful to an individual's health. Generally, it is far more adaptive to have self-protective instincts. If you are reading this, please write "YES" instead of signing your name below.

**Next steps**
Throughout the experiment, **your scores on both cold pressor tests will remain completely private**. No one from your experimental group will have any knowledge of your performance on either of the cold pressor tests. Your scores will be represented and published in group-form only.

1. To test this, we will ask you to now perform the cold pressor test a second time.

2. Afterwards, you will be asked to fill out a post-experimental questionnaire.

3. Finally, we will ask you to share a small snack with the other members of your experimental group during a brief warm-up period.

Please sign the form below to indicate that you have read and understand the instructions:

_____

<u>No out-group denial condition:</u>
Welcome to our study!
**Why are you here?**
You, and all the other members of your experimental group, have been recruited to take part in this study because you have all indicated that English is not your first language, but you all study in English at an English university.
**The Multilingual Stress Effect**
Some studies demonstrate that working or studying in a language that is not your mother tongue increases the daily stress levels of these individuals. This has become widely recognized as the "Multilingual Stress Effect."
**Multilingual Stress Effect and Pain Tolerance**
One way of examining whether multilingual students are actually affected by the Multilingual Stress Effect at the university level is by examining pain tolerance on *repeated pain tasks*. Specifically, students not studying in their first language have been found to leave their hands in the water 10 seconds longer than their baseline, on average, on the cold pressor test. This is because the type of stress experienced by multilingual students cause multilingual students to

have greater pain tolerance on repeated pain tasks. This effect was not found among students studying in their first language. However, having higher progressive pain tolerance isn't necessarily a good thing, as it can be harmful to an individual's health. Generally, it is far more adaptive to have self-protective instincts. If you are reading this, please write "YES" instead of signing your name below.

**Next steps**

Throughout the experiment, **your scores on both cold pressor tests will remain completely private**. No one from your experimental group will have any knowledge of your performance on either of the cold pressor tests. Your scores will be represented and published in group-form only.

1. To test this, we will ask you to now perform the cold pressor test a second time.
2. Afterwards, you will be asked to fill out a post-experimental questionnaire.
3. Finally, we will ask you to share a small snack with the other members of your experimental group during a brief warm-up period.

Please sign the form below to indicate that you have read and understand the instructions:

_____

**Measures included in Study 3**

**Demographics:** age, gender, ethnicity, first language.

**Perceived Stress Scale (Cohen, 1994)**

Rated on a 5 point scale: 0 = Never 1 = Almost Never 2 = Sometimes 3 = Fairly Often 4 = Very Often

**1.** In the last month, how often have you been upset because of something that happened unexpectedly?
**2.** In the last month, how often have you felt that you were unable to control the important things in your life?
**3.** In the last month, how often have you felt nervous and "stressed"?
**4.** In the last month, how often have you felt confident about your ability to handle your personal problems?
**5.** In the last month, how often have you felt that things were going your way?
**6.** In the last month, how often have you found that you could not cope with all the things that you had to do?
**7.** In the last month, how often have you been able to control irritations in your life?
**8.** In the last month, how often have you felt that you were on top of things?
**9.** In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

**Other measures beyond the scope of present analysis:**

- Some demographics: religion practiced, household income, political affiliation, social class, all languages spoken (pre-experimental measure)
- Identification (Cameron, 2004; pre-experimental measure)
- Self-Control (Tagney, Baumeister & Boone, 2004; pre-experimental measure)
- Need to Belong (Leary et al., 2012; pre-experimental measure)
- Attitude towards pain (pre-experimental measure)

- Group disadvantage (pre-experimental measure)
- Group Bonding (Bastian, Jetten & Ferris, 2014; post-experiment)
- Willingness to support group causes (post-experiment)
- Effort exerted during cold pressor task (post-experiment)
- Beliefs regarding personal/group pain tolerance norms (post-experiment)
- Beliefs regarding impact of multilingual stress effect on oneself and one's group in general (post-experiment)
- Mood (Mayer & Gaschke, 1988; post-experiment)
- Enjoyment of experiment (post-experiment)
- Intrinsic motivation scale (4 items based on Intrinsic motivation inventory; Ryan, 1982; post-experiment)
- Suspicion (post-experiment)

## Study 4

**Manipulations**

Holocaust Denial condition

The Holocaust was the systematic, bureaucratic, state-sponsored persecution and murder of six million Jews by the Nazi regime and its collaborators. Holocaust is a word of Greek origin meaning "sacrifice by fire." The Nazis, who came to power in Germany in January 1933, believed that Germans were "racially superior" and that the Jews, deemed "inferior," were an alien threat to the so-called German racial community.

During the era of the Holocaust, German authorities also targeted other groups because of their perceived "racial inferiority": Roma (Gypsies), the disabled, and some of the Slavic peoples (Poles, Russians, and others). Other groups were persecuted on political, ideological, and behavioral grounds, among them Communists, Socialists, Jehovah's Witnesses, and homosexuals.

However, many people today continue to deny the Holocaust. This includes public figures in Germany such as Patrick Schmidt, who has been quoted as saying that "it was physically impossible for the gas chambers in Auschwitz to have functioned as a killing apparatus because the diesel engines that powered it could not produce enough carbon monoxide to be lethal." Holocaust denial is still well and alive in Germany."

Holocaust Acknowledge Condition

The Holocaust was the systematic, bureaucratic, state-sponsored persecution and murder of six million Jews by the Nazi regime and its collaborators. Holocaust is a word of Greek origin meaning "sacrifice by fire." The Nazis, who came to power in Germany in January 1933, believed that Germans were "racially superior" and that the Jews, deemed "inferior," were an alien threat to the so-called German racial community.

During the era of the Holocaust, German authorities also targeted other groups because of their perceived "racial inferiority": Roma (Gypsies), the disabled, and some of the Slavic peoples

(Poles, Russians, and others). Other groups were persecuted on political, ideological, and behavioral grounds, among them Communists, Socialists, Jehovah's Witnesses, and homosexuals.

Today, the Holocaust is commemorated in Germany in many ways, including through annual Days of Remembrance events. Patrick Schmidt, a public figure in Germany, was quoted at last year's event saying, "We have to learn the history of the Holocaust, to know it as best we can. Remembering the Holocaust and understanding how it came about is part of making sure it never happens again." The Holocaust is commemorated in many ways in Germany.

**Measures included in present study:**
**Demographics:** country of birth, gender, ethnicity.
**Historical Oppression of Jewish people:**

1. Jews have been the target of prejudice in the past.
2. The historical oppression of Jews still affects Jews today.

**Eysenck Neuroticism Subscale - Brief Version (Sato, 2005)**

Please answer the following questions on a scale from 1 (not at all) to 5 (extremely):

1. Does your mood often go up and down?
2. Do you ever feel miserable for no reason?
3. Are you an irritable person?
4. Are your feelings easily hurt?
5. Do you often feel "fed-up"?
6. Would you call yourself a nervous person?
7. Are you a worrier?
8. Would you call yourself tense or "highly-strung"?
9. Do you worry too long after an embarrassing experience?
10. Do you suffer from nerves?
11. Do you often feel lonely?
12. Are you often troubled about feelings of guilt?

**Measures beyond the scope of the present study**

- Some demographics: household income, social class, education level, religion, political affiliation, first language
- Group identification (Cameron, 2004)
- Group Discrimination and Disadvantage
- Group Status
- Mood (Mayer & Gaschke, 1988)
- Attitudes towards neuroticism