Benevolent Stigmatisation in all its States: Multifaceted Consequences of Paternalistic Stereotyping

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Thesis abstract

The aim of this thesis is to take a closer look at the impacts of stigmatisation on its targets. In two theoretical, we attempted to establish a somewhat complete picture of the state of the research in daily stigmatisation and its consequences, and tried to enrich it through four experimental chapters. Our two first chapters are reviewing the relevant literature in an attempt to identify some gaps that deserved to be filled, with our first chapter drawing up an overview of studies that highlight this daily and always well present stigmatisation, and our second chapter focalising more on two important kinds of stigmatisation, the clearly hostile one and the subtly benevolent one, to, in a second time, focus our attention on a form of benevolent stigmatisation based on an implicitly suggested incompetence, i.e. paternalistic stereotyping. The experimental chapters 3, 4, 5 and 6 will be as many attempts of enrichment of the researches conducted in the field of paternalistic stereotypes. As we shall notice it in Chapter 2, the cognitive consequences of paternalistic stereotypes received a substantial amount of attention within the research literature, leaving the affective and behavioural consequences somewhat understudied. Hence, our experimental chapter will focus more specifically on the impacts of paternalistic stereotyping on targets' affects and behaviours, separately in a first time, and in conjunction in a second time. Chapter 3 will complement the research tackling the behavioural impacts of benevolent paternalism. Chapter 4 will further our understanding of how paternalistic stereotyping is experienced affectively by young workers within the specific context of the workplace. Chapter 5 will take a closer look at, first, the unique effect of paternalistic stereotyping on motor/behavioural performance, and, second, at the mediating role of two sport-relevant emotions, i.e. cognitive anxiety and selfconfidence. Chapter 6 will be the conclusion of our experimental researches and will explore ways how to help victims of paternalistic stereotyping cope with its subsequent detrimental effects that we identified in Chapter 5. Finally, chapter 7 will be a summary of the entirety of our findings, as well as a discussion of the practical implications, scientific interests and limitations of our work, and suggestions for future research.

Résumé de la thèse

L'objectif de cette thèse est d'examiner les effets de la stigmatisation chez les personnes qui en sont la cible. A travers deux chapitres théoriques et quatre chapitres expérimentaux, nous tenterons d'établir une vue la plus complète de la stigmatisation au quotidien et de ses effets, pour ensuite tenter de l'enrichir. Nos deux premiers chapitres passent en revue la littérature en lien avec notre thème principal afin d'identifier des trous qui méritent d'être comblés, avec notre premier chapitre qui dresse un aperçu des études qui mettent en évidence cette stigmatisation quotidienne toujours bien présente, et notre second chapitre qui se focalise plus précisément sur deux types d'expression de la stigmatisation, la clairement hostile et la subtilement bienveillante, pour ensuite se concentrer sur un type plus précis de stigmatisation bienveillante basée sur une incompétence suggérée, la stéréotypisation paternaliste. Les chapitres expérimentaux 3, 4, 5, et 6 sont autant de tentatives d'enrichissement des recherches réalisées dans le domaine de la stéréotypisation paternaliste. Comme nous pourrons l'observer dans le chapitre 2, les conséquences cognitives des stéréotypes paternalistes ont reçu une belle attention de la part de chercheurs, aux dépends des conséquences affectives et comportementales. Dès lors, nos chapitres expérimentaux s'intéresseront aux impacts à ces deux types d'impacts. Le chapitre 3 complètera la recherche sur les conséquences comportementales du paternalisme bienveillant. Le chapitre 4 nous aidera à mieux comprendre comment la stéréotypisation paternaliste est vécue d'un point de vue affectif par de jeunes travailleurs dans le contexte particulier du monde du travail. Le chapitre 5, quant à lui, s'intéressera, d'abord, à l'effet unique du paternalisme sur les performances motrices de jeunes athlètes, et ensuite, au rôle médiateur de deux émotions spécifiques au monde sportif, l'anxiété cognitive et la confiance en soi. Le chapitre 6 clôturera notre réflexion expérimentale en explorant l'efficacité de trois stratégies de réduction des effets délétères du paternalisme sur les performances motrices identifiés dans le chapitre 5. Enfin, notre dernier chapitre sera un résumé général de nos résultats mais discutera également des implications pratiques, des intérêts scientifiques et des limitations de ce travail, pour se clore sur des propositions de recherches futures.

This PhD thesis will be defended on June 21st, 2016, before the following jury

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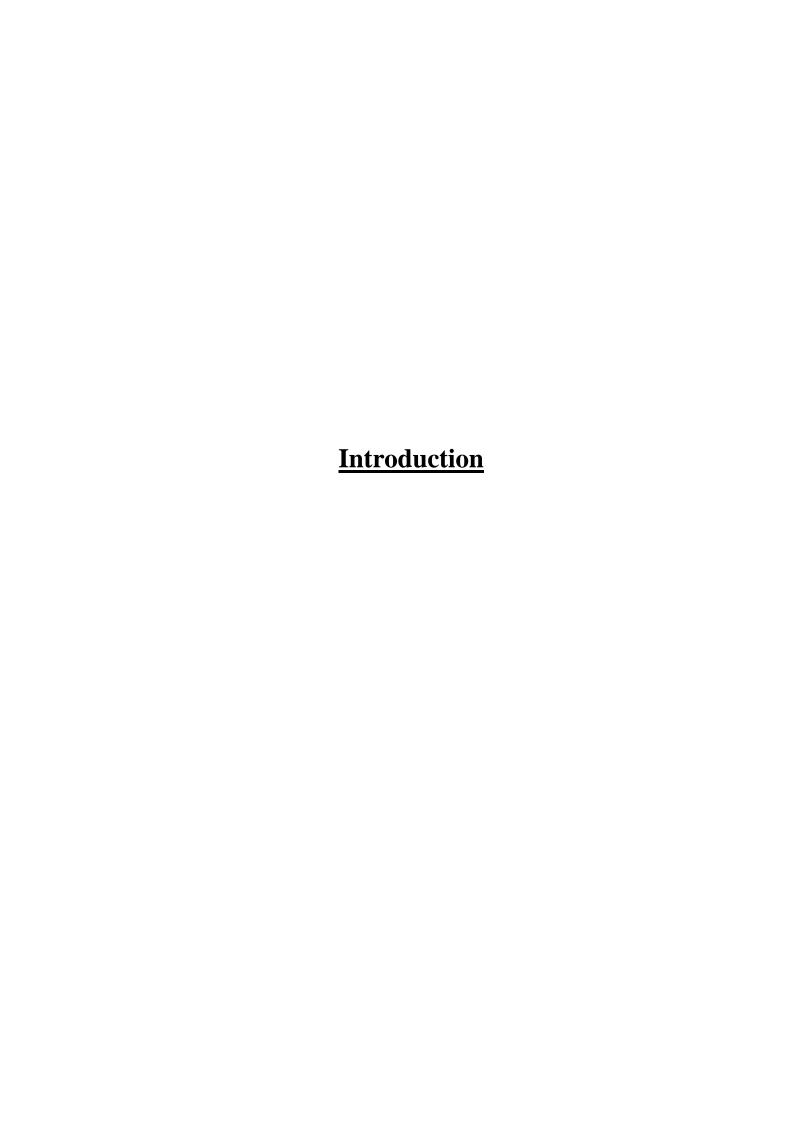
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At the time of writing these lines, Europe has been shaken by several news headlines. First of all, it is impossible not to talk about the terrorist attacks that have hit the heart of Europe these last few months. The Parisians still have difficulties recovering from the slaughters that took place one festive evening, where everyone enjoyed either a long-awaited musical concert or having a drink outside at their favourite bar's terrace. People in Brussels are still struggling getting back on their feet after the violence of the attacks in a place generally synonymous of travels, joy and excitement. The Muslim population also suffer from those attacks, being collateral victims. Speeches of hatred, demonstrations of far-right extremists, and racist comments on the social networks are just a sample of the many examples of a growing stigmatization of Muslims throughout Europe.

Because of these same sowers of terror, a real human tragedy is taking place in Syria as well. Millions of people are fleeing from their country, chased by a war that is plaguing their country. Their escape to Europe does not happen without anguish. Once they have accomplished their dangerous journey and have safely arrived in peaceful countries, their sufferings are not over yet. The Europeans are not ready to welcome all these people escaping from their countries not driven by a desire to conquer and invade Europe, but because of a vital need to survive. Recently, an agreement between Turkey and the European Union has been sealed so as to curb the flow of migrants to Europe. This agreement plans for a return to Turkey of all illegal immigrants in Greece since March 20, 2016. The text also stipulates that for every Syrian expulsed from Greece, another one will be admitted to the EU, with a limit of 72000.

In a less terrifying field, the news in Belgium tell us that, based on the data of 2012, women still earn 9% less than their male counterparts, figures that can soar up to 20% based on the monthly gross income (Centre of Equality Between Men And Women in Belgium).

In such a context, it is difficult to not think and speak about discriminations, prejudices and stereotypes. Within the framework of this thesis, our aim is to demonstrate that this is not an exceptional situation and that the presence and pervasiveness of multiple forms of stigmatisation is not new and particular to the current social context.

In a **first chapter**, we will draw up an overview of studies that highlight this daily and always well present stigmatisation. Be it in the sphere of health and health care or in the professional or even judicial sphere, disparities exist and have consequences that are rarely just a bit detrimental. Access to treatment and treatments of lesser quality, difference in salary, harsher prison sentences, damaged satisfaction and wellbeing at work, lower employment, etc., these are only a few instances of discrimination endured daily by racial minorities, women, homosexuals, obese and mentally ill people.

In a **second chapter**, we will focalise more on two important kinds of stigmatisation, the clearly hostile one and the subtly benevolent one, through a literature review. In the presentation of this literature, we will try to identify some gaps that deserved to be filled, focalising more specifically on a form of benevolent stigmatisation based on an implicitly suggested incompetence, i.e. paternalistic stereotyping.

The experimental chapters 3, 4, 5 and 6 will be as many attempts of enrichment of the researches conducted in the field of paternalistic stereotypes. As we shall notice it in Chapter 2, the cognitive consequences of paternalistic stereotypes received a substantial amount of attention within the research literature, leaving the affective and behavioural consequences

somewhat understudied. Hence, our experimental chapter will focus more specifically on the impacts of paternalistic stereotyping on targets' affects and behaviours, separately in a first time, and in conjunction in a second time.

Chapter 3 will complement the research tackling the behavioural impacts of benevolent paternalism. Through two experimental studies, we will observe how women's expectations of benevolence, either activated by the presence of a man presenting benevolent facial characteristics or by their own level of beliefs in the benevolent sexism ideology, influence their subsequent behaviour in economic decision-making.

In **Chapter 4** we will use three types means to measure affective state (self-reports, emotional Stroop task, and Social Sharing of Emotions) to further our understanding of how paternalistic stereotyping is experienced affectively by young workers within the specific context of the workplace.

Chapter 5 will take a closer look at, first, the unique effect of paternalistic stereotyping on motor/behavioural performance, and, second, at the mediating role of two sport-relevant emotions, i.e. cognitive anxiety and self-confidence.

Chapter 6 will be the conclusion of our experimental researches and will suggest three strategies to cope with stigmatisation, two emotions-based and one mindfulness-based. The three studies will explore ways how to help victims of paternalistic stereotyping cope with its subsequent detrimental effects that we identified in Chapter 5.

A summary of the entirety of our findings, as well as a discussion of the practical implications, scientific interests and limitations of our work, and suggestions for future research will be presented in **Chapter 7**.

Chapter One

The Daily Problematic of Stigmatisation

With the current "migrants' crisis" in Europe, the problematic of stereotypes, prejudice and discrimination is more newsworthy than ever. Although the majority of European countries and their population are doing everything in their power to welcome refugees, in some countries borders are being closed, while in other people are marching against their governments' politic of welcoming refugees escaping from a war situation. When reporters are interviewing the attendants of such protest, some express a certain degree of fear of being invaded by values that are not theirs, of being forced into following precepts of a religion different from theirs, or of losing their jobs to migrants, or even of becoming the next country targeted by terrorist attacks. Stereotypes and prejudice therefore follow that fear. For instance, in Germany, where a large number of migrants are trying to find refuge, hateful discourses are emerging, anti-Muslim movements are getting stronger, neo-Nazi ideas are spreading, and sometimes, in some rare occasion, a minority of individuals is setting fire to refugee welcome centres.

However, one should not think that the emergence of stigmatisation in the form of discrimination, stereotype, and prejudice, is recent and only associated with the migrants' crisis. Indeed, despite several Civil Rights Movements; despite laws prohibiting discrimination on the basis of age, gender, sexual orientation, birth, wealth, religious or philosophic beliefs, civil status, political beliefs, trade-union beliefs, mother-tongue, current or future health state, handicap, physical or genetic characteristic, or social origin; despite criminal penalties and fines for discriminatory behaviours, everyday life discrimination is still a reality for several minorities.

In this chapter we will present studies acknowledging the presence and persistence of everyday stigmatisation, its various effects on physical and mental health, on work-related issues, and on criminal justice sanctions, and, finally, we will focus on some strategies developed to reduce stigma.

Everyday life stigmatisation

Many social groups are still targeted by stigmatisation and discrimination in everyday life, based on their gender, their race, or their sexual orientation, but also based on their medical condition. For example, women report two sexist incidents per week in average (Swim, Hyers, Cohen, & Ferguson, 2001) but also reported experiencing a high level of benevolent sexism in the past year (Fitz & Zucker, 2015). Instances of sexist incidents included, but are not limited to, comments reflecting women's inferiority in certain domains, unwanted touching, demeaning labels or street remarks (Swim, Cohen, Hyers, Fitzgerald, & Bylsma, 1997) or unsolicited help form peers and partners (Fitz & Zucker, 2015).

Through a survey, d'Augelli & Hershberger (1993) asked African-American college students to relate their daily experience with racism. Only 11% of the sample reported never having heard demeaning remarks about African-Americans. Three types of racist behaviours have been identified: being stared at, being the target of verbal expression of stereotype, and receiving bad service (Swim et al., 1997). Pregnant African American women also reported experiencing daily encounters with racism, such as racist comments in the workplace, social distancing from Whites, and disrespect and distrust from stores' employees (Nuru-Jeter, Dominguez, Hammond, Leu, Skaff, Egerter, et al., 2008).

Other ethnic minorities, American Indians and Alaska Natives for instance, also suffer from daily discrimination, such as being treated with less respect, less courtesy, and as being considered as less smart than other people (Gonzales, Noonan, Goins, Henderson, Beals, Manson, et al., 2016) or being treated unfairly during prenatal care, labour, and delivery based on their insurance status or age (De Marco, Thorburn, & Zhao, 2008). In a large research, Brettell (2011) interviewed more than 600 immigrants from five different national origins and among them, 70% of Nigerian

respondents as well as more than 40% of Salvadorian and Mexican respondents, said that they were personally facing serious ethnic and racial discrimination problems in the United States.

Lesbian, gay and bisexual populations are at a great risk of encountering discrimination in everyday life, too. Indeed, surveyed young LGB individuals reported experiencing verbal harassment (61%), sexual harassment (47%), physical harassment (28%), and verbal assault (14%) on a daily basis. 90% of the respondents said that they very often heard homophobic remarks at their school (GLSEN, 1999; see also Meyer, 2003, for a review).

Discriminatory behaviours and prejudiced attitudes do not solely affect individuals based on their gender, sexual orientation or ethnic origins, individuals with a medical condition are not spared from it either. Mentally ill, HIV-infected and obese persons are confronted by discriminatory behaviours in their daily lives. For example, a national social survey in the United States showed that more 50% of the surveyed respondents were reluctant to: spend an evening with, work next to, or have a family member marrying a person with mental illness (Martin, Pescosolido, & Tuch, 2000). In a sample of 2466 HIV-infected patients, 18% reported being avoided, 8 % being refused service, and 17% being treated as inferior by health care providers (Schuster, Collins, Cunningham, Morton, Zierler, Wong, et al., 2005). In the case of obesity, Puhl & Brownell (2006) found that 53% of their surveyed participants were targets of inappropriate comments about their weight from their physician. In a similar vein, women reported discourteous treatment and negative attitudes from health care providers, and reported receiving unwanted advices about a weight loss strategy (Amy, Aalborg, Lyons, &Keranen, 2006; see Puhl & Heuer, 2009, for a review). Some additional study also revealed that heavyweight women were less likely to see their parents pay for they college education than are normal-weight women (Crandall, 1995).

All the aforementioned research is a reminder of the still prejudiced and unequal contemporary society.

Effects of daily stigmatisation

Daily encounters of social stigmatisation do not go without consequences; indeed, negative impacts on mental and physical health, work employment and promotion, and criminal justice, have been largely reported by the scientific community. In the following sections, we will present a non-exhaustive number of researches showing how stigmatisation impacts the day-to-day life of individuals with a stigmatised identity in the health-related field, in the professional sphere, and the justice system.

Effects of stigmatisation on physical and mental health

Numerous researches have evidenced a negative association between stigmatisation of social groups and mental and physical health. For instance, perceived sexism and perceived racism have been found to be associated with poor mental health (Borrell, Artazcoz, Gil-Gonzáles, Pérez, Rohlfs, & Pérez, 2010; Nye, Brummel, & Drasgow, 2009; Paradies, 2006), decreased levels of self-reported general physical health (Larson, Gillies, Howard, & Coffin, 2007; Nye et al., 2009), physical fatigue (Thomas, Bardwell, Ancoli-Israel, & Dimsdale, 2006), incidence of breast cancer (Taylor, Williams, Makambi, Mouton, Harrell, Cozier, et al., 2007), and sexual problems (Zamboni & Crawford, 2007), to name only a few. Very recently, perceived discrimination during adolescent years has also been found to be linked to further stress-related negative health outcomes in adulthood (Adam, Heissel, Zeiders, Richeson, Ross, Ehrlich, et al., 2015).

An association between specific mental and physical health symptoms, such as suicidal ideation and low birth weight, and perceived stigmatisation has been evidenced. Indeed, in a population of gay and bi-sexual Latino, suicidal ideation was found to be strongly associated with experience of homophobia, job discrimination and racism (Diaz, Ayala, Bein, Henne, & Marin, 2001). In several samples of young mothers from diverse ethnic minorities, low birth weight was connected to perceived discrimination (Earnshaw, Rosenthal, Lewis, Stasko, Tobin, Lewis, et al.,

2013; Lauderdale, 2006; Mustillo, Krieger, Gunderson, Sidney, McCreath, & Kiefe, 2004), which in turn is linked to health throughout life, with low weight birth babies being more prone to suffer greater illnesses and neurodevelopmental problems (Hack, Klein, & Taylor, 1995, see also Earnshaw et al., 2013). Although socioeconomic status, as well as education, age, gender, income, etc., can constitute a partial explanation of the association between discrimination and health, this association had been found to be quite robust, even after potential confounding variables were controlled for (Pascoe & Richman, 2009).

The majority of the studies above-cited were conducted in the United States. However, the negative association between perceived stigmatisation and mental and physical health has also been observed in European countries, such as, but not limited to, the Netherlands (Veling, Selten, Susser, Laan, Mackenbach, & Hoek, 2007), England (Karlsen, Nazroo, McKenzie, Bhui, & Weich, 2005), Spain (Borrell et al., 2010), Bosnia, Croatia and Austria (Sujoldžić, Peternel, Kulenović, & Terzić, 2006) or Norway (Oppedal, Røysamb, & Heyerdahl, 2005, see Williams & Mohammed, 2009, for a review).

Processes underlying the adverse effect of stigmatisation on health

In a desire to identify the underlying potential mechanisms through which perceived discrimination may have an impact on mental and physical health, Pascoe and Richman (2009) conducted a meta-analysis on 134 studies. From their reading of the literature, the authors highlighted two major mechanisms, that is, heightened physiological and psychological stress response, and health behaviours. The authors focused, on the one hand, on studies that examined the impacts of experimentally manipulated perception of discrimination on stress responses, and, on the other hand on studies that explored various health behaviours following an experience of discrimination. However, based on our literature review, we have reasons to think that at least one additional element could be included. We suggest that attitudes of, and stereotypes held by, health-

care providers could also influence stigmatised individuals' health, by varying the level of satisfaction with care and the level of trust in care providers; the quantity of time care providers spent with the patient; or the extent to which health providers prescribe the appropriate treatment or further medical appointments. Therefore, in the subsequent section, we present studies measuring the link between perceived discrimination and, 1) stress response (physiological and psychological); 2) health behaviours, and, 3) health providers' stereotypes and attitudes.

• Heightened physiological and psychological stress responses to stigmatisation

Several researchers have tried to understand response to stigmatisation in light of a stress and coping framework (e.g. Major, Quinton, & McCoy, 2002) and have considered the experience of stigmatisation as a stressor that subsequently triggers a stress response. Both physiological and psychological stress responses have been evidenced to appear after a discriminatory encounter.

Regarding *physical stress responses*, discrimination can result in elevated cardiovascular reactivity, higher cortisol levels, enhanced blood pressure, and greater vascular reactivity. For instance, when women received a sexist feedback from a man whom they later interacted with, the results showed that during the interaction, their levels of cortisol were more important than when women did not receive any sexist feedback from their interaction partner (Townsend, Major, Gangi, & Mendes, 2011). In another study, exposure to sexist comments from a male co-worker induced an elevated cardiovascular reactivity in women during the interaction with this sexist co-worker (Schneider, Tomaka, & Palacios, 2001). Experience of racism also influences women's stress responses. Indeed, Guyll, Matthews & Bromberger (2001) have observed a positive association between racial-related mistreatments and elevated cardiovascular reactivity amongst women. The same positive association has been found in a population of men (Merritt, Bennett, Williams, Edwards, & Sollers, 2006).

Regarding the psychological stress responses, discrimination can result in increased levels of depression, anger, anxiety, self-reported negative emotions, and psychological distress, as well as in decreased levels of well-being, and self-esteem. For example, sexist encounters have been found to trigger diverse psychological stress responses amongst women, with high reports of negative emotions (Barreto & Ellemers, 2005; Oswald, Franzoi, & Frost, 2012), of psychological distress (Nye et al., 2009), and of depression and anger (Swim et al., 2001), but also with higher levels of psychiatric symptoms (Klonoff, Landrine, & Campbell, 2000). In a similar vein, weight stigma is also related to psychological stress responses, such as depression (Chen, Bocchieri-Ricciardi, Munoz, Fischer, Katterman, Roehrig, et al., 2007; Friedman, Reichman, Costanzo, Zelli, Ashmore, & Musante, 2005), anxiety (Shvey, Puhl, & Brownell, 2014), diminished self-esteem (Friedman et al., 2005; Jackson, Grilo, & Masheb, 2000; Rosenberger, Henderson, Bell, & Grilo, 2007) and lowered self-acceptance (Carr & Friedman, 2005). Racial stigma has been observed to induce psychological stress responses amongst members of racial and ethnic minorities, too. For instance, greater experience of racism predicted higher levels of psychological distress in a sample of African American college freshmen (Bynum, Burton, & Best, 2007). In a survey of Korean immigrants in Toronto, a positive relation was found between discrimination and depressive symptoms and a negative relation was found between discrimination and positive affect (Noh, Kaspar, & Wickrama, 2007). Moreover, increased scores on a scale of perceived discrimination were associated with higher scores on a depression scale among Mexican-origin adults living in California (Finch, Kolody, & Vega, 2000). In addition, in a sample of American-born Black and Latino adults, a significant relationship between racism perceived throughout their whole life and negative affect has also been revealed (Brondolo, Brady, Thompson, Tobin, Cassells, Sweeney, et al., 2008).

• Decreased level in self-control and decreased health behaviours

Not only do the targets of stigmatisation suffer physical and psychological stress, their behaviour regarding their health is affected as well. For example, an elevation in alcohol, drugs or cigarette consumption has been observed amongst stigmatised individuals. In effect, recent undergraduate students' experiences of sexism were positively associated to enhanced binge drinking and smoking (Zucker & Landry, 2007). Last year experience with discrimination was positively associated with smoking behaviours, both amongst men and women (Borrell et al., 2010). In the same line, minorities who were frequently exposed to discrimination were found to be 2.3 times more likely to be smokers, compared to low-discrimination counterparts (Landrine, Klonoff, Corral, Fernandez, & Roesch, 2006). The same pattern appears in African American adolescents (Guthrie, Young, Williams, Boyd, & Kintner, 2002). African American adults confronted by racial discrimination presented higher odds to engage in cigarette, alcohol, and marijuana consumption, compared to African American adults not confronted to racial discrimination (Borrell, Jacobs, Williams, Pletcher, Houston, & Kiefe, 2007). In Filipino Americans, positive association between unfair treatments and alcohol dependence, illicit drug use, and prescription drug use has been evidenced (Gee, Delva, & Takeuchi, 2007). In South Africa, discrimination was positively associated with drug and alcohol abuse, both of which are then positively linked to risky behaviours of HIV sexual transmission (Kalichman, Simbayi, Kagee, Toefy, Jooste, Cain, et al., 2006). Similarly, everyday experience of sexism amongst college women has been found to diminish their condom use when engaging in sexual intercourses (Fitz & Zucker, 2015). Unhealthy eating behaviours constitute yet another example of stigmatisation's harmful effect. Indeed, Annis and colleagues (Annis, Cash, & Hrabosky, 2004) observed that amongst overweight women, frequency of weight-stigmatisation and binge-eating were positively related. Similarly, another study showed that weight-based teasing was linked to eating-disorders (Benas & Gibb, 2008).

It has been suggested that discrimination could impact health by decreasing self-control, and then potentially augment participation in unhealthy behaviours (Pascoe & Richman, 2009). Supporting this idea, it has been shown that being exposed to stigmatisation results in self-control depletion (Bair & Steele, 2010; Inzlicht, McKay, & Aronson, 2006). This may, in turn, as suggested

by Pascoe and Richman (2009), lead to a decrease in resources or in energy to make healthy behaviour choices. Gibbons and his colleagues (Gibbons, O'Hara, Stock, Gerrard, Weng, & Wills, 2012) experimentally tested the mediation role of decreased self-control in the relationship between discrimination and substance use in African American adolescents. The results revealed that experience of discrimination in adolescence was linked to lessened self-control, which in turn predicted substance use. Those findings therefore confirmed Pascoe and Richman (2009)'s hypothesis.

• Health-care providers' stereotypes and attitudes

As introduced earlier in the beginning of the section, it seems to us that at least one additional element could be added to the two preceding ones, that is the health providers' stereotypes and attitudes. A large body of literature took an interest in examining to what extent care providers' stereotypes influences their interaction with patients displaying any sort of stigmatised identity.

Research has demonstrated that minority patients are perceived by their care providers in different stereotypic ways. For instance, in a survey study, physicians perceive black patients to be at higher risk of noncompliance with treatment, of substance abuse, and perceived them to be less smart than white patients (van Ryn & Burke, 2000). In addition, in examining implicit bias amongst physicians, Green and colleagues (Green, Carney, Pallin, Ngo, Raymond, Iezzoni et al., 2007), showed that even though physicians did not show an explicit preference for white over black patients, implicit pro-white bias and implicit stereotypes of black Americans as being less cooperative in general, and with medical procedures specifically, has been recorded (see also Sabin, Rivara, & Greenwald, 2008).

Obese patients also suffer from care providers' stereotypes towards their group. Studies have evidenced that physicians, nurses and medical students generally see obese patients as noncompliant, lazy, depressed, unattractive, lacking willpower, self-control and motivation (Brown,

2006; Fogelman, Vinker, Lachter, Biderman, Itzhak, & Kitai, 2002; Foster, Wadden, Makris, Davidson, Sanderson, Allison, et al., 2003; Wigton & McGaghie, 2001, see Puhl & Heuer, 2009, for a review).

Women are not shielded from stereotyping in health care settings either. In effect, medical staff sees female patients as more demanding, needing more time, and talking more about unessential things than male patients (Foss & Sundby, 2003).

In addition to the obvious social inappropriateness, holding stereotypes about a patient is problematic in that it influences the care providers' quantity of time spent with the patient and the prescription of appropriate treatment, the patients' satisfaction with care and trust in care providers, as well as the patients' further visits to medical settings.

Regarding *physicians' time spent with patients*, a study experimentally demonstrated a decrease in time physicians were willing to spend when the profile they viewed depicted an overweight patient, compared to a profile of a normal-weight patient (Hebl & Xu, 2001). Treatment recommended to a patient is also impacted by the physicians' bias. Indeed, it has been shown that the more physicians presented an implicit pro-white bias, the less likely they were to prescribe appropriate treatment related to black patients' cardiac condition (Green et al., 2007). In a similar vein, van Ryn and colleagues (van Ryn, Burgess, Malat, & Griffin, 2006) found that the negative effect of patient ethnicity on physicians' recommendation for bypass surgery was mediated by physicians' perceptions of black as less educated and less physically active. In another study, it has been shown that physicians' recommendations for cardiac catheterisation differed according to patients' race and gender (Schulman, Berlin, Harless, Kerner, Sistrunk, Gersh, et al., 1999). Although specific stereotypes were not measured, the study's results revealed that women and black patients were less likely to be recommended for cardiac catheterisation than were men and white

patients¹. Care providers' stereotypes about their patients have also been found to influence patients' evaluation of the care interaction and subsequent health behaviours. A study targeted at African Americans receiving care within an ambulatory health centre, showed that the higher the perception of racism, the weaker the reported trust and satisfaction with care (Benkert, Peters, Clark, & Keves-Foster, 2006). Patients perceiving racism were less satisfied with care, and this link was partially mediated by a decrease in cultural mistrust and trust in provider. The mistrust in the medical system has been shown to subsequently alter Black people's attitude towards medical care, with negative attitudes more pronounced amongst Black individuals than amongst White individuals (Chen, Fox, Cantrell, Stockdale, & Kagawa-Singer, 2007). Conversely, a greater use of preventive services is associated with higher trust in care providers (O'Malley, Sheppard, Schwartz, & Mandelblatt, 2004). Physicians' stereotypes and attitudes within the interaction with their somewhat stigmatised patients are therefore of quite substantial importance in their patients' subsequent use of appropriate care. Disrespectful and negative attitudes from care providers are amongst the reasons provided by overweight women explaining their delay of care (Amy et al., 2006). Similarly, perceived discrimination has been proven to be negatively related to use of medical and mental health care among several populations living in the United States (Burgess, Ding, Hargreaves, van Ryn, & Phelan, 2008).

In summary, psychological and physiological adverse stress responses to discrimination, unhealthy behaviours as well as the care provider's attitudes and stereotypes all have a certain way at deteriorating stigmatised individuals' mental and physical health.

Unfortunately, the impacts of daily stigmatisation are not solely limited to the stigmatised individuals' health, their opportunities to find a job, to get promoted, to access appropriate training, or to receive a fair and decent salary are also affected.

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¹ As pertinently noted by one of this thesis' jury members, the results might have to be interpreted with caution regarding physicians' recommendations for women. Indeed, it appears that women's arteries become weaker with age, leading physicians to recommend catheterisation to lesser extent for medical reasons. The gender effect found in the study could be due to this specific variable.

Effects of stigmatisation on work-related field

Discriminating a candidate or an employee based on their race, gender, physical or psychological condition, is prohibited and legally punishable. That being said, discrimination is present at all stages of employment, starting in the recruitment process and continuing in the workplace. Women, ethnic minorities, mentally ill, physically disabled, elderly, and overweight persons, all are at some point disadvantaged because of their social identity.

Before entering the work market, all applicants are not equal before the recruitment process. For instance, when researchers sent a curriculum vitae with either an African American sounding name or a White sounding name to real job offers, 50% more call backs for further interview were received by the applicant with a White sounding name, compared to the applicant with a Black sounding name (Bertrand & Mullainathan, 2003). In a field study, Bendick and colleagues (Bendick, Jackson, & Reinoso, 1994) reported that 39.6% of African American candidates were interviewed for a job position, whereas 48.3% of White candidates were interviewed for the same position. In addition, 46.9% of White interviewed received job offers, with only 11.3% for the African American candidate. In a similar way, when curriculum vitae with a female name were sent to an engineer job offer, 46% were not called back for an interview, compared to 23% of male curriculum vitae. Gender discrimination does not only concern women. Indeed, in the same study when curriculum vitae with a male name were sent to a secretary job offer, almost 59% were never invited for a further interview, compared to less than 16% for female applicants (Riach & Rich, 2006). Several researchers have been examining possible explanations in the recruitment disparities. For example, Masser & Abrams (2004) experimentally showed that the degree of participants' adherence to sexist beliefs influenced their evaluation of a female candidate for a managerial job. The higher their level of adherence to sexist beliefs, the more negative their evaluations of the female candidate and the less they recommended her to be employed for the job. Additionally, in another study, it has been demonstrated that the more participants positively rated a sexist interviewer, the less positively they rated the female applicant on competence and hireability (Good & Rudman, 2010). Likewise, in a study asking participants to evaluate overweight applicants on their hireability, it has been revealed that overweight candidates were evaluated less positively than their normal-weight counterparts (Finkelstein, Frautschy Demuth, & Sweeney, 2007). The stigmatised perception of the interviewer therefore diminishes the chances for an applicant stemming from a stigmatised social group to get a job.

Once applicants successfully entered the labour market, they may face other instances of discrimination, such as lower pay checks, less promotion, and less training. For instance, women, gay and bisexual men, overweight, and minority workers, earn substantially less money than men, heterosexual men, normal-weight, and non-minority workers, respectively. Indeed, the women's wage is lower than that of men (Blau & Kahn, 2007; Tabak, Showail, Parks, & Kleist, 2005), gay and bisexual men workers' salary is from 11% to 27% lower than the one of heterosexual men workers (Badgett, 1995), mildly obese and severe obese white women earn 5.8% and 14% less than their normal weight counterparts, respectively (Maranto & Stenoien, 2000), and Asian federal employees receive a lower salary than comparably qualified non-minorities. In addition to the pay gap, the Asian federal employees hold less supervisory positions (Kim & Lewis, 1994). In a same vein, it has been reported that, though nearly half of junior doctors in Ireland are from non-EU countries, only 1% of them achieve the consultant status (Birchard, 2001), showing a difficulty to attain the higher ladder of hierarchy. One explanation of the lack of promotion in the organisational ladder for women is offered by Heilman (2001), who suggest that women are prevented to ascent the ladder because they are seen as less competent than men. He also suggested that women's competence is perceived as stemming mainly from other characteristics such as teamwork or male management. Another explanation is offered by Rudman and Killianski (2000) who showed that women with a high authority job (doctor or police officer) are perceived more negatively than women with a low authority job (waitress or nurse). The authors suggested that women "intruding" masculine jobs are disliked and therefore it is harder for them to access those higher authority jobs.

No matter which type of discrimination employees experience in their workplace, whatever the reason why they are treated unfairly, the consequences of such stigmatisation are deleterious for their mental health and job satisfaction. In effect, gender discrimination has been associated with low well-being (Miner-Rubino & Cortina, 2004), as well as low job satisfaction and high psychological distress (Bond, Punnett, Pyle, Cazeca, & Cooperman, 2004; Nye et al., 2009). Racial discrimination at work has been shown to result in elevated risk of mental disorders (Bhui, Stansfeld, McKenzie, Karlsen, Nazroo, & Weich, 2005), low job satisfaction and poor mental health (Miller & Travers, 2005), and in high work stress and psychological distress (Wadsworth, Dhillon, Shaw, Bhui, Stansfeld, & Smith, 2007). It also has been evidenced that age discrimination amongst older police officers is related to low affective and normative commitment, as well as low job and life satisfaction (Redman & Snape, 2006).

Countless CVs to send, dozens or hundreds of equally competent applicants to surpass, numerous recruitment officers to convince, etc., the whole process of finding a job is not an easy task to achieve. But that is without counting on the additional difficulty of being a woman, or having a few exceeding kilos, or being attracted to same-sex people, or having a slightly more coloured skin. Not only member of stigmatized social groups suffer weaker chance to be invited to a job interview, when they actually are hired to do their job, equal pay, equal opportunities to get appropriate training, or to get well deserved promotions, seem to be out of reach. It comes as no surprise that these employees report poor mental health and weak job satisfaction.

Effects in the criminal justice domain

The effects of stigmatisation go beyond the health and employment fields, some evidence of these effects are observed in encounters with law enforcement officials, too. For instance, one study has revealed a higher proportion of mistakenly shooting an unarmed Black suspect, compared to a White unarmed suspect, amongst police officers (Plant & Peruche, 2005). However, those results have to be considered cautiously in that another study found that policemen do not shoot black targets more quickly than White targets (Correll, Park, Judd, Wittenbrink, Sadler, & Keesee, 2007). Plant & Peruche (2006) found the valence of both past relationships with Black people and beliefs about Black people's criminality to be of great influence in police officers' decision to shoot an unarmed Black person during a shooting simulation. Indeed, the bias of shooting an unarmed Black person is eliminated when police officers hold positive beliefs about the criminality of Black people and when they report greater positive past relationships with the Black community.

Triggering more uniform results, a number of researchers have taken an interest in the role of adherence to traditional gender role ideologies in the victims' blaming and the perpetrators' culpability and subsequent recommended sentencing in the case of rape or domestic abuse.

In the *case of rape*, several studies have shown that the victim of a rape was blamed in a greater extent when she did not conform to a stereotypically traditional female role, e.g. when she was raped during an act of infidelity (Viki & Abrams, 2002) or when she went out to a party without hiring a babysitter for her children (Masser, Lee, & McKimmie, 2010); when the perpetrator was the victim's husband (Durán, Moya, Megías, & Viki, 2010); and when the person who rated the victim's responsibility in the rape highly adhered to traditional sexist view of women (Durán et al., 2010; Masser et al., 2010; Viki, Abrams, & Masser, 2004). A similar effect has been found with the level of racism reported by the person judging the victim's responsibility, i.e. the higher the level of racism, the greater the perceived victim's responsibility in the rape (George & Martínez, 2002). In addition, evaluator's racism or adherence to sexist traditional ideology predicted the perpetrator's perceived responsibility and sentencing. In effect, the more racist the "rape evaluator" was, the less they perceived the perpetrator as responsible (George & Martínez, 2002). Similarly, a greater adherence to traditional sexist values was related to a shorter recommended sentence for the rape perpetrator (Viki et al., 2004).

Analogous findings were reported in the *case of domestic abuse*. Wife beating was more legitimised by Brazilians and Turks who highly adhere to traditional sexist beliefs than their non-sexist counterparts (Glick, Sakallı-Ugurlu, Ferreira, & de Souza, 2002; Sakallı, 2001). In the same vein, a married man who has been using violence toward his wife was less likely to be perceived as abusive by participants who highly espoused traditional sex role stereotypes, compared to their more egalitarian counterparts. Moreover, when the victim of a husband's violence was depicted as African American, the traditionalist reported the incident as less abusive and recommended shorter sentences than did egalitarians (Willis, Hallinan, & Melby, 1996).

Longer sentences have also been found to be associated with the perpetrator's racial stereotypicality, and conformity to the criminal stereotype. For instance, the more a Black criminal is perceived to possess stereotypically black facial features, the higher the likelihood of being sentenced to death when murdering a White victim (Eberhardt, Davies, Purdie-Vaughns, & Johnson, 2006). Stereotypically black facial features do not apply only to Black criminals. Bair and colleagues (Blair, Judd, & Chapleau, 2004) showed that the more Afrocentric features a criminal face displays, the longer the sentence; the face being either black or white. That is, within both White and Black criminals, those with more stereotypically black facial features faced longer sentences than criminals with less stereotypically black facial features. The degree to which a criminal matches the normal criminal stereotype (i.e. young, Black or Hispanic, prior bad acts) also influences the sentence's length. Studies have evidenced judges making attributions about offenders based on their match with a criminal stereotype, hence examining the file less thoroughly and ending in harsher sentences (Auerhahn, 2007; Steen, Engen, & Gainey, 2005). That being said, not all stereotypes lead to harsher sentences for members of ethnic minorities. For instance, Johnson & Betsinger (2009) took an interest in Asian criminal sentencing and discovered that the positive stereotype associated with the Asian populations in the US resulted in less incarceration than for Black or Hispanic offenders.

Again, the researches presented in this section demonstrated the insidious effects of stereotyping and stigmatisation. Depending on the social group the perpetrators belong to, the criminal conviction differ significantly. Unfortunately, stigmatisation also impacts the way in which the victim is perceived. Victims from some stigmatized social groups are deemed more responsible for what happened to them than others, depending on the judges' system of values.

Strategies to reduce bias

After identifying some of the adverse effects stigmatisation has on the stigmatised, researchers have taken an interest in studying strategies to reduce stigma, either by examining the efficacy of institutionally implemented ones (i.e. affirmative action), or by experimentally suggesting strategies aimed at reducing intergroup bias (i.e. intergroup contact, and common identity) or at changing stigmatized attitudes and prejudices via educational settings (i.e. completing a social prejudice course, etc.). The purpose of this chapter not being an extended presentation of research on bias reduction, the following section will only be a non-exhaustive introduction to some of the most studied strategies.

Affirmative action

Affirmative action "occurs whenever an institution proactively goes out of its way to assure fair treatments of members of all ethnic groups and of both genders" (Schmukler, Rasquiza, Dimmit, & Crosby, 2010, p. 460). Although some researchers have evidenced positive outcomes of affirmative action, such as a greater employment effort and higher hiring of minorities candidates (Holzer & Neumark, 2000, see Harper & Reskin, 2005, for a review), other researchers have emphasised more adverse effects. For instance, Heilman, Block, & Stathatos (1997) showed that when asked to evaluate a potential candidate for a position as computer programmer, managers showed a general tendency to negatively rate competence of, and to recommend smaller salaries increases for, women who were described as benefiting from affirmative action, compared to women not associated with

affirmative action and to men. Similarly, less favourable perceptions of and attitudes towards minorities that have been described as benefiting from affirmative action programs have been reported (Maio & Esses, 1998). Another way through which researchers think affirmative action can be harmful for beneficiaries is in a self-evaluated feeling of competence. In effect, when women were led to think that their teammate believed they had beneficiated from gender-based preferences, not only did they assume that their partner perceived them as less competent, but they also perceived themselves as less competent (Heilman & Alcott, 2001).

Reducing prejudice via the reduction of intergroup bias

Contact

A first strategy to reduce intergroup bias is based on Allport (1954)'s contact theory, which holds that out-group attitudes should be improved once two opposing groups come in contact with each other. However, simple contact was hypothesised by Allport not to be sufficient on its own, some prerequisite conditions needing to be in place to foster positive intergroup interaction that reduces prejudice and conflicts between groups (Pettigrew, 2008). Equality in status (equal status and power in the interaction), interdependence (cooperation to achieve common goals), gross-group friendship potential, positive experience that counters the negative outgroup stereotypes, and support from societal institutions were suggested to be essential to optimal intergroup contact (Allport, 1954; Pettigrew, 1998). However, a meta-analysis of more than 500 studies conducted by Pettigrew & Tropp (2006) revealed that intergroup contact is successful in reducing prejudice, even for contact that did not meet Allport's proposed conditions.

A large body of literature has focused on intergroup contact as a way to reduce intergroup bias. For instance, Berger and his colleagues (Berger, Abu-Raiya, & Gelkopf, 2015) evaluated a newly elaborated Arab-Jewish Class Exchange Program, in which Arab students interact with Jewish students during specific artistic activities, with an emphasis on the development of feelings of

tolerance and sympathy towards the other group. The authors measured the students' stereotypes and prejudicial attitudes before and after the intervention. A significant decrease in emotional prejudice and in discriminatory tendencies as well as an increase in positive thoughts and readiness for contact was observed within the students in the intervention group, compared to students who did not participate in the Class Exchange Program. Similarly, Pagotto & Voci (2013) investigated the effects of reports of positive direct contact with immigrants among Italian nationals and found a positive link between positive direct contacts with immigrants and positive outgroup attitudes. Cross-group friendship has also been evidenced as an effective way to reduce negative implicit outgroup attitudes (Turner, Hewstone, & Voci, 2007a; Turner, Hewstone, Voci, Paolini, & Christ, 2007b; Vonofakou, Hewstone, & Voci, 2007).

Even though direct contact is superior to indirect contact when it comes to ameliorate intergroup attitudes (Turner et al., 2007a, 2007b), a context of direct contact might not be easy to create. Hence, researchers have started to take an interest in indirect forms of contact and, more specifically, in examining the possibility for indirect contacts to achieve similar positive outcomes than direct contacts. For instance, Pagotto et al. (2013) in their research considering the attitudes of Italian nationals towards immigrants demonstrated a positive indirect association between positive mass mediated contact (via TV news or movies) and positive outgroup attitudes and reduced prejudice, through elevated feelings of trust and empathy.

At least four types of indirect contact have been considered, that is, extended contact, imagined contact, vicarious contact, and virtual contact.

• Extended contact

The theory of extended contact suggests that merely knowing that an in-group member has a close relationship with an out-group member can decrease bias (Wright, Aron, McLaughlin-Volpe, & Roppe, 1997). The authors evidenced this effect in four experiments (Wright et al., 1997). In the

first experiment, the authors have shown that White students reporting knowing a friend who had a friend from an ethnic minority group presented less affective and general prejudice towards the targeted minority group. The results of the second experiment revealed a similar pattern when the respondents were from ethnic minorities. In the third experiment, the authors also demonstrated a decrease in out-group prejudice once participants learnt about a cross-group friendship. Finally, in the fourth experiment, less out-group negative attitudes were found in participants observing a cross-group friendship. In another study using two cross-community surveys, it has been evidenced that extended contact diminished prejudice towards the out-group, but only indirectly through a decrease in intergroup anxiety, amongst Protestant and Catholic students in Northern Ireland (Paolini, Hewstone, Cairns, & Voci, 2004). The mediational role of decreased intergroup anxiety has been demonstrated by Turner and colleagues, as well (Turner et al., 2007a; Turner, Hewstone, Voci, & Vonofakou, 2008).

The effect of extended contact has also been observed in young children. Indeed, a prejudice-reduction intervention consisting in reading stories describing a close friendship between non-disabled and disabled children to non-disabled young pupils resulted in pupils' increased positive attitudes towards the disabled (Cameron & Rutland, 2006). Another study from Cameron and colleagues (Cameron, Rutland, Brown, & Douch, 2006) yielded similar results with children's attitudes towards refugees.

• Imagined contact

It is not necessary to be in contact with or know someone who is in contact with a member of the out-group, simply imagining being in contact with an out-group member can be sufficient to improve intergroup attitudes. Indeed, through 3 experiments, Turner, Crisp, & Lambert (2007) showed that lower levels of intergroup bias were reported by participants who were asked to imagine talking to an elderly person, compared to participants imagining an outdoor scene. The

same pattern was shown in a second study with participants imagining talking to an elderly person, compared to participants merely thinking about elderly people. Male heterosexual participants in the third study who were asked to imagine talking to a homosexual man reported lower intergroup anxiety, and more positive evaluations of homosexuals, compared to a control group. Imagined contact also reduces implicit intergroup bias. Turner & Crisp (2010) demonstrated the effect of imagined contact in relations with Muslims, too. The authors found more positive implicit attitudes towards Muslims in general after non-Muslim participants imagined having a conversation with a Muslim stranger, compared to a control condition. A positive link between imagined contact and prejudice reduction has also been evidenced in relation with the prejudice against people with schizophrenia (West, Holmes, & Hewstone, 2011; West & Turner, 2014).

• Vicarious contact

Vicarious contact rests upon the idea, developed in social learning theory (Bandura, 1986), that watching someone's behaviour, particularly someone with whom one identifies, can influence one's behaviour (see Dovidio, Eller, & Hewstone, 2011). Therefore, it is hypothesised that watching ingroup members having a successful interaction with out-group members can reduce intergroup bias. Indeed, low levels of prejudice have been observed after the viewing of a television program portraying a positive intergroup relation between straight people and gay men and transvestites (Schiappa, Gregg, & Hewes, 2005). Ortiz & Hartwood (2007) also found correlational links between positively depicted straight-gay and White-Black televised interactions, and positive attitudes toward the respective out-group. In a similar vein, more positive intergroup affects, and less perceived intergroup uncertainty were reported by students after the vision of a video of a successful interaction between a German and a Chinese student, and after imagining working together with a Chinese co-worker (Mazziotta, Mummendey, & Wright, 2011). In addition, inclination to further engagement in actual contact with the outgroup has been evidenced following the videos portraying the positive intergroup interaction.

• Virtual contact

With the prevalent use of computers and the Internet, researchers started to consider virtual contact as another tool to create indirect contact. Several online contact programs used in intergroup conflict situations are evaluated by researchers, e.g. Protestants-Catholic conflict in Northern Ireland (Austin, 2006) or Israeli-Palestinian conflict (Hoter, Shonfeld, & Ganayim, 2009). Positive outcomes of virtual contact are reported, such as increase in mutual understanding or greater empathy (see Hasler & Arnichai-Harnburger, 2013). White and colleagues (White & Abu-Rayya, 2012; White, Abu-Rayya, Bliuc, & Faulkner, 2015; White, Abu-Rayya, & Weitzel, 2014) examined the change in out-group bias within students involved in a Dual-Identity Electronic Contact (DIEC) program, in which internet-based intergroup contact between Australian Muslims and Australian Christians took place using a synchronous chat tool. During the 8 internet sessions of the program, two Muslim and two Christian students discussed about sustainable environmental strategies to preserve the Australian environment. Compared to a control group, in which no intergroup contact took place, students in the DIEC program reported less anger and sadness, and more positive words, which in turn predicted lessened short- and long-term intergroup bias. Similarly, Yablon & Katz (2001) showed that an internet-based intervention aiming at promoting values of tolerance, equality, understanding and peace in order to influence relations between Jewish and Bedouin Arab students, produced positive outcomes in attitudes adopted by students.

Common ingroup social identity

A second strategy to reduce intergroup bias focused on social identity. In order to simplify complex environment, humans tend to classify people and objects in categories. Social categorisation therefore appears when individuals are classifying people into categories. When doing so, individuals classify themselves into a social category and out of the others. Ingroup/outgroup social categorisation has immediate effects on how individuals are thinking and

feeling about, and perceiving each other (see Dovidio, Saguy, Gaertner, & Thomas, 2012). Consequently, a way to reduce intergroup bias created by social categorisation is to work on social identity. Researchers have experimentally tested the efficacy of manipulating social identity. For instance, Dovidio and colleagues (Dovidio, Gaertner, Schnabel, Saguy, & Johnson, 2010), resting on the Common Ingroup Identity Model (Gaertner, Dovidio, Nier, Banker, Ward, Houlette, & Loux, 2000), varied the social identity of a Black confederate, either by asking him to describe himself to White participants by saying that he saw himself primarily as being either a student at Colgate University (common identity), a Black person (different group), a Black student of Colgate University (dual identity), or as being an unique individual (separate individuals). The results showed that White participants reported feeling more positively towards a Black confederate when the latter advocated a common identity rather than any other identity. The level of prejudice towards Blacks was also reduced in the common identity condition (Dovidio et al., 2010). However, Hornsey & Hogg (2000) suggest that the creation of a common superordinate identity alone might have an opposite effect to what is expected. According to Social Identity Theory (Tajfel & Turner, 1979), individuals try to achieve a positive social identity through an identification of positive differences between the ingroup and a relevant out-group. Focusing on between group similarities, as it is the case in the common ingroup identity creation, might therefore be problematic in that it threatens the perceived distinctiveness of the ingroup and its social identity, which in turn facilitates prejudiced thoughts. Indeed, Zárate and colleagues (Carpenter, Zárate, & Garza, 2007; Zárate, & Garza, 2002) demonstrated that a focus on differences between groups led to a reduction in prejudice. Similarly, Hornsey & Hogg (2000) showed that the level of intergroup bias was higher in a condition in which a superordinate identity alone (university membership made salient) was created, compared to a condition in which the subordinate identity (faculty membership) was simultaneously activated with the superordinate identity. It seems that creating a common superordinate identity can be an effective means in reducing intergroup bias, on the condition that the other subgroup's original identity is still fully integrated and accounted for. Crisp, Stone, & Hall (2006) expanded these findings by defining more precisely conditions in which the bias of recategorisation in one common group appears. Through three experiments, they found that the extent to which individuals are attached to their ingroup influences the level of both implicit and explicit intergroup bias. Indeed, only when individuals highly identify with their ingroup do they show greater implicit and explicit ingroup favouritism. In other words, the threat to positive group distinctiveness merely arises for individuals for whom group membership is an important part of their selves. In a fourth study, the authors also replicated the positive impacts of the simultaneous activation of a superordinate (university student), and a subordinate (humanities student) identity previously observed by Hornsey & Hogg (2000).

Reducing prejudice via educational settings

Another means through which bias can be reduced is to inform and educate people about the stigmatized groups. In Japan, Tanaka and colleagues (Tanaka, Ogawa, Inadomi, Kikuchi, & Ohta, 2003) looked closely at the effects of an educational lecture on mental health and welfare targeted at industrial workers and government employees. The authors measured attitudes towards the mentally ill and the understanding of mental illness before and after the 1.5hr lecture. Results showed that the participants reported a better understanding and more positive attitudes towards mental illness and the people who suffered from mental illness after the lecture. Similarly, Pinfold and colleagues (Pinfold, Toulmin, Thornicroft, Huxley, Farmer, & Graham, 2003) examined the effectiveness of an intervention designed to ameliorate pupils' views of mental illness and of people that are suffering from it. Two 1hr educational sessions took place, in which mental health workers concentrated on students' understanding of mental health and mental illness, and on challenging the negative stereotypes students might have regarding mental illness. Those sessions were complemented with sessions facilitated by a person with personal experience with mental illness. The results showed an attenuation of negative attitudes among students, as well as lessened use of derogatory terms to

describe people suffering from mental illness one week and six months after the intervention. The levels of attitudes and derogatory words increased between the 1-week and the 6-months follow-up, but never to reach the initial levels observed before the intervention. Hence, although the effects of the intervention diminished in the long-term, there was an overall, albeit small, positive shift in students' perception of mental health and mental illness.

Along the same lines, an internet-based intervention aimed at changing the anti-fat attitudes among current and future teachers evidenced a substantial decline in those attitudes following the 5-hrs online course. This decline was still observed six weeks after the intervention took place (Hague & White, 2005).

School-based interventions have also been developed in order to decrease bias based on race, gender or sexual orientation. For instance, it has been evidenced that students attending a seminar on prejudices showed lower levels of negative racial attitudes, compared to students who did not follow that seminar (Rudman, Ashmore, & Gary, 2001). Likewise, greater tolerance and less racism were observed in students who completed a diversity course, compared to those who did not take the course (Hogan & Mallott, 2005). Pettijohn & Walzer (2008) contrasted levels of sexism, racism and homophobia before and after the completion of a psychology of prejudice course, that consisted in the examination of the development of prejudice, stereotyping, and discrimination from a social psychology perspective. Compared to a control group, in which students did not follow the psychology of prejudice course, students who attended the course presented a significantly higher reduction in their levels of old-fashioned and modern racism, modern sexism, and negative attitudes towards homosexuals.

All the results presented above highlight the importance of the content of educational courses and the predominant role that teachers can play in the process of reducing intergroup biases and prejudices.

Be it institutionally implemented or experimentally tested, strategies to reduce bias have picked the interest of researchers. Research in intergroup contact, whether direct or indirect, yielded positive and very encouraging results in decreasing negative attitudes and prejudice towards outgroups, with the advantage of requiring limited resources to be successfully implemented.

This section did not intend to present bias reduction research in its entirety, but was meant to offer a glimpse of interventions that exist and are successful.

Conclusions

In this chapter, we have presented evidences that stigmatisation, in the form of stereotypes, prejudice or discrimination, is still well present in everyday life. Stigmatisation concerns, but is not limited to, women, ethnic minorities, mentally ill, overweight people, or lesbians, gays, and bisexuals. We have then learned that everyday stigmatisation can have adverse effect on the stigmatised. Indeed, stigmatised individuals undergo poor mental and physical health, through physiological and psychological stress response; suffer less opportunities to be hired for a position; receive smaller salaries; are perceived as more responsible and are blamed more even though they are the victims of violent acts; and finally, they are more prone to spend longer time in prison, compared to their non-stigmatised counterparts. Finally, on a more positive note, we considered some strategies that have been either institutionally implemented, or scientifically tested, in order to favour decreases in discrimination and prejudice. Of course, discrimination and prejudice do not go unpunished as it could have been the case in the past, yet sadly, one cannot affirm that the phenomenon has totally disappeared. The actual "migrant crisis" is a painful proof that stigmatisation still needs to be taken seriously and studied, both in laboratory and on the field.

In the next chapter, we will take a step further in our understanding of consequences of daily stigmatisation and distinguish between blatantly hostile and subtly benevolent expressions of everyday life stigmatisation. We will introduce the major theoretical models present in the literature. Nonetheless, the main focus of the experiments of this present thesis being on examining further the consequences of being stereotypically perceived as warm but incompetent, we will then concentrate more specifically on three particular types of benevolent stereotyping in our second chapter, e.g., stereotype threat, benevolent sexism, and patronizing, and present their multifaceted negative impacts on their targets, as well as some strategies developed to deal with those negative effects.

References

Adam, E. K., Heissel, J. A., Zeiders, K. H., Richeson, J. A., Ross, E. C., Ehrlich, K. B., ... & Eccles, J. S. (2015). Developmental histories of perceived racial discrimination and diurnal cortisol profiles in adulthood: A 20-year prospective study. *Psychoneuroendocrinology*, 62, 279-291. doi:10.1016/j.psyneuen.2015.08.018

Allport, G. W. (1954). The nature of prejudice. Cambridge, MA: Addison-Wesley.

Amy, N. K., Aalborg, A., Lyons, P., & Keranen, L. (2006). Barriers to routine gynecological cancer screening for White and African-American obese women. *International Journal of Obesity*, 30, 147-155. doi:10.1038/sj.ijo.0803105

Annis, N. M., Cash, T. F., & Hrabosky, J. I. (2004). Body image and psychosocial differences among stable average weight, currently overweight, and formerly overweight women: The role of stigmatizing experiences. *Body Image*, *1*, 155-167. doi:10.1016/j.bodyim.2003.12.001

Auerhahn, K. (2007). Just another crime? Examining disparity in homicide sentencing. *The Sociological Quarterly*, 48, 277-313. doi: 10.1111/j.1533-8525.2007.00079.x

Austin, R. (2006). The role of ICT in bridge-building and social inclusion: Theory, policy and practice issues. *European Journal of Teacher Education*, 29, 145-161. doi: 10.1080/02619760600617284

Badgett, M. L. (1995). The wage effects of sexual orientation discrimination. *Industrial & Labor Relations Review*, 48, 726-739. doi: 10.1177/001979399504800408

Bair, A. N., & Steele, J. R. (2010). Examining the consequences of exposure to racism for the executive functioning of Black students. *Journal of Experimental Social Psychology*, 46, 127-132. doi:10.1016/j.jesp.2009.08.016

Bandura, A. (1986). Social foundations of thought and action: A social-cognitive view. Englewood Cliffs, NJ: Prentice-Hall.

Barreto, M., & Ellemers, N. (2005). The perils of political correctness: Men's and women's responses to old-fashioned and modern sexist views. *Social Psychology Quarterly*, 68, 75-88. doi: 10.1177/019027250506800106

Benas, J. S., & Gibb, B. E. (2008). Weight-related teasing, dysfunctional cognitions, and symptoms of depression and eating disturbances. *Cognitive Therapy and Research*, *32*, 143-160. doi: 10.1007/s10608-006-9030-0

Bendick, M., Jackson, C. W., & Reinoso, V. A. (1994). Measuring employment discrimination through controlled experiments. *The Review of Black Political Economy*, 23, 25-48. doi:10.1007/BF02895739

Benkert, R., Peters, R. M., Clark, R., & Keves-Foster, K. (2006). Effects of perceived racism, cultural mistrust and trust in providers on satisfaction with care. *Journal of the National Medical Association*, 98, 1532-1540.

Berger, R., Abu-Raiya, H., & Gelkopf, M. (2015). The art of living together: Reducing stereotyping and prejudicial attitudes through the Arab-Jewish Class Exchange Program (CEP). *Journal of Educational Psychology*, 107, 678-688. doi: 10.1037/edu0000015

Bertrand, M., & Mullainathan, S. (2004). Are Emily and Greg more employable than Lakisha and Jamal? A field experiment on labor market discrimination. *The American Economic Review*, 94, 991-1013. doi: 10.3386/w9873

Bhui, K., Stansfeld, S., McKenzie, K., Karlsen, S., Nazroo, J., & Weich, S. (2005). Racial/ethnic discrimination and common mental disorders among workers: Findings from the EMPIRIC Study of Ethnic Minority Groups in the United Kingdom. *American Journal of Public Health*, 95, 496-501. doi: 10.2105/AJPH.2003.033274

Birchard, K. (2001). Ireland's doctors tackle institutional racism. *The Lancet*, *357*, 1348. doi: 10.1016/S0140-6736(00)04544-X

Blair, I. V., Judd, C. M., & Chapleau, K. M. (2004). The influence of Afrocentric facial features in criminal sentencing. *Psychological Science*, *15*, 674-679. doi: 10.1111/j.0956-7976.2004.00739.x

Blau, F. D., & Kahn, L. M. (2007). The gender pay gap have women gone as far as they can?. *The Academy of Management Perspectives*, 21, 7-23. doi: 10.5465/AMP.2007.24286161

Bond, M. A., Punnett, L., Pyle, J. L., Cazeca, D., & Cooperman, M. (2004). Gendered work conditions, health, and work outcomes. *Journal of Occupational Health Psychology*, 9, 28-45. doi: 10.1037/1076-8998.9.1.28

Borrell, C., Artazcoz, L., Gil-González, D., Pérez, G., Rohlfs, I., & Pérez, K. (2010). Perceived sexism as a health determinant in Spain. *Journal of Women's Health*, 19, 741-750. doi:10.1089/jwh.2009.1594.

Borrell, L. N., Jacobs, D. R., Williams, D. R., Pletcher, M. J., Houston, T. K., & Kiefe, C. I. (2007). Self-reported racial discrimination and substance use in the Coronary Artery Risk Development in Adults Study. *American Journal of Epidemiology*. *166*, 1068-1079. doi: 10.1093/aje/kwm180

Brettell, C. B. (2011). Experiencing everyday discrimination: A comparison across five immigrant populations. *Race and Social Problems*, *3*, 266-279. doi: 10.1007/s12552-011-9055-1

Brondolo, E., Brady, N., Thompson, S., Tobin, J. N., Cassells, A., Sweeney, M., ... & Contrada, R. J. (2008). Perceived racism and negative affect: Analyses of trait and state measures of affect in a community sample. *Journal of Social and Clinical Psychology*, 27, 150. doi: 10.1521/jscp.2008.27.2.150

Brown, I. (2006). Nurses' attitudes towards adult patients who are obese: literature review. *Journal of Advanced Nursing*, *53*, 221-232. doi: 10.1111/j.1365-2648.2006.03718.x

Burgess, D. J., Ding, Y., Hargreaves, M., van Ryn, M., & Phelan, S. (2008). The association between perceived discrimination and underutilization of needed medical and mental health care in a multi-ethnic community sample. *Journal of Health Care for the Poor and Underserved*, 19, 894-911. doi: 10.1353/hpu.0.0063

Bynum, M. S., Burton, E. T., & Best, C. (2007). Racism experiences and psychological functioning in African American college freshmen: Is racial socialization a buffer? *Cultural Diversity and Ethnic Minority Psychology*, *13*, 64-71. doi: 10.1037/1099-9809.13.1.64

Cameron, L., & Rutland, A. (2006). Extended contact through story reading in school: Reducing children's prejudice toward the disabled. *Journal of Social Issues*, 62, 469-488. doi: 10.1111/j.1540-4560.2006.00469.x

Cameron, L., Rutland, A., Brown, R., & Douch, R. (2006). Changing children's intergroup attitudes toward refugees: Testing different models of extended contact. *Child Development*, 77, 1208-1219. doi: 10.1111/j.1467-8624.2006.00929.x

Carpenter, S., Zárate, M. A., & Garza, A. A. (2007). Cultural pluralism and prejudice reduction. *Cultural Diversity & Ethnic Minority Psychology*, *13*, 83-93. doi: 10.1037/1099-9809.13.2.83

Carr, D., & Friedman, M. A. (2005). Is obesity stigmatizing? Body weight, perceived discrimination, and psychological well-being in the United States. *Journal of Health and Social Behavior*, 46, 244-259. doi: 10.1177/002214650504600303

Chen, E. Y., Bocchieri-Ricciardi, L. E., Munoz, D., Fischer, S., Katterman, S., Roehrig, M., ... & Le Grange, D. (2007). Depressed mood in class III obesity predicted by weight-related stigma. *Obesity Surgery*, *17*, 669-671. doi: 10.1007/s11695-007-9112-4

Chen, J. Y., Fox, S. A., Cantrell, C. H., Stockdale, S. E., & Kagawa-Singer, M. (2007). Health disparities and prevention: racial/ethnic barriers to flu vaccinations. *Journal of Community Health*, 32, 5-20. doi: 10.1007/s10900-006-9031-7

Correll, J., Park, B., Judd, C. M., Wittenbrink, B., Sadler, M. S., & Keesee, T. (2007). Across the thin blue line: police officers and racial bias in the decision to shoot. *Journal of Personality and Social Psychology*, 92, 1006-1023. doi: 10.1037/0022-3514.92.6.1006

Crandall, C.S. (1995). Do parents discriminate against their heavyweight daughters? *Personality and Social Psychology Bulletin*, 21, 724-735. doi: 10.1177/0146167295217007

Crisp, R. J., Stone, C. H., & Hall, N. R. (2006). Recategorization and subgroup identification: Predicting and preventing threats from common ingroups. *Personality and Social Psychology Bulletin*, *32*, 230-243. doi: 10.1177/0146167205280908

D' Augelli, A. R., & Hershberger, S. L. (1993). African American undergraduates on a predominantly White campus: Academic factors, social networks, and campus climate. *Journal of Negro Education*, 62, 67-81. doi: 10.2307/2295400

De Marco, M., Thorburn, S., & Zhao, W. (2008). Perceived discrimination during prenatal care, labor, and delivery: An examination of data from the Oregon Pregnancy Risk Assessment Monitoring System, 1998–1999, 2000, and 2001. *American journal of public health*, 98, 1818-1822. doi: 10.2105/AJPH.2007.123687

Diaz, R. M., Ayala, G., Bein, E., Henne, J., & Marin, B. V. (2001). The impact of homophobia, poverty, and racism on the mental health of gay and bisexual Latino men: findings from 3 US cities. *American Journal of Public Health*, *91*, 927-932. doi: 10.2105/AJPH.91.6.927

Dovidio, J. F., Eller, A., & Hewstone, M. (2011). Improving intergroup relations through direct, extended and other forms of indirect contact. *Group Processes & Intergroup Relations*, 14, 147-160. doi: 10.1177/1368430210390555

Dovidio, J.F., Gaertner, S.L., Schnabel, N., Saguy, T., & Johnson, J. (2010). Recategorization and prosocial behavior. In S. Stürmer & M. Snyder (Eds.), *The psychology of pro-social behavior: Group processes, intergroup relations, and helping* (pp.289-309). Oxford, United Kingdom: Blackwell.

Dovidio, J.F., Saguy, T., Gaertner, S.L., & Thomas, E.L. (2012). From attitudes to (in)action: The darker side of "we". In J. Dixon & M. Levine (Eds.), *Beyond prejudice* (pp.248-268). Cambridge, United Kingdom: Cambridge University Press.

Durán, M., Moya, M., Megías, J. L., & Viki, G. T. (2010). Social perception of rape victims in dating and married relationships: The role of perpetrator's benevolent sexism. *Sex Roles*, 62(, 505-519. doi: 10.1007/s11199-009-9676-7

Earnshaw, V. A., Rosenthal, L., Lewis, J. B., Stasko, E. C., Tobin, J. N., Lewis, T. T., ... & Ickovics, J. R. (2013). Maternal experiences with everyday discrimination and infant birth weight: A test of mediators and moderators among young, urban women of color. *Annals of Behavioral Medicine*, 45, 13-23. doi: 10.1007/s12160-012-9404-3

Eberhardt, J. L., Davies, P. G., Purdie-Vaughns, V. J., & Johnson, S. L. (2006). Looking deathworthy perceived stereotypicality of black defendants predicts capital-sentencing outcomes. *Psychological Science*, *17*, 383-386. doi: 10.1111/j.1467-9280.2006.01716.x

Finch, B. K., Kolody, B., & Vega, W. A. (2000). Perceived discrimination and depression among Mexican-origin adults in California. *Journal of Health and Social Behavior*, *41*, 295-313. doi: 10.2307/2676322

Finkelstein, L. M., Frautschy Demuth, R. L., & Sweeney, D. L. (2007). Bias against overweight job applicants: Further explorations of when and why. *Human Resource Management*, 46, 203-222. doi: 10.1002/hrm.20157

Fitz, C. C., & Zucker, A. N. (2015). Everyday exposure to benevolent sexism and condom use among college women. *Women & health*, 55, 245-262. doi: 10.1080/03630242.2014.996721

Fogelman, Y., Vinker, S., Lachter, J., Biderman, A., Itzhak, B., & Kitai, E. (2002). Managing obesity: a survey of attitudes and practices among Israeli primary care physicians. *International Journal of Obesity*, 26, 1393-1397. doi: 10.1038/sj.ijo.0802063

Foss, C., & Sundby, J. (2003). The construction of the gendered patient: hospital staff's attitudes to female and male patients. *Patient Education and Counseling*, 49, 45-52. doi:10.1016/S0738-3991(02)00039-3

Foster, G. D., Wadden, T. A., Makris, A. P., Davidson, D., Sanderson, R. S., Allison, D. B., & Kessler, A. (2003). Primary care physicians' attitudes about obesity and its treatment. *Obesity Research*, *11*, 1168-1177. doi: 10.1038/oby.2003.161

Friedman, K. E., Reichmann, S. K., Costanzo, P. R., Zelli, A., Ashmore, J. A., & Musante, G. J. (2005). Weight stigmatization and ideological beliefs: Relation to psychological functioning in obese adults. *Obesity Research*, *13*, 907-916. doi: 10.1038/oby.2005.105

Gaertner, S. L., Dovidio, J. F., Nier, J. A., Banker, B. S., Ward, C. M., Houlette, M., & Loux, S. (2000). The Common Ingroup Identity Model for reducing intergroup bias: Progress and challenges. In D. Capozza, & R. Brown (Eds). *Social identity processes: Trends in theory and research* (pp. 133-148). Thousand Oaks, CA: Sage Publications Ltd.

Gay, Lesbian, and Straight Education Network. GLSEN's national school climate survey: Lesbian, gay, bisexual and transgender students and their experiences in school. New York: Author; 1999.

Gee, G. C., Delva, J., & Takeuchi, D. (2007). Relationships between self-reported unfair treatment and prescription medication use, illicit drug use, and alcohol dependence among Filipino Americans. *American Journal of Public Health*, *97*, 933-940. doi: 10.2105/AJPH.2005.075739

George, W. H., & Martínez, L. J. (2002). Victim blaming in rape: Effects of victim and perpetrator race, type of rape, and participant racism. *Psychology of Women Quarterly*, 26, 110-119. doi: 10.1111/1471-6402.00049

Gibbons, F. X., O'Hara, R. E., Stock, M. L., Gerrard, M., Weng, C. Y., & Wills, T. A. (2012). The erosive effects of racism: reduced self-control mediates the relation between perceived racial discrimination and substance use in African American adolescents. *Journal of Personality and Social Psychology*, 102(5), 1089-1104. doi: 10.1037/a0027404

Glick, P., Sakallı-Ugurlu, N., Ferreira, M. C., & de Souza, M. A. (2002). Ambivalent sexism and attitudes toward wife abuse in Turkey and Brazil. *Psychology of Women Quarterly*, 26, 292-297. doi: 10.1111/1471-6402.t01-1-00068

Gonzales, K. L., Noonan, C., Goins, R. T., Henderson, W. G., Beals, J., Manson, S. M., Acton, K. J., & Roubideaux, Y. (2016). Assessing the Everyday Discrimination Scale Among American Indians and Alaska Natives. *Psychological Assessment*, 28, 51-58. http://dx.doi.org/10.1037/a0039337

Good, J. J., & Rudman, L. A. (2010). When female applicants meet sexist interviewers: The costs of being a target of benevolent sexism. *Sex Roles*, 62, 481-493. doi: 10.1007/s11199-009-9685-6

Green, A. R., Carney, D. R., Pallin, D. J., Ngo, L. H., Raymond, K. L., Iezzoni, L. I., & Banaji, M. R. (2007). Implicit bias among physicians and its prediction of thrombolysis decisions for black and white patients. *Journal of General Internal Medicine*, 22, 1231-1238. doi: 10.1007/s11606-007-0258-5

Guthrie, B. J., Young, A. M., Williams, D. R., Boyd, C. J., & Kintner, E. K. (2002). African American girls' smoking habits and day-to-day experiences with racial discrimination. *Nursing research*, *51*, 183-190. doi: 10.1097/00006199-200205000-00007

Guyll, M., Matthews, K. A., & Bromberger, J. T. (2001). Discrimination and unfair treatment: relationship to cardiovascular reactivity among African American and European American women. *Health Psychology*, 20, 315-325. doi: 10.1037/0278-6133.20.5.315

Hack, M., Klein, N. K., & Taylor, H. G. (1995). Long-term developmental outcomes of low birth weight infants. *The Future of Children*, *51*, 176-196. doi: 10.2307/1602514

Hague, A. L., & White, A. A. (2005). Web-based intervention for changing attitudes of obesity among current and future teachers. *Journal of Nutrition Education and Behavior*, *37*, 58-66. doi:10.1016/S1499-4046(06)60017-1

Harper, S., & Reskin, B. (2005). Affirmative action at school and on the job. *Annual Review of Sociology*, *31*, 357-379. doi: 10.1146/annurev.soc.31.041304.122155

Hasler, B., & Arnichai-Harnburger, Y. (2013). Online intergroup contact. In Y. Arnichai-Harnburger (Ed.), *The social net: Understanding our online behaviour* (pp.220-252). Oxford, United Kingdom: Oxford University Press.

Hebl, M. R., & Xu, J. (2001). Weighing the care: physicians' reactions to the size of a patient. International Journal of Obesity & Related Metabolic Disorders, 25. 1246-1252. doi: 10.1038/sj.ijo.0801681

Heilman, M. E. (2001). Description and prescription: How gender stereotypes prevent women's ascent up the organizational ladder. *Journal of Social Issues*, *57*, 657-674. doi: 10.1111/0022-4537.00234

Heilman, M. E., & Alcott, V. B. (2001). What I think you think of me: Women's reactions to being viewed as beneficiaries of preferential selection. *Journal of Applied Psychology*, 86, 574-582. doi: 10.1037/0021-9010.86.4.574

Heilman, M. E., Block, C. J., & Stathatos, P. (1997). The affirmative action stigma of incompetence: Effects of performance information ambiguity. *Academy of Management Journal*, 40, 603-625. doi: 10.2307/257055

Hogan, D. E., & Mallott, M. (2005). Changing racial prejudice through diversity education. *Journal of College Student Development*, 46, 115-125. doi: 10.1353/csd.2005.0015

Holzer, H. J., & Neumark, D. (2000). What does affirmative action do?. *Industrial & Labor Relations Review*, 53, 240-271. doi: 10.1177/001979390005300204

Hornsey, M. J., & Hogg, M. A. (2000). Subgroup relations: A comparison of mutual intergroup differentiation and common ingroup identity models of prejudice reduction. *Personality and Social Psychology Bulletin*, 26, 242-256. doi: 10.1177/0146167200264010

Hoter, E., Shonfeld, M., & Ganayim, A. (2009). Information and communication technology (ICT) in the service of multiculturalism. *The International Review of Research in Open and Distributed Learning*, 10, 1-15.

Inzlicht, M., McKay, L., & Aronson, J. (2006). Stigma as ego depletion how being the target of prejudice affects self-control. *Psychological Science*, *17*, 262-269. doi: 10.1111/j.1467-9280.2006.01695.x

Jackson, T. D., Grilo, C. M., & Masheb, R. M. (2000). Teasing history, onset of obesity, current eating disorder psychopathology, body dissatisfaction, and psychological functioning in binge eating disorder. *Obesity Research*, 8, 451-458. doi: 10.1038/oby.2000.56

Johnson, B. D., & Betsinger, S. (2009). Punishing the" model minority": Asian-American criminal sentencing outcomes in federal district courts. *Criminology*, 47, 1045-1090. doi: 10.1111/j.1745-9125.2009.00169.x

Kalichman, S. C., Simbayi, L. C., Kagee, A., Toefy, Y., Jooste, S., Cain, D., & Cherry, C. (2006). Associations of poverty, substance use, and HIV transmission risk behaviors in three South African communities. *Social Science & Medicine*, 62, 1641-1649. doi:10.1016/j.socscimed.2005.08.021

Karlsen, S., Nazroo, J. Y., McKenzie, K., Bhui, K., & Weich, S. (2005). Racism, psychosis and common mental disorder among ethnic minority groups in England. *Psychological Medicine*, *35*, 1795-1803. doi: 10.1017/S0033291705005830

Kim, P. S., & Lewis, G. B. (1994). Asian Americans in the public service: Success, diversity, and discrimination. *Public Administration Review*, 285-290. doi: 10.2307/976733

Klonoff, E. A., Landrine, H., & Campbell, R. (2000). Sexist discrimination may account for well-known gender differences in psychiatric symptoms. *Psychology of Women Quarterly*, 24, 93-99. doi: 10.1111/j.1471-6402.2000.tb01025.x

Landrine, H., Klonoff, E. A., Corral, I., Fernandez, S., & Roesch, S. (2006). Conceptualizing and measuring ethnic discrimination in health research. *Journal of Behavioral Medicine*, 29, 79-94. doi: 10.1007/s10865-005-9029-0

Larson, A., Gillies, M., Howard, P. J., & Coffin, J. (2007). It's enough to make you sick: the impact of racism on the health of Aboriginal Australians. *Australian and New Zealand Journal of Public Health*, *31*, 322-329. doi: 10.1111/j.1753-6405.2007.00079.x

Lauderdale, D. S. (2006). Birth outcomes for Arabic-named women in California before and after September 11. *Demography*, 43, 185-201. doi: 10.1353/dem.2006.0008

Maio, G. R., & Esses, V. M. (1998). The social consequences of affirmative action: Deleterious effects on perceptions of groups. *Personality and Social Psychology Bulletin*, 24, 65-74. doi: 10.1177/0146167298241005

Major, B., Quinton, W. J., & McCoy, S. K. (2002). Antecedents and consequences of attributions to discrimination: Theoretical and empirical advances. *Advances in Experimental Social Psychology*, *34*, 251-330. doi: 10.1016/S0065-2601(02)80007-7

Maranto, C. L., & Stenoien, A. F. (2000). Weight discrimination: A multidisciplinary analysis. *Employee Responsibilities and Rights Journal*, 12, 9-24. doi: 10.1023/A:1007712500496

Martin, J. K., Pescosolido, B. A., & Tuch, S. A. (2000). Of fear and loathing: the role of disturbing behavior', labels, and causal attributions in shaping public attitudes toward people with mental illness. *Journal of Health and Social Behavior*, 208-223. doi: 10.2307/2676306

Masser, B. M., & Abrams, D. (2004). Reinforcing the glass ceiling: The consequences of hostile sexism for female managerial candidates. *Sex Roles*, *51*, 609-615. doi: 10.1007/s11199-004-5470-8

Masser, B., Lee, K., & McKimmie, B. M. (2010). Bad woman, bad victim? Disentangling the effects of victim stereotypicality, gender stereotypicality and benevolent sexism on acquaintance rape victim blame. *Sex Roles*, 62, 494-504. doi: 10.1007/s11199-009-9648-y

Mazziotta, A., Mummendey, A., & Wright, S. C. (2011). Vicarious intergroup contact effects: Applying social-cognitive theory to intergroup contact research. *Group Processes & Intergroup Relations*, 14, 255-274. doi: 10.1177/1368430210390533

Merritt, M. M., Bennett Jr, G. G., Williams, R. B., Edwards, C. L., & Sollers III, J. J. (2006). Perceived racism and cardiovascular reactivity and recovery to personally relevant stress. *Health Psychology*, 25, 364-369. doi: 10.1037/0278-6133.25.3.364

Meyer, I. H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: conceptual issues and research evidence. *Psychological Bulletin*, *129*, 674-697. doi: 10.1037/0033-2909.129.5.674

Miller, G. V. F., & Travers, C. J. (2005). Ethnicity and the experience of work: Job stress and satisfaction of minority ethnic teachers in the UK. *International Review of Psychiatry*, *17*, 317-327. doi: 10.1080/09540260500238470

Miner-Rubino, K., & Cortina, L. M. (2004). Working in a context of hostility toward women: implications for employees' well-being. *Journal of Occupational Health Psychology*, 9, 107-122. doi: 10.1037/1076-8998.9.2.107

Mustillo, S., Krieger, N., Gunderson, E. P., Sidney, S., McCreath, H., & Kiefe, C. I. (2004). Self-reported experiences of racial discrimination and Black-White differences in preterm and low-birthweight deliveries: the CARDIA Study. *American Journal of Public Health*, *94*, 2125-2131. doi: 10.2105/AJPH.94.12.2125

Noh, S., Kaspar, V., & Wickrama, K. A. S. (2007). Overt and subtle racial discrimination and mental health: Preliminary findings for Korean immigrants. *American Journal of Public Health*, 97, 1269-1274. doi: 10.2105/AJPH.2005.085316

Nuru-Jeter, A., Dominguez, T. P., Hammond, W. P., Leu, J., Skaff, M., Egerter, S., ... & Braveman, P. (2009). "It's the skin you're in": African-American women talk about their experiences of racism. An exploratory study to develop measures of racism for birth outcome studies. *Maternal and Child Health Journal*, *13*, 29-39. doi: 10.1007/s10995-008-0357-x

Nye, C. D., Brummel, B. J., & Drasgow, F. (2009). Differentiating gender discrimination and sexist behavior: An examination of antecedents and outcomes. *Military Psychology*, 21, 299-314. doi: 10.1080/08995600902914388

O'Malley, A. S., Sheppard, V. B., Schwartz, M., & Mandelblatt, J. (2004). The role of trust in use of preventive services among low-income African-American women. *Preventive Medicine*, *38*, 777-785. doi:10.1016/j.ypmed.2004.01.018

Oppedal, B., Røysamb, E., & Heyerdahl, S. (2005). Ethnic group, acculturation, and psychiatric problems in young immigrants. *Journal of Child Psychology and Psychiatry*, *46*, 646-660. doi: 10.1111/j.1469-7610.2004.00381.x

Ortiz, M., & Harwood, J. (2007). A social cognitive theory approach to the effects of mediated intergroup contact on intergroup attitudes. *Journal of Broadcasting & Electronic Media*, *51*, 615-631. doi: 10.1080/08838150701626487

Oswald, D. L., Franzoi, S. L., & Frost, K. A. (2012). Experiencing sexism and young women's body esteem. *Journal of Social and Clinical Psychology*, *31*, 1112-1137. doi: 10.1521/jscp.2012.31.10.1112

Pagotto, L., & Voci, A. (2013). Direct and mass-mediated contact: The role of different intergroup emotions. *TPM: Testing, Psychometrics, Methodology in Applied Psychology*, 20, 365-381. doi:10.4473/TPM20.4.5

Paolini, S., Hewstone, M., Cairns, E., & Voci, A. (2004). Effects of direct and indirect cross-group friendships on judgments of Catholics and Protestants in Northern Ireland: The mediating role of an anxiety-reduction mechanism. *Personality and Social Psychology Bulletin*, *30*, 770-786. doi: 10.1177/0146167203262848

Paradies, Y. (2006). A systematic review of empirical research on self-reported racism and health. *international Journal of Epidemiology*, *35*, 888-901. doi: 10.1093/ije/dyl056

Pascoe, E. A., & Smart Richman, L. (2009). Perceived discrimination and health: A meta-analytic review. *Psychological Bulletin*, *135*, 531-554. doi: 10.1037/a0016059

Pettigrew, T. F. (1998). Intergroup contact theory. *Annual Review of Psychology*, 49, 65-85. doi: 10.1146/annurev.psych.49.1.65

Pettigrew, T. F. (2008). Future directions for intergroup contact theory and research.

International Journal of Intercultural Relations, 32, 187-199.

doi:10.1016/j.ijintrel.2007.12.002

Pettigrew, T. F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology*, 90, 751-783. doi: 10.1037/0022-3514.90.5.751

Pettijohn, T. F., & Walzer, A. S. (2008). Reducing Racism, Sexism, and Homophobia in College Students by Completing a Psychology of Prejudice Course. *College Student Journal*, 42, 459-468.

Pinfold, V., Toulmin, H., Thornicroft, G., Huxley, P., Farmer, P., & Graham, T. (2003). Reducing psychiatric stigma and discrimination: evaluation of educational interventions in UK secondary schools. *The British Journal of Psychiatry*, *182*, 342-346. doi: 10.1192/bjp.182.4.342

Plant, E. A., & Peruche, B. M. (2005). The consequences of race for police officers' responses to criminal suspects. *Psychological Science*, *16*, 180-183. doi: 10.1111/j.0956-7976.2005.00800.x

Puhl, R. M., & Brownell, K. D. (2006). Confronting and coping with weight stigma: an investigation of overweight and obese adults. *Obesity*, *14*, 1802-1815. doi: 10.1038/oby.2006.208

Puhl, R. M., & Heuer, C. A. (2009). The stigma of obesity: a review and update. *Obesity*, 17, 941-964. doi: 10.1038/oby.2008.636

Redman, T., & Snape, E. (2006). The consequences of perceived age discrimination amongst older police officers: Is social support a buffer?. *British Journal of Management*, *17*, 167-175. doi: 10.1111/j.1467-8551.2006.00492.x

Riach, P. A., & Rich, J. (2006). An experimental investigation of sexual discrimination in hiring in the English labor market. *Advances in Economic Analysis & Policy*, 5, 1-22. doi: 10.2202/1538-0637.1416

Rosenberger, P. H., Henderson, K. E., Bell, R. L., & Grilo, C. M. (2007). Associations of weight-based teasing history and current eating disorder features and psychological functioning in bariatric surgery patients. *Obesity Surgery*, *17*, 470-477. doi: 10.1007/s11695-007-9082-6

Rudman, L. A., & Killianski, S. E. (2000). Implicit and explicit attitudes toward female authority. *Personality and Social Psychology Bulletin*, 26, 1315-1328. doi: 10.1177/0146167200263001

Rudman, L. A., Ashmore, R. D., & Gary, M. L. (2001). "Unlearning" automatic biases: The malleability of implicit prejudice and stereotypes. *Journal of Personality and Social Psychology*, 81, 856-868. doi: 10.1037/0022-3514.81.5.856

Sabin, J. A., Rivara, F. P., & Greenwald, A. G. (2008). Physician implicit attitudes and stereotypes about race and quality of medical care. *Medical Care*, 46, 678-685. doi: 10.1097/MLR.0b013e3181653d58

Sakallı, N. (2001). Beliefs about wife beating among Turkish college students: The effects of patriarchy, sexism, and sex differences. *Sex Roles*, *44*, 599-610. doi: 10.1023/A:1012295109711

Schiappa, E., Gregg, P. B., & Hewes, D. E. (2005). The parasocial contact hypothesis. *Communication Monographs*, 72, 92-115. doi: 10.1080/0363775052000342544

Schmukler, K. R., Rasquiza, A., Dimmit, J., & Crosby, J. F. (2010). *Public Policy*. In J.F. Dovidio, M. Hewstone, P. Glick; & V. Esses (Eds.). *The SAGE handbook of prejudice, stereotyping and discrimination* (457-471). London, United Kingdom: SAGE.

Schneider, K. T., Tomaka, J., & Palacios, R. (2001). Women's cognitive, affective, and physiological reactions to a male coworker's sexist behavior. *Journal of Applied Social Psychology*, *31*, 1995-2018. doi: 10.1111/j.1559-1816.2001.tb00161.x

Schulman, K. A., Berlin, J. A., Harless, W., Kerner, J. F., Sistrunk, S., Gersh, B. J., ... & Eisenberg, J. M. (1999). The effect of race and sex on physicians' recommendations for cardiac catheterization. *New England Journal of Medicine*, *340*, 618-626. doi: 10.1056/NEJM199902253400806

Schuster, M. A., Collins, R., Cunningham, W. E., Morton, S. C., Zierler, S., Wong, M., ... & Kanouse, D. E. (2005). Perceived discrimination in clinical care in a nationally representative sample of HIV-infected adults receiving health care. *Journal of General Internal Medicine*, 20, 807-813. doi: 10.1111/j.1525-1497.2005.05049.x

Schvey, N. A., Puhl, R. M., & Brownell, K. D. (2014). The stress of stigma: exploring the effect of weight stigma on cortisol reactivity. *Psychosomatic Medicine*, 76, 156-162. doi: 10.1097/PSY.0000000000000001

Steen, S., Engen, R. L., & Gainey, R. R. (2005). Images of Danger and Culpability: Racial Stereotyping, Case Processing, and Criminal Sentencing. *Criminology*, 43, 435-468. doi: 10.1111/j.0011-1348.2005.00013.x

Sujoldžić, A., Peternel, L., Kulenović, T., & Terzić, R. (2006). Social determinants of health: A comparative study of Bosnian adolescents in different cultural contexts. *Collegium Antropologicum*, 30, 703-711.

Swim, J. K., Cohen, L. L., Hyers, L. L., Fitzgerald, D. C., & Bylsma, W. H. (1997). The experience of everyday prejudice: A daily diary study. *Unpublished manuscript*, Pennsylvania State University.

Swim, J. K., Hyers, L. L., Cohen, L. L., & Ferguson, M. J. (2001). Everyday sexism: Evidence for its incidence, nature, and psychological impact from three daily diary studies. *Journal of Social Issues*, *57*, 31-53. doi: 10.1111/0022-4537.00200

Tabak, F., Showail, S., Parks, J. M., & Kleist, J. S. (2005). The name game: Employability evaluations of prototypical applicants with stereotypical feminine and masculine first names. *Sex Roles*, 52, 63-82. doi: 10.1007/s11199-005-1194-7

Tajfel, H., & Turner, J.C. (1979). An integrative theory of intergroup conflict. In W. G. Austin, & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33-47). New York, NY: Guilford Press.

Tanaka, G., Ogawa, T., Inadomi, H., Kikuchi, Y., & Ohta, Y. (2003). Effects of an educational program on public attitudes towards mental illness. *Psychiatry and Clinical Neurosciences*, *57*, 595-602. doi: 10.1046/j.1440-1819.2003.01173.x

Taylor, T. R., Williams, C. D., Makambi, K. H., Mouton, C., Harrell, J. P., Cozier, Y., ... & Adams-Campbell, L. L. (2007). Racial Discrimination and Breast Cancer Incidence in US Black Women: The Black Women's Health Study. *American Journal of Epidemiology*, *166*, 46-54. doi: 10.1093/aje/kwm056

Thomas, K. S., Bardwell, W. A., Ancoli-Israel, S., & Dimsdale, J. E. (2006). The toll of ethnic discrimination on sleep architecture and fatigue. *Health Psychology*, 25, 635-642. doi:10.1037/0278-6133.25.5.635.

Townsend, S. S., Major, B., Gangi, C. E., & Mendes, W. B. (2011). From "in the air" to "under the skin": Cortisol responses to social identity threat. *Personality and Social Psychology Bulletin*, 37, 151-164. doi: 10.1177/0146167210392384

Turner, R. N., & Crisp, R. J. (2010). Imagining intergroup contact reduces implicit prejudice. *British Journal of Social Psychology*, 49, 129-142. doi: 10.1348/014466609X419901

Turner, R. N., Crisp, R. J., & Lambert, E. (2007). Imagining intergroup contact can improve intergroup attitudes. *Group Processes* & *Intergroup Relations*, 10, 427-441. doi: 10.1177/1368430207081533

Turner, R. N., Hewstone, M., & Voci, A. (2007a). Reducing explicit and implicit outgroup prejudice via direct and extended contact: The mediating role of self-disclosure and intergroup anxiety. *Journal of Personality and Social Psychology*, 93, 369-388. doi: 10.1037/0022-3514.93.3.369

Turner, R. N., Hewstone, M., Voci, A., & Vonofakou, C. (2008). A test of the extended intergroup contact hypothesis: The mediating role of intergroup anxiety, perceived ingroup and outgroup norms, and inclusion of the outgroup in the self. *Journal of Personality and Social Psychology*, 95, 843-860. doi: 10.1037/a0011434

Turner, R. N., Hewstone, M., Voci, A., Paolini, S., & Christ, O. (2007b). Reducing prejudice via direct and extended cross-group friendship. *European Review of Social Psychology*, *18*, 212-255. doi: 10.1080/10463280701680297

Van Ryn, M., & Burke, J. (2000). The effect of patient race and socio-economic status on physicians' perceptions of patients. *Social Science & Medicine*, 50(6), 813-828. doi:10.1016/S0277-9536(99)00338-X

Van Ryn, M., Burgess, D., Malat, J., & Griffin, J. (2006). Physicians' perceptions of patients' social and behavioral characteristics and race disparities in treatment recommendations for men with coronary artery disease. *American Journal of Public Health*, *96*, 351-357. doi: 10.2105/AJPH.2004.041806

Veling, W., Selten, J. P., Susser, E., Laan, W., Mackenbach, J. P., & Hoek, H. W. (2007). Discrimination and the incidence of psychotic disorders among ethnic minorities in The Netherlands. *International Journal of Epidemiology*, *36*, 761-768. doi: 10.1093/ije/dym085

Viki, G. T., & Abrams, D. (2002). But she was unfaithful: Benevolent sexism and reactions to rape victims who violate traditional gender role expectations. *Sex Roles*, 47, 289-293. doi: 10.1023/A:1021342912248

Viki, G. T., Abrams, D., & Masser, B. (2004). Evaluating stranger and acquaintance rape: the role of benevolent sexism in perpetrator blame and recommended sentence length. *Law and Human Behavior*, 28, 295-303. doi: 10.1023/B:LAHU.0000029140.72880.69

Vonofakou, C., Hewstone, M., & Voci, A. (2007). Contact with out-group friends as a predictor of meta-attitudinal strength and accessibility of attitudes toward gay men. *Journal of Personality and Social Psychology*, 92, 804-820. doi: 10.1037/0022-3514.92.5.804

Wadsworth, E., Dhillon, K., Shaw, C., Bhui, K., Stansfeld, S., & Smith, A. (2007). Racial discrimination, ethnicity and work stress. *Occupational Medicine*, *57*, 18-24. doi: 10.1093/occmed/kql088

West, K., & Turner, R. (2014). Using extended contact to improve physiological responses and behavior toward people with schizophrenia. *Journal of Experimental Social Psychology*, *50*, 57-64. doi:10.1016/j.jesp.2013.06.009

West, K., Holmes, E. A., & Hewstone, M. (2011). Enhancing imagined contact to reduce prejudice against people with schizophrenia. *Group Processes & Intergroup Relations*, 14, 407-428. doi: 10.1177/1368430210387805

White, F. A., & Abu-Rayya, H. M. (2012). A dual identity-electronic contact (DIEC) experiment promoting short-and long-term intergroup harmony. *Journal of Experimental Social Psychology*, 48, 597-608. doi:10.1016/j.jesp.2012.01.007

White, F. A., Abu-Rayya, H. M., & Weitzel, C. (2014). Achieving twelve-months of intergroup bias reduction: The dual identity-electronic contact (DIEC) experiment. *International Journal of Intercultural Relations*, 38, 158-163. doi:10.1016/j.ijintrel.2013.08.002

White, F. A., Abu-Rayya, H. M., Bliuc, A. M., & Faulkner, N. (2015). Emotion expression and intergroup bias reduction between Muslims and Christians: Long-term Internet contact. *Computers in Human Behavior*, *53*, 435-442. doi:10.1016/j.chb.2015.04.074

Wigton, R. S., & McGaghie, W. C. (2001). The effect of obesity on medical students' approach to patients with abdominal pain. *Journal of General Internal Medicine*, 16, 262-265. doi: 10.1046/j.1525-1497.2001.016004262.x

Williams, D. R., & Mohammed, S. A. (2009). Discrimination and racial disparities in health: evidence and needed research. *Journal of Behavioral Medicine*, *32*, 20-47. doi: 10.1007/s10865-008-9185-0

Willis, C. E., Hallinan, M. N., & Melby, J. (1996). Effects of sex role stereotyping among European American students on domestic violence culpability attributions. *Sex Roles*, *34*, 475-491. doi: 10.1007/BF01545027

Wright, S. C., Aron, A., McLaughlin-Volpe, T., & Ropp, S. A. (1997). The extended contact effect: Knowledge of cross-group friendships and prejudice. *Journal of Personality and Social Psychology*, 73, 73-90. Doi: 10.1037/0022-3514.73.1.73

Yablon, Y. B., & Katz, Y. J. (2001). Internet-based group relations: a high school peace education project in Israel. *Educational Media International*, 38, 175-182. doi: 10.1080/09523980110043591

Zamboni, B. D., & Crawford, I. (2007). Minority stress and sexual problems among African-American gay and bisexual men. *Archives of Sexual Behavior*, *36*, 569-578. doi: 10.1007/s10508-006-9081-z

Zárate, M. A., & Garza, A. A. (2002). In-group distinctiveness and self-affirmation as dual components of prejudice reduction. *Self and Identity*, 1, 235-249. doi:

10.1080/152988602760124865

Zucker, A. N., & Landry, L. J. (2007). Embodied discrimination: The relation of sexism and distress to women's drinking and smoking behaviors. *Sex Roles*, *56*, 193-203. doi: 10.1007/s11199-006-9163-3

Chapter Two

Stigmatisation Subtilement Bienveillante

Bien que des lois et des interventions sociales et psychologiques aient été et sont toujours mises en place pour tenter de les réduire significativement, la discrimination, les stéréotypes et les préjugés n'ont pas disparu.

La stigmatisation peut s'exprimer de plusieurs manières. Une première concerne les attitudes envers un groupe social et les membres qui le composent. Ces attitudes - les préjugés - peuvent être négatives, mais aussi positives. En effet, le groupe peut être envisagé de manière clairement négative (ex : mépris envers les personnes sans emploi). Il est également possible de percevoir le groupe et ses membres positivement (ex : admiration pour le corps médical). Un groupe social peut également présenter des attitudes à la fois positives et négatives envers un autre groupe. En effet, dans le cas de la relation homme-femme, il n'est pas rare qu'une femme méprise certains aspects de la personnalité des hommes (ex : « les hommes sont des vantards »), tout en en admirant d'autres aspects (ex: « les hommes ont de l'humour »). Une seconde manière par laquelle la stigmatisation peut s'exprimer renvoie aux croyances, partagées par plusieurs individus sociaux, à propos des caractéristiques et attributs d'un groupe social et de ses membres. Ces croyances - les stéréotypes influent ensuite sur manière dont les individus vont penser et répondre, au groupe stéréotypique. Par exemple, si un homme perçoit les femmes comme étant gentilles, compréhensives et à l'écoute, la rencontre avec une femme méchante, carrée et égoïste va probablement déclencher une réponse négative de l'homme à son encontre. Enfin, la stigmatisation peut s'exprimer sous la forme de comportements - la discrimination - qui créent, maintiennent ou renforcent les avantages pour certains groupes et leurs membres, aux dépends d'autres groupes et de leur membres. Une école n'offrant des cours que d'une seule confession religieuse désavantagerait clairement les élèves de confession différente quant à la possibilité de s'inscrire dans cette école.

La stigmatisation, peut également s'exprimer soit de manière clairement hostile, soit de

manière subtilement bienveillante. Le thème principal de cette thèse étant l'étude de la stigmatisation subtile, de ses conséquences et des moyens mis en place pour contrer ces effets, nous nous ne ferons que survoler la recherche concernant la stigmatisation clairement hostile.

Stigmatisation clairement hostile

S'inscrivent dans cette catégorie toutes attitudes, émotions, croyances, et comportements, clairement négatifs envers un groupe et les membres qui le composent.

La stigmatisation hostile peut encore de nos jours avoir des résultats très visibles. En effet, aux Etats-Unis par exemple, des milliers de crimes sont classés comme étant des crimes de haine, dont la majorité est issue d'un biais racial. En Europe, des violences à l'encontre de certaines populations immigrantes ne sont pas rares non plus (voir Dancygier & Green, 2010)

Tout comme il n'est pas difficile de penser à un exemple de stigmatisation évidente, il est également assez aisé de la détecter. En effet, quelle qu'en soit la nature ou le moyen d'expression utilisé, d'aucun pourra facilement remarquer quand il/elle/autrui est cible d'hostilité. Un commentaire sexiste, un propos raciste ou une remarque homophobe ne passera pas inaperçu. Dans une étude, Dardenne et collègues (Dardenne, Dumont, & Bollier, 2007) ont montré que la forme hostile du sexisme (« les femmes sont des manipulatrices ») est plus facilement détectable et attribuée à de la discrimination, que la forme bienveillante (« les femmes sont belles et sensibles, il faut leur venir en aide »), qui n'est que peu ou pas perçue comme étant du sexisme. Les propos sexistes bienveillants ne sont pas considérés, par les participantes de l'étude, comme étant du sexisme, alors que les propos sexistes hostiles les sont clairement.

Cependant, une action concrète pour contrer cette expression d'hostilité n'est pas automatique. Alors que l'envie de répondre à cette hostilité en s'offusquant, en confrontant le sexiste/raciste/homophobe à ses propos, ou encore en l'excluant socialement, nous semble aller de soi, des études ont montré que c'était pourtant rarement le cas. Woodzicka & LaFrance (2001) ont,

par exemple, mis en évidence que, bien que 68% des femmes pensaient qu'elles n'accepteraient pas de répondre à des questions offensantes de nature sexuelle lors d'un entretien d'embauche et 28% d'entre elles disaient qu'elles confronteraient brutalement la personne à ses propos déplacés ou quitteraient l'entretien, lorsqu'elles sont réellement en situation d'entretien, toutes répondent aux questions de nature sexuelle et aucune ne quitte l'entretien ou confronte la personne qui le mène. Dans la même veine, alors que seulement 1% des femmes pensaient qu'elles ignoreraient une remarque désobligeante à leur égard et que 81% pensaient s'engager dans une forme de confrontation, lorsque ces femmes interagissaient dans un contexte réel où un homme faisait des commentaires sexistes, 55% d'entre elles ont tout simplement ignoré les remarques (Swim & Hyers, 1999). Lors d'un sondage téléphonique sur une population de 1000 personnes, 28% des personnes Afro-Américaines de cet échantillon disaient avoir déjà été confronté à de la discrimination sur leur lieu de travail et pourtant, de ces 28%, un tiers (32%) ont rapportés garder cet évènement pour eux (Dixon, Storen, & Van Horn, 2002). Dickter & Newton (2013) ont, quant à elles, mirent en évidence que seul un tiers des participants sondés sur leur expérience récente d'une discrimination non dirigée vers leur groupe social ont rapporté avoir confronté la personne discriminante. De manière similaire, Ayres, Friedman, & Leaper (2009) ont montré que seul 46% de leurs participantes ont rapportés avoir déjà confronté la personne qui a tenu des propos sexistes à leur égard. La non confrontation est d'autant plus importante dans une situation où il y a plus à perdre (Shelton & Stewart, 2004) ou si les bénéfices perçus de cette confrontation sont faibles (Good, Moss-Racusin, & Sanchez, 2012) ou encore si les victimes pensent que le comportement de l'auteur des remarques est immuable (Rattan & Dweck, 2010). S'il est important de faire bonne impression lors de l'entretien, parce que le marché du travail est bouché et que trouver un travail est difficile, alors la confrontation ne se fera pas, comparée à une situation où il y a moins à perdre (il y a une autre possibilité d'emploi ailleurs) (Shelton & Stewart, 2004). Le fait de posséder une vision optimiste ou pessimiste a également un impact sur le comportement de confrontation. En effet, une vision optimiste permet aux victimes d'envisager les conséquences de la confrontation comme étant moins importantes, ce qui, par la suite, est associé avec un plus grand pourcentage de confrontation (Kaiser & Miller, 2004).

L'appréhension du coût social de la confrontation, comme par exemple un dénigrement par autrui, est dans certains cas fondée. En effet, Kaiser & Miller (2001, 2003) ont démontré que lorsqu'un étudiant ou un candidat à un poste attribuait son échec scolaire ou son non-engagement professionnel au comportement discriminatoire du professeur ou du recruteur, tant l'étudiant que le candidat subissaient plus de dénigrement de la part des autres que lorsque une autre cause d'échec ou de non-engagement était invoquée. Cela dit, dans certains cas, les personnes qui confrontent ne sont pas pour autant moins appréciées. Par exemple, Mallett & Wagner (2011) ont créé deux conditions dans lesquelles une femme confrontait le point de vue des participants masculins soit en pointant le fait que leurs points de vue étaient sexistes, soit en pointant le fait qu'elle ne partageait pas leurs avis. Non seulement la femme dans la condition de confrontation sexiste était tout autant appréciée que la femme dans la deuxième condition, mais en plus, la suite de la discussion avec les femmes dans les deux conditions était jugée comme également agréable par les participants masculins. Il est donc possible que toute situation de confrontation n'implique pas systématiquement une dépréciation et un dénigrement de la personne qui confronte.

Stigmatisation subtilement bienveillante

En réponse aux nombreuses condamnations légales ou morales punissant les expressions clairement hostiles envers un groupe social stigmatisé, des formes plus subtiles, implicites, plus difficilement détectables, sont apparues. Bien que d'apparence plus positive, plus égalitaire, ces formes de stigmatisation plus subtiles sont pourtant fondés sur les croyances fermes de l'infériorité d'un groupe par rapport à l'autre. On peut citer notamment le racisme symbolique (Sears, 1988), le sexisme moderne (Swim, Aikin, Hall, & Hunter, 1995), le racisme moderne (McConahay, 1986), le

néo-sexisme (Tougas, Brown, Beaton, & Joly, 1995), le racisme aversif (Gaertner & Dovidio, 1986), l'ambivalence raciale (Katz & Hass, 1988), le sexisme ambivalent (Glick & Fiske, 1996), l'objectification (Fredrickson, & Roberts, 1997), la menace du stéréotype (Steele & Aronson, 1995), ou encore le *patronizing* (Vescio, Gervais, Snyder, & Hoover, 2005). Dans cette section, nous nous contenterons d'une rapide présentation des formes de racisme et de sexisme modernes, ainsi que de l'objectification. Le reste de ce chapitre s'intéressant à la menace du stéréotype, au sexisme bienveillant et au *patronizing*, nous développerons ces concepts plus largement par la suite.

Le racisme symbolique combine deux idées : le racisme n'est plus un problème de société actuel, les difficultés et les désavantages que rencontrent les minorités raciales sont en réalité dû à leur manque de volonté de prendre leurs responsabilités, et ainsi, leurs demandes d'un meilleur traitement, leur continuelle rage quant à la manière dont ils sont traités et les différentes attentions spéciales à leur encontre, ne sont pas réellement justifiées. Le racisme moderne est assez proche du racisme symbolique en ce qu'il partage la même négation de la persistance du racisme dans la société actuelle et le même mécontentement quant aux sempiternelles réclamations des minorités raciales quant à leur condition actuelle. Cette rancœur présente dans les deux types de racisme provient d'un attachement profond aux valeurs traditionnelles et individualistes américaines que les minorités raciales ne respectent pas.

Défendant des idées égalitaires et ressentant de la sympathie et de la compassion envers les victimes des injustices passées, les *racistes aversifs* quant à eux se voient comme ne possédant véritablement aucun préjugé. Ils possèdent néanmoins des affects négatifs non-conscients envers les Minorités raciales, qui se traduisent non pas par une antipathie apparente, mais plutôt par des comportements d'évitement teintés de peur, d'anxiété et d'inconfort. Une ambivalence caractérise donc ces personnes, tiraillée entre des valeurs explicites égalitaires et des sentiments négatifs plus inconscients. La notion de *racisme ambivalent* développée par Katz et ses collègues (1988) explique cette ambivalence du fait l'association d'une perception duale de déviance et de désavantage. De

par leur histoire d'exclusion de la société, les Minorités raciales sont souvent perçus à la fois comme déviants, dans le sens qu'ils possèdent des caractéristiques physiques ou mentales disqualifiantes, et comme désavantagés, soit par ces caractéristiques elles-mêmes, soit par la discrimination sociale et économique dont ils sont cibles. Ils sont perçus par les Blancs comme méritant d'être aidés, tout en étant perçus comme ne faisant pas suffisamment que pour s'aider eux-mêmes.

De manière générale, le racisme symbolique et le racisme moderne caractérisent les attitudes des individus aux valeurs plutôt conservatrices, alors que le racisme aversif et le racisme ambivalent caractérisent les individus arborant des valeurs politiques libérales et égalitaires (Gaertner et al., 1986; Dovidio & Gaertner, 2004).

Le sexisme moderne a été développé par Swim et collègues (1995) à la suite du développement du concept de racisme moderne. Les sexistes modernes, bien que rejetant la discrimination et les stéréotypes ouvertement dénigrants, pensent que la discrimination envers les femmes n'existe plus, sont réticents aux réclamations politiques et économiques des femmes, et ressentent du ressentiment envers les faveurs spéciales faites aux femmes, telle que des politiques destinées à les aider dans le monde académique ou professionnel. Le néo-sexisme s'apparente quant à lui plus du racisme aversif, dans le sens d'une ambivalence entre des valeurs égalitaires et des sentiments négatifs résiduels envers les femmes, qui se traduit notamment par un manque de support envers les politiques d'actions affirmative en faveur des femmes. L'objectification est définit par Frederickson et al. (1997, p. 174) comme étant « l'expérience d'être traité comme un objet (ou un ensemble de parties du corps) qui est valorisé principalement pour son usage (ou sa consommation) par autrui »². L'objectification sexuelle apparait chaque fois que le corps, des parties du corps, ou les fonctions sexuelles, d'une femme sont séparés de sa personne, réduits à l'état de simple instrument ou envisagés comme s'ils étaient suffisants pour la représenter (Bartky, 1990). En d'autres termes,

² Traduction personnelle libre

l'objectification apparait lorsque la femme est envisagée comme un corps qui existe pour l'utilisation et le plaisir d'autrui.

Dans le cadre de cet article, nous nous intéresserons à la discrimination subtile telle que définie par Fiske, Cuddy, Glick, & Xu (2002), qui se basent sur un modèle de jugement social à deux dimensions. Bien que plusieurs autres modèles de perception et de jugement social existent dans la littérature, il existe un consensus assez important sur l'existence de deux dimensions fondamentales. En effet, Rosenberg, Nelson, & Vivekananthan (1968) a suggéré que la perception que nous avons d'autrui en termes de personnalité se fait selon deux dimensions : la dimension intellectual goodbad et la dimension social good-bad. Wojciszke (1994) a réinterprété ces deux dimensions de Rosenberg en les envisageant selon les buts sous-jacents aux comportements. Il a identifié deux catégories de buts comportementaux : la catégorie morale (le but désiré de l'individu) et la catégorie compétence (la capacité de l'individu d'atteindre son but). L'association de ces deux catégories engendre quatre classifications : le succès vertueux, l'échec vertueux, le succès coupable et l'échec coupable. Différents niveaux de respect et d'appréciation des individus sont couplés à ces classifications, les vertueux qui réussissent sont aimés et respectés; les vertueux qui échouent sont aimés et non respectés; les coupables qui réussissent sont détestés et respectés; et enfin, les coupables qui échouent ne sont ni respectés, ni aimés. En science politique, la réflexion à propos de la perception et du jugement social s'est également axée sur un modèle à deux dimensions. En effet, Kinder & Sears (1985) parlent de l'intégrité morale et la compétence comme étant centrales dans l'évaluation générale des politiciens.

Selon le modèle du *Stereotype Content Model* (SCM) développé par Fiske et ses collègues (2002), les individus procèdent à un jugement des traits, des gens, des groupes et des cultures selon deux dimensions : la dimension de *chaleur* et la dimension de *compétence*. La dimension chaleur se réfère aux qualités sociales des gens (gentillesse, attention, sympathie) tandis que la dimension compétence renvoie aux qualités d'expertise (intelligence, compétences, capacités). De la

coexistence d'une évaluation plus ou moins élevée sur chacun de ces deux axes, se distinguent quatre catégories associées chacune à un stéréotype spécifique. Les personnes sympathiques mais perçues comme peu compétentes (les femmes, les personnes âgées, etc.), pour qui l'ont ressent de la pitié et une envie de leur venir en aide, sont associées à des *stéréotypes paternalistes*; les personnes compétentes mais peu sympathiques (les riches, les hommes d'affaires, etc.), pour qui l'on ressent de la jalousie, sont, elles, associées à des *stéréotypes envieux*; les personnes qui sont vues ni comme intelligentes ni comme sympathiques (les pauvres, les drogués, etc.) pour qui l'on ne ressent que mépris, dégout et colère, sont associées à des *stéréotypes de mépris*; et enfin, les personnes qui en plus d'être sympathiques sont aussi doté d'intelligence (l'endogroupe, les alliés, etc.), qui suscitent chez nous de l'admiration et de la fierté, sont associées à des *stéréotypes d'admiration* (Fiske et al., 2002, Eckes, 2002).

Dans le cadre de ce chapitre, nous nous limiterons à la présentation de trois formes de stigmatisation subtile qui sont associées aux stéréotypes paternalistes (sous-entendant donc une certaine incompétence); à savoir la menace du stéréotype, le sexisme bienveillant et le *patronizing*. Ces trois formes de stigmatisation subtiles, tout en partageant des similarités, se différencient, malgré tout, les unes des autres. Tout d'abord, concernant la manière dont l'incompétence est suggérée. Dans le cas de la menace du stéréotype, qui est une peur de confirmer un stéréotype, l'incompétence est suggérée via une activation d'un stéréotype socialement partagé d'infériorité d'un groupe par rapport à un autre. Par exemple, le stéréotype des femmes aux capacités mathématiques inférieures à celles des hommes, ou encore le stéréotype de certaines minorités ethniques présentant des compétences académiques générales plus faibles que celles des blancs. Cependant, la menace du stéréotype n'a pas réellement besoin d'être présente pour impacter ses cibles, le simple fait de connaître le stéréotype, sans même nécessairement y croire, est suffisant. Dans le cas du sexisme bienveillant, le stéréotype d'infériorité est suggéré via une remarque, un commentaire, ou un comportement impliquant une proposition d'aide non-sollicitée de la part d'un

homme envers une femme, ce qui sous-entend l'incapacité de la femme à réaliser la tâche, étant donné sa faiblesse. Enfin, la suggestion d'incompétence de le cas du *patronizing* se fait via une assignation à un rôle peu important et impliquant peu de responsabilités lors de la constitution d'une équipe de travail.

Un autre point sur lequel ces trois formes de stigmatisation subtile se différencient est le groupe cible. En effet, alors que la menace du stéréotype et le *patronizing* peuvent virtuellement s'appliquer à tout groupe social en situation d'infériorité suggérée, le sexisme bienveillant se limite très logiquement aux relations hommes-femmes.

Dans une seconde partie, nous nous intéresserons aux conséquences cognitives, affectives et comportementales de ces trois types de stigmatisation. En effet, étant donné que ces trois conséquences ne sont que faiblement corrélées (Breckler, 1984), connaître les effets des stéréotypes sur les processus cognitifs ne permet pas de prédire les effets sur les réactions affectives ou sur les comportements subséquents. Envisager ces trois versants est donc essentiel à une appréhension la plus complète possible des impacts de la stigmatisation subtile.

Une fois les mécanismes sous-jacents déterminés et identifiés, la recherche ne s'arrête pas là : il est important de penser à des stratégies efficaces pour lutter contre ces effets néfastes. Dans une dernière section, nous envisagerons donc la recherche qui s'est plus spécifiquement intéressée aux différentes stratégies de coping mise en place par les personnes visées par une stigmatisation subtile, mais nous nous intéresserons aussi aux interventions proposées par les chercheurs pour réduire les impacts de cette stigmatisation, en nous focalisant notamment sur deux sortes de stratégies : des stratégies centrées sur le problème, et d'autres centrées sur les émotions.

La menace du stéréotype

Le concept de la menace du stéréotype a été développé par les chercheurs Claude Steele et Joshua Aronson, dans leur article de recherche devenu classique, de 1995. Les auteurs ont démontré expérimentalement, à travers quatre études, que des étudiants Noirs présentaient une performance moindre, comparée à celle des participants Blancs, à une tâche de résolution de problèmes verbaux lorsque stéréotype de l'infériorité intellectuelle des Noirs Américains était activé. Les auteurs suggèrent que cette activation a engendré, chez les participants Noirs, une pression liée à la peur de confirmer ce stéréotype. Cette pression, la menace du stéréotype, semble ensuite interférer avec le fonctionnement intellectuel de ces participants. Une performance moindre en résulte. Dans la condition où la menace n'est pas présente, une performance égale entre les participants Noirs et Blancs était observée.

Le même effet apparait également pour les femmes (Spencer, Steele, & Quinn, 1999), lorsqu'elles sont soumises à un test de mathématique, pour lequel il a prétendument été montré, soit qu'il existait une différence entre le genre (condition de menace), soit qu'il n'existait pas de différence entre les genres (condition non-menaçante). Dans la condition de menace, les femmes présentaient une moins bonne performance que les hommes. Cependant, dans la condition non-menaçante, la performance des femmes était égale à celle des hommes à ce même test.

Steele et al. (1995) ont proposé que le simple fait d'être dans une situation où des stéréotypes groupaux négatifs peuvent s'appliquer, est suffisant pour avoir des impacts négatifs sur la performance. Il n'est pas nécessaire que le stéréotype soit exprimé par une personne intolérante ou encore que la personne internalise les stéréotypes qui lui sont liés, il suffit « juste » que la menace soit dans l'air (« The threat is in the air », Steele, 1997; Marx, Brown, & Steele, 1999; Steele, Spencer, & Aronson, 2002). Les recherches ont montré que la menace peut être activée de plusieurs manière, en demandant d'indiquer le genre ou la race des participants, par exemple (Steele et al., 1995), ou encore en mettant les participants dans une situation où ils sont seuls représentants de leur groupe (Inzlicht & Ben-Zeev, 2000; Sekaquaptewa & Thompson, 2003), en mettant l'accent sur le fait que les tests qui vont être administrés sont diagnostiques des capacités intellectuelles (McKay, Doverspike, Bowen-Hilton, & Martin, 2002), mais aussi en affirmant que les tests ont

précédemment montré une différence significative entre les groupes les hommes et les femmes (Cadinu, Maass, Rosabianca, & Kiesner, 2005; O'Brien & Crandall, 2003). L'exposition à des publicités stéréotypiques (ex : la femme impatiente de tester une nouvelle recette de brownies) peut également être suffisante pour entrainer un effet de menace du stéréotype (Davies, Spencer, Quinn, & Gerhardstein, 2002). Dans la même veine, on remarque que la présence d'images stéréotypiques dans les livres de science (seuls des hommes scientifiques sont présents sur les photos) active également l'effet de menace du stéréotype (Good, Woodzicka, & Wingfield, 2010). Plus subtil encore, le seul fait de faire passer un questionnaire concernant les menstruations à des femmes amène à nouveau un effet de menace stéréotypique (Wister, Stubbs, & Shipman, 2013).

Au moment du développement de la théorie de Steele et Aronson, les différences entre les groupes du point de vue académique étaient expliquées soit par des différences de socialisation (Eccles, Jacobs, & Harold, 1990), des différences intellectuelles génétiques (Herrnstein & Murray, 1994) ou encore par des raisons plutôt socioéconomiques (White, 1982). La théorie de la menace du stéréotype a permis d'introduire l'idée d'une menace situationnelle, et non plus dispositionnelle. Les performances réduites des Noirs et des femmes sont dès lors explicables non plus par une différence ancrée contre laquelle il est difficile de se battre, mais bien par le fait de se trouver dans une situation spécifique qui est due à la potentielle présence de stéréotypes négatifs. Il est cependant nécessaire que la victime de stéréotypes soit consciente du stéréotype qui s'applique à son groupe. Il n'est pas obligatoire que la victime adhère au stéréotype, mais il est essentiel que son applicabilité dans la situation soit reconnue par la victime (McKown & Weinstein, 2003). Si la victime ne perçois pas le stéréotype comme pertinent pour elle ou qu'elle ne pense pas que le stéréotype la concerne, les effets de menace du stéréotype n'apparaitront pas (Deaux, Bikmen, Gilkes, Ventuneac, Joseph, Payne, & Steele, 2007; McKown & Weinstein, 2003).

Le sexisme bienveillant

Dans leur article précurseur, Glick & Fiske (1996) ont mis en évidence que les attitudes stéréotypées envers les femmes ne se réduisent pas uniquement à une générale hostilité. Ils introduisent l'idée d'une coexistence d'attitudes à la fois positives et négatives envers les femmes. Les attitudes négatives sont présentées sous le nom de sexisme hostile. Elles renvoient à toutes attitudes, remarques, comportements clairement négatifs et hostiles envers les femmes. L'idée que les femmes sont des profiteuses qui essayent de se voir accorder des faveurs sous couvert d'une politique d'égalité, qu'elles sont anormalement susceptibles et perçoivent de la discrimination partout, ou encore l'idée qu'elles essayent d'avoir plus de pouvoir en gagnant du contrôle sur les hommes, sont quelques exemples de croyances véhiculées par l'idéologie du sexisme hostile. Les attitudes positives sont quant à elles présentées sous le nom de sexisme bienveillant. Ce dernier n'en est pourtant pas moins une idéologie sexiste, qui considère la femme comme étant inférieure à l'homme et comme nécessitant l'aide, notamment financière, des hommes. Cette idéologie se présente sous trois composantes : le paternalisme protecteur, l'intimité hétérosexuelle et la complémentarité de genre. Le sexiste bienveillant perçoit la femme comme une créature fragile et faible, qui doit être aidée et sauvée par les hommes (paternalisme protecteur), qui parfait l'homme pour faire de celui-ci un être complet (intimité hétérosexuelle), et qui possède des qualités humaines extraordinaires, que ne possèdent pas les hommes (complémentarité de genre). L'idée que les femmes sont dotées de qualités humaines extraordinaires implique, selon la théorie de la compensation, qu'elles manquent de compétences et d'intelligence (Fiske et al., 2002). Selon les recherches sur l'effet de compensation, lorsque deux groupes sont comparés et que l'un des groupes est perçu comme plus chaleureux que l'autre, il sera, par compensation, perçu comme moins compétent que l'autre (Judd, James-Hawkins, Yzerbyt, & Kashima, 2005; Kervyn, Judd, & Yzerbyt, 2009; Kervyn, Yzerbyt, Demoulin, & Judd, 2008; Kervyn, Yzerbyt, Judd, & Nunes, 2009; Yzerbyt, Kervyn, & Judd, 2008). En l'occurrence, le sexisme bienveillant, en décrivant les femmes comme plus hautes sur la dimension chaleur (gentilles, cultivées, morales, etc.) que les hommes, active l'idée que les femmes sont moins compétentes que les hommes. Ce genre de message d'infériorité par rapport aux hommes est problématique lors de la réalisation de tâches de performance. En effet, il a été expérimentalement démontré que les femmes exposées à du sexisme bienveillant présentent une performance à la tâche moindre que celles des femmes exposées à du sexisme hostile ou à une situation non sexiste (Dardenne et al., 2007; Dumont, Sarlet, & Dardenne, 2010). Cependant les effets négatifs du sexisme bienveillant ne se limitent pas à la performance seule. En effet, le sexisme bienveillant peut s'avérer néfaste étant donné qu'il confine les femmes dans un rôle traditionnel restreint. De plus, le sexisme bienveillant limite les femmes dans leur intérêt pour les domaines scientifiques ou mathématiques, les cantonnant aux choix d'études et de métiers d'orientation essentiellement sociale, axés sur l'apport d'aide et de soins. De plus, les femmes soumises à du sexisme bienveillant ont tendance à se présenter en termes positifs liés à la sociabilité, plutôt qu'à la compétence, les maintenant dans des rôles traditionnels, justifiant ainsi le status quo et le système en place (voir Sarlet & Dardenne, 2012a, pour une revue).

Le patronizing

Le concept de *patronizing* a été défini d'au moins deux manières différentes. Une manière de le définir provient de la littérature sociologique et légale. Une personne est victime de *patronizing* de la part d'un tiers lorsque a) ce tiers perçoit la personne comme moins capable, moins apte, b) ce tiers le fait d'une manière condescendante, dénigrante ou dévalorisante, et enfin, c) lorsque l'acte de *patronizing* part d'une bonne intention. Par exemple, un homme aide, de manière condescendante, une dame âgée à traverser la rue car il évalue ses capacités à le faire elle-même comme étant faibles, mais son geste n'est empreint que de bonnes intentions. Il offre son aide à la dame car il estime agir pour son bien. Il est important de noter que l'acte sera considéré comme « patronizant » seulement si la victime se sent offensée par l'acte. Dans notre exemple, si la dame âgée apprécie l'aide apportée par l'homme, alors l'acte n'est pas considéré comme relevant du *patronizing* (Adler,

2001). Une deuxième définition est proposée par la psychologie sociale. Bien que le nombre de recherches en *patronizing* dans ce domaine soit plus restreint, nous nous focaliserons sur celle-ci dans le cadre de cet article. Vescio et ses collègues (Biernat & Vescio, 2002; Vescio et al., 2005; Gervais & Vescio, 2012) considèrent un comportement comme étant « patronizant » lorsque les éloges sont importantes (« votre travail est excellent ») mais que les ressources attribuées pour mettre à profit ce travail sont faibles (i.e. une position basse, non décisionnelle dans l'équipe).

Conséquences de la stigmatisation bienveillante

Étant donné qu'il a été montré que la stigmatisation sous sa forme subtile n'est pas systématiquement perçue comme étant de la discrimination (Barreto & Ellemers, 2005; Dardenne et al., 2007), il est plus difficile de la combattre. Les conséquences pour les « victimes » sont pourtant délétères. Ces conséquences peuvent être de trois sortes : cognitives, affectives, comportementales.

Conséquences cognitives

L'étude des conséquences cognitives de la stigmatisation bienveillante a généré beaucoup de recherche, allant de l'étude des impacts de la menace stéréotypique sur la performance cognitive académique (test d'intelligence pour les minorités, de mathématiques pour les femmes), à l'étude des impacts du *patronizing* sur la résolution de problèmes mathématiques des femmes, en passant par l'étude des conséquences directes du sexisme bienveillant sur les performances (mathématiques et) cognitives des femmes. Dans le but de faciliter tant la présentation que la compréhension des études subséquentes, nous nous intéresserons aux conséquences cognitives de chacune des trois formes de stéréotypisation bienveillante séparément. La recherche sur les effets de la menace du stéréotype étant la plus prolifique, nous commencerons par celle-ci. Nous intéresserons ensuite aux effets du sexisme bienveillant et du *patronizing*.

Les effets de la menace du stéréotype sur la performance cognitive

La menace du stéréotype, la peur de confirmer un stéréotype négatif à l'égard de son groupe, engendre une diminution de la performance cognitive. Comme il été présenté précédemment dans la section définissant la menace de manière théorique, les relations raciales et ethniques ainsi que les relations de genre ont suscité le plus d'intérêt de la part des chercheurs (Steele, 1997; Nguyen, & Ryan, 2008 pour une méta-analyse). En effet, et pour rappel, l'effet de la menace du stéréotype sur la performance cognitive a largement été étudié chez les Noirs Américains comparés aux Blancs (Steele et al., 1995; McKay et al., 2002; Cadinu, Maass, Frigerio, Impagliazzo, & Latinotti, 2003; Massey & Fischer, 2005; Murphy, Richeson, Shelton, Rheinschmidt, & Bergsieker, 2012), chez les Latinos, et encore plus les Latinas, comparés aux Blancs (Gonzales, Blanton, & Williams, 2002; Schmader & Johns, 2003; Murphy et al., 2012), chez les français d'origine maghrébine, comparé aux français d'origine française (Berjot, Girault-Lidvan, Gillet, & Scharnitzky, 2010) mais aussi chez les femmes, comparées aux hommes (Spencer et al., 1999; Inzlicht & Ben-Zeev, 2000; Cadinu et al., 2003; O'Brien et al., 2003; Johns, Schmader, & Martens, 2005). Chacune de ces études a montré des effets délétères de l'exposition à une menace stéréotypique, quelle que soit la manière dont elle a été introduite, sur la performance cognitive. Par exemple, Schmader & Johns (2003) ont mis en évidence une diminution de la performance des femmes une tâche de rappel de mots lorsque le stéréotype des capacités supérieures des hommes, par rapport aux femmes, était présent. Les femmes en situation de menace rappelaient moins de mots que les hommes mais aussi que les femmes qui n'étaient pas en situation de menace. Dans une seconde étude, les auteurs retrouvent le même effet de diminution de la performance pour les participants et participantes Latinos exposés à une menace stéréotypique.

Ces effets ont également été étudiés dans une population plus jeune, d'enfants et d'adolescents. Par exemple, chez les jeunes filles de primaire ou de secondaire (Ambady, Shih, Kim, & Pittinsky, 2001; Neuville & Croizet, 2007; Huguet & Régner, 2007) mais aussi chez les enfants issus de

minorités ethniques comparés aux enfants non issus de minorités ethniques (McKown & Weinstein, 2003). Par exemple, Neuville et al. (2007) ont demandé à des jeunes filles du primaire de colorier une image stéréotypiquement féminine (une image d'une petite fille tenant une poupée) ou une image contrôle (un paysage). Lors d'un test d'arithmétique, les jeunes filles dont l'identité de genre a été activée via l'exercice de coloriage, présentaient une performance plus faible que leurs camarades de classe dont l'identité de genre n'a pas été activée.

Les effets de la menace de stéréotypes ne se limitent pas à la race et au genre, bien que la majorité des recherches aient été faites dans ces deux cas. En effet, le statut social économique, la filière d'études, la santé mentale, sont autant d'identités qui peuvent déclencher un effet de menace du stéréotype. En effet, les effets négatifs de la menace du stéréotype ont été observés chez les enfants de statut économique bas, comparé aux enfants de statut plus élevé (Croizet & Claire, 1998; Spencer & Castano, 2007), chez les personnes en recherche d'emploi lorsque le stéréotype du chômeur a été rendu saillant (Bourguignon, Desmette, Yzerbyt, & Herman, 2008), ou chez les étudiants en psychologie, comparé aux étudiants en sciences (Croizet, Després, Gauzins, Huguet, Levens, & Méot 2003), ou encore chez des personnes avec un passé de maladie mentale, lorsque leur passé est mis à jour (Quinn, Kahng, & Crocker, 2004), ainsi que chez des patients atteints de lésion cérébrales traumatiques (Kit, Mateer, Tuokko, & Spencer-Rodgers, 2014). L'effet de la menace du stéréotype a également attiré l'attention des chercheurs dans le domaine de la mémoire des personnes âgées. Par exemple, une performance moindre à un test de mémoire a été démontrée chez des participants âgés en moyenne de 70 ans et cette diminution de la performance due à l'âge était médiée par le sentiment de menace du stéréotype ressenti par les participants âgés (Chasteen, Bhattacharyya, Horhota, Tam, & Hascher, 2005). Une autre équipe de chercheurs a récemment mis en évidence un effet de la menace du stéréotype chez les personnes âgées sur leur faux rappel de mots, qui consiste à rappeler faussement des mots non-précédemment étudiés lors d'une tâche de rappel de mots appris. Alors qu'il leur était explicitement demandé d'être attentif au faux rappel de mots, les personnes âgées exposé à une menace stéréotypique avaient plus de difficulté à reconnaitre des mots non précédemment étudiés comme tels, que leurs homologues non soumis à la menace. Le même pattern de résultats a été retrouvé pour la reconnaissance de mots étudiés précédemment, les participants menacés faisant plus d'erreur que les participants non-menacés (Wong & Gallo, 2015).

La menace du stéréotype n'est pas l'apanage seul des minorités qui font l'expérience quotidienne des stéréotypes négatifs envers leur groupe social. Les groupes « dominants » peuvent aussi faire l'expérience de ces effets. En effet, Aronson et ses collègues (Aronson, Lustina, Good, Keough, Steele, & Brown, 1999) ont montré que les hommes blancs à qui l'on présente un test comme étant en général mieux réussi par des asiatiques, présentent des scores à ce test bien plus bas que ceux des hommes à qui le test n'a pas été présenté comme étant mieux réussi par des asiatiques (voir aussi Smith & White, 2002). Leyens, Désert, Croizet, & Darcis (2000) ont testé l'effet de la menace du stéréotype chez les hommes, qui sont vus comme stéréotypiquement moins aptes à gérer des situations affectives que les femmes. Les résultats ont montré que les hommes faisaient plus d'erreurs, comparé aux femmes, lorsque la tâche consistait à distinguer des mots affectifs des mots non-affectifs. Comme introduit précédemment, n'est donc pas nécessaire d'appartenir à un groupe socialement stigmatisé ou de posséder un sentiment internalisé d'infériorité pour être soi-même victime de la menace du stéréotype. De plus, les effets de la menace stéréotypique ne se limitent pas aux tests mathématiques ou aux tests de raisonnement logique ou encore de mémoire. La pratique d'une seconde langue (Paladino, Poddesu, Rauzi, Vaes, Cadinu, & Forer, 2009), les capacités à formuler des stratégies de résolution de problèmes (Quinn & Spencer, 2001) ou encore les performances à un test théorique lié à la conduite automobile (Chateignier, Chekroun, Nugier, & Dutrévis, 2011) peuvent être mise à mal par la peur de confirmer un stéréotype groupal.

Un récent courant de recherche s'est intéressé aux effets d'un phénomène proche de la menace du stéréotype, i.e. la menace du diagnostic. Lorsque des patients avec un traumatisme crânien apprenaient que cela se traduisait par une augmentation des probabilités d'une diminution de leur performance, ils présentaient une moins bonne performance à une batterie de tests neuropsychologiques, comparé à des traumatisé crâniens à qui aucune diminution de performance n'avait été prédite (Suhr & Gunstad, 2002). Au même titre que la menace du stéréotype, le fait de s'attendre à des effets négatifs d'un traumatisme crânien au niveau neurologique résulte en une performance effectivement moindre. Cet effet a été ultérieurement reproduit totalement (Suhr & Gunstad, 2005) ou partiellement (Ozen & Fernandes, 2011; Trontel, Hall, Ashendorf, & O'Connor, 2013). Certaines études n'ayant réussi à reproduire l'effet que de manière faible proposent cependant de réévaluer l'effet de la menace du diagnostic sur les traumatisés crâniens (Blaine, Sullivan, & Edmed, 2013). L'étude de la menace du diagnostic étant encore à ses débuts, des recherches supplémentaires sont nécessaires pour investiguer plus amplement son effet sur la performance des patients.

Les effets du sexisme bienveillant sur la performance cognitive

Les conséquences délétères du sexisme bienveillant sur la performance cognitives des femmes ont également récemment suscité l'intérêt des chercheurs, bien que le nombre d'études l'examinant soit beaucoup plus restreint que dans le cas de la menace du stéréotype. Dardenne et collègues (2007) sont les premiers à s'être penché sur les conséquences néfastes du sexisme bienveillant sur les performances cognitives des femmes. À travers quatre expériences, les auteurs ont soumis des femmes à du sexisme bienveillant. Les participantes devaient s'imaginer participer à un entretien d'embauche. Lors de cet entretien, la personne chargée du recrutement exprimait des remarques sexistes bienveillantes, faisant référence au manque de compétences des femmes et à la nécessité des hommes de leur venir en aide. Les résultats des quatre études mettent en évidence les impacts néfastes du sexisme bienveillant sur la performance des femmes. Le fait de leur rappeler leur manque de capacités amenait les femmes à moins bien réussir un test de résolution de problèmes (études 1, 2 et 4) ou de rappel de mots (étude 3). Alors que non reconnu explicitement comme étant

du sexisme par les participantes, le sexisme bienveillant impacte négativement la performance des femmes. Similairement, dans une seconde recherche, Dumont et al. (2010), en plus de répliquer les effets délétères du sexisme bienveillant chez les femmes, ont également mis en évidence que la génération de souvenirs autobiographiques liés à l'incompétence était plus importante chez ces mêmes femmes soumises au sexisme bienveillant. L'étude des conséquences du sexisme bienveillant sur la performance cognitive se limitent malheureusement, à notre connaissance, à ces deux recherches. Il est donc nécessaire de poursuivre la recherche s'intéressant aux effets de la stéréotypisation paternaliste des femmes, qui insiste sur leur qualités d'être profondément social et prévenant, tout en suggérant plus subtilement leur incompétence à des tâches perçues comme plus typiquement masculines.

Les effets du patronizing sur la performance cognitive

Bien que, à nouveau, moins largement étudiées que les conséquences de la menace du stéréotype sur la performance cognitive, une équipe de chercheurs s'est intéressée au *patronizing* et à ses effets.

Dans l'une de leur étude, Vescio et al. (2005) ont confronté des participants à une situation dans laquelle ils recevaient des propos élogieux de la part du chef d'équipe qui, cependant, ne leur a attribué qu'un rôle peu important dans l'équipe lors d'une compétition. La performance des participants à un test de mathématiques, présenté comme étant une tâche stéréotypiquement masculine, a par la suite été mesurée. Les femmes dans une condition de *patronizing* non seulement montrent un désintérêt pour la tâche, mais montrent également une performance réduite par rapport aux hommes dans cette même condition de *patronizing*. Néanmoins, lorsque la position assignée est une position plus valorisée, la différence de performance entre les femmes et les hommes disparait.

Gervais et al. (2012) sont allés plus loin et se sont intéressés au contrôle perçu. Le contrôle perçu sur la situation et sur l'assignement des positions dans l'équipe lors des trois différentes

épreuves de la compétition était manipulé de deux manières : un contrôle perçu ambigu, où les participants sont amenés à penser que leur position dans l'équipe est décidée par le chef d'équipe et ce, au début de chaque épreuve de la compétition, laissant ainsi croire à une possibilité de changer de position en fonction de la performance à chaque épreuve précédente; et un contrôle perçu accru, leur position dans l'équipe ne dépendant plus seulement de l'unique décision d'un chef d'équipe, mais bien de la décision de plusieurs chefs d'équipe avant les différentes épreuves de la compétition, les décisions étant alors indépendantes les unes des autres. Les résultats ont révélés que les femmes assignées à une position dévaluée malgré les propos élogieux présentent une performance réduite par rapport aux hommes ainsi qu'aux femmes assignées à une position valorisée, et cela notamment lorsque le contrôle perçu sur la situation est ambigu. Cependant, lorsque les femmes dans une situation de patronizing perçoivent un contrôle sur la situation accru, leur performance est supérieure à celle des femmes dans une condition de contrôle perçu ambigu. Récupérer un certain contrôle afin de changer la situation déplaisante impacte positivement les performances subséquentes.

Conséquences affectives

De manière générale, lorsqu'un individu est catégorisé, que ce soit sur base de sa catégorie socio-économique ou de sa catégorie sociale, stigmatisée ou non, des réactions affectives émergent. En effet, une catégorisation négative conduit à rapporter plus d'émotions négatives ainsi que d'émotions liées à l'hostilité et à l'anxiété, qu'une catégorisation positive (Ellemers & Barreto, 2006).

Bien que les conséquences affectives aient fait l'objet d'études diverses, elles ne l'ont été que de manière moins prolifique en comparaison avec la composante cognitive présentée précédemment. Cependant, l'étude des affects comme causes, et non comme possibles conséquences, de la stéréotypisation a, quant à elle, été plus féconde. Par exemple, de nombreuses

recherches sur sont penchées sur les émotions à la base des stéréotypes envers certains groupes sociaux particuliers (Dijker, 1987; Huntsinger, Sinclair, Dunn, & Clore, 2010; Ragins & Winkel, 2011; voir Talaska, Fiske, & Chaiken, 2008, pour une méta-analyse). D'autres recherches se sont intéressées aux émotions qu'un groupe social ressent envers un autre (Fiske et al., 2002; Caprariello, Cuddy, & Fiske, 2009; Jackson, Lewandowski, Ingram, & Hodge, 1997; Verkuyten, Drabbles, & Van Den Nieuwenhuijzen, 1999; Yabar & Philippot, 2000). D'autres encore se sont pris d'intérêt pour les affects ressentis par les spectateurs d'un évènement de stéréotypisation, non directement dirigé vers eux (Chaudoir & Quinn, 2010; Fazio & Hilden, 2001; Kawakami, Dunn, Karmali, & Dovidio, 2009; Leonard, Moons, Mackie, & Smith, 2011).

En procédant de la même manière que dans la section précédente, nous allons présenter les différentes études envisageant les conséquences affectives d'une exposition à une forme de stigmatisation bienveillante et réalisées dans les domaines de la menace du stéréotype, du sexisme bienveillant et du *patronizing*, séparément.

Les effets de la menace du stéréotype sur les affects

Bien que n'ayant pas réussi à montrer une relation significative entre l'anxiété et la menace du stéréotype, Spencer et ses collègues (1999) ont été parmi les premiers à se pencher sur le rôle que pouvaient jouer les affects dans le cadre de la menace du stéréotype. D'autres s'y sont également intéressés par la suite. Plusieurs recherches ont montré qu'une exposition à une menace stéréotypique active des émotions négatives, telles que la colère, la frustration, la déception, l'anxiété, etc. Par exemple, Chateigner et ses collègues (2011) ont montré que, bien que n'étant pas un médiateur de la relation entre menace du stéréotype et performance réduite, la colère était une émotion ressentie par ses participantes lors d'une exposition au stéréotype bien connu des « femmes au volant ». Dans un autre registre, un lien négatif entre une exposition quotidienne à une forme de menace stéréotypique et le bien-être au travail (mesuré via des affects tels que « tendu »,

« inquiet », « morose », « mélancolique ») a été observé dans une population de femmes travaillant dans le domaine de la finance, domaine généralement réservé aux hommes (von Hippel, Sekaquaptewa, & McFarlane, 2015). Ces émotions négatives peuvent ensuite générer une diminution de la performance. En effet, Keller & Dauenheimer (2003) ont démontré empiriquement que des jeunes filles soumises au stéréotype de la supériorité des garçons dans les épreuves mathématiques ressentaient des émotions négatives, telles que la déception, la frustration ou encore la tristesse, et que ces émotions impactaient ensuite sur leur performance à un test de mathématiques. Utilisant des mesures plus implicites, des chercheurs ont aussi mis en évidence l'activation de zones cérébrales liées au traitement, notamment, des émotions négatives telles que la colère et la tristesse (Wraga, Helt, Jacobs, & Sullivan, 2006), et que le traitement de ces émotions négatives engendrait ensuite une diminution de l'apprentissage (Mangels, Good, Whiteman, Maniscalco, & Dweck, 2011). L'utilisation de mesures du comportement non verbal lié à l'anxiété a aussi permis d'établir que les participants homosexuels soumis à la peur de confirmer le stéréotype associé à leur groupe montraient plus d'anxiété que leur comparses non soumis à cette peur (Bosson, Haymovitz, & Pinel, 2004). Bien que les résultats de ces études soient encourageants, nous déplorons malgré tout l'insuffisance des recherches s'attachant à l'analyse des réactions affectives consécutives à une situation de menace du stéréotype.

Les effets du sexisme bienveillant sur les affects

Plusieurs recherches dans le domaine du sexisme bienveillant ont également révélé une activation d'affects négatifs ou de pensées liées à certains affects négatifs à la suite à une exposition à des remarques ou commentaires sexistes bienveillants. Par exemple, une équipe de chercheurs a mis en évidence l'effet du sexisme bienveillant sur le sentiment de compétence et d'efficacité personnelle (*self-efficacy*) chez les hommes et les femmes, en fonction du genre de l'auteur des remarques bienveillantes (Jones, Stewart, King, Botsford Morgan, Gilrane, & Hylton, 2014). Une diminution des sentiments de compétence et d'efficacité personnelle n'apparait, effectivement, que

lorsque le genre de l'auteur est opposé à celui de la cible. La bienveillance sexiste des femmes, et non des hommes, impacte donc le niveau de compétence et d'efficacité personnelle des hommes. Similairement, seule la bienveillance sexiste des hommes envers les femmes, et non des femmes envers les femmes, affecte négativement leur sentiment de compétence et d'efficacité personnelle. En outre, les résultats indiquent que l'exposition quotidienne à l'idéologie bienveillante se traduit par une baisse de la performance professionnelle auto-rapportée chez les femmes, le tout étant médié par un sentiment de compétence et d'efficacité personnelle réduit. L'étude des conséquences affectives du sexisme bienveillant ne se limite pas au sentiment d'incompétence. De la colère, du dégout ainsi que des émotions associées à la peur, entre autres, ont également été rapportés par les femmes lorsqu'il leur était demandé de rappeler des évènements sexistes bienveillants, au même titre que lorsque des évènements hostiles étaient rappelés (Bosson, Pinel, & Vandello, 2010).

Dans leur recherche précédemment citée, Dumont et collègues (2010) se sont intéressés aux impacts de commentaires sexistes bienveillants sur le nombre et le type de pensées intrusives rapportées par les cibles de ces commentaires. Ces pensées intrusives faisaient notamment référence au sentiment d'incompétence. Des items tels que « je me sens bête » ou « je me sens incompétente » ont été utilisés. Les résultats montrent en effet que le nombre de pensées intrusives liées au sentiment d'incompétence était plus important lorsque les remarques étaient teintées de sexisme bienveillant, que lorsque ces remarques étaient teintée d'hostilité ou lorsqu'elles étaient neutres. Dardenne et collègues (2007) s'étaient déjà penchés sur l'existence de pensées intrusives lors d'une rencontre avec un sexiste bienveillant, examinant les sentiments de doute de soi et d'estime de soi. Les résultats étaient alors déjà annonciateurs de l'effet délétère que l'apparente positivité d'un message sexiste bienveillant peut avoir sur les sentiments liés à l'incompétence.

Bien que son message semble positif et attentionné, il n'en reste pas moins que le sexisme bienveillant est vécu tout autant négativement sur le plan affectif qu'une expression sexiste hostile et négative, un constat qui ne peut que nous encourager à développer plus amplement la recherche sur le sujet.

Les effets du patronizing sur les affects

En plus de tester les effets d'une situation de *patronizing* - dans laquelle un participant est hautement encensé par son chef d'équipe mais simultanément relégué à une position non valorisée dans l'équipe - sur les performances cognitives, Vescio et ses collègues (2005) se sont intéressé au niveau de colère, d'anxiété et d'émotions positives. Les résultats révèlent une élévation du niveau de colère lorsque les participants sont confrontés à du *patronizing* de la part de leur chef d'équipe. Les participants qui n'ont reçu aucun éloge et les participants qui se sont vus accordé une position valorisée au sein de l'équipe présentent des niveaux de colère plus faibles et équivalents entre eux. Les niveaux d'anxiété et d'émotions positives, quant à eux, ne varient pas en fonction ni de la position assignée, ni du nombre d'éloges reçues. Les résultats montrent également que la colère n'impacte pas les performances subséquentes de la même manière pour les hommes et pour les femmes. Alors que la colère est facilitatrice pour les hommes, elle s'avère être un frein pour les femmes. Une corrélation positive entre colère et performance n'apparait que chez les hommes dans la condition de *patronizing*, alors que chez les femmes, elle est inexistante. À notre connaissance, seule cette étude s'est penchée sur les effets du *patronizing* sur les affects.

Conséquences comportementales

Les conséquences de la stéréotypisation bienveillante sur le comportement ont suscité l'intérêt des chercheurs dans plusieurs domaines (voir Wheeler & Petty, 2001 pour une revue). Les types de comportements qui sont susceptibles d'être impactés par cette stéréotypisation sont divers et variés. En effet, les chercheurs se sont penchés tant sur la performance sportive que sur la conduite automobile, la qualité des soins donnés, les comportements alimentaires, ou encore sur les comportements des hommes et des femmes vis-à-vis des victimes de viols mais aussi sur les comportements sexuels, le choix des partenaires de vie ou la tendance à l'action. En suivant la

même logique de présentation que dans les sections précédentes, nous présenterons les études réalisées dans le domaine de la menace du stéréotype, du sexisme bienveillant, et du *patronizing*, séparément.

Les effets de la menace du stéréotype sur les comportements

Assez rapidement après la recherche fondatrice de Steele et Aronson en 1995, des chercheurs se sont penchés sur les effets de la menace du stéréotype sur les performances athlétiques des étudiants noirs et blancs (Stone, Lynch, Sjomeling, & Darley, 1999). A l'aide de deux études, les auteurs ont montré que la menace du stéréotype pouvait, similairement aux résultats précédemment présentés pour les performances académiques, impacter négativement la performance athlétique à une tâche de golf, tant chez les étudiants noirs que chez les étudiants blanc, selon la manière dont le stéréotype est présenté. En effet, lorsque la tâche de golf est décrite comme étant une mesure de l'habilité athlétique naturelle (stéréotype négatif), les étudiants blancs voient leur performance réduite, comparé à une situation où la tâche est décrite comme étant une mesure de l'intelligence sportive (stéréotype positif). De manière totalement opposée, lorsque les étudiants noirs perçoivent la tâche comme étant diagnostique de l'habilité athlétique naturelle (stéréotype positif), leur performance à la tâche de golf est supérieure à celle des étudiants noirs à qui l'on a décrit la tâche comme étant diagnostique de l'intelligence sportive. Dans la même mouvance, les chercheurs se sont intéressés aux effets de la menace du stéréotype sur le temps passé à s'entrainer avant la passation d'une tâche de putt au golf (Stone, 2002). Lorsque la tâche de golf est présentée comme étant une mesure des facteurs personnels corrélés avec la capacité athlétique naturelle, les participants blancs s'entrainaient moins avant la tâche que lorsque celle-ci était présentée comme une mesure des facteurs psychologiques corrélés avec la performance sportive générale. Au fil des années, d'autres chercheurs se sont intéressés à la menace du stéréotype dans le domaine sportif, que ce soit pour la performance au golf (Beilock, McConnell, 2004; Beilock, Jellison, Rydell, McConnell, & Carr, 2006), au football (Chalabaev, Sarazin, Stone, & Cury, 2008), au basketball (Hively & El-Alayli, 2014; Laurin, 2013) ou encore au tennis (Hively & El-Alayli, 2014).

Cependant, l'étude des impacts sur les comportements de la menace du stéréotype ne se limite pas à la performance sportive. Les effets sur la conduite automobile des femmes (Yeung & von Hippel, 2008) ou des personnes âgées (Joanisse, Gagnon, & Voloaca, 2013), par exemple, a suscité l'intérêt récent de quelques chercheurs. Que ce soit le stéréotype des femmes moins bonnes conductrices que les hommes, ou le stéréotype des personnes âgées de plus de 65 ans étant plus souvent impliquées dans des accidents de la route, qui soit activé, les conséquences sur la conduite automobile, simulée par ordinateur, sont similaires, à savoir une diminution significative de la qualité de la conduite, comparé à la condition contrôle.

Les comportements alimentaires sont également soumis à l'impact de l'activation d'un stéréotype (Brochu & Dovidio, 2014; Ip, 2011; Seacat, & Mickelson, 2009). Par exemple, lorsque des participants obèses sont amenés à penser aux stéréotypes liés au poids, les intentions d'une pratique sportive et de mise en place d'un régime alimentaire plus sain étaient moins importantes que lorsque le stéréotype n'est pas présent (Seacat & Mickelson, 2009).

Les effets du sexisme bienveillant sur les comportements

Quelques recherches, bien qu'en nombre plus restreint que dans le domaine de la menace du stéréotype, ont mis en évidence diverses conséquences comportementales liées au sexisme bienveillant. Par exemple, une étude a montré que les femmes, dont le degré d'accord avec l'idéologie du sexisme bienveillant est élevé, utilisent plus de produits de beauté, tels que du maquillage, lorsqu'elles se préparent pour un rendez-vous galant, que les femmes qui adhèrent de manière plus faible à cette idéologie (Franzoi, 2001). Il a également été mis en évidence qu'une exposition quotidienne (« in everyday life »), durant l'année écoulée, à des situations de sexisme bienveillant diminuait les instances auto-rapportées d'utilisation d'un préservatif par les jeunes étudiantes interrogées (Fitz & Zucker, 2015). Plus subtile encore, une équipe de recherche a mis en

lien le haut degré d'acception et d'adhésion au sexisme bienveillant des femmes et leur choix de leur partenaire de vie (Johannesen-Schmidt & Eagly, 2002). En effet, plus les femmes ont un score élevé sur l'échelle de sexisme bienveillant de l'ASI (Glick & Fiske, 1996), plus elles porteront leur choix sur un homme avec un potentiel économique élevé, comparées aux femmes dont le score en sexisme bienveillant est plus faible.

Les choix de vie semblent donc altérés, influencés par cette idéologie qui voit en l'homme le protecteur financier de la femme, qui est, quant à elle, confinée dans son rôle traditionnel d'être profondément social. L'influence du sexisme bienveillant est telle qu'elle dirige également la perception personnelle des qualités intrinsèques des jeunes femmes en formation académique et, par extension, le choix de celles-ci dans leur carrière. En effet, des études ont montré que les étudiantes exposées à du sexisme bienveillant se décrivent plus en termes relationnels et moins en termes de compétence (termes liées à la tâche) que les étudiantes non exposées à du sexisme. De plus, les résultats montrent qu'elles attachent plus d'importance à l'approbation sociale ainsi qu'à la gestion de leur apparence (Barreto, Ellemers, Piebinga, & Moya, 2010). Dans la même lignée, il a été démontré empiriquement que les jeunes étudiantes qui rencontrent une situation de sexisme bienveillant rappellent plus de souvenirs liés à leur côté chaleureux. Lors d'une prétendue interview pour un travail, mise en place par les expérimentateurs, lorsqu'il leur est demandé de mettre en avant leurs qualités, ce sont les qualités liées à la dimension chaleur qui priment. De plus, les étudiantes présentant un score élevé à l'échelle du sexisme bienveillant se perçoivent comme plus destinées à un travail dit « féminin », qui requiert des qualités d'écoute, de compréhension et d'aide aux clients (Sarlet & Dardenne, 2012a). Ce genre d'attitudes dans la perception et dans la présentation de soi, notamment dans le cadre académique, amènent ces jeunes femmes à se diriger vers des emplois plus focalisés sur l'aspect social et chaleureux, quand bien même ces jeunes filles sont engagées dans des filières d'études « masculines » (mathématiques, ingénierie, etc.) (Sarlet & Dardenne, 2012a).

De manière différente, mais tout aussi dommageable, le sexisme bienveillant impacte aussi les comportements d'accusation et de blâme dans des cas de viols. Plusieurs études ont montré qu'un niveau élevé d'acception et d'adhésion à l'idéologie du sexisme bienveillant amenait les participants à juger plus négativement une victime de viol lorsque la victime viole son rôle traditionnel de femme (Masser, Lee, & McKimmie, 2010; Sakallı-Uğurlu, Yalçın, & Glick, 2007), par exemple lorsque le viol s'est déroulé lors d'un acte d'infidélité de la part de la victime (Viki & Abrams, 2002). La victime violant son rôle traditionnel de femme, la sanction, via le blâme et l'accusation, est d'autant plus importante. L'influence du sexisme bienveillant sur les comportements est donc claire. Il n'est, cependant, pas évident pour les femmes de se rebeller contre ces effets, car, de manière plus pernicieuse encore, le sexisme bienveillant démotive les femmes dans leur intention d'action collective pour un changement social. En effet, lors d'une exposition à des propos sexistes bienveillants, les femmes montrent moins d'envie de participer à des manifestations ou à transmettre une pétition exigeant une égalité de salaires entre les hommes ou les femmes, par exemple, que lorsqu'elles sont exposées à du sexisme hostile ou à une situation non sexiste. Lorsque l'opportunité leur est réellement donnée de passer à l'action, soit en signant directement une pétition en faveur du droit des femmes, soit en prenant avec elle des dépliants à distribuer, là aussi, le sexisme bienveillant les freine dans leur action, où seulement 30% signent la pétition (contre 83.3% en sexisme hostile et 62% en condition contrôle) par exemple (Becker, & Wright, 2011).

Les effets du patronizing sur les comportements

Les recherches s'étant intéressées aux effets du *patronizing* n'ont pas, à notre connaissances, investigué ses effets sur le comportement, s'intéressant uniquement à la composante cognitive et affective.

Stratégies de coping face à la stigmatisation

Des stratégies de coping sont activées pour permettre aux personnes dont l'identité groupale est stigmatisée de gérer ce stress au quotidien (Williams, Yu, Jackson, & Anderson, 1997). Face à l'expérience de stigmatisation, certaines stratégies de coping se mettent en place « naturellement » chez les cibles, les unes parfois plus efficaces que les autres. Certaines stratégies relèvent de l'évitement ou du désengagement (Major, Spencer, Schmader, Wolfe, & Crocker, 1998; Steele, 1997). En effet, certains choisissent une désidentification au domaine (Davies et al., 2002), au groupe social stigmatisé (Kaiser & Miller, 2001; McCoy & Major, 2003) ou au stéréotype (Crocker & Major, 1989). D'autres encore nient le fait d'avoir été exposé à une forme de stigmatisation (Miller & Kaiser, 2001). Des caractéristiques individuelles permettent aussi à certaines personnes de gérer mieux la situation de stress et ainsi ressentir plus faiblement les impacts néfastes des stéréotypes. Ford, Ferguson, Brooks, & Hagadone (2004) ont montré, par exemple, que lorsque les femmes possèdent un sens de l'humour qui permet de gérer les situations de stress (mesuré via l'échelle de Martin & Lefcourt (1983), la Coping Humor Scale, CHS), leur performance à un test mathématique subséquent était meilleure que pour les femmes dont le niveau de CHS était plus faible. Wang, Stroebe, & Dovidio (2012) ont montré que les femmes qui possédaient une sensibilité plus accrue concernant la présence de préjugés à leur encontre, c'est-à-dire une attention plus importante aux signes annonciateurs de stéréotypes envers leur groupe, attribuent plus facilement l'issue négative d'un entretien d'embauche fictif au sexisme du recruteur (plutôt qu'à une caractéristique personnelle) et gèrent activement cette situation de stress via une stratégie de coping qui consiste à s'engager dans une action collective d'appel à la protestation ayant pour but de combattre le préjugé dont leur groupe social est victime.

Cependant, certains chercheurs ont développé des stratégies de coping, qui ont pour but de proposer des moyens aux cibles afin de les aider à diminuer les effets néfastes des stéréotypes. La recherche sur l'identification de certains des processus sous-jacents à la stigmatisation bienveillante

permet aux chercheurs de développer et d'éprouver des stratégies visant à contrecarrer les effets néfastes de cette stigmatisation, identifiés précédemment. Deux types de stratégies peuvent se mettre en place : une stratégie centrée sur le problème, une autre centrée les émotions. Dans le premier cas, il s'agit de changer la relation entre la personne et la situation, en tentant d'éliminer la source de stress. Dans le second cas, la stratégie mise en place se concentre sur la régulation des émotions.

Stratégies centrées sur le problème

Dans le cas de la menace du stéréotype, par exemple, il a été prouvé que diminuer ou supprimer la saillance de la menace, ou encore la repenser, aide les cibles à présenter des performances similaires à celles des personnes non sensibles à la menace (voir Kit, Tuokko, & Mateer, 2008; Schmader & Croft, 2011; Shapiro & Williams, 2012, pour des revues). Diminuer la saillance de la menace peut se faire de diverses manières. Eduquer des cibles de stéréotypes à propos des effets délétères de ceux-ci (Johns et al., 2005) en est un exemple. D'autres études ont révélé que lorsque les participants sont amenés à percevoir l'intelligence non pas comme immuable mais bien comme malléable engendre une augmentation de la performance et de la satisfaction académique (Aronson, Fried, & Good, 2002; Good, Aronson, & Inzlicht, 2003). Demander aux participants de changer leur perception, notamment en leur donnant comme instructions soit de repenser la menace comme un challenge (Alter, Aronson, Darley, Rodriguez, & Ruble, 2010), ou de lister ses caractéristiques personnelles positives et négatives (Ambady, Paik, Steele, Owen-Smith, & Mitchell, 2004), ou encore en leur demandant de se décrire comme une personne unique (Désert, Leyens, Croizet, & Klopfenstein, 2001, cité dans Croizet, Désert, Dutrévis, & Leyens, 2001), sont d'autant de manières de diminuer, voire annuler, les effets négatifs de la menace du stéréotype sur la performance à la tâche. Pousser des femmes à réfléchir aux caractéristiques académiques qu'elles partagent avec les hommes (Rosenthal & Crisp, 2006; Rosenthal, Crisp, & Suen, 2007), leur donner l'opportunité de s'envisager elles-mêmes comme étant des étudiantes d'élite ou des étudiantes très bonne en mathématiques (McGlone & Aronson, 2006; Rydell, McConnell, & Beilock, 2009), ou encore faire en sorte que les participants se focalisent sur une self-affirmation de leurs capacités valorisées (Martens, Johns, Greenberg, & Schimel, 2006; Miyake, Kost-Smith, Fikelstein, Polock, Cohen, & Ito, 2010), s'avèrent être quelques alliés efficaces dans la lutte contre ces effets.

Une équipe de chercheurs a également testé les effets à plus long terme d'une intervention toute simple sur les performances académiques, dont les instructions étaient de prendre le temps quelques minutes pour écrire un texte décrivant les valeurs qui sont importantes dans la vie (Cohen, Garcia, Apfel, & Master, 2006; Cohen, Garcia, Purdie-Vaughns, Apfel, & Brzustoski, 2009). Les auteurs se sont rendus dans une école dont les étudiants sont issus de la classe moyenne. Au début du semestre d'automne, les auteurs ont remis aux élèves participants une enveloppe contenant soit un exercice d'affirmation de soi (choisir dans une liste une ou plusieurs caractéristiques personnelles qu'ils valorisent le plus quand ils se décrivent et ensuite écrire un paragraphe à propos de cette/ces caractéristique/s valorisée/s), soit un exercice contrôle (choisir dans la liste la caractéristique qui est la moins importante pour eux et écrire un paragraphe sur le pourquoi cette caractéristique pourrait être importante pour quelqu'un d'autre). Les résultats de l'étude révèlent que les participants dans la condition d'affirmation de soi présentent des notes plus élevées à la fin du semestre, comparés aux élèves dans le groupe contrôle, notamment chez les élèves afro-américains, régulièrement confrontés à la peur de confirmer le stéréotype négatif associé à leur groupe social (Cohen et al., 2006). Cette intervention reste efficace au moins sur une période de deux ans (Cohen et al., 2009). En suivant cette application en contexte réel des interventions, Smeding, Dumas, Loose & Régner (2013) se sont intéressés à l'ordre dans lequel les tests standardisés de performance étaient présentés, lors des épreuves annuelles organisées dans plusieurs écoles des régions du sud de la France. Les auteurs ont démontré que la différence de performance en mathématique normalement observée entre les filles et les garçons avait totalement disparu grâce à un banal changement dans l'ordre de présentation des tests. En effet, lorsque le test verbal était présenté avant le test de mathématique, les filles obtenaient des scores au test de mathématiques plus importantes que celles des filles dont l'ordre de présentation des tests était inversé. Dans le même ordre d'idée, présenter la tâche comme non diagnostique ou comme ne montrant pas de différences entre les groupes (Aronson et al., 1999) constitue une autre manipulation somme toute assez simple. Dans la même veine, lorsque les instructions d'une tâche de mémoire était présentée comme une tâche de formation d'impression, les performances subséquentes à une tâche de mémoire étaient meilleures, comparées aux performances de mémoire lorsque la tâche était présentée comme mesurant la mémoire (Chasteen et al., 2005).

Déjouer les effets de la menace par l'activation d'une ou plusieurs identités sociales qui ne sont pas stigmatisées, a suscité également un certain intérêt. Par exemple, lorsque des femmes asiatiques étaient amenées à penser à leur identité de femme, la faible performance mathématique communément observée apparaissait. Cependant, lorsque les femmes se positionnaient en tant que membre de la communauté asiatique, leurs performances en mathématiques étaient substantiellement plus élevées (Shih, Pittinsky, & Ambady, 1999). Dans une optique plus passive, il a été mis en évidence que la simple exposition à des modèles contre-stéréotypiques est suffisante pour atténuer les effets de la menace. L'exposition aux succès et à la représentation numérique des femmes dans les domaines scientifiques, technologiques, d'ingénierie et mathématiques suffit à augmenter sensiblement la performance des femmes dont l'identité groupale est menacée, pour qu'elle atteigne des niveaux similaires à celle des hommes et celles de femmes non menacées (Marx & Roman, 2002; McIntyre, Paulson, & Lord, 2003; Shaffer, Marx, & Prislin, 2013; Stout, Dasgupta, Hunsinger, & McManus, 2011).

Alors que les stratégies et les interventions mises en place pour aider à contrer les effets néfastes de la menace du stéréotype sur la performance sont en nombre assez conséquent, le constat n'est pas le même concernant l'étude des stratégies et interventions pour limiter ou diminuer les effets du sexisme bienveillant. Becker & Swim (2012) ont montré que le fait d'informer les

hommes et les femmes sur les effets néfastes du sexisme bienveillant permettait de diminuer l'acceptation et l'approbation de l'idéologie du sexisme bienveillant (voir aussi de Lemus, Navarro, Velásquez, Ryan, & Megías, 2014). Dans le même ordre d'idée, Becker & Swim (2011) ont montré que le fait de demander aux femmes de tenir un journal de bord relatant toutes les instances de sexisme auxquelles elles étaient confrontées quotidiennement, accroissant ainsi leur attention sur des évènements sexistes, se traduisait non seulement par un rejet des croyances sexistes véhiculées par le sexisme bienveillant, le sexisme moderne et le néosexisme, ainsi qu'une évaluation négative des hommes sexistes modernes et sexistes bienveillants, mais également par une augmentation des tendances à l'action collectives au nom du groupe des femmes. Calogero & Jost (2011) ont également montré que les femmes qui ont un esprit ouvert au changement et qui ont pour habitude de ne pas se baser sur les informations stéréotypiques pour prendre des décisions et des jugements sociaux, réfléchissent de manière plus profonde, ce qui ensuite les protège des effets du sexisme bienveillant sur leur perception corporelle. En effet, elles s'engagent moins dans des comportements de surveillance de leur poids et de honte de leur corps. Dans le même ordre d'idée, Ford (2000) a également mis en évidence qu'une lecture plus attentive des blagues sexistes ainsi qu'une réflexion plus intense concernant le message véhiculés par ces blagues, menaient les participantes hautement sexistes bienveillantes à percevoir un évènement sexiste subséquent comme étant plus désagréable que lorsqu'aucune analyse profonde de la blague n'avait été faite. Cependant, il n'est pas fait mention de cette diminution à l'adhésion aux croyances véhiculées par le sexisme bienveillant sur une tâche de performance, cognitive, affective ou motrice. Les chercheurs ainsi que la population non scientifique bénéficieraient de recherches plus approfondies sur le sujet.

Les interventions ne seraient pas suffisantes si elles ne reposaient que sur les capacités des cibles à pouvoir mettre en place toutes les stratégies précédemment citées. En effet, mettre à contribution les détenteurs de préjugés et stéréotypes afin de réduire leur niveau de préjugés personnels a également attiré l'attention des chercheurs. À l'instar des études menées chez les cibles

de préjugés, des interventions visant à informer les individus sur les impacts délétères des stéréotypes ont également été développées (Crandall, 1994; Fehr & Sassenberg, 2009). Une littérature assez conséquente s'est développée autour de l'étude des bénéfices des contacts intergroupes dans la diminution des biais envers l'endogroupe et des préjugés implicites. Certains chercheurs se sont penchés sur la manipulation de l'identité sociale, soit via la création d'une identité commune avec l'exogroupe (Gaertner & Dovidio, 2000) ou l'introduction d'une interdépendance positive, tout en maintenant les identités distinctes des différents groupes (Brown & Hewstone, 2005). Il a également été démontré que le simple fait d'imaginer entrer en contact avec un membre de l'exogroupe peut être suffisant pour réduire les préjugés implicites et les biais favorisant l'endogroupe (Turner & Crisp, 2010; Turner, Crisp, Lambert, 2007).

Stratégies centrées sur les émotions

La recherche s'intéressant à la régulation des émotions suite à un épisode de stéréotypisation est riche de quelques résultats, bien qu'en nombre plus restreint par rapport à ceux cités dans la section précédente. Johns et ses collègues (Johns, Inzlicht, & Schmader, 2008), par exemple, se sont intéressés à deux stratégies de régulation de l'émotion, à savoir la réévaluation de la situation (envisager la situation et les émotions qui lui sont associées de manière neutre et détachée), et la suppression de l'émotion ressentie. Après avoir mis en évidence que la stratégie naturelle des cibles de stéréotypes était de supprimer les manifestations émotionnelles suivant cette situation de stress, les auteurs ont démontré que cette suppression déclenchait une baisse les ressources exécutives nécessaires pour compléter avec succès une tache cognitive, alors que le fait de procéder à une réévaluation de la situation de manière objective et détachée permettait aux participants d'allouer leurs ressources non plus à la suppression des émotions négatives, mais bien à la tâche. Burns & Friedman (2012) ont quant à eux montré que lorsque les femmes expriment leurs émotions après avoir été soumises au stéréotype des habilités mathématiques inférieures des femmes, non seulement elles présentaient une meilleure performance lors d'un test mathématique mais leur

confiance en leur réussite au test était également augmentée. À notre connaissance, très peu de chercheurs se sont intéressés à la régulation des émotions subséquentes à une situation de stéréotypes. En sachant que les émotions non correctement régulées peuvent se traduire par une diminution de la performance, nous ne pouvons qu'encourager une recherche plus approfondie sur le sujet.

Conclusions

Au vu de la littérature présenté dans les sections précédentes, force est de constater que la stigmatisation bienveillante, étudiée soit dans le domaine de la menace du stéréotype, soit du sexisme bienveillant, ou encore du *patronizing*, a suscité l'intérêt de nombreux chercheurs. Comme nous venons de le voir, la littérature en psychologie sociale regorge de recherches envisageant les effets de la stigmatisation bienveillante sur le fonctionnement cognitif. Les impacts affectifs et comportementaux de cette stigmatisation commencent également à faire l'objet d'un intérêt grandissant des chercheurs. Cependant, les versants cognitif, affectif et comportemental ne présentent qu'une inter-corrélation faible (Breckler, 1984). Dès lors, nous ne pouvons affirmer qu'une connaissance des effets sur la cognition permette de tirer des conclusions sur les effets que cette stigmatisation pourrait avoir sur l'aspect affectif ou comportemental, bien que ces trois versants de l'attitude s'influencent mutuellement et soient clairement interconnectés (Baumeister, Vohs, DeWall, & Zhang, 2007; Mackie, Devos, & Smith, 2000). Il est donc nécessaire d'apporter à chacun de ces trois aspects une attention égale et conjointe si l'on veut pouvoir appréhender la stigmatisation bienveillante et ses effets dans son intégralité, afin, par la suite, de pouvoir mettre en place des interventions efficaces, en n'omettant aucun processus essentiel.

Bien que peu abondantes, il existe néanmoins quelques études qui ont envisagé plusieurs de ces composantes collectivement. Dardenne et collègues (Dardenne et al., 2007; Dumont et al., 2010), par exemple, ont posé un premier pas vers l'association entre les performances cognitives et les

affects qui pourraient y être liées. Dardenne et al. (2007) ont proposé une médiation de l'impact du sexisme bienveillant sur la diminution de la performance cognitive des femmes par l'intrusion de pensées liées au sentiment d'incompétence. Présenter des scores médiocres à un test de résolution de problèmes, après avoir été confrontées à des remarques sexistes bienveillantes, est expliqué par le fait que les participantes ont, durant le test, fait face à des pensées intrusives relatives à leur incompétence personnelle. Dumont et al. (2010) ont répliqué ces résultats de présence de pensées intrusives liées au sentiment d'incompétence tout en les élargissant à la mémoire autobiographique. Non seulement l'exposition à des commentaires sexistes bienveillants, comparé à des commentaires sexistes hostiles ou neutres, amène des pensées intrusives liées à l'incompétence chez les femmes, mais elle facilité également l'accès à des souvenirs autobiographiques liés, eux aussi, au sentiment d'incompétence, le tout impactant négativement les performances ultérieures. Dardenne et ses collègues (Dardenne, Dumont, Sarlet, Phillips, Balteau, Degueldre, et al., 2013) ont également montré une activation des zones cérébrales associées aux pensées intrusives lors d'une exposition à l'idéologie bienveillante ainsi qu'une diminution des performances à une tâche de rappel de mots et de décision lexicale. Ces trois recherches suggèrent dès lors un impact négatif du sexisme bienveillant tant sur les processus cognitifs, qu'affectifs et cérébraux. Des études se sont également penchées sur les impacts cognitifs et affectifs conjoints de la peur de confirmer le stéréotype négatif associé à son groupe social d'appartenance. Spencer et al. (1999) ont envisagé l'impact de l'anxiété dans la relation de la menace du stéréotype sur la performance mathématique des femmes. L'anxiété comme médiateur des effets délétères de la menace du stéréotype sur les performances cognitives a été plusieurs fois envisagée, mais a généré des résultats mixtes, certains chercheurs ne trouvant aucun effet médiateur de l'anxiété (Gonzales et al., 2002; Keller et al., 2003; Schmader & Johns, 2003) et d'autres seulement un effet partiel (Osborne, 2001). Cependant, une mesure plus implicite de l'anxiété semble mener à des résultats plus forts. En effet, lorsque l'anxiété est prise en compte via des mesures non-verbales (Bosson et al., 2004) ou physiologiques (Blascovich, Spencer, Quinn, & Steele, 2001; Osborne, 2007) ou encore relevant des neurosciences (Krendl, Richeson, Kelley, & Heatherton, 2008), il semblerait que l'anxiété joue un rôle dans l'impact de la menace du stéréotype sur les performances cognitives.

Au vu de ces quelques études, il semblerait que cognition et affects soient liés et qu'il est important de les envisager, non plus séparément, mais en association. À notre connaissance, aucune étude ne s'est intéressée aux impacts de la stigmatisation sur les affects et les comportements simultanément. Cependant, des chercheurs affirment que l'affect peut être considéré comme proximal au comportement (Mackie et al., 2000). En lien avec cette affirmation, Rathschlag & Memmert (2013) ont mis en évidence un lien entre les affects et la performance physique. Lorsque les niveaux de colère et de joie ressentis des participants étaient expérimentalement modulés, les performances physiques étaient augmentées. Une modification dans l'état d'anxiété et de tristesse n'impliquait pas cette augmentation significative de performance.

En résumé, il nous semble que la mise en place d'interventions efficaces dans la lutte des stéréotypes et de leurs effets délétères ne peut se faire sans l'appréhension et la compréhension totale des impacts sur les individus de l'exposition aux stéréotypes, ce qui nécessite la prise en compte en parallèle des aspects cognitifs, affectifs et comportementaux.

Références

Adler, J. (2001). Patronizing. *Journal of Social Philosophy*, 32, 621–635.

Alter, A. L., Aronson, J., Darley, J. M., Rodriguez, C., & Ruble, D. N. (2010). Rising to the threat: Reducing stereotype threat by reframing the threat as a challenge. *Journal of Experimental Social Psychology*, 46, 166-171. doi:10.1016/j.jesp.2009.09.014

Ambady, N., Paik, S. K., Steele, J., Owen-Smith, A., & Mitchell, J. P. (2004). Deflecting negative self-relevant stereotype activation: The effects of individuation. *Journal of Experimental Social Psychology*, 40, 401-408. doi:10.1016/j.jesp.2003.08.003

Ambady, N., Shih, M., Kim, A., & Pittinsky, T. L. (2001). Stereotype susceptibility in children: Effects of identity activation on quantitative performance. *Psychological Science*, *12*, 385-390. doi: 10.1111/1467-9280.00371

Aronson, J., Fried, C. B., & Good, C. (2002). Reducing the effects of stereotype threat on African American college students by shaping theories of intelligence. *Journal of Experimental Social Psychology*, 38, 113-125. doi:10.1006/jesp.2001.1491

Aronson, J., Lustina, M. J., Good, C., Keough, K., Steele, C. M., & Brown, J. (1999). When white men can't do math: Necessary and sufficient factors in stereotype threat. *Journal of Experimental Social Psychology*, *35*, 29-46. doi:10.1006/jesp.1998.1371

Ayres, M. M., Friedman, C. K., & Leaper, C. (2009). Individual and situational factors related to young women's likelihood of confronting sexism in their everyday lives. *Sex Roles*, *61*, 449-460. doi: 10.1007/s11199-009-9635-3

Barreto, M., & Ellemers, N. (2005). The burden of benevolent sexism: How it contributes to the maintenance of gender inequalities. *European Journal of Social Psychology*, *35*, 633-642. doi: 10.1002/ejsp.270

Barreto, M., Ellemers, N., Piebinga, L., & Moya, M. (2010). How nice of us and how dumb of me: The effect of exposure to benevolent sexism on women's task and relational self-descriptions. *Sex Roles*, 62, 532-544. doi: 10.1007/s11199-009-9699-0

Bartky, S. L. (1990). Femininity and domination: Studies in the phenomenology of oppression. New York: Routledge.

Baumeister, R. F., Vohs, K. D., DeWall, C. N., & Zhang, L. (2007). How emotion shapes behavior: Feedback, anticipation, and reflection, rather than direct causation. *Personality and Social Psychology Review*, 11, 167-203. doi: 10.1177/1088868307301033

Becker, J. C., & Swim, J. K. (2011). Seeing the unseen attention to daily encounters with sexism as way to reduce sexist beliefs. *Psychology of Women Quarterly*, *35*, 227-242. doi: 10.1177/0361684310397509

Becker, J. C., & Swim, J. K. (2012). Reducing endorsement of benevolent and modern sexist beliefs: Differential effects of addressing harm versus pervasiveness of benevolent sexism. *Social Psychology*, *43*, 127-137. doi: 10.1027/1864-9335/a000091

Becker, J. C., & Wright, S. C. (2011). Yet another dark side of chivalry: Benevolent sexism undermines and hostile sexism motivates collective action for social change. *Journal of Personality and Social Psychology*, 101, 62-77. doi: 10.1037/a0022615

Beilock, S. L., & McConnell, A. R. (2004). Stereotype threat and sport: Can athletic performance be threatened. *Journal of Sport and Exercise Psychology*, 26, 597-609.

Beilock, S. L., Jellison, W. A., Rydell, R. J., McConnell, A. R., & Carr, T. H. (2006). On the causal mechanisms of stereotype threat: Can skills that don't rely heavily on working memory still be threatened?. *Personality and Social Psychology Bulletin*, 32, 1059-1071. doi: 10.1177/0146167206288489

Berjot, S., Girault-Lidvan, N., Gillet, N., & Scharnitzky, P. (2010). Comment les étudiants français d'origine maghrébine évaluent et font face à la menace du stéréotype?. *L'année Psychologique*, 110, 427-451. doi: 10.4074/S0003503310003064

Biernat, M., & Vescio, T. K. (2002). She swings, she hits, she's great, she's benched: Implications of gender-based shifting standards for judgment and behavior. *Personality and Social Psychology Bulletin*, 28, 66-77. doi: 10.1177/0146167202281006

Blaine, H., Sullivan, K. A., & Edmed, S. L. (2013). The effect of varied test instructions on neuropsychological performance following mild traumatic brain injury: an investigation of "diagnosis threat". *Journal of Neurotrauma*, *30*, 1405-1414. doi:10.1089/neu.2013.2865

Blascovich, J., Spencer, S. J., Quinn, D., & Steele, C. (2001). African Americans and high blood pressure: The role of stereotype threat. *Psychological Science*, *12*, 225-229. doi: 10.1111/1467-9280.00340

Bosson, J. K., Haymovitz, E. L., & Pinel, E. C. (2004). When saying and doing diverge: The effects of stereotype threat on self-reported versus non-verbal anxiety. *Journal of Experimental Social Psychology*, 40, 247-255. doi: 10.1016/S0022-1031(03)00099-4

Bosson, J. K., Pinel, E. C., & Vandello, J. A. (2010). The emotional impact of ambivalent sexism: Forecasts versus real experiences. *Sex Roles*, 62, 520-531.

Bourguignon, D., Desmette, D., Yzerbyt, V., & Herman, G. (2008). Activation du stéréotype, performance intellectuelle et intentions d'action: Le cas des personnes sans emploi. *Revue Internationale de Psychologie Sociale*, 20, 123-153.

Breckler, S. J. (1984). Empirical validation of affect, behavior, and cognition as distinct components of attitude. *Journal of Personality and Social Psychology*, 47, 1191-1205. doi: 10.1037/0022-3514.47.6.1191

Brochu, P. M., & Dovidio, J. F. (2014). Would you like fries (380 Calories) with that? Menu labeling mitigates the impact of weight-based stereotype threat on food choice. *Social Psychological and Personality Science*, *5*, 414-421. doi: 10.1177/1948550613499941

Brown, R., & Hewstone, M. (2005). An integrative theory of intergroup contact. *Advances in Experimental Social Psychology*, *37*, 255-343.

Burns, K. C., & Friedman, S. L. (2012). The benefits of emotional expression for math performance. *Cognition & Emotion*, 26, 245-251. doi: 10.1080/02699931.2011.577564

Cadinu, M., Maass, A., Frigerio, S., Impagliazzo, L., & Latinotti, S. (2003). Stereotype threat: The effect of expectancy on performance. *European Journal of Social Psychology*, *33*, 267-285. doi: 10.1002/ejsp.145

Cadinu, M., Maass, A., Rosabianca, A., & Kiesner, J. (2005). Why do women underperform under stereotype threat? Evidence for the role of negative thinking. *Psychological Science*, *16*, 572-578. doi: 10.1111/j.0956-7976.2005.01577.x

Calogero, R. M., & Jost, J. T. (2011). Self-subjugation among women: exposure to sexist ideology, self-objectification, and the protective function of the need to avoid closure. *Journal of Personality and Social Psychology*, *100*, 211-228. doi: 10.1037/a0021864

Caprariello, P. A., Cuddy, A. J., & Fiske, S. T. (2009). Social structure shapes cultural stereotypes and emotions: A causal test of the stereotype content model. *Group Processes & Intergroup Relations*, 12, 147-155. doi: 10.1177/1368430208101053

Chalabaev, A., Sarrazin, P., Stone, J., & Cury, F. (2008). Do achievement goals mediate stereotype threat? An investigation on females' soccer performance. *Journal of Sport and Exercise Psychology*, 30, 143-158.

Chasteen, A. L., Bhattacharyya, S., Horhota, M., Tam, R., & Hasher, L. (2005). How feelings of stereotype threat influence older adults' memory performance. *Experimental Aging Research*, *31*, 235-260. doi: 10.1080/03610730590948177

Chateignier, C., Chekroun, P., Nugier, A., & Dutrévis, M. (2011). «Femme au volant...»: effet de la menace du stéréotype et de la colère sur les performances des femmes à une tâche liée à la conduite automobile. *L'année psychologique*, *111*, 673-700. doi: 10.4074/S0003503311004039

Chaudoir, S. R., & Quinn, D. M. (2010). Bystander sexism in the intergroup context: The impact of cat-calls on women's reactions towards men. *Sex Roles*, 62, 623-634. doi: 10.1007/s11199-009-9735-0

Cohen, G. L., Garcia, J., Apfel, N., & Master, A. (2006). Reducing the racial achievement gap: A social-psychological intervention. *Science*, *313*, 1307-1310. doi: 10.1126/science.1128317

Cohen, G. L., Garcia, J., Purdie-Vaughns, V., Apfel, N., & Brzustoski, P. (2009). Recursive processes in self-affirmation: Intervening to close the minority achievement gap. *Science*, *324*, 400-403. doi: 10.1126/science.1170769

Crandall, C. S. (1994). Prejudice against fat people: Ideology and self-interest. *Journal of Personality and Social Psychology*, 66, 882-894. doi: 10.1037/0022-3514.66.5.882

Crocker, J., & Major, B. (1989). Social stigma and self-esteem: The self-protective properties of stigma. *Psychological Review*, *96*, 608-630. doi: 10.1037/0033-295X.96.4.608

Croizet, J. C., & Claire, T. (1998). Extending the concept of stereotype threat to social class: The intellectual underperformance of students from low socioeconomic backgrounds. *Personality and Social Psychology Bulletin*, 24, 588-594. doi: 10.1177/0146167298246003

Croizet, J. C., Désert, M., Dutrevis, M., & Leyens, J. P. (2001). Stereotype threat, social class, gender, and academic under-achievement: When our reputation catches up to us and takes over. *Social Psychology of Education*, *4*, 295-310. doi: 10.1023/A:1011336821053

Croizet, J. C., Després, G., Gauzins, M. E., Huguet, P., Leyens, J. P., & Méot, A. (2004). Stereotype threat undermines intellectual performance by triggering a disruptive mental load. *Personality and Social Psychology Bulletin*, *30*, 721-731. doi: 10.1177/0146167204263961

Dancygier, R., & Green, D. P. (2010). Hate crime. In J.F. Dovidio, M. Hewstone, P. Glick, & V. Hesses (Eds.), *The Sage handbook of prejudice, stereotyping and discrimination* (pp. 294-311). Los Angeles, CA: Sage.

Dardenne, B., Dumont, M., & Bollier, T. (2007). Insidious dangers of benevolent sexism: Consequences for women's performance. *Journal of Personality and Social Psychology*, *93*, 764-779. doi: 10.1037/0022-3514.93.5.764

Dardenne, B., Dumont, M., Sarlet, M., Phillips, C., Balteau, E., Degueldre, C., ... & Collette, F. (2013). Benevolent sexism alters executive brain responses. *Neuroreport*, 24, 572-577. doi: 10.1097/WNR.0b013e3283625b5b

Davies, P. G., Spencer, S. J., Quinn, D. M., & Gerhardstein, R. (2002). Consuming images: How television commercials that elicit stereotype threat can restrain women academically and professionally. *Personality and Social Psychology Bulletin*, 28, 1615-1628. doi: 10.1177/014616702237644

de Lemus, S., Navarro, L., Velásquez, M. J., Ryan, E., & Megías, J. L. (2014). From sex to gender: A university intervention to reduce sexism in Argentina, Spain, and El Salvador. *Journal of Social Issues*, 70, 741-762. doi: 10.1111/josi.12089

Deaux, K., Bikmen, N., Gilkes, A., Ventuneac, A., Joseph, Y., Payne, Y. A., & Steele, C. M. (2007). Becoming American: Stereotype threat effects in Afro-Caribbean immigrant groups. *Social Psychology Quarterly*, 70, 384-404. doi: 10.1177/019027250707000408

Désert, M., Leyens, J. P., Croizet, J. C., & Klopfenstein, T. (2001). Reducing stereotype threat through re-individuation. *Manuscript submitted for publication*.

Dickter, C. L., & Newton, V. A. (2013). To confront or not to confront: Non-targets' evaluations of and responses to racist comments. *Journal of Applied Social Psychology*, 43, 262-275. doi: 10.1111/jasp.12022

Dijker, A. J. (1987). Emotional reactions to ethnic minorities. *European Journal of Social Psychology*, 17, 305-325. doi: 10.1002/ejsp.2420170306

Dixon, K. A., Storen, D., & Van Horn, C. E. (2002). A workplace divided: How Americans view discrimination and race on the job. New Brunswick, NJ: Rutgers University

Dovidio, J. F., & Gaertner, S. L. (2004) Aversive Racism. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (pp. 1-52). San Diego, CA: Elsevier Academic Press

Dumont, M., Sarlet, M., & Dardenne, B. (2010). Be too kind to a woman, she'll feel incompetent: Benevolent sexism shifts self-construal and autobiographical memories toward incompetence. *Sex Roles*, 62, 545-553. doi: 10.1007/s11199-008-9582-4

Eccles, J. S., Jacobs, J. E., & Harold, R. D. (1990). Gender role stereotypes, expectancy effects, and parents' socialization of gender differences. *Journal of Social Issues*, 46, 183-201. doi: 10.1111/j.1540-4560.1990.tb01929.x

Eckes, T. (2002). Paternalistic and envious gender stereotypes: Testing predictions from the stereotype content model. *Sex Roles*, *47*, 99-114. doi: 10.1023/A:1021020920715

Ellemers, N., & Barreto, M. (2006). Categorization in everyday life: the effects of positive and negative categorizations on emotions and self-views. *European Journal of Social Psychology*, *36*, 931-942. doi: 10.1002/ejsp.333

Fazio, R. H., & Hilden, L. E. (2001). Emotional reactions to a seemingly prejudiced response: The role of automatically activated racial attitudes and motivation to control prejudiced reactions. *Personality and Social Psychology Bulletin*, 27, 538-549. doi: 10.1177/0146167201275003

Fehr, J., & Sassenberg, K. (2009). Intended and unintended consequences of internal motivation to behave nonprejudiced: The case of benevolent discrimination. *European Journal of Social Psychology*, 39, 1093-1108. doi: 10.1002/ejsp.620

Fiske, S. T., Cuddy, A. J., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, 82, 878-902. doi: 10.1037/0022-3514.82.6.878

- Fitz, C. C., & Zucker, A. N. (2015). Everyday exposure to benevolent sexism and condom use among college women. *Women & Health*, *55*, 245-262. doi: 10.1080/03630242.2014.996721
- Ford, T. E. (2000). Effects of sexist humor on tolerance of sexist events. *Personality and Social Psychology Bulletin*, 26, 1094-1107. doi: 10.1177/01461672002611006
- Ford, T. E., Ferguson, M. A., Brooks, J. L., & Hagadone, K. M. (2004). Coping sense of humor reduces effects of stereotype threat on women's math performance. *Personality and Social Psychology Bulletin*, *30*, 643-653. doi: 10.1177/0146167203262851
- Franzoi, S. L. (2001). Is female body esteem shaped by benevolent sexism?. *Sex Roles*, 44, 177-188. doi: 10.1023/A:1010903003521
- Fredrickson, B. L., & Roberts, T. A. (1997). Objectification theory. *Psychology of Women Quarterly*, 21, 173-206. doi: 10.1111/j.1471-6402.1997.tb00108.x
- Gaertner, S. L., & Dovidio, J. F. (1986). The aversive form of racism. In J. F. Dovidio, & S. L. Gaertner (Eds.), *Prejudice, discrimination, and racism* (pp. 61-89). San Diego, CA: Academic Press
- Gaertner, S.L., & Dovidio, J.F. (2000). *Reducing intergroup bias: The common ingroup identity model*. Philadelphia, PA: Psychology Press.
- Gervais, S. J., & Vescio, T. K. (2012). The effect of patronizing behavior and control on men and women's performance in stereotypically masculine domains. *Sex Roles*, *66*, 479-491. doi: 10.1007/s11199-011-0115-1
- Glick, P., & Fiske, S. T. (1996). The Ambivalent Sexism Inventory: Differentiating hostile and benevolent sexism. *Journal of Personality and Social Psychology*, 70, 491-512. doi: 10.1037/0022-3514.70.3.491

Gonzales, P. M., Blanton, H., & Williams, K. J. (2002). The effects of stereotype threat and double-minority status on the test performance of Latino women. *Personality and Social Psychology Bulletin*, 28, 659-670. doi: 10.1177/0146167202288010

Good, C., Aronson, J., & Inzlicht, M. (2003). Improving adolescents' standardized test performance: An intervention to reduce the effects of stereotype threat. *Journal of Applied Developmental Psychology*, 24, 645-662. doi:10.1016/j.appdev.2003.09.002

Good, J. J., Moss-Racusin, C. A., & Sanchez, D. T. (2012). When do we confront? Perceptions of costs and benefits predict confronting discrimination on behalf of the self and others. *Psychology of Women Quarterly*, *36*, 210-226. doi: 10.1177/0361684312440958

Good, J. J., Woodzicka, J. A., & Wingfield, L. C. (2010). The effects of gender stereotypic and counter-stereotypic textbook images on science performance. *The Journal of Social Psychology*, *150*, 132-147. doi: 10.1080/00224540903366552

Herrnstein, R. J., & Murray, C. (1994). *Bell curve: Intelligence and class structure in American life*. New York, NY: Free Press.

Hively, K., & El-Alayli, A. (2014). "You throw like a girl:" The effect of stereotype threat on women's athletic performance and gender stereotypes. *Psychology of Sport and Exercise*, *15*, 48-55. doi:10.1016/j.psychsport.2013.09.001

Huguet, P., & Regner, I. (2007). Stereotype Threat among schoolgirls in quasi-ordinary classroom circumstances. *Journal of Educational Psychology*, 99, 545-560. doi: 10.1037/0022-0663.99.3.545

Huntsinger, J. R., Sinclair, S., Dunn, E., & Clore, G. L. (2010). Affective regulation of stereotype activation: It's the (accessible) thought that counts. *Personality and Social Psychology Bulletin*, *36*, 564-577. doi: 10.1177/0146167210363404

Inzlicht, M., & Ben-Zeev, T. (2000). A threatening intellectual environment: Why females are susceptible to experiencing problem-solving deficits in the presence of males. *Psychological Science*, 11, 365-371. doi: 10.1111/1467-9280.00272

Ip, K. (2011). The effects of stereotype threat on the eating behaviours and intellectual performance of overweight and obese women. *Electronic Theses and Dissertations*. Paper 486.

Jackson, L. A., Lewandowski, D. A., Ingram, J. M., & Hodge, C. N. (1997). Group stereotypes: Content, gender specificity, and affect associated with typical group members. *Journal of Social Behavior & Personality*, 12, 381-396.

Joanisse, M., Gagnon, S., & Voloaca, M. (2013). The impact of stereotype threat on the simulated driving performance of older drivers. *Accident Analysis & Prevention*, 50, 530-538. doi:10.1016/j.aap.2012.05.032

Johannesen–Schmidt, M. C., & Eagly, A. H. (2002). Another look at sex differences in preferred mate characteristics: The effects of endorsing the traditional female gender role. *Psychology of Women Quarterly*, 26, 322-328. doi: 10.1111/1471-6402.t01-2-00071

Johns, M., Inzlicht, M., & Schmader, T. (2008). Stereotype threat and executive resource depletion: Examining the influence of emotion regulation. *Journal of Experimental Psychology: General*, 137, 691-705. doi: 10.1037/a0013834

Johns, M., Schmader, T., & Martens, A. (2005). Knowing is half the battle teaching stereotype threat as a means of improving women's math performance. *Psychological Science*, *16*, 175-179. doi: 10.1111/j.0956-7976.2005.00799.x

Jones, K., Stewart, K., King, E., Botsford Morgan, W., Gilrane, V., & Hylton, K. (2014). Negative consequence of benevolent sexism on efficacy and performance. *Gender in Management:*An International Journal, 29, 171-189. doi: 10.1108/GM-07-2013-0086

Judd, C. M., James-Hawkins, L., Yzerbyt, V., & Kashima, Y. (2005). Fundamental dimensions of social judgment: Understanding the relations between judgments of competence and warmth. *Journal of Personality and Social Psychology*, 89, 899-913. doi: 10.1037/0022-3514.89.6.899

Kaiser, C. R., & Miller, C. T. (2001). Stop complaining! The social costs of making attributions to discrimination. *Personality and Social Psychology Bulletin*, 27, 254-263. doi: 10.1177/0146167201272010

Kaiser, C. R., & Miller, C. T. (2003). Derogating the victim: The interpersonal consequences of blaming events on discrimination. *Group Processes & Intergroup Relations*, 6, 227-237. doi: 10.1177/13684302030063001

Kaiser, C. R., & Miller, C. T. (2004). A stress and coping perspective on confronting sexism. *Psychology of Women Quarterly*, 28, 168-178. doi: 10.1111/j.1471-6402.2004.00133.x

Katz, I., & Hass, R. G. (1988). Racial ambivalence and American value conflict: Correlational and priming studies of dual cognitive structures. *Journal of Personality and Social Psychology*, *55*, 893-905. doi: 10.1037/0022-3514.55.6.893

Kawakami, K., Dunn, E., Karmali, F., & Dovidio, J. F. (2009). Mispredicting affective and behavioral responses to racism. Science, 323, 276-278. doi: 10.1126/science.1164951

Keller, J., & Dauenheimer, D. (2003). Stereotype threat in the classroom: Dejection mediates the disrupting threat effect on women's math performance. *Personality and Social Psychology Bulletin*, 29, 371-381. doi: 10.1177/0146167202250218

Kervyn, N., Judd, C. M., & Yzerbyt, V. Y. (2009). You want to appear competent? Be mean! You want to appear sociable? Be lazy! Group differentiation and the compensation effect. *Journal of Experimental Social Psychology*, 45, 363-367. doi:10.1016/j.jesp.2008.08.006

Kervyn, N., Yzerbyt, V. Y., Demoulin, S., & Judd, C. M. (2008). Competence and warmth in context: The compensatory nature of stereotypic views of national groups. *European Journal of Social Psychology*, 38, 1175-1183. doi: 10.1002/ejsp.526

Kervyn, N., Yzerbyt, V., Judd, C. M., & Nunes, A. (2009). A question of compensation: The social life of the fundamental dimensions of social perception. *Journal of Personality and Social Psychology*, 96, 828-842. doi: 10.1037/a0013320

Kinder, D. R., & Sears, D. O. (1985). Public opinion and political action. In G. Lindzey & E. Aronson, (Eds.), *Handbook of social psychology*. New York, NY: Random House.

Kit, K. A., Mateer, C. A., Tuokko, H. A., & Spencer-Rodgers, J. (2014). Influence of negative stereotypes and beliefs on neuropsychological test performance in a traumatic brain injury population. *Journal of the International Neuropsychological Society*, 20, 157-167. doi: 10.1017/S1355617713001264

Kit, K. A., Tuokko, H. A., & Mateer, C. A. (2008). A review of the stereotype threat literature and its application in a neurological population. *Neuropsychology Review*, *18*, 132-148. doi: 10.1007/s11065-008-9059-9

Krendl, A. C., Richeson, J. A., Kelley, W. M., & Heatherton, T. F. (2008). The negative consequences of threat a functional magnetic resonance imaging investigation of the neural mechanisms underlying women's underperformance in math. *Psychological Science*, *19*, 168-175. doi: 10.1111/j.1467-9280.2008.02063.x

Laurin, R. (2013). Stereotype threat and lift effects in motor task performance: The mediating role of somatic and cognitive anxiety. *The Journal of Social Psychology*, *153*, 687-699. doi: 10.1080/00224545.2013.821098

Leonard, D. J., Moons, W. G., Mackie, D. M., & Smith, E. R. (2011). "We're mad as hell and we're not going to take it anymore": Anger self-stereotyping and collective action. *Group Processes & Intergroup Relations*, *14*, 99-111. doi: 10.1177/1368430210373779

Leyens, J.-Ph., Désert M., Croizet J.-C, Darcis, C. (2000) Stereotype threat: Are lower status and history of stigmatization preconditions of stereotype threat? *Personality and Social Psychology Bulletin*, 26, 1189-1199. doi: 10.1177/0146167200262002

Mackie, D. M., Devos, T., & Smith, E. R. (2000). Intergroup emotions: Explaining offensive action tendencies in an intergroup context. *Journal of Personality and Social Psychology*, 79, 602 - 616. doi: 10.1037/0022-3514.79.4.602

Major, B., Spencer, S., Schmader, T., Wolfe, C., & Crocker, J. (1998). Coping with negative stereotypes about intellectual performance: The role of psychological disengagement. *Personality and Social Psychology Bulletin*, 24, 34-50. doi: 10.1177/0146167298241003

Mallett, R. K., & Wagner, D. E. (2011). The unexpectedly positive consequences of confronting sexism. *Journal of Experimental Social Psychology*, 47, 215-220. doi:10.1016/j.jesp.2010.10.001

Mangels, J. A., Good, C., Whiteman, R. C., Maniscalco, B., & Dweck, C. S. (2012). Emotion blocks the path to learning under stereotype threat. *Social Cognitive and Affective Neuroscience*, 7, 230-241. doi: 10.1093/scan/nsq100

Martens, A., Johns, M., Greenberg, J., & Schimel, J. (2006). Combating stereotype threat: The effect of self-affirmation on women's intellectual performance. *Journal of Experimental Social Psychology*, 42, 236-243. doi:10.1016/j.jesp.2005.04.010

Martin, R. A., & Lefcourt, H. M. (1983). Sense of humor as a moderator of the relation between stressors and moods. *Journal of Personality and Social Psychology*, 45, 1313-1324. doi: 10.1037/0022-3514.45.6.1313

Marx, D. M., & Roman, J. S. (2002). Female role models: Protecting women's math test performance. *Personality and Social Psychology Bulletin*, 28, 1183-1193. doi: 10.1177/01461672022812004

Marx, D. M., Brown, J. L., & Steele, C. M. (1999). Allport's legacy and the situational press of stereotypes. *Journal of Social Issues*, *55*, 491-502. doi: 10.1111/0022-4537.00129

Masser, B., Lee, K., & McKimmie, B. M. (2010). Bad woman, bad victim? Disentangling the effects of victim stereotypicality, gender stereotypicality and benevolent sexism on acquaintance rape victim blame. *Sex Roles*, 62, 494-504. doi: 10.1007/s11199-009-9648-y

Massey, D. S., & Fischer, M. J. (2005). Stereotype threat and academic performance: New findings from a racially diverse sample of college freshmen. *Du Bois Review*, 2, 45-67. doi: 10.1017/S1742058X05050058

McConahay, J. B. (1986). Modern racism, ambivalence, and the Modern Racism Scale. In J. F. Dovidio, & S. L. Gaertner (Eds.), *Prejudice, discrimination, and racism* (pp. 91-125). San Diego, CA: Academic Press

McCoy, S. K., & Major, B. (2003). Group identification moderates emotional responses to perceived prejudice. *Personality and Social Psychology Bulletin*, 29, 1005-1017. doi: 10.1177/0146167203253466

McGlone, M. S., & Aronson, J. (2006). Stereotype threat, identity salience, and spatial reasoning. *Journal of Applied Developmental Psychology*, 27, 486-493. doi:10.1016/j.appdev.2006.06.003

McIntyre, R. B., Paulson, R. M., & Lord, C. G. (2003). Alleviating women's mathematics stereotype threat through salience of group achievements. *Journal of Experimental Social Psychology*, *39*, 83-90. doi:10.1016/S0022-1031(02)00513-9

McKay, P. F., Doverspike, D., Bowen-Hilton, D., & Martin, Q. D. (2002). Stereotype threat effects on the raven advanced progressive matrices scores of African Americans 1. *Journal of Applied Social Psychology*, 32, 767-787. doi: 10.1111/j.1559-1816.2002.tb00241.x

McKown, C., & Weinstein, R. S. (2003). The development and consequences of stereotype consciousness in middle childhood. *Child Development*, 498-515. doi: 10.1111/1467-8624.7402012

Miller, C. T., & Kaiser, C. R. (2001). A theoretical perspective on coping with stigma. *Journal of Social Issues*, 57, 73-92. doi: 10.1111/0022-4537.00202

Miyake, A., Kost-Smith, L. E., Finkelstein, N. D., Pollock, S. J., Cohen, G. L., & Ito, T. A. (2010). Reducing the gender achievement gap in college science: A classroom study of values affirmation. *Science*, *330*, 1234-1237. doi: 10.1126/science.1195996

Murphy, M. C., Richeson, J. A., Shelton, J. N., Rheinschmidt, M. L., & Bergsieker, H. B. (2012). Cognitive costs of contemporary prejudice. *Group Processes & Intergroup Relations*, 16, 560-571. doi: 10.1177/1368430212468170

Neuville, E., & Croizet, J. C. (2007). Can salience of gender identity impair math performance among 7–8 years old girls? The moderating role of task difficulty. *European Journal of Psychology of Education*, 22, 307-316. doi: 10.1007/BF03173428

Nguyen, H. H., & Ryan, A. M. (2008). Does stereotype threat affect test performance of minorities and women? A meta-analysis of experimental evidence. *The Journal of Applied Psychology*, 93, 1314-1334. doi: 10.1037/a0012702

O'Brien, L. T., & Crandall, C. S. (2003). Stereotype threat and arousal: Effects on women's math performance. *Personality and Social Psychology Bulletin*, 29, 782-789. doi: 10.1177/0146167203029006010

Osborne, J. W. (2001). Testing stereotype threat: Does anxiety explain race and sex differences in achievement?. *Contemporary Educational Psychology*, 26, 291-310. doi:10.1006/ceps.2000.1052

Osborne, J. W. (2007). Linking stereotype threat and anxiety. *Educational Psychology*, 27, 135-154. doi: 10.1080/01443410601069929

Ozen, L. J., & Fernandes, M. A. (2011). Effects of "diagnosis threat" on cognitive and affective functioning long after mild head injury. *Journal of the International Neuropsychological Society*, 17, 219-229. doi:10.1017/S135561771000144X

Paladino, M. P., Poddesu, L., Rauzi, M., Vaes, J., Cadinu, M., & Forer, D. (2009). Second Language Competence in the Italian-Speaking Population of Alto Adige/Südtirol Evidence for Linguistic Stereotype Threat. *Journal of Language and Social Psychology*, 28, 222-243. doi: 10.1177/0261927X09335333

Quinn, D. M., & Spencer, S. J. (2001). The interference of stereotype threat with women's generation of mathematical problem-solving strategies. *Journal of Social Issues*, *57*, 55-71. doi: 10.1111/0022-4537.00201

Quinn, D. M., Kahng, S. K., & Crocker, J. (2004). Discreditable: Stigma effects of revealing a mental illness history on test performance. *Personality and Social Psychology Bulletin*, *30*, 803-815. doi: 10.1177/0146167204264088

Ragins, B. R., & Winkel, D. E. (2011). Gender, emotion and power in work relationships. *Human Resource Management Review*, 21, 377-393. doi:10.1016/j.hrmr.2011.05.001

Rathschlag, M., & Memmert, D. (2013). The influence of self-generated emotions on physical performance: An investigation of happiness, anger, anxiety, and sadness. *Journal of Sport & Exercise Psychology*, 35, 197-210.

Rattan, A., & Dweck, C. S. (2010). Who confronts prejudice? The role of implicit theories in the motivation to confront prejudice. *Psychological Science*, 21, 952-959. doi: 10.1177/0956797610374740

Rosenberg, S., Nelson, C., & Vivekananthan, P. (1968). A multidimensional approach to the structure of personality impressions. *Journal of Personality and Social Psychology*, 9, 283-294. doi: 10.1037/h0026086

Rosenthal, H. E., & Crisp, R. J. (2006). Reducing stereotype threat by blurring intergroup boundaries. *Personality and Social Psychology Bulletin*, 32, 501-511. doi: 10.1177/0146167205281009

Rosenthal, H. E., Crisp, R. J., & Suen, M. W. (2007). Improving performance expectancies in stereotypic domains: Task relevance and the reduction of stereotype threat. *European Journal of Social Psychology*, *37*, 586-597. doi: 10.1002/ejsp.379

Rydell, R. J., McConnell, A. R., & Beilock, S. L. (2009). Multiple social identities and stereotype threat: imbalance, accessibility, and working memory. *Journal of Personality and Social Psychology*, *96*, 949-966. doi: 10.1037/a0014846

Sakallı-Uğurlu, N., Yalçın, Z. S., & Glick, P. (2007). Ambivalent sexism, belief in a just world, and empathy as predictors of Turkish students' attitudes toward rape victims. *Sex Roles*, *57*, 889-895. doi: 10.1007/s11199-007-9313-2

Sakallı-Uğurlu, N., Yalçın, Z. S., & Glick, P. (2007). Ambivalent sexism, belief in a just world, and empathy as predictors of Turkish students' attitudes toward rape victims. *Sex Roles*, *57*, 889-895. doi: 10.1007/s11199-007-9313-2

Sarlet, M. & Dardenne, B. (2012). Benevolent sexism reinforces warmth in women's self-concept and perceived suitability for feminine jobs. *Unpublished manuscript*, Université de Liège.

Sarlet, M., & Dardenne, B. (2012). Le sexisme bienveillant comme processus de maintien des inégalités sociales entre les genres. *L'année Psychologique*, 112, 435-463. doi: 10.4074/S0003503312003053

Schmader, T., & Croft, A. (2011). How stereotypes stifle performance potential. *Social and Personality Psychology Compass*, *5*, 792-806. doi: 10.1111/j.1751-9004.2011.00390.x

Schmader, T., & Johns, M. (2003). Converging evidence that stereotype threat reduces working memory capacity. *Journal of Personality and Social Psychology*, 85, 440-452. doi: 10.1037/0022-3514.85.3.440

Seacat, J. D., & Mickelson, K. D. (2009). Stereotype threat and the exercise/dietary health intentions of overweight women. *Journal of Health Psychology*, *14*, 556-567. doi: 10.1177/1359105309103575

Sears, D. O. (1988). Symbolic racism. In P. Katz & D. Taylor (Eds.), *Eliminating racism:*Profiles in controversy (pp. 53-84). New York, NY: Plenum Press.

Sekaquaptewa, D., & Thompson, M. (2003). Solo status, stereotype threat, and performance expectancies: Their effects on women's performance. *Journal of Experimental Social Psychology*, 39, 68-74. doi:10.1016/S0022-1031(02)00508-5

Shaffer, E. S., Marx, D. M., & Prislin, R. (2013). Mind the gap: Framing of women's success and representation in STEM affects women's math performance under threat. *Sex roles*, 68, 454-463. doi: 10.1007/s11199-012-0252-1

Shapiro, J. R., & Williams, A. M. (2012). The role of stereotype threats in undermining girls' and women's performance and interest in STEM fields. *Sex Roles*, 66, 175-183. doi: 10.1007/s11199-011-0051-0

Shelton, J. N., & Stewart, R. E. (2004). Confronting perpetrators of prejudice: The inhibitory effects of social costs. *Psychology of Women Quarterly*, 28, 215-223. doi: 10.1111/j.1471-6402.2004.00138.x

Shih, M., Pittinsky, T. L., & Ambady, N. (1999). Stereotype susceptibility: Identity salience and shifts in quantitative performance. *Psychological Science*, *10*, 80-83. doi: 10.1111/1467-9280.00111

Smeding, A., Dumas, F., Loose, F., & Régner, I. (2013). Order of administration of math and verbal tests: An ecological intervention to reduce stereotype threat on girls' math performance. *Journal of Educational Psychology*, *105*, 850-860. doi: 10.1037/a0032094

Smith, J. L., & White, P. H. (2002). An examination of implicitly activated, explicitly activated, and nullified stereotypes on mathematical performance: It's not just a woman's issue. *Sex Roles*, 47, 179-191. doi: 10.1023/A:1021051223441

Spencer, B., & Castano, E. (2007). Social class is dead. Long live social class! Stereotype threat among low socioeconomic status individuals. *Social Justice Research*, 20, 418-432. doi: 10.1007/s11211-007-0047-7

Spencer, S. J., Steele, C. M., & Quinn, D. M. (1999). Stereotype threat and women's math performance. *Journal of Experimental Social Psychology*, *35*, 4-28. doi:10.1006/jesp.1998.1373

Steele, C. M. (1997). A threat in the air: how stereotypes shape intellectual identity and performance. *American Psychologist*, 52, 613-629. doi: 10.1037/0003-066X.52.6.613

Steele, C. M., & Aronson, J. (1995). Stereotype threat and the intellectual test performance of African Americans. *Journal of Personality and Social Psychology*, 69, 797-781. doi: 10.1037/0022-3514.69.5.797

Steele, C. M., Spencer, S. J., & Aronson, J. (2002). Contending with group image: The psychology of stereotype and social identity threat. *Advances in Experimental Social Psychology*, 34, 379-440. doi:10.1016/S0065-2601(02)80009-0

Stone, J. (2002). Battling doubt by avoiding practice: The effects of stereotype threat on self-handicapping in white athletes. *Personality and Social Psychology Bulletin*, 28, 1667-1678. doi: 10.1177/014616702237648

Stone, J., Lynch, C. I., Sjomeling, M., & Darley, J. M. (1999). Stereotype threat effects on black and white athletic performance. *Journal of Personality and Social Psychology*, 77, 1213-1227. doi: 10.1037/0022-3514.77.6.1213

Stout, J. G., Dasgupta, N., Hunsinger, M., & McManus, M. A. (2011). STEMing the tide: Using ingroup experts to inoculate women's self-concept in science, technology, engineering, and mathematics (STEM). *Journal of Personality and Social Psychology*, *100*, 255-270. doi: 10.1037/a0021385

Suhr, J. A., & Gunstad, J. (2002). "Diagnosis threat": The effect of negative expectations on cognitive performance in head injury. *Journal of Clinical and Experimental Neuropsychology*, 24, 448-457. doi: 10.1076/jcen.24.4.448.1039

Suhr, J. A., & Gunstad, J. (2005). Further exploration of the effect of "diagnosis threat" on cognitive performance in individuals with mild head injury. *Journal of the International Neuropsychological Society*, 11, 23-29. doi: 10.1017/S1355617705050010

Swim, J. K., & Hyers, L. L. (1999). Excuse me—What did you just say?!: Women's public and private responses to sexist remarks. *Journal of Experimental Social Psychology*, *35*, 68-88. doi:10.1006/jesp.1998.1370

Swim, J. K., Aikin, K., Hall, W., & Hunter, B. (1995). Sexism and racism: old-fashioned and modern prejudices. *Journal of Personality and Social Psychology*, 68, 199-214. doi: 10.1037/0022-3514.68.2.199

Talaska, C. A., Fiske, S. T., & Chaiken, S. (2008). Legitimating racial discrimination: Emotions, not beliefs, best predict discrimination in a meta-analysis. *Social Justice Research*, *21*, 263-296. doi: 10.1007/s11211-008-0071-2

Tougas, F., Brown, R., Beaton, A. M., & Joly, S. (1995). Neosexism: Plus ça change, plus c'est pareil. *Personality and Social Psychology Bulletin*, 21, 842-849. doi: 10.1177/0146167295218007

Trontel, H. G., Hall, S., Ashendorf, L., & O'Connor, M. K. (2013). Impact of diagnosis threat on academic self-efficacy in mild traumatic brain injury. *Journal of Clinical and Experimental Neuropsychology*, *35*, 960-970. doi: 10.1080/13803395.2013.844770

Turner, R. N., & Crisp, R. J. (2010). Imagining intergroup contact reduces implicit prejudice. *British Journal of Social Psychology*, 49, 129-142. doi: 10.1348/014466609X419901

Turner, R. N., Crisp, R. J., & Lambert, E. (2007). Imagining intergroup contact can improve intergroup attitudes. *Group Processes & Intergroup Relations*, 10, 427-441. doi: 10.1177/1368430207081533

Verkuyten, M., Drabbles, M., & Van Den Nieuwenhuijzen, K. (1999). Self-categorisation and emotional reactions to ethnic minorities. *European Journal of Social Psychology*, 29, 605-619. Doi: 10.1002/(SICI)1099-0992(199908/09)29:5/6<605::AID-EJSP949>3.0.CO;2-#

Vescio, T. K., Gervais, S. J., Snyder, M., & Hoover, A. (2005). Power and the creation of patronizing environments: the stereotype-based behaviors of the powerful and their effects on female performance in masculine domains. *Journal of Personality and Social Psychology*, 88, 658-672. doi: 10.1037/0022-3514.88.4.658

Viki, G. T., & Abrams, D. (2002). But she was unfaithful: Benevolent sexism and reactions to rape victims who violate traditional gender role expectations. *Sex Roles*, 47, 289-293. doi: 10.1023/A:1021342912248

von Hippel, C., Sekaquaptewa, D., & McFarlane, M. (2015). Stereotype threat among women in finance negative effects on identity, workplace well-being, and recruiting. *Psychology of Women Quarterly*, *39*, 405-414. doi: 10.1177/0361684315574501

Wang, K., Stroebe, K., & Dovidio, J. F. (2012). Stigma consciousness and prejudice ambiguity: Can it be adaptive to perceive the world as biased?. *Personality and Individual Differences*, *53*, 241-245. doi:10.1016/j.paid.2012.03.021

Wheeler, S. C., & Petty, R. E. (2001). The Effects of stereotype activation on behavior: A review of possible mechanisms. *Psychological Bulletin*, 127, 797-826. doi: 10.1037/0033-2909.127.6.797

White, K. R. (1982). The relation between socioeconomic status and academic achievement. *Psychological Bulletin*, *91*, 461-481. doi: 10.1037/0033-2909.91.3.461

Williams, D. R., Yu, Y., Jackson, J. S., & Anderson, N. B. (1997). Racial differences in physical and mental health socio-economic status, stress and discrimination. *Journal of Health Psychology*, 2, 335-351.

Wister, J. A., Stubbs, M. L., & Shipman, C. (2013). Mentioning menstruation: A stereotype threat that diminishes cognition?. *Sex Roles*, 68, 19-31. doi: 10.1007/s11199-012-0156-0

Wojciszke, B. (1994). Multiple meanings of behavior: Construing actions in terms of competence or morality. *Journal of Personality and Social Psychology*, 67, 222-232. doi: 10.1037/0022-3514.67.2.222

Wong, J. T., & Gallo, D. A. (2015): Stereotype threat reduces false recognition when older adults are forewarned. *Memory*, 1-9. doi: 10.1080/09658211.2015.1036885

Woodzicka, J. A., & LaFrance, M. (2001). Real versus imagined gender harassment. *Journal of Social Issues*, 57, 15-30. doi: 10.1111/0022-4537.00199

Wraga, M., Helt, M., Jacobs, E., & Sullivan, K. (2007). Neural basis of stereotype-induced shifts in women's mental rotation performance. *Social Cognitive and Affective Neuroscience*, 2, 12-19. doi: 10.1093/scan/nsl041

Yabar, Y., & Philippot, P. (2000). Caractéristiques psychosociales, réactions émotionnelles et stéréotypes. *Les Cahiers Internationaux de Psychologie Sociale*, 47, 73-95.

Yeung, N. C. J., & von Hippel, C. (2008). Stereotype threat increases the likelihood that female drivers in a simulator run over jaywalkers. *Accident Analysis & Prevention*, 40, 667-674. doi:10.1016/j.aap.2007.09.003

Yzerbyt, V. Y., Kervyn, N., & Judd, C. M. (2008). Compensation versus halo: The unique relations between the fundamental dimensions of social judgment. *Personality and Social Psychology Bulletin*, 34, 1110-1123. doi: 10.1177/0146167208318602

Chapter Three

Benevolent Ideology and Women's Economic Decision-Making: When Sexism is Hurting Men's Wallet



RESEARCH ARTICLE

Benevolent Ideology and Women's Economic Decision-Making: When Sexism Is Hurting Men's Wallet

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Abstract

Can ideology, as a widespread "expectation creator," impact economic decisions? In two studies we investigated the influence of the Benevolent Sexism (BS) ideology (which dictates that men should provide for passive and nurtured women) on women's economic decision-making. In Study 1, using a Dictator Game in which women decided how to share amounts of money with men, results of a Generalized Linear Mixed Model analysis show that higher endorsement of BS and contextual expectations of benevolence were associated with more very unequal offers. Similarly, in an Ultimatum Game in which women received monetary offers from men, Study 2's Generalized Linear Mixed Model's results revealed that BS led women to reject more very unequal offers. If women's endorsement of BS ideology and expectations of benevolence prove contrary to reality, they may strike back at men. These findings show that BS ideology creates expectations that shape malefemale relationships in a way that could be prejudicial to men.

Introduction

Recent research has shown that expectations and beliefs shape economic decision-making. For instance, in a bargaining task, participants who have an expectation of fairness reject more unfair offers than participants who expect low offers [1,2] and this is important because people in general and women in particular are expected to be generous [3,4]. Similarly, female recipients anticipate less than the amount male participants anticipate [5]. Sexist ideologies are also known to create interpersonal and intergroup expectations [6,7]. The present research aims to show that the Benevolent Sexism (BS) ideology can shape inter-sex women's economic decision-making.

BS ideology describes women as delicate, as jewels, and as more sophisticated than men. Accordingly, they should be cherished, protected, and taken care of by men. This description and the prescription of niceness to women imply that they are not able to take care of themselves, that is, that they are incompetent. By casting women in a traditional, subordinate and very passive role, despite its subjectively positive tone, BS plays a role in maintaining male-



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female inequality [8]. Research on the effects of exposure to this ideology shows that it undermines women's performance [9] by inducing intrusive and disturbing thoughts about performing badly, which, in turn, can alter executive brain responses [10,11]. Moreover, when women do not display the expected, desired and even requested qualities and do not act appropriately, they can suffer hostility [12,13] or a *backlash effect* [14,15].

Benevolent Sexism as an Attractive Ideology

Because BS ideology is ubiquitous, and despite its deleterious effects on women's performance, BS behaviors may sometimes be demanded, at least in some contexts, by the women themselves [16,17]. It has been recently demonstrated that both male and female participants who highly endorse BS ideology recommended that men engage in more benevolent and paternalistic behaviors toward women, at least in a romantic context [7,18]. Indeed, such behaviors also have some advantages for women: they could protect them against and are a tool for coping with masculine hostility [19,20]. For instance, [21] demonstrated that women who were threatened by men's hostility were more likely to approve of BS ideology (see also [22]).

In line with the literature reviewed above, we argue that the endorsement of BS ideology should lead women to expect men to offer them resources, such as money. Consequently, if women hold the purse strings and have to share money with men, endorsement of BS ideology should lead them to make quite unequal or unfair offers to men. Alternatively, if men hold the purse strings and do the sharing, the BS ideology should lead women to reject very unequal (counter-ideological) offers when rejection means that neither receives anything (as the case in some economic games). Research has shown that such rejections are a way of punishing the stingy person [23]. In other words, when their ideology clashes with reality, higher BS women would no longer stay passive but would strike back at men. Just as women who are not warm enough are rejected, men who do not live up to BS expectations and ideology could be turned down in a backlash effect too [15].

Facial Appearance of Benevolence

In addition to the effect of women's endorsement of BS, inter-sex economic decision-making could be influenced by the predictions women make about men's own degree of ideological endorsement of BS. Because 50ms of exposure to a face is sufficient to infer traits such as "competence" and "trustworthiness" [24,25], we suspect that men's facial appearance could signal BS and in turn would create an expectation of protection, sharing, nurturance, and financial care. More specifically, we propose that women should offer less money to "facially BS" men and expect them to be generous when they decide to share money.

The Present Research

In two experiments using economic games, we tested the hypothesis that BS ideology would affect women's inter-sex economic decision-making. In Study 1, a standard Dictator Game (DG) required female participants to share a sum of money with (non-anonymous) male recipients. They had to choose between making equal offers (fair), unequal offers (in which they keep more than they give but in quite reasonable proportions, slightly unfair), and very unequal offers (in which they keep by far the biggest share of the pie, highly unfair). According to our hypothesis, the more a female participant endorses BS ideology and the more BS the male recipient's face appears to be, the more likely she would be to make very unequal offers.

Study 2 staged a standard Ultimatum Game (UG) in which the roles were reversed: female participants had to either accept or reject the division of a sum of money made by (non-anonymous) male proposers. A rejection has the consequence that the money is "lost" for both



participants [26]. For very unequal offers, we predicted that higher BS women would be more likely to reject them (because counter-ideological) than less BS women, and that a proposer's facial appearance of BS should induce the same effect (because counter-expectancy).

Ethics statement

Both studies were carried out in accordance with the Declaration of Helsinki. The studies received ethical approval from the Ethics Committee of the Department of Psychology and all participants provided written informed consent after the nature of the procedures had been fully explained.

Study 1

Participants were told that they were about to take part in a study on people's beliefs about money. They were told that the study consisted in first completing some questionnaires and then role-playing a computer-based bargaining task in which they had to share (hypothetical) money with other people. In order to make the experiment as realistic as possible, we explained that the recipients who would appear on the screen had been photographed earlier by the experimenter and asked the participants to allow us to photograph them for some later studies. To prevent suspicion (because all recipients were male), we told participants that, depending on the experimental condition, recipients would be only male, only female, or mixed. We carefully checked to make sure they understood the structure of the game. For all the participants, they first completed a demographic questionnaire, then they had to complete the French version of the Ambivalent Sexism Inventory (ASI, see [27,28]). At the end of the session, they engaged in a dictator game.

Materials and method. Participants were 75 female undergraduates (mean age = 21.12; SD = 2.25), all of whom were native French speakers. They were approached by a female experimenter in different places around the university campus.

Prior to the current study, we ran a pretest with judges who were similar to our participants (N=10) on 39 photographs randomly selected after a Google search, all very similar in size and color. Judges had to respond to the statements of the BS subscale of the French version of the ASI ([27–28], see below) by guessing the answer the 39 photographed men would have given to each item on a Likert-like scale ranging from 1 (the man in the photograph does not at all agree with that statement) to 9 (the man in the photograph completely agrees with that statement). Judges also evaluated each face's attractiveness and distinctiveness on a Likert-like scale ranging from 1 (weakly) to 9 (strongly).

Twelve pictures were selected from the picture set to represent the spectrum of benevolence. For these 12 pictures, average men's perceived benevolence (the mean from the guesses at the BS items) varied from 4.55 to 6.51, with a grand mean of 5.39 (SD=.80). Judges' intraclass correlation was .68, F(11, 99) = 3.53, P < .001. Attractiveness and distinctiveness being strongly correlated (r(12) = .91, P < .001), they were then averaged into an attractiveness/distinctiveness index. This index and face's perceived BS were not correlated, r(12) = .34, P = .29.

Participants in the study first completed the 22-item French-language version of the ASI [28] composed of two 11-item subscales, one evaluating to what extent an individual endorses hostile sexism and the other evaluating benevolent sexism. For each item, participants had to respond on a Likert-like scale ranging from 0 (strongly disagree) to 5 (strongly agree). For example, the benevolent sexist subscale contains items such as "In a disaster, women ought to be rescued before men" and "Women, as compared to men, tend to have a more refined sense of culture and good taste." Examples of hostile sexist items include "Women are too easily offended" and "Most women fail to appreciate fully all that men do for them." Consistent with



prior studies [9], the hostile sexism (α = .80) and benevolent sexism (α = .81) subscales were positively correlated, r(75) = .44, p < .001.

Participants then played a standard single-shot DG in the role of the proposer. Participants were seated in front of a computer screen displaying the 12 selected faces and received a sheet of paper presenting 24 possible offers based on a $\in\!30$ total. Eight offers were fair to the photographed men (they received from 40% to 50% of the $\in\!30$ total sum while the participant kept the rest); eight offers were quite unequal (the men received from 27% to 33% of the stake); and, finally, eight offers were very unequal (the men received only 18% to 22% of the total stake). The task was to make an offer to each of the face. Each specific offer could be made only once and a specific face could receive only one offer. The dependent variable was the fairness of the offer (equal, unequal, or very unequal), recorded by the computer in a data file [29]. At the end of the experiment, participants were fully debriefed, probed for suspicion, and thanked for their participation.

Results. Overall, participants made 33% equal offers, 29% unequal offers, and 38% very unequal offers (S1 File). Because observations are dependent within the same subjects across repeated measures, we conducted a Generalized Linear Mixed Model analysis [30–32] with multinomial distribution (as there are 3 categories of response, coded 1 = equal, 2 = unequal, and 3 = very unequal) and a cumulative logit link function to predict participants' proposals. The cumulative logit estimates the impact of a predictor on the odds (or probability) of being at or above a category on the (ordinal) outcome variable. Faces' perceived BS and participants' endorsement of BS were the independent continuous variables (fixed effects, mean centered). Interaction between these variables was also entered as a predictor. Faces' attractiveness/distinctiveness and participants' hostile sexism scores were mean-centered and entered into the analysis as continuous covariates (fixed effect treated as covariates). Intercept was the random effect and we used an unstructured random effect covariance type (each variance and each covariance is estimated uniquely from the data).

Tests of model effects revealed the expected effects of both participants' and faces' BS. Parameter estimates showed that, holding all the other variables constant, a one-unit increase in participants' endorsement of BS resulted in 28.5% greater odds of switching from a more to a less equal offer (log-odds = 0.251, SE = 0.080, t = 3.116, p = .002). Similarly, a one-unit increase in a face's BS resulted in 41.8% greater odds of switching from a more to a less equal offer (log-odds = 0.349, SE = 0.086, t = 4.049, p < .001). To better visualize these effects, Fig 1 displays the percentages (raw data) of equal, unequal and very unequal offers made by participants who were below the 25th percentile and above the 75th percentile in BS endorsement and the same percentages for faces whose perceived BS was below the 25th percentile and above the 75th percentile. Cramer's V = .17 and .18, respectively for BS endorsement and faces' BS (both ps = .001), revealing that the distribution of offers is not the same in the lower and upper percentile distributions. Closer inspection of the distributions (see Fig 1) reveals that for both BS endorsement and faces' BS, there is a significant increase in the proportion of very unequal offers made between the 25th and the 75th percentile (ps < .05). For BS endorsement, there is a significant decrease of equal offers made between the 25th and the 75th percentile, while for faces' BS, there is a significant decrease of unequal offers made between the 25th and the 75th percentile (ps < .05).

The interaction between participants' and faces' BS was not significant (p = .89). No other effect was significant (ps > .079).

Discussion. The results show that both the endorsement of BS and faces' perceived BS had an influence on the offers made in economic decision-making. The higher the endorsement of BS and the higher a face's subjective BS, the more very unequal offers women made to men:



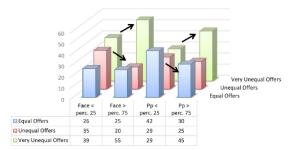


Fig 1. Distribution of offers on the extremes of participants' and face's Benevolent Sexism. Percentage of equal, unequal, and very unequal offers made by participants below the 25th percentile and above the 75th percentile in endorsement of benevolence and the same percentages for faces whose perceived sexist benevolence was below the 25th percentile and above the 75th percentile (based on raw data, Study 1).

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Men should provide; therefore I take a lot. Study 2 was designed to examine what happens when men's and women's roles are reversed.

Study 2

The procedure and material were very similar to those used in Study 1. We told participants that they were about to take part in an experiment consisting of a role-play in a simple bargaining computer game in which they had to accept or refuse (hypothetical) monetary offers from other players. After the participants completed a demographic questionnaire, they filled in the French version of the ASI [27] and began the Ultimatum Game (UG). The proposers in the UG were all the 39 photographed men from the pretest (see Study 1), who were presented on a computer screen. Face's perceived BS, attractiveness as well as distinctiveness were collected at the pretest (see Study 1). The experimenter carefully checked to make sure participants understood the structure of the game.

Materials and method. Participants were 48 female undergraduates (mean age = 21.88; SD = 2.06), all of whom were native French speakers. They were approached by a female experimenter in different places around the university campus.

Contrary to Study 1 in which only a subset of photographs was presented, the full set of the 39 pre-tested photographs (see Study 1) was presented to participants in Study 2. Across the 39 pictures, the mean perceived BS (the mean from the guesses at the BS items, see Study 1) varied from 4.23 to 6.90, with a grand mean of 5.56 (SD=.76). Judges' intraclass correlation was .66, F(38,351)=3.82, p<.001. Attractiveness and distinctiveness being strongly correlated (r=.94, p<.001), they were then averaged into an attractiveness/distinctiveness index. This index and a face's perceived BS were not correlated, r=.23, p=.17.

Participants played a standard single-shot UG in the role of the responder. We created 39 different offers based on a total sum of ϵ 20. As in Study 1, one third of the offers were equal, (moderately) unequal and very unequal. Each participant played 39 trials in which each offer was made by one and only one of the 39 pictures. All dyads of offers and pictures were randomly presented to each participant. First, one of the 39 men's faces appeared in full-screen mode for 3000ms. On the next screen, a reduced version of the picture appeared, with the offer below it. For example, the man's face was accompanied by the sentence: "This player received ϵ 20 and decided to split it as follows: ϵ 3.40 for you and ϵ 16.60 for him." Then the question "Do you accept his offer?" appeared. Participants had to respond to the offer by pressing key 1 to



accept or key 2 to refuse. If the participant pressed 1, each player received the agreed-upon sum; if she pressed 2, both players received nothing. After each participant's decision, a screen would display the amount of money she had received for 2000ms. In our example, the display would read "You received $\epsilon 3.40$," or "You both received $\epsilon 0.0$ " The dependent variable, the number of accepted offers, was recorded by the computer in a data file [29]. At the end of the experiment, participants were fully debriefed, probed for suspicion, and thanked for their participation.

Results. Overall, participants accepted 45.9% of the offers. Although 88% of the equal offers were accepted, only 5% of the very unequal offers were accepted, with the (moderately) unequal offers falling in between (45% accepted) (S1 File). As in Study 1, to predict participants' acceptance of the offers (coded 0 when the offer was denied and 1 when the offer was accepted), we conducted a Generalized Linear Mixed Model analysis with a binomial distribution (as there are 2 categories of response) and a binary logit link. The binary logit estimates the impact of a predictor on the odds (or probability) of switching from one category of response to the other. Fairness of the offer (coded -1 if equal, 0 if moderately unequal, and 1 if very unequal -with this last coding being the reference category), faces' BS, and participants' endorsement of BS (fixed effects) were independent variables (mean centered). All interactions between these predictors were then entered into the model. Faces' attractiveness/distinctiveness and participants' hostile sexism score were mean-centered and entered into the analysis as continuous covariates (fixed effect treated as covariates). Intercept was the random effect and we used an unstructured random effect covariance type.

Test of the model effects revealed the expected interaction between the fairness of the offer and participants' BS (Wald = 23.97, df = 2, p < .001). As can be seen in Table 1, for the very unequal offers, a one-unit increase in participants' endorsement of BS resulted in 30.4% lower odds of accepting an offer. However, for the unequal and equal offers, the effects of participants' BS was reverse: A one-unit increase in participants' endorsement of BS resulted in 69.1% and 88.4% higher odds of accepting an offer, respectively for (moderately) unequal and equal offer. A marginally significant interaction revealed that the same pattern emerged for face's BS as well (Wald = 2.902, df = 2, p = .055). For the very unequal offers (see Table 1), a one-unit increase in face's BS resulted in 22.3% lower odds of accepting an offer. However, for the unequal and equal offer, the effects of face's BS was again reverse: A one-unit increase in face's BS resulted in 74.8% and 78.4% higher odds of accepting an offer, respectively for (moderately) unequal and equal offer.

Among the covariates, only the faces' attractiveness/distinctiveness effect was significant (log-odds = -.080, SE = 0.037, t = -2.190, p = 029). Controlling for all the other predictors, offers made by attractive and distinctive faces were more likely to be rejected than offers from less attractive and distinctive ones, although simple bivariate correlation over all the trials revealed a significant positive association between attractiveness/distinctiveness and acceptance (r = .06, p = .01). For participants' hostile sexism, p = .69. Not surprisingly, tests of the model effects also revealed a significant effect of the fairness of the offer (Wald = 117.41, df = 3, p < .001). No other effect was significant (all ps > .39)

Discussion. When offers were very unequal, both the endorsement and the 'facial promise' of BS led participants to reject them. *Man should provide; he did not; I prefer to have nothing but he neither.* In this UG, both the participant and the purported proposer are (hypothetically) "punished" because the participant's refusal means that both get nothing. UG research has shown that, contrary to the economic rational predictions stating that it is better to have little money than nothing, people would actually rather have no money at all (by rejecting the offer) than being swindled. "The main tendencies observed were that responders are willing to sacrifice substantial amounts to punish a greedy proposer" ([33], p.331). This effect has been



Table 1. Parameters estimates for participants' and face's Benevolent Sexism, separately for relative fairness of the offers (Study 2).

Predictors	b (log-odds)	SE(b)	Odds ratio	Τ	p
Pp's BS for very unequal offers	-0.827	0.376	0.437	-2.203	.028
Pp's BS for unequal offers	0.804	0.379	2.235	2.123	.034
Pp's BS for equal offers	2.031	0.410	7.621	4.958	.001
Face's BS for very unequal offers	-1.248	0.483	0.287	-2.585	.010
Face's BS for unequal offers	1.087	0.493	2.964	2.206	.028
Face's BS for equal offers	1.291	0.538	3.637	2.402	.016

Pp = Participants; BS = Benevolent Sexism.

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replicated in our study and was accentuated by women's endorsement of BS as well as by facial's BS appearance.

We did not predict that BS would lead participants to accept equal or (moderately) unequal (30% of the stake) offers more often (see <u>Table 1</u>). Although we understand that reasoning along the lines of *Man should provide; he did (at least reasonably); therefore I accept the offer* could explain acceptance, it is harder to see why a lesser endorsement or weaker 'facial promise' of BS should lead someone to refuse an equal offer and prefer to get nothing! Maybe the answer relates to participants' degree of feminism or independence which, if high, could make any masculine help seem intolerable. We will return to this issue later.

General Discussion

Although blatantly positive, research has repeatedly shown that BS has negative consequences on women that can contribute to maintain them in a lower status. In two studies, we show that BS can also have negative consequences for men. In Study 1, in which women participants had to share a sum of money with men, greater endorsement of BS ideology as well as greater BS' appearance were associated with more unequal offers. In Study 2, women participants rejected more very unequal offers if they scored high in the endorsement of BS ideology or if they had great expectations of BS because of the proposer's face. Presumably, in both studies, women participants appeared to expect BS from men and behaved accordingly.

Limitations and future research

In Study 2, BS also leads to a greater acceptance of equal and moderately unequal offers. It makes sense that considering men as nurturers should lead women to accept their offers as long as they are not stingy. But why equal offers are refused by less BS participants or from apparently less BS proposers is more puzzling. One possibility is that low BS participants could also be feminists (or more generally, more independent). In this case, as well as when proposers do not look being voluntarily generous towards women (low BS faces), any financial proposal from men could be seen as unacceptable. Indeed, it has been argued that receiving money in male-female relationships can impose the feeling of a debt that is seen as "social" (not merely financial), a kind of debt for which it is almost impossible to determine when it will be discharged [34]. Further research should explore this topic by evaluating UG participants' feminism via, for instance, the Feminist Identity Development Scale [35] or the Sex Role Attitudinal Inventory [36]. Another possibility would be to ask participants to explain why they rejected an offer.

In both studies, the interaction between participants' endorsement of BS and faces' BS did not reach significance. Future work might also explore whether these instantiations of BS



operate independently or in combination. For instance, manipulating the context in which the bargaining games take place might play an important role. A romantic or professional context could dramatically impact the bargaining process. Indeed, according to [7,17], a romantic context, compared to a professional one, could lead women to accept or request more benevolence from men, especially if they appear to be benevolent sexists. More work is obviously needed to better understand whether participant's endorsement of BS and faces' perceived BS are really instantiations of the same ideology or pertain to different ideologies.

In both study, women decisions do not have real economic consequences. No real money was to be offered or taken. We however doubt that it could have had a strong impact on our results. First, no participant ever expressed concerns about the procedure and all were quite invested into the task. Second, there are generally very little difference in behavior between the stakes and no-stakes conditions in several economic games [37–40], although evidence is mixed and even sometimes contradictory. In any case, replicating our results with monetary incentivized plays would be important. It could also shed some lights on both potential limitations raised above.

Conclusion

If BS has harmful effects on women, it can also be deleterious to men. Indeed, women's endorsement or expectations of BS influence their economic decision-making. First, they are less generous towards men with whom they have to share money. Second, if they do not behave in accordance with the ideology, men too can experience a backlash [15]: Rather than being passive and submissive, at least some women fight back. Presumably, their sense of fairness is heightened when they score higher on BS and when the social situation leads them to expect protection and nurturance from men. Benevolent sexism is an ideology that describes how an ideal world should be: Men should protect and provide for women. When the Princess is frustrated, Prince Charming is call to order.

The present studies also complement recent evidence from experimental economics showing that expectations and social information can influence decision-making [41,1,3–5]. Indeed, our results indicate that purported proposers' and recipients' apparent BS facial characteristics can affect economic behavior. We also discovered a further moderator that shapes decision-making: ideology. Ideology, whether endorsed or simply expected because of the situation, plays an important role. If reality is in line with it, everything is fine and acceptance will likely follow the offers. However, if reality does not match ideology, then rejection is a way of punishing the counter-ideological partner. We can state that this is true of benevolent sexism, but we would recommend further exploring the applicability of our conclusion to other ideologies as well.

Supporting Information

S1 File. Data package for Study 1. (ZIP)

S2 File. Data package for Study 2. (ZIP)

Author Contributions

Conceived and designed the experiments: MS BD AS. Performed the experiments: AS. Analyzed the data: BD MS. Contributed reagents/materials/analysis tools: AS MS BD. Wrote the paper: BD AS JH MS.



References

- Sanfey AG. Expectations and social decision-making: Biasing effects of prior knowledge on ultimatum responses. Mind Soc. 2009; 8: 93–107. doi: 10.1007/s11299-009-0053-6
- Chang LJ, Sanfey AG. Great expectations: Neural computations underlying the use of social norms in decision-making. Soc Cogn Affect Neuro. 2013; 8: 277–84. doi: 10.1093/scan/nsr094
- Brañas-Garza P, Rodriguez-Lara I. Expected generosity in one-shot interactions. Munich Personal RePEc Archive Paper No. 60046. 2014. Available: https://mpra.ub.uni-muenchen.de/60046/
- Aguiar F, Brañas-Garza P, Cobo-Reyes R, Jimenez N, Miller LM. Are women expected to be more generous? Exp Econ. 2009; 12(1): 93–8. doi: 10.1007/s10683-008-9199-z
- Chowdhury SM, Jeon J. Altruism, Anticipation, and Gender. UEA Centre for Behavioural and Experimental Social Science Working Paper, #13–06. 2013. Available https://www.uea.ac.uk/menu/depts/eco/research/RePEc/uea/papers_pdf/UEA-CBESS-1306.pdf
- Delacollette N, Dardenne B, Dumont M. Stéréotypes prescriptifs et avantages des groupes dominants. Ann Psychol. 2010; 110: 127–56.
- Sarlet M, Dumont M, Delacollette N, Dardenne B. Prescription of protective paternalism for men in romantic and work contexts. Psychol Women Quart. 2012; 36: 444–57. doi: 10.1177/ 0361684312454842
- Glick P & Fiske ST. An ambivalent alliance: Hostile and benevolent sexism as complementary justifications for gender inequality. Am Psychol. 2001; 56: 109–18. doi: 10.1037/0003-066X.56.2.109 PMID: 11279804
- Dardenne B, Dumont M, Bollier T. Insidious dangers of benevolent sexism: Consequences for women's performance. J Pers Soc Psychol. 2007; 93: 764–79. doi: 10.1037/0022-3514.93.5.764 PMID: 1708/300
- Dardenne B, Dumont M, Sarlet M, Phillips C, Balteau E, Luxen A, et al. Benevolent sexism alters executive brain responses. NeuroReport. 2013; 24,572–7. doi: 10.1097/WNR.0b013e3283625b5b PMID: 23660680
- Dumont M, Sarlet M, Dardenne B. Be too kind to a woman, she'll feel incompetent: Benevolent sexism shifts self-construal and autobiographical memories toward incompetence. Sex Roles. 2010; 62: 545– 53. doi: 10.1007/s11199-008-9582-4
- Hebl MR, King EB, Glick P, Singletary SL, Kazama S. Hostile and benevolent reactions toward pregnant women: Complementary interpersonal punishments and rewards that maintain traditional roles. J Appl Psychol. 2007; 92: 1499–1511. doi: 10.1037/0021-9010.92.6.1499 PMID: 18020792
- Viki GT, Abrams D. But she was unfaithful: Benevolent sexism and reactions to rape victims who violate traditional gender role expectations. Sex Roles. 2002; 47: 289–93. doi: 10.1023/A:1021342912248
- Rudman LA, Glick P. Feminized management and backlash toward agentic women: The hidden costs to women of a kinder, gentler image of middle-managers. J Pers Soc Psychol. 1999; 77: 1004–10. doi: 10.1037/0022-3514.77.5.1004 PMID: 10573877
- Rudman LA, Glick P. Prescriptive gender stereotypes and backlash toward agentic women. J Soc Issues. 2001; 57: 743–62. doi: 10.1111/0022-4537.00239
- Jackman M. The velvet glove: Paternalism and conflict in gender, class and race relations. Berkeley: University of California Press; 1994.
- Moya M, Glick P, Expósito F, de Lemus S, Hart J. It's for your own good: Benevolent sexism and women's reactions to protectively justified restrictions. Pers Soc Psychol Bull. 2007; 33: 1421–34. doi: 1177/0146167207304790 PMID: 17933737
- Delacollette N, Dumont M, Sarlet M, Dardenne B. Benevolent sexism, men's advantages and prescription of warmth to women. Sex Roles. 2013; 68: 296–310. doi: 10.1007/s11199-012-0232-5
- Glick P, Lameiras M, Fiske ST, Eckes T, Masser B, Volpato C, et al. Bad but bold: Ambivalent attitudes toward men predict gender inequality in 16 nations. J Pers Soc Psychol. 2004 86: 713–28. doi: 10.37/0022-3514.86.5.713 PMID: 15161396
- Expósito F, Herrera MC, Moya M, Glick P. Don't rock the boat: Women's benevolent sexism predicts fears of marital violence. Psychol Women Quart. 2010; 34: 36–42. doi: 10.1111/j.1471-6402.2009. 01539.x
- 21. Fischer AR. Women's benevolent sexism as reaction to hostility. Psychol Women Quart. 2006; 30: 410–416. doi: 10.1111/j.1471-6402.2006.00316.x
- Phelan JE, Sanchez DT, Broccoli TL. The danger in sexism: The links among fears of crime, benevolent sexism, and well-being. Sex Roles. 2010; 62; 35–47. doi: 10.1007/s11199-009-9711-8
- Bolton GE, Zwick R. Anonymity versus punishment in ultimatum bargaining. Game Econ Behav. 1995; 10: 95–121. doi: 10.1006/game.1995.1026



- Todorov A, Mende-Siedlecki P, Dotsch R. Social judgments from faces. Curr Opin Neurobiol. 2013; 23: 373–80. doi: 10.1016/j.conb.2012.12.010 PMID: 23347644
- Todorov A, Pakrashi M, Oosterhof N. Evaluating faces on trustworthiness after minimal time exposure. Soc Cognition. 2009; 27: 813–33. doi: 10.1521/soco.2009.27.6.813
- 26. Güth W, Schmittberger R, Schwarze B. An experimental analysis of ultimatum bargaining. J Econ Behav Organ. 1982; 3: 367–88. doi: 10.1016/0167-2681(82)90011-7
- Dardenne B, Delacollette N, Grégoire C, Lecocq D. Latent structure of the French validation of the Ambivalent Sexism Inventory: l'Echelle de Sexisme Ambivalent. Ann Psychol. 2006; 106: 235–64
- Glick P, Fiske ST. The Ambivalent Sexism Inventory: Differentiating hostile and benevolent sexism. J Pers Soc Psychol. 1996; 70: 491–512. doi: 10.1037/0022-3514.70.3.491
- 29. Inquisit 3.0.2.0. [Computer software]. Seattle, WA: Millisecond Software LLC; 2008.
- Baayen RH, Davidson D, Bates D. Mixed-effects modeling with crossed random effects for subjects and items. J Mem Lang. 2008; 59, 390–412. doi: 10.1016/j.iml.2007.12.005
- Jaeger TF. Categorical data analysis: Away from ANOVAs (transformation or not) and towards logit mixed models. J Mem Lang. 2008; 59: 434–46. doi: 10.1016/j.ijml.2007.11.007 PMID: 19884961
- Judd CM, Westfall J, Kenny DA. Treating stimuli as a random factor in social psychology: A new and comprehensive solution to a pervasive but largely ignored problem. J Pers Soc Psychol. 2012; 103; 54–69. doi: 10.1037/a0028347 PMID: 22612667
- Güth W. On ultimatum bargaining experiments—A personal review. J Econ Behav Organi. 1995; 27: 329–44
- Burgoyne C. Heart-strings and purse-strings: Money in heterosexual marriage. Fem Psychol. 2004;
 14: 165–72. doi: 10.1177/0959353504040319
- 35. Bargad A, Hyde JS. Women's studies: A study of feminist identity development in women. Psychol Women Quart. 1991; 15: 181–201. doi: 10.1111/j.1471-6402.1991.tb00791.x
- **36.** Renzetti CM. New wave or second stage? Attitudes of college women toward feminism. Sex Roles. 1987; 16: 265–77. doi: 10.1007/BF00289954
- 37. Ben-Ner A, Kramer A, Levy O. Economic and hypothetical dictator game experiments: Incentive effects at the individual level. Journal of Socio-Econ. 2008; 37: 1775–84.
- Bühren C, Kundt TC. Imagine being a nice guy: A note on hypothetical vs. incentivized social preferences. Judgm Decis Mak. 2015; 10(2): 185–190.
- 39. Engel C. Dictator games: a meta study. Exp Econ. 2011; 14(4); 583-610.
- Forsythe R, Horowitz JL, Savin NE, Sefton M. Fairness in simple bargaining experiments. Game Econ Behav. 1994; 6: 347–69.
- Crockett M J, Clark L, Tabibnia G, Lieberman MD, Robbins TW. Serotonin modulates behavioral reactions to unfairness. Science. 2008; 320: 1739. doi: 10.1126/science.1155577 PMID: 18535210

Chapter Four

<u>Implicit Belittlements Call for Implicit Measures:</u>

Emotional Reactions to Youth Paternalistic

Stereotypes

Abstract

Age discrimination at work can potentially affect every worker, old or young. In the case of young workers, it could take the form of 'paternalistic stereotypes', attitudes that explicitly highlight young workers' sympathy while, simultaneously and implicitly, implying their incompetence. In Study 1, using an explicit measure (self-reports) of targets' affective states only revealed they felt positive ones. In Study 2, an implicit emotional measure revealed the presence of a negative affective state following a paternalistic encounter. The last Study, using a more ecological affective measure, demonstrates that ambivalent paternalistic stereotypes trigger an ambivalent affective reaction.

Keywords: paternalistic stereotypes, affect, emotional Stroop task, social sharing of emotions

Introduction

Overt stereotyping of individuals is often socially inappropriate, even legally punishable. Unfortunately, even though instances of blatant stereotyping have become less common, the act of judging individuals negatively because they belong to a certain social group is still just as topical as ever (Clark & Gochett, 2006; D'Augelli & Hershberger, 1993; Klonoff & Landrine, 1995; Swim, Cohen, Hyers, Fitzgerald, & Bylsma, 1997). For instance, Swim, Hyers, Cohen, & Fergusson (2001) found that women reported experiencing or witnessing one or two sexist episodes per week. In another survey study, only 11% of the participants reported that they never heard derogatory remarks about African Americans, while 52% reported hearing those remarks often or frequently (Swim et al., 1997). The permanence of stereotyping and discrimination despite their social reproof has been rendered possible by a change in the form in which they are expressed (which is paradoxically a consequence of social reproof). Nowadays, they are more subtle and less obvious. Research has proved this is the case for racism, for instance, under the form of what is called modern racism (McConahay, 1986) or aversive racism (Gaertner & Dovidio, 1986), as well as for sexism, under the disguise of modern sexism (Swim, Aikin, Hall, & Hunter, 1995) or paternalistic stereotypes (Fiske, Cuddy, Glick, & Xu, 2002; Glick & Fiske, 1996).

At work, a prevailing discrimination factor is age. In Europe, 58% of workers perceive age discrimination as a widespread problem in their country (European Commission, 2009, cited in Kringds, Sczesny, & Kluge, 2011). Actually, surveyed workers reported experiencing age discrimination more often than other forms of discriminations (Snape & Redman, 2003). In Belgium, age discrimination in the workplace or during job interviews is that spread that it has attracted the attention of the *Centre for Equal Opportunities and Opposition to Racism*, which ordered an opinion poll (Spaas & Vandenbroucke, 2012). It indicates that at least 8% of

the respondents, during the last 5 years, felt discriminated against because of their age, and, even though discrimination is experienced similarly amongst young and older workers, it is mainly the 18 to 34 years-old category that reported facing age discrimination during hiring process, decisions in promotions attribution or in lay-off (see also Snape & Redman, 2003).

While research about the widespread age discrimination in the professional field mainly concerns 'old' workers (Brooke & Taylor, 2005; Desmette & Gaillard, 2008; Kite, Stockdale, Whitley, & Johnson, 2005; Kringds et al., 2011; Rupp, Vodanovich, & Crede, 2006, see also Loretto, Duncan, & White, 2000; North & Fiske, 2012), an international survey reported by Kringds et al. (2011), indicates that *young* workers also feel discriminated against based on their age (see also Snape & Redman, 2003), even if in the current work market, young workers are perceived as dynamic and that such quality might be seen as desirable. Similarly, Loretto et al. (2000) found that 35% of their student respondents reported having experienced age discrimination while working part-time or during the vacations. Given the prevalence of age discrimination at work and the scarce research tackling the nonetheless present discrimination against young workers in the workplace, research about young workers stereotypes is needed. Following the example of sexism and racism, we suggest that age discrimination at work is not only expressed blatantly, but that stereotypical beliefs about young workers can be conveyed using more subtle ways.

Paternalism

According to the Stereotype Content Model (SCM), paternalistic stereotypes appear when social groups and their members are seen as very nice and sociable, that is, high on the warmth dimension, but quite incompetent, that is, low on the competence dimension (Fiske et al., 2002). However, since derogatory stereotypes are socially repressed, the negative side of such stereotypes is generally not very explicitly expressed and is often concealed behind the

overt positive discourse. An example of young workers paternalistic discrimination can be found in the (probably well-intended) British Safety Council "Speak Up, Stay Safe" campaign³, which identified qualities that makes young workers vulnerable from work related accidents. Sentences such as: "In many cases lack of information, lack of work experience and lack of confidence are to blame" or "Some workers may have particular requirements, for example new and young workers, new or expectant mothers, and people with disabilities" can be found on the campaign website. While not openly mentioned, the implied incompetence of young professionals shows through the notion of inexperience or the association with disabled people. The precautions are at first sight gentle, aiming to help young people and to prevent them from injuries, but implicitly, they convey the message that they are not competent. The notion of incompetence also shows through stereotypes about young professionals observed in Belgium, described as 'unmotivated, undisciplined, exacting, unreliable, inexperienced, overconfident, but having good communication abilities, a dynamic disposition and a willingness to learn' (Spaas et al., 2012). In a very large New Zealand survey, both older union members and employers were asked to think about workers in different age groups and to indicate which groups best illustrated a number of qualities and factors (McGregor & Gray, 2002). The authors observed that while young workers were evaluated quite high on enthusiasm, they were at the same time evaluated as lacking judgment, innovation, credibility, professionalism, and people skills, amongst other qualities.

Whereas research on paternalistic stereotyping experienced by young professionals has been very scarce, paternalism has nonetheless attracted the attention of researcher, particularly in the domain of sexism. Studies have demonstrated that, despite its apparent positivity, the notion of incompetence conveyed by paternalistic sexism has negative effects on its targets (e.g., Becker & Wright, 2011; Dardenne, Dumont, & Bollier 2007; Dumont, Sarlet, &

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³ https://www.britsafe.org/speakupstaysafe

Dardenne, 2010) and might contribute to maintaining women in an inferior position, making "[The positive tone of benevolent sexism [] thus only superficial" (Barreto & Ellemers, 2013, p. 294). Another aspect of paternalism evidenced in the case of sexism is that, despite its deleterious consequences, women generally accept it (Moya, Glick, Expósito, de Lemus, & Hart, 2007) and even, at least in romantic contexts and for some women, expect and require it from men (Sarlet, Dumont, Delacollette, & Dardenne, 2012). This acceptance has been told to be partly due to the fact that paternalism's positive tone makes its negative side hard to detect (Barreto et al., 2013; Swim, Mallett, Russo-Devosa, & Stangor, 2005). However, difficulties to clearly detect paternalistic sexism do not mean that women do not notice that something is wrong when confronted with it. Indeed, women have been shown to feel ill at ease in paternalistic work-related situations, which they reported to be less pleasant than control ones and as equally unpleasant as hostile sexist situations (Dardenne et al., 2007, Experiment 2), while at the same time they do not report explicitly sexist discrimination. Consequently, targets' acceptance of paternalism may not indicate that they do not detect it. A complementary explanation could lie in the social and inter-personal cost of explicitly reporting prejudice: research has shown that individuals who attribute a negative experience to prejudice are perceived as overreacting (Czopp & Monteith, 2003), complainers (Kaiser & Miller, 2001) or troublemakers (Kaiser & Miller, 2003). Yet another alternative could simply lie in the fact that research on paternalistic stereotypes mainly focused on cognitive impacts of being seen as incompetent, leaving the consequences on affective states understudied, therefore missing an opportunity to study affective reactions to paternalistic stereotypes.

In this paper, we propose that the targets of paternalistic stereotypes do detect them in their negative form but do not or cannot systematically report it. More precisely, we suggest that, whereas the positive side of paternalistic stereotyping related to warmth would be easily detected, positively experienced, and the resulting affective reactions would be reported without difficulty using traditional affective self-report measure, the negative side of paternalism, related to incompetence, far from being undetected, would be negatively experienced but would need more subtle means to be reported. Studies have shown that attitudes, stereotypes, or emotional states are not systematically well identified using only self-reports and that self-reports are not systematically related to less blatant, covert or implicit measures (Carney, Banaji, & Krieger, 2010; Meagher, & Aidman, 2004; Quirin, Kazén, Rohrmann, & Kuhl, 2009). For instance, Bosson, Haymovitz, & Pinel (2004) showed that although participants did not report feeling anxious in a stereotype threat situation using a self-report method, a non-verbal measure of anxiety did indicate that participants demonstrated anxiety in that particular situation.

Our Studies

The aim of this paper is to investigate more implicit ways to pinpoint affective reactions of young professionals exposed to paternalistic stereotyping in a work-related context. Building on the research on benevolent sexism, where it has been shown that women report feeling ill at ease when faced with paternalistic sexism (Dardenne et al., 2007), we consider that the acceptance of paternalism may be due not to the undetectability of its negative side but due to inappropriate measures. In three studies, we use the targets' affect to investigate their potential detection of the negative side of paternalistic stereotypes, and the conditions in which targets express emotional reactions.

First, based on studies that did not report explicit negative reactions to paternalistic sexism (Barreto et al., 2005; Dardenne et al., 2007), we posit that participants will fail to report any affective reaction related to the negative, more subtle, side of paternalistic stereotyping using solely self-report. In Study 1, we exposed our young participants to a work-related situation tainted with youth paternalism, then measured their positive and

negative affective reactions using Likert-type scales. We expected participants to report more positive than negative emotions when confronted with paternalism, in a similar way as participants confronted with neutral instructions.

Second, based on the fact that the negative side of paternalism is expressed implicitly, we suggest that using an implicit emotional measure would allow us to confirm that the experience of paternalistic stereotyping is not experienced as positively as it could seem at first. In Study 2, we used an emotional Stroop task, which is largely used to study attentional bias towards affective self-relevant words and to indicate the current affective state, to investigate whether using an implicit measure would reveal some negative affects after a paternalistic episode. More precisely, we predicted an attentional bias towards negative words for participants confronted with paternalistic instructions (that is, longer reaction times for these participants than for those confronted with neutral instructions).

In Study 3, we propose a more ecological means to identify affective reactions to paternalistic stereotyping in a work-related context. Literature on Social Sharing of Emotion (SSE) reports large evidence that any emotional episode, even of mild intensity, leads people to share it and talk about it (Luminet, Bouts, Delie, Manstead, & Rimé, 2000; Rimé, 2009a, 2009b). We use this natural need people have to share emotions with close others as a more subtle (compared to Study 1) as well as more ecologically valid measure of affect (compared to Study 2) triggered by an episode of paternalistic stereotyping. Studies using SSE mainly focus on the diffusion of the emotional event (how many people the event was shared with, how often it was shared, etc.). However, analysing the content of SSE after an episode of paternalistic stereotyping offers another way of understanding the affective reactions of participants confronted by youth paternalism. We expected participants confronted with

paternalism to report similar levels of negative affective reactions as in a hostile condition, reflecting that something "not that good" was going on under paternalistic instructions.

Study 1

Methods

Overview

Participants were told that they were about to participate in a study examining the reactions people can have on their first day of work. They started by completing an informed consent form and demographic questions. They were then presented with a scenario describing their hypothetical meeting with their new boss and colleagues on their first day. The scenario was either a paternalistic, hostile, or neutral description of the situation. Finally, explicit self-reports of positive and negative emotions were collected. Participants were then thanked and fully debriefed. The study was entirely approved by the Psychology faculty's Ethics Committee

Participants

Participants were 68 (36 female) under- and post-graduates (mean age = 20.90; SD = 3.07) who were native French speakers. They were approached in different places on campus. If they agreed to participate, the experimenters gave them one of the four questionnaire packages at random (N = 24 for paternalistic, N = 22 for hostile, and N = 22 for neutral scenarios).

Procedure and measures

Paternalism induction. In the scenario, participants read a description of their alleged first meeting with their new boss and colleagues. They were asked to imagine that they were welcomed by the director of the company. The text started with the same sentences across conditions: "Imagine that you have been hired by a company (Global) soon after graduation. You have arrived on your first day and the director, Mr. Delloy, receives you in his office for his welcome speech. Here is a description of your meeting." The following text constituted a paternalistic, hostile, or neutral description of the company. In the paternalistic version, the boss was protective, benevolent, helpful and somehow intrusive (in his employees' professional and personal lives). The boss used sentences like the following: "Our Company is like a big family. I'm the father – authoritarian but protective – and the employees are like my children – obedient and grateful. In our company, we are aware that we need to hire young workers because they are our future, much as children are adults' future. It is true that young workers are quite inexperienced but our older and more experienced colleagues are there to support and help them and take charge if needed. Here, at Global, we are used to caring for each other, especially the youngest ones, because everyone's happiness is essential for our company to work well." In the hostile version, the boss openly expressed all his negative stereotypes about young workers (inexperienced, reckless, lazy, greedy, etc.; see Chasteen, Schwarz, & Park, 2002). Hostility towards young workers was expressed in sentences such as "The employees are not here to babysit the youngsters. Avoid wasting their time with stupid questions that you, young people often ask" or "Young people are all the same, hypocrites and profiteers." In the neutral version (control condition), the director described the company structure (departments, personnel, products, etc.) in neutral words. At the end of the description, participants read that they were meeting their colleagues. They were described as being paternalistic, hostile, or neutral towards the participants, using sentences similar to the ones used by the boss. At the end of their reading, they were asked to take a few moments to think about the meeting and their feelings.

Emotional self-reports. Participants were then asked to rate to what extent they were currently experiencing 16 positive (e.g., confident, optimistic, happy) and 34 negative⁴ (e.g., worried, angry, sad) emotions, using a 7-point Likert scale, from 1 (*not at all*) to 7 (*totally*). We ran a factor analysis on all of the emotional items. Two factors were extracted, which explained 53% of the total variance. The emotional items with loadings higher than .50 were kept and we created one positive (8 items; e.g. optimistic, enthusiastic, calm) and one negative score (12 items; e.g. angry, worried, frustrated). The emotional scores presented a good internal consistency, $\alpha = 91$ for positive emotions and $\alpha = .94$ for negative emotions.

Manipulation check. Participants then completed a manipulation check assessing the paternalistic and/or hostile tone of the text describing their meeting with the company's director and colleagues. They were asked how paternalistic, protective, hostile and aggressive they found the meeting, the director and the colleagues, separately, using a 7-point Likert scale, ranging from 1 (*not at all*) to 7 (*totally*). We created an index of paternalism ($\alpha = .90$) and hostility ($\alpha = .96$) by computing the means of the six corresponding items (paternal and protective for paternalism, and hostile and aggressive for hostility).

2004).

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The difference between the numbers of positive and negative emotion words is in line with the general preponderance of negative emotion words over positive ones in everyday language (Schrauf & Sanchez,

Results and Discussion

Analyses revealed no significant effect due to participants' gender, and therefore the reported results do not include gender as factor.

Manipulation check

The paternalistic condition was perceived as more paternalistic (M = 5.31, SD = 1.34) than the control (M = 3.77, SD = 1.19), and hostile conditions (M = 1.88, SD = 1.04), with both ts > 4.10, ps < .001, and Cohen's ds > 1.21. The last two conditions differed significantly from each other, t (42) = -5.61, p < .001, d = 1.69. Similarly, the hostile condition (M = 5.63, SD = 1.29) was perceived as more hostile than the paternalistic (M = 1.39, SD = .58), and control conditions (M = 1.64, SD = .74), with both ts > 12.61, ps < .001, and Cohen's ds > 3.79. The latter two conditions did not differ significantly from each other, t (44) = -1.28, p = .21; d = -.36.

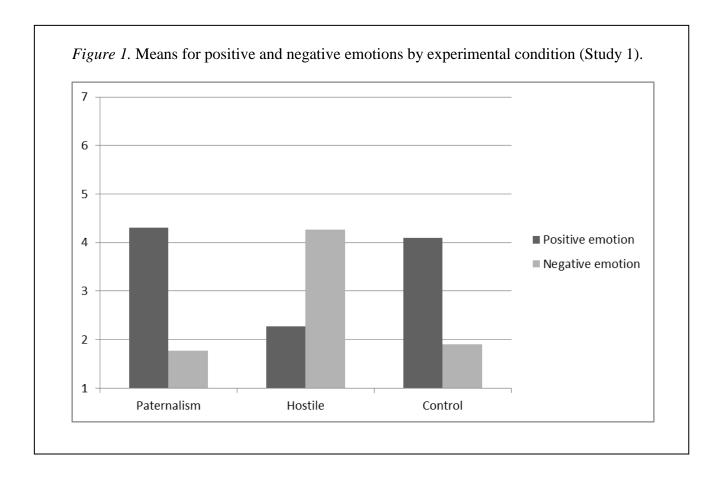
Emotional self-reports

A 3 (condition: Paternalistic vs. Hostile vs. Control) X 2 (emotion valence: Positive vs. Negative) ANOVA, with valence as within-subject variable, revealed a main effect of valence, F(1, 65) = 19.86, p = 001, $\eta^2_p = .23$. Participants reported more positive (M = 3.57, SD = 1.39) than negative emotions (M = 2.62, SD = 1.45), t(67) = 2.98, p < .01, Cohen's d = .67, 95% CI [.32, 1.60]. More importantly, the predicted interaction between valence and condition was significant, F(2, 65) = 50.58, p < .001, $\eta^2_p = .61$.

To better understand this interaction (see Figure 1), we performed a one-way ANOVA on positive and negative emotions separately with condition as between-subject factor. For positive emotions, a main effect of condition was found, F(2, 65) = 28.25, p < .001, $\eta^2_p = .44$. Post hoc analyses using the Bonferroni test indicated that participants in the paternalistic (M =

4.31, SD = .94) and control conditions (M = 4.09, SD = 1.35) reported significantly more positive emotions than those in the hostile (M = 2.27, SD = .84) condition, with both p-values < .001. The mean score for reported positive emotions did not differ significantly between the paternalistic and control conditions, p = 1. Regarding negative emotion, the one way ANOVA revealed a main effect of condition as well, F(2, 65) = 55.72, p < .001, $\eta^2_p = .63$. Post hoc analyses using the Bonferroni test indicated that participants in the paternalistic (M = 1.77, SD = .68) and control conditions (M = 1.90, SD = 1.01) reported significantly fewer negative emotions than those in the hostile (M = 4.27, SD = .97) condition, with both p-values < .001. The mean score for reported negative emotions did not differ significantly between the paternalistic and control conditions, p = 1.

To compare the level of positive and negative self-reported emotions within each condition, we performed paired t-tests. Participants in the paternalistic condition reported more positive than negative emotions, t(23) = 8.59, p < .001, d = 3.10, 95% CI [1.39, 3.16]. In the hostile condition, participants reported more negative than positive emotions, t(21) = -6.62, p < .001, d = 2.20, 95% CI [-2.63, -1.37]. As in the paternalistic condition, participants in the control condition reported more positive than negative emotions, t(21) = 4.87, p < .001, d = 1.84, 95% CI [1.26, 3.13].



As predicted, participants reported more positive than negative affects when exposed to paternalistic stereotyping. Participants in a situation where no stereotyping was present presented the same affective pattern than participants in the paternalistic condition, i.e., they reported higher levels of positive, compared to negative, affects. The results confirmed our hypothesis that the sole use of explicit self-reports prevents participants to report any affective reaction related to the subtly implied negative side of youth paternalism. As stated earlier, previous studies have reported a difficulty for explicit self-reports to identify precisely emotional states (Bosson et al., 2004).

Nevertheless, we think the participants may have somewhat sensed that something was wrong in the paternalistic situation because their emotional pattern was similar to the neutral situation, where no kindness was expressed. One might think that positive emotions could

have been higher following a paternalistic encounter than a neutral encounter, given that paternalism is supposed to make the individuals feel good. But this was not the case. The experience of paternalism in our study took place in a professional context and it has previously been shown that paternalistic comments in a work context triggered a small level of positive reactions towards the paternalistic perpetrator (Moya et al., 2007). We suggest that this may be a clue that paternalism is not all about kindness and care after all. Anterior research has also evidenced that attitudes or concepts measured via explicit instruments are rarely associated to those measured using implicit instruments (Carney et al., 2010; Fazio, Jackson, Dunton, & Williams, 1995; Quirin et al., 2009). In our second study, we aimed to show that the use of an implicit task will reveal a different affective pattern than the one found using explicit self-reports. We expected that following a paternalistic encounter, participants will present attentional bias towards negative words, which would reveal, according to the Stroop literature (Gotlib & McCann, 1984; Watts, McKenna, Sharrock, & Trezise, 1986; Williams & Nulty, 1986), that negative words were more accessible to the participants confronted by paternalism, whereas no such bias is expected in a situation were no stereotypes are expressed, suggesting that participants are far from being incapable of perceiving the subtle negative tone of paternalism. When using the appropriate measure, participants' affective reactions can be evaluated.

Study 2

Methods

Overview

Participants were told that they were about to participate in a study examining the reactions people can have to their first job interview. They started by completing an informed consent form and demographic questions. They were then presented with a scenario

describing a hypothetical job interview. The scenario was either a paternalistic or a neutral description of the situation. Participants then completed an emotional Stroop task before being thanked and fully debriefed.

Participants

Participants were 40 (20 female) under- and postgraduate students who were native French speakers (mean age = 22.05, SD = 2.35). They were approached in different places on campus. If they agreed to participate, they were invited to follow the female experimenter to the laboratory. Participants were then randomly assigned to a paternalistic or control condition (N = 21 and 19, respectively).

Procedure and measures

Paternalism induction. Participants were asked to imagine they were searching for a job after graduation. After several months of searching, following their application for a job in a company (Global), they were invited to meet the person in charge of recruitment for the company. A description of the hypothetical meeting was written down. The person in charge of recruitment either described the company as being paternalistic towards young workers or explained the company's structure in neutral terms. The scenario started with the same sentences in both conditions: "Imagine that you have been looking for a job for several months now. You recently applied for a job and you have been invited for a job interview. You are waiting for your interview when the person in charge of the recruitment invites you in. Here is a description of your meeting." What followed was the paternalistic or neutral description of the company. In the paternalistic version, the recruiter presented the director and colleagues as protective, benevolent, helpful, and somehow intrusive. The recruiter used sentences similar to those in Study 1. In the neutral version, the recruiter described the company's structure (departments, personnel, products, etc.) in neutral words, in a similar

way as in Study 1. At the end of the description, participants read that they were about to take the selection test (i.e. the emotional Stroop task). Before taking the test, they were asked to take a few moments to think about the meeting and their feelings.

Emotional Stroop task. Emotional Stroop task is based on the original Stroop task (1935), which has been largely used to study attentional process. The Emotional Stroop task has been developed in the 1980s to examine cognitive processing associated with emotional disturbance, and used to measure construct accessibility (Gotlib et al., 1984; Williams et al., 1986), for instance. The Stroop effect is present when the colour-naming latency is slower for emotional words compared to neutral words. The Emotional Stroop task has been largely used to study individuals with high level of anxiety (Mathews & McLeod, 1985; Richards, French, Johnson, Naparstek, & Williams, 1992) but also with depression (Gotlib & Cane, 1987), and phobias (Watts et al., 1986). Mathews & McLeod (1985) for instance, showed that patients with high anxiety showed slower colour naming for threat words than for non-threat words, evidencing an attentional bias towards anxiety-related words. Emotional Stroop task has also been used to study the implicit activation of Black stereotypes (Kawakami, Dion, & Dovidio, 1999). The results indicated that participants presented slower colour naming latencies for (negative) Black stereotyped words compared to non-stereotyped words, following a Black prime, indicating an attentional bias towards Black stereotypes.

The task consisted in the random presentation of 5 positive emotional words (e.g., *sympathy, competence*), 15 negative emotional words (e.g., *unease, perplexity*) and 10 neutral words (e.g., *bottle, curtains*) of similar length. Each word was presented on a white background, with the key-colour combination appearing at the top of the screen. The data were recorded using Inquisit by Millisecond Software. Each word was presented once in each colour (black, green, blue and red). This produced a total of 120 trials. The colour in which

each word was presented was randomly determined. The task was to correctly identify the colour of the word. The time each participant took to answer was recorded in milliseconds; the number of correct and incorrect answers was also recorded. To deal with outliers, median reaction times were used. Based on the Emotional Stroop literature (Mathews et al., 1985; Richards et al., 1992; Williams, Mathews, & MacLeod, 1996), to examine an interference effect on negative words, we created a reaction time difference index by subtracting the median reaction time to identify the colours of neutral words from the median reaction time to identify the colours of negative words. A positive score means that it takes more time to identify the colour of a negative word than of a neutral word. Conversely, a negative score means that it takes more time to identify the colour of a neutral word than of a negative word. Finally, a null score means that it takes the same time to identify the colours of negative and neutral words. We created the same type of index to examine interference effects on positive words, by subtracting the median reaction time to identify the colours of neutral words from the median reaction time to identify the colours of positive words. As in our first index, a positive score means that it takes more time to identify the colour of a positive word than of a neutral word. A negative score means that it takes more time to identify the colour of a neutral word than of a positive word. And a null score means that it takes the same time to identify the colours of positive and neutral words.

Manipupation check. Participants then completed a manipulation check assessing the tone of the text describing their meeting with the recruiter. They were asked to say how paternalistic or neutral they found the meeting and the recruiter, separately, using a 7-point Likert scale, ranging from 1 (*not at all*) to 7 (*totally*). We created an index of paternalism (r = .83) and neutrality (r = .93) by computing the means of the corresponding items.

Results and Discussion

Manipulation check

As expected, the paternalistic condition was evaluated as more paternalistic (M = 4.62, SD = 1.91) and less neutral (M = 2.67, SD = 1.73) than the control condition (M = 2.74, SD = 1.59, t (38) = -4.49, p < .001; Cohen's d = 1.42; and, M = 5.16, SD = 1.77; t (38) = 3.36, p = .002; Cohen's d = 1.07).

Emotional Stroop

To test our hypothesis that there would be an interference effect towards negative words in the paternalistic condition, compared to the control condition, we performed two t-tests. The results showed that the interference index for negative words is higher in the paternalistic condition (M = 32.93, SD = 80.11) than in the control condition (M = -22.79, SD = 82.82), t = 2.16, p = .037; Cohen's d = .68, 95% CI [3.54, 107.89]. As for the interference index for positive words, the paternalistic condition (M = 14.48, SD = 87.04) did not differ significantly from the control condition (M = 1.42, SD = 131.24), t = .37, t = .71; Cohen's t = .12, 95% CI [-57.58, 83.70]).

Study 2 revealed that participants faced with a paternalistic situation took more time to identify the colour of a word when the word was negative than when it was neutral, unlike participants in a neutral condition. No such bias appeared for positive words. As predicted, the use of implicit emotional measures seems to confirm that paternalism is negatively experienced. Study 2 provided evidence that not expressing discomfort after an episode of paternalism does not reflects a failure to detect it but the use of inappropriate measures to capture it. In a desire to replicate these findings using a more ecological measure of emotions, we decided to use the natural proclivity of people to share their emotions following an

emotional episode. Researchers have been studying the spontaneous affective discourse of individuals after being confronted to an emotional event. Social Sharing of Emotions (SSE) theory posits that any emotional episode, even of mild intensity, causes people to share it and talk about it (Luminet et al., 2000; Rimé, 2009a, 2009b). Experiments using SSE are usually looking at the diffusion of the emotional event (how many people the event was shared with, how often it was shared, etc.). In our third study, we used SSE as a way to examine emotional reactions and expressions after an episode of paternalistic stereotyping, not by looking at the diffusion of the emotional event but by analysing the content of the sharing. As in Study 1, we expected that participants would report only the obvious positive side of paternalism on self-reports measures but would express the negative side of paternalism using the SSE measure. More specifically, whereas the pattern of emotional reaction in a hostile and a control condition would be the same in the self-reports as in the social sharing, the pattern of emotional reaction in the paternalistic condition would differ: participants are expected to report more positive than negative emotions in their self-reports but more negative than positive emotions in their social sharing, therefore revealing the negative side of paternalism.

Study 3

Methods

Overview

The procedure and the scenarios used in Study 3 are very similar to the ones used in Study 1, with the addition of a measure of emotional social sharing.

Participants

Participants were 132 (66 female) under- and postgraduate students (mean age = 21.53; SD = 2.06) who were native French speakers. Participants were randomly assigned to a

paternalistic, hostile or neutral context (control condition) (N = 45, N = 43, N = 44, respectively).

Procedure and measures

Paternalism induction. As in Study 1, participants were asked to read a paternalist, hostile or neutral scenario, which were exactly the same as in Study 1.

Emotional self- reports. After reading one of the three scenarios, participants had to report how they felt, on a list of 15 positive (e.g., enthusiastic, happy) and 53 negative (e.g., angry, skeptical) emotions and feelings, using a 7-point Likert scale, from 1 (*not at all*) to 7 (*totally*). As in Study 2, we ran a factor analysis on all of the emotional items. Two factors were extracted, explaining 56% of the total variance. All the emotional items with loadings greater than .45 were kept and we created one positive (11 items) and one negative score (45 items). The emotional scores presented a good internal consistency, $\alpha = 94$ for positive emotions and $\alpha = .98$ for negative emotions.

Social sharing of emotions. Participants were then asked to imagine that their best friend had sent them an email asking how their first day at work was going. Since the process of socially sharing emotional experience is more likely to be engaged with a close one (parent, friend, partner, etc.), we asked them to take the time to respond to one of their best friend's emails. In a document opened on the computer screen next to them, the following sentence was written: "Imagine that you are entering your office, just after your meeting with the director and your new colleagues. You open your email box and it contains an email from your best friend, who is asking you how your first day on the job is going. Since you are alone in your office, you decide to take 5 minutes to answer. In the document open on the computer, write your answer to your friend's email." Using EMOTAIX (Piolat & Bannour, 2009) as a support, we identified the emotional words used by the participants. Since EMOTAIX only

identifies words and not expressions, it sometimes allocated the wrong valence to an expression (e.g., "not nice" was coded as positive, as the "not" was not taken into account), two of the authors analysed the texts in order to complement EMOTAIX's findings. We created two complementary variables: a positive social sharing index (percentage of socially shared positive emotions) and a negative social sharing index (percentage of socially shared negative emotions).

Manipulation check. Before being fully debriefed and thanked, participants completed a manipulation check, assessing the paternalistic, hostile and neutral tone of the text describing their meeting with the company's director and colleagues. They were asked to say how paternalistic, hostile and neutral they found the meeting, the director and the colleagues, separately, to be, using a 7-point Likert scale ranging from 1 (*not at all*) to 7 (*totally*). We created an index of paternalism ($\alpha = .92$), hostility ($\alpha = .94$) and neutrality ($\alpha = .85$) by computing the means of the corresponding items.

Results and Discussion

Manipulation check

The paternalistic condition was perceived as more paternalistic (M = 6.13, SD = .82) than the control (M = 2.98, SD = 1.23) and hostile conditions (M = 2.23, SD = 1.79), with all ts > 13.25, ps < .001, and Cohen's ds > 2.80. The latter two conditions differed significantly from each other, t (85) = -2.29, p = .02; Cohen's d = .49. Similarly, the hostile condition (M = 5.60, SD = 1.29) was perceived as more hostile than the paternalistic (M = 1.79, SD = 1.10) and control conditions (M = 1.73, SD = .83), with all ts > 14.61, ts

> 11.68, ps < .001, and Cohen's ds > 2.49. The latter two conditions did not differ significantly from each other, t (83) = -.76 p = .45; d = -.16.

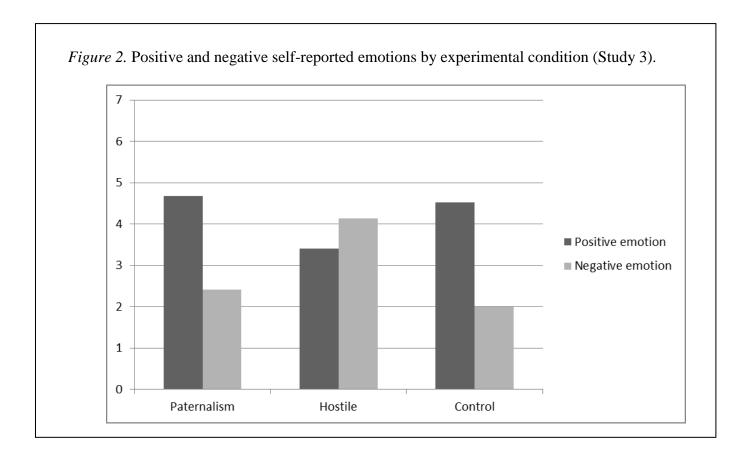
Main results

We used a 3 (condition: Paternalist vs. Hostile vs. Control) X 2 (emotion valence: Positive vs. Negative) X 2 (measure of emotions: Self-Reported vs. Socially Shared) MANOVA, with valence and emotion measure as within-subject variables. The dependent variables were standardised, but for the sake of clarity, the results are displayed with the original metrics.

Not surprisingly, due to standardisation, no main effect of emotion valence, F (1, 129) = .021, p = .88, η^2_p = .00, or of type of emotional measure, F (1, 129) = .00, p = .98, η^2_p = .00, was found. A significant interaction between condition and valence was found, F (2,129) = 57.16, p < .001, η^2_p = .47, as was a significant interaction between condition and type of emotional measure, F (2,129) = 6.87, p = .001, η^2_p = .04. The three-way interaction directly tested our hypothesis that there would be a difference between self-reports and social sharing of emotions. As expected, the three-way interaction between Condition X Valence X Emotion measure was significant, F (2, 129) = 7.65, p = .001, η^2_p = .11. To interpret this interaction, we performed separate condition by valence ANOVAs on each type of emotional measure.

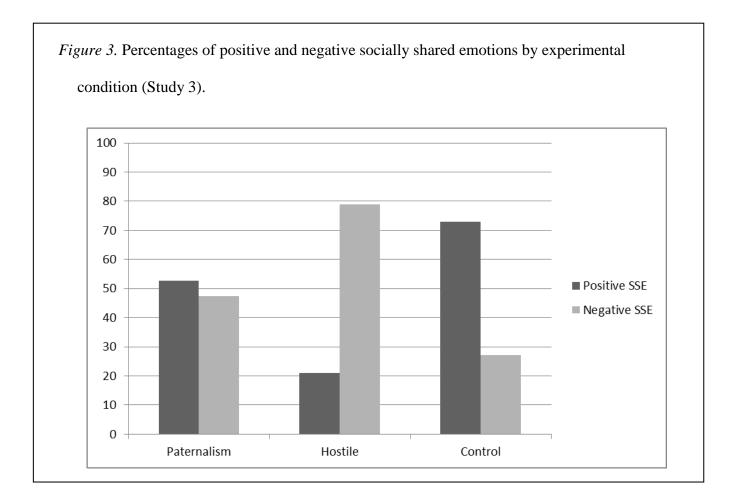
Self-reported emotions. The analysis on positive and negative self-reported emotions revealed a significant main effect of valence, F (1,129) = 71.01, p <.001, η^2_p = .35. Participants reported more positive (M = 4.21, SD = 1.24) than negative (M = 2.84, SD = 1.3) emotions, t(131) = 6.72, p < .001, Cohen's d = 1.08, 95% CI [.97, 1.77]. As expected, the interaction between valence and condition was significant, F (2,129) = 41.96, p < .001, η^2_p = .39 (see Figure 2). Post hoc analyses using the Bonferroni test indicated that participants in the paternalistic (M = 4.68, SD = 1.01) and control conditions (M = 4.52, SD = 1.08) reported significantly more positive emotions than those in the hostile condition (M = 3.40, SD = 1.22),

with both p-values < .001. The mean score for reported positive emotions did not significantly differ between the paternalistic and control conditions, p=1. Similarly, participants in the paternalistic (M=2.42, SD=1.04) and control (M=2, SD=.85) conditions reported significantly fewer negative emotions than in the hostile condition (M=4.13, SD=1.14), with both p-values < .001. The mean score for reported negative emotions did not differ significantly between the paternalistic and control conditions, p=.16. To compare the level of positive and negative self-reported emotions within each condition, we performed paired t-tests. Participants in the paternalistic condition reported more positive (M=4.67, SD=1.01) than negative (M=2.42, SD=1.04) emotions, t(44)=8.69, p<.001, d=2.19, 95% CI [1.73, 2.77]. In the hostile condition, participants reported more negative (M=4.13, SD=1.14) than positive (M=3.40, SD=1.22) emotions, t(42)=-2.33, p=.025, d=.62, 95% CI [-1.36, -01]. As in the paternalistic condition, participants in the control condition reported more positive (M=4.52, SD=1.08) than negative emotions (M=2, SD=8.5), t(43)=9.83, p<.001, d=2.59, 95% CI [2, 3.04].



Social sharing of emotions. The analysis of positive and negative socially shared emotions revealed no main effect of valence, F(1,129) = 3.11, p = .58, $\eta^2_p < .001$. However, the interaction between condition and valence was significant, F(2,129) = 51.75, p < .001, $\eta^2_p = .44$ (see Figure 3). Contrary to our expectations, Bonferroni post hoc analyses indicated that participants in the paternalistic condition socially shared more positive emotions (M = 52.59, SD = 27.26) than those in the hostile condition (M = 21.05, SD = 21.12), p < .001, but less than those in the control condition (M = 72.87, SD = 22.82), p < .001. The mean score for socially shared positive emotions in the control condition was significantly higher than the mean score in the hostile condition, p = .001. Again contrary to our expectations, Bonferroni post hoc analyses indicated that fewer negative emotions were socially shared in the paternalistic condition (M = 47.41, SD = 27.26) than in the hostile condition (M = 78.95, SD = 21.12), p < .001, but more than in the control condition (M = 27.13, SD = 22.82), p < .001.

The mean score for socially shared negative emotions in the control condition was significantly lower than the mean score in the hostile condition, p < .001. As with the self-reported emotions, we used paired t-tests to compare the percentage of socially shared positive and negative emotions within each condition. Participants in the hostile and control conditions presented the same pattern of results as observed in the analyses of self-reports, with more negative (M = 78.95, SD = 21.12) than positive (M = 21.05, SD = 21.12) emotions shared in the hostile condition, t(42) = -8.99, p < .001, d = 1.37, 95% CI [-70.90, -44.89], and more positive (M = 72.87, SD = 22.82) than negative (M = 27.13, SD = 22.82) emotions shared in the control condition, t(43) = 6.65, p < .001, d = 1, 95% CI [31.87, 59.62]. However, opposite to our predictions, the percentage of positive socially shared emotions in the paternalistic condition (M = 52.59, SD = 27.26) did not differ significantly from the percentage of socially shared negative emotions (M = 47.41, SD = 27.26), t(44) = .64, p = .53, d = .09, 95% CI [-11.20, 21.56].



Unlike what was hypothesized, Study 3 did not provide evidence of a clear negative emotional state following paternalism. Based on Dardenne et al. (2007), which showed that paternalist sexism was perceived as unpleasant as hostile sexism, we were expecting that participants would socially share more negative emotions, compared to positive ones, in the paternalistic condition. Whereas we were expecting similar levels of socially shared negative emotions in the hostile and paternalistic conditions, our findings revealed instead that in the paternalistic condition, participants socially shared equal levels of positive and negative emotions. It seems that our participants felt more of an ambivalent emotional state rather than a clear negative one when confronted by paternalistic stereotypes.

General Discussion and Conclusions

Our three studies examined why young victims of paternalistic stereotypes in the workplace do not systematically report them. We argued that, contrary to previous literature, the explanation is not related to a failure to detect or identify paternalism's negative aspect as such, but instead resides in the fact that reacting to paternalism is facilitated if the right measures are used.

The aim of this paper was to examine the relevance of more implicit measures to capture affective reactions of young professionals exposed to paternalistic stereotyping in a work-related context.

In a first study, we found that the use of explicit measures only apprehended the explicit positive message of paternalistic stereotypes. Participants reported more positive than negative emotions when confronted with paternalism, therefore missing out on the more subtle negative message of paternalism. The results of our second study showed that the use of an implicit emotional measure revealed that participants reacted to paternalism quite negatively. Indeed, in Study 2, the results revealed an attentional bias towards negative words in the paternalistic condition, compared to the neutral condition. Contrary to what has been expected, the results of our third study did not confirm that paternalistic stereotypes trigger only negative emotions. Instead, it seems that participants shared a more ambivalent affective state. This ambivalence is not that surprising after all, given that paternalistic stereotyping conveys evaluations of incompetence using a positive tone. Because of the simultaneous presence of positive and negative views, paternalism is actually ambivalent by nature.

The main interest of the present studies was their focus on emotions. Previous research has demonstrated that paternalistic stereotyping has an impact on cognition, including working memory capacity (Beilock, Jellison, Rydell, McConnell, & Carr, 2006; Schmader &

Johns, 2003), math performance (Gonzales, Blanton, & Williams, 2002; O'Brien & Crandall, 2003) and intrusive thoughts (Dumont et al., 2010). However, since the attitude has three components (i.e., cognition, emotion and behaviour) that are only moderately correlated, knowing about the effect on cognition does not reveal much about the effects on emotion and on behaviour. Our research complements the literature, offering a more complete picture of the full impact of being "paternalised."

In addition, our research complements the literature on targets of paternalistic stereotyping. Indeed, although most studies have focused on women, paternalism does not target women alone. For instance, because they are perceived as warm but incompetent, elderly people can be targets of paternalistic stereotypes (Eckes, 2002; Fiske et al., 2002; Tuckett, 2006). Cicirelli (1990, 2003) studied the paternalistic beliefs and decision making of daughters who spent a great deal of time taking care of their aged mothers. In those studies, the older the mother, the more likely the daughter was to hold paternalistic beliefs about elderly people, seeing them as less capable of managing money and making daily decisions, and more in need of care from their adult children. Paternalism has been shown to also affect homosexuals; paternalistic heterosexism is defined "as subjectively neutral or positive attitudes, myths and beliefs that express concern for the physical, emotional or cognitive wellbeing of nonheterosexual persons while concurrently denying, denigrating, stigmatizing and/or segregating any nonheterosexual form of behaviour, identity, relationship or community" (Walls, 2008, pp. 27–28). To sum up, virtually any member of a social category that is stereotypically perceived as warm but incompetent can be the target of paternalism by another group or one of its members

Finally, research on the ambivalence created by paternalism has mainly studied the perpetrator's perspective (Cuddy, Fiske, & Glick, 2008; Dijker, 1987; Glick & Fiske, 1996).

Researchers were interested in explaining why people develop stereotypes of outgroup members (Fiske et al., 2002; Mackie & Smith, 2002). However, few have taken the target's perspective. Some researchers showed that, even when impaired performance follows exposure to benevolent paternalism, its targets may have ambivalent attitudes. Targets may actually prescribe paternalism in some circumstances (Sarlet et al., 2012), and positive evaluation of the perpetrator has also been observed (Barreto & Ellemers, 2005). Our studies complements those results in showing that emotional and attitudinal ambivalence may not only be one of the causes of stereotyping attitudes but also one of the consequences.

Although our work fills a critical gap in the literature, it does not explain the precise nature of the emotional reaction to paternalism. Because our factor analyses consistently revealed overall positive and negative factors, we can only speak in terms of overall negative and overall positive reactions. Since emotions do not all lead to the same action tendencies, investigating the exact components of the negative and positive reactions to paternalism could be very interesting. For instance, research has shown that anger encourages people to act against the source of negative stereotyping (Chaudoir & Quinn, 2010; Leonard, Moons, Mackie, & Smith, 2011), while fear acts in the opposite direction, leading people to flee from the source (Mackie, Devos, & Smith, 2000); meanwhile, contempt and disgust are related to avoidance (Brewer, 1999). Moreover, Mackie et al. (2000) showed in three studies that the responses to fear-related items were correlated with one another but were quite different from anger-related items, suggesting that knowing there is a general negative emotional reaction does not tell us much about exactly what is going on. Examining the impact of paternalism on specific positive and negative emotions might help us better understand and act on these emotional reactions.

Conclusions

One cannot blatantly stereotype someone without facing legal or social consequences. However, when the expression of the stereotype is less obvious, more subtle, fewer negative reactions are observed – sometimes none at all. We argue that this is not because the stereotype is so subtle that it is undetectable. The explanation lies elsewhere. Using appropriate measures to apprehend emotional reactions to subtly conveyed stereotypes is the key. Whereas explicit measures capture explicit concepts, more subtle measures are needed to identify subtle concepts. However, the social consequences of reporting discrimination, albeit detected, can make people afraid to say anything, for fear of being perceived as drama queens making a big deal about nothing, especially if the discrimination is not obvious. Unfortunately, the fact that people do not dare stand up against subtle discrimination does not mean that it cannot have harmful impacts on its targets. Consequently, even though subtle stereotyping is less obvious, it must be taken as seriously as blatant stereotyping.

References

Barreto, M., & Ellemers, N. (2005). The burden of benevolent sexism: How it contributes to the maintenance of gender inequalities. *European Journal of Social. Psychology*, *35*, 633–642. doi: 10.1002/ejsp.270

Barreto, M., & Ellemers, N. (2013). Sexism in contemporary societies: How it is expressed, perceived, confirmed, and resisted. In M. Ryan & N. Branscombe (Eds.), *The SAGE handbook of gender and psychology* (pp. 289–306). London, United Kingdom: SAGE Publications, Ltd. doi: 10.4135/9781446269930.n18

Becker, J. C., & Wright, S. C. (2011). Yet another dark side of chivalry: Benevolent sexism undermines and hostile sexism motivates collective action for social change. *Journal of Personality and Social Psychology*, 101, 62–77. doi: 10.1037/a0022615

Beilock, S. L., Jellison, W. A., Rydell, R. J., McConnell, A. R., & Carr, T. H. (2006). On the causal mechanisms of stereotype threat: Can skills that don't rely heavily on working memory still be threatened?. *Personality and Social Psychology Bulletin*, *32*, 1059–1071. doi: 10.1177/0146167206288489

Bosson, J. K., Haymovitz, E. L., & Pinel, E. C. (2004). When saying and doing diverge: The effects of stereotype threat on self-reported versus non-verbal anxiety. *Journal of Experimental Social Psychology*, 40, 247-255. doi: 10.1016/S0022-1031(03)00099-4

Brewer, M. B. (1999). The psychology of prejudice: Ingroup love and outgroup hate? *Journal of Social Issues*, 55, 429–444. doi: 10.1111/0022-4537.00126

Brooke, L., & Taylor, P. (2005). Older workers and employment: managing age relations. *Ageing and Society*, 25, 415-429. doi: 10.1017/S0144686X05003466

Carney, D. R., Banaji, M. R., & Krieger, N. (2010). Implicit measures reveal evidence of personal discrimination. *Self and Identity*, *9*, 162-176. doi: 10.1080/13594320902847927

Chasteen, A. L., Schwarz, N., & Park, D. C. (2002). The activation of aging stereotypes in younger and older adults. *Journal of Gerontology B: Psychological Sciences Social and Sciences*, *57*, 540–547. doi: 10.1093/geronb/57.6.P540

Chaudoir, S. R., & Quinn, D. M. (2010). Bystander sexism in the intergroup context: The impact of cat-calls on women's reactions towards men. *Sex Roles*, 62, 623–634. doi: 10.1007/s11199-009-9735-0

Cicirelli, V. G. (1990). Relationship of personal-social variables to belief in paternalism in parent caregiving situations. *Psychology and Aging*, *5*, 458–466. doi: 10.1037/0882-7974.5.3.458

Cicirelli, V. G. (2003). Mothers' and daughters' paternalism beliefs and caregiving decision making. *Research on Aging*, 25, 3–21. doi: 10.1177/0164027502238340

Clark, R., & Gochett, P. (2006). Interactive effects of perceived racism and coping responses predict a school-based assessment of blood pressure in black youth. *Annals of Behavioral Medicine*, 32, 1-9. doi: 10.1207/s15324796abm3201_1

Cuddy, A. J., Fiske, S. T., & Glick, P. (2008). Warmth and competence as universal dimensions of social perception: The stereotype content model and the BIAS map. *Advances in Experimental Social Psychology*, 40, 61–149. doi: 10.1016/S0065-2601(07)00002-0

Czopp, A., & Monteith, M. J. (2003), Confronting prejudice (literally): Reactions to confrontations of racial and gender bias. *Personality and Social Psychology Bulletin*, 29, 532–544. doi: 10.1177/0146167202250923

D'Augelli, A. R., & Hershberger, S. L. (1993). African American undergraduates on a predominantly White campus: Academic factors, social networks, and campus climate. *Journal of Negro Education*, 62, 67–81. doi: 10.2307/2295400

Dardenne, B., Dumont, M., & Bollier, T. (2007). Insidious dangers of benevolent sexism: Consequences for women's performance. *Journal of Personality and Social Psychology*, *93*, 764–779. doi: 10.1037/0022-3514.93.5.764

Desmette, D., & Gaillard, M. (2008). When a "worker" becomes an "older worker": The effects of age-related social identity on attitudes towards retirement and work. *Career Development International*, 13, 168-185. doi: 10.1108/13620430810860567

Dijker, A. J. (1987). Emotional reactions to ethnic minorities. *European Journal of Social Psychology*, 17, 305–325. doi: 10.1002/ejsp.2420170306

Dumont, M., Sarlet, M., & Dardenne, B. (2010). Be too kind to a woman, she'll feel incompetent: Benevolent sexism shifts self-construal and autobiographical memories toward incompetence. *Sex Roles*, 62, 545–553. doi: 10.1007/s11199-008-9582-4

Eckes, T. (2002). Paternalism and envious gender stereotypes: Testing predictions from the stereotype content model. *Sex Roles*, 47, 99–114. doi: 10.1023/A:1021020920715

Fazio, R. H., Jackson, J. R., Dunton, B. C., & Williams, C. J. (1995). Variability in automatic activation as an unobtrusive measure of racial attitudes: a bona fide pipeline?. *Journal of Personality and Social Psychology*, 69, 1013-1027. doi: 10.1037/0022-3514.69.6.1013 Fiske, S.T., Cuddy, A. J. C., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, 82, 878–902. doi: 10.1037/0022-3514.82.6.878

Gaertner, S. L., & Dovidio, J. F. (1986). The aversive form of racism. In J. F. Dovidio & S. L. Gaertner (Eds.), *Prejudice, discrimination, and racism* (pp. 61–89). Orlando, FL: Academic Press.

Glick, P., & Fiske, S. T. (1996). The Ambivalent Sexism Inventory: Differentiating hostile and benevolent sexism. *Journal of Personality and Social Psychology*, 70, 491–512. doi: 10.1037/0022-3514.70.3.491

Gonzales, P. M., Blanton, H., & Williams, K. J. (2002). The effects of stereotype threat and double-minority status on the test performance of Latino women. *Personality and Social Psychology Bulletin*, 28, 659–670. doi: 10.1177/0146167202288010

Gotlib, I. H., & Cane, D. B. (1987). Construct accessibility and clinical depression: a longitudinal investigation. *Journal of Abnormal Psychology*, *96*, 199-204. doi: 10.1037/0021-843X.96.3.199.

Gotlib, I. H., & McCann, C. D. (1984). Construct accessibility and depression: an examination of cognitive and affective factors. *Journal of Personality and Social Psychology*, 47, 427-439. doi: 10.1037/0022-3514.47.2.427.

Inquisit 3.0.2.0. [Computer software]. (2008). Seattle, WA: Millisecond Software LLC

Kaiser, C. R., & Miller, C. T. (2001). Stop complaining!: The social costs of making attributions to discrimination. *Personality and Social Psychology Bulletin*, 27, 254–263. doi: 10.1177/0146167201272010

Kaiser, C. R., & Miller, C. T. (2003). Derogating the victim: The interpersonal consequences of blaming events on discrimination. *Group Processes and Intergroup Relations*, 6, 227–237, doi: 10.1177/13684302030063001

Kawakami, K., Dion, K. L., & Dovidio, J. F. (1999). Implicit stereotyping and prejudice and the primed Stroop task. *Swiss Journal of Psychology*, 58, 241-250. doi: 10.1024//1421-0185.58.4.241

Kite, M. E., Stockdale, G. D., Whitley, B. E., & Johnson, B. T. (2005). Attitudes toward younger and older adults: An updated meta-analytic review. *Journal of Social Issues*, *61*, 241-266. doi: 10.1111/j.1540-4560.2005.00404.x

Klonoff, E. A., & Landrine, H. (1995). The schedule of sexist events. *Psychology of Women Quarterly*, 19, 439–470. doi: 10.1111/j.1471-6402.1995.tb00086.x

Krings, F., Sczesny, S., & Kluge, A. (2011). Stereotypical inferences as mediators of age discrimination: The role of competence and warmth. *British Journal of Management*, 22, 187-201.

Leonard, D. J., Moons, W. G., Mackie, D. M., & Smith, E. R. (2011). "We're mad as hell and we're not going to take it anymore": Anger self-stereotyping and collective action. *Group Processes and Intergroup Relations*, 14, 99–111. doi: 10.1177/1368430210373779

Loretto, W., Duncan, C., & White, P. J. (2000). Ageism and employment: controversies, ambiguities and younger people's perceptions. *Ageing and Society*, 20, 279-302. doi: 10.1017/S0144686X00007741

Luminet, O., Bouts, P., Delie, F., Manstead, A. S. R., & Rimé, B. (2000). Social sharing of emotion following exposure to a negatively valenced situation. *Cognition and Emotion*, *14*, 661–688. doi: 10.1080/02699930050117666

Mackie, D. M., & Smith, E. R. (2002). Intergroup emotions and the social self: Prejudice reconceptualized as differentiated reactions to outgroups. In J. P. Forgas & K. D. Williams (Eds.), *The social self: Cognitive, interpersonal, and intergroup perspectives* (pp. 309–326). New York, NY: Psychology Press.

Mackie, D. M., Devos, T., & Smith, E. R. (2000). Intergroup emotions: Explaining offensive action tendencies in an intergroup context. *Journal of Personality and Social Psychology*, 79, 602–616. doi: 10.1037/0022-3514.79.4.602

Mathews, A., & MacLeod, C. (1985). Selective processing of threat cues in anxiety states. *Behaviour Research and Therapy*, 23, 563-569. doi: 10.1016/0005-7967(85)90104-4

McConahay, J. B. (1986). Modern racism, ambivalence, and the modern racism scale. In J. F. Dovidio & S. L. Gaertner (Eds.), *Prejudice, discrimination, and racism* (pp. 91–125). Orlando, FL: Academic Press.

McGregor, J., & Gray, L. (2002). Stereotypes and older workers: The New Zealand experience. *Social Policy Journal of New Zealand*, 18, 163-177.

Meagher, B. E., & Aidman, E. V. (2004). Individual differences in implicit and declared self-esteem as predictors of response to negative performance evaluation: Validating Implicit Association Test as a measure of self-attitudes. *International Journal of Testing*, 4, 19-42. doi: 10.1207/s15327574ijt0401_2

Moya, M., Glick, P., Expósito, F., de Lemus, S., & Hart, J. (2007). It's for your own good: Benevolent sexism and women's reactions to protectively justified restrictions. *Personality and Social Psychology Bulletin*, *33*, 1421–1434. doi:10.1177/0146167207304790

North, M. S., & Fiske, S. T. (2012). An inconvenienced youth? Ageism and its potential intergenerational roots. *Psychological Bulletin*, *138*, 982-997. doi: 10.1037/a0027843

O'Brien, L. T., & Crandall, C. S. (2003). Stereotype threat and arousal: Effects on women's math performance. *Personality and Social Psychology Bulletin*, 29, 782–789. doi: 10.1177/0146167203029006010

Piolat, A., & Bannour, R. (2009). EMOTAIX: un scénario de Tropes pour l'identification automatisée du lexique émotionnel et affectif. *L'année Psychologique*, 109, 655–698. doi: 10.4074/S0003503309004047

Quirin, M., Kazén, M., Rohrmann, S., & Kuhl, J. (2009). Implicit but not explicit affectivity predicts circadian and reactive cortisol: Using the Implicit Positive and Negative Affect Test. *Journal of Personality*, 77, 401-426. doi: 10.1111/j.1467-6494.2008.00552.x

Richards, A., French, C. C., Johnson, W., Naparstek, J., & Williams, J. (1992). Effects of mood manipulation and anxiety on performance of an emotional Stroop task. *British Journal of Psychology*, 83, 479-491. doi: 10.1111/j.2044-8295.1992.tb02454.x

Rimé, B. (2009a). Emotion elicits the social sharing of emotion: Theory and empirical review. *Emotion Review*, *1*, 60–85. doi: 10.1177/1754073908097189

Rimé, B. (2009b). More on the social sharing of emotion: In defense of the individual, of culture, of private disclosure, and in rebuttal of an old couple of ghosts known as "cognition and emotion". *Emotion Review*, 1, 94–96. doi: 10.1177/1754073908099132

Rupp, D. E., Vodanovich, S. J., & Crede, M. (2006). Age bias in the workplace: The impact of ageism and causal attributions. *Journal of Applied Social Psychology*, *36*, 1337-1364. doi: 10.1111/j.0021-9029.2006.00062.x

Sarlet, M., Dumont, M., Delacollette, N., & Dardenne, B. (2012). Prescription of protective paternalism for men in romantic and work contexts. *Psychology of Women Quarterly*, *36*, 444–457. doi:10.1177/0361684312454842

Schmader, T., & Johns, M. (2003). Converging evidence that stereotype threat reduces working memory capacity. *Journal of Personality and Social Psychology*, 85, 440–452. doi: 10.1037/0022-3514.85.3.440

Schrauf, R. W., & Sanchez, J. (2004). The preponderance of negative emotion words in the emotion lexicon: A cross-generational and cross-linguistic study. *Journal of Multilingual and Multicultural Development*, 25, 266–284. doi: 10.1080/01434630408666532

Snape, E., & Redman, T. (2003). Too old or too young? The impact of perceived age discrimination. *Human Resource Management Journal*, *13*, 78-89. doi: 10.1111/j.1748-8583.2003.tb00085.x

Spaas, C., & Vandenbroucke, S. (2012). Trop jeune ? Trop vieux? Sondage d'opinion. Conclusions et recommandations. Bruxelles Centre pour l'égalité des chances et la lutte contre le racisme.

Swim, J. K., Aikin, K. J., Hall, W. S., & Hunter, B. A. (1995). Sexism and racism: Old-fashioned and modern prejudices. *Journal of Personality and Social Psychology*, 68, 199–214. doi: 10.1037/0022-3514.68.2.199

Swim, J. K., Cohen, L. L., Hyers, L. L., Fitzgerald, D. F., & Bylsma, W. H. (1997). Everyday experiences with prejudice: A daily diary study. *Unpublished manuscript*, Pennsylvania State University

Swim, J. K., Hyers, L. L., Cohen, L. L., & Ferguson, M. J. (2001). Everyday sexism: Evidence for its incidence, nature, and psychological impact from three daily diary studies. *Journal of Social Issues*, *57*, 31–53. doi: 10.1111/0022-4537.00200 Swim, J. K., Mallett, R., Russo-Devosa, Y., & Stangor, C. (2005). Judgments of sexism: A comparison of the subtlety of sexism measures and sources of variability in judgments of sexism. *Psychology of Women Quarterly*, 29, 406–411, doi: 10.1111/j.1471-6402.2005.00240.x

Tuckett, A. G. (2006). On paternalism, autonomy and best interests: Telling the (competent) aged-care resident what they want to know. *International Journal of Nursing Practice*, 12, 166–173. doi: 10.1111/j.1440-172X.2006.00565.x

Walls, E. N. (2008). Toward a multidimensional understanding of heterosexism: The changing nature of prejudice. *Journal of Homosexuality*, 55, 20–70. doi: 10.1080/00918360802129287

Watts, F. N., McKenna, F. P., Sharrock, R., & Trezise, L. (1986). Colour naming of phobia-related words. *British journal of Psychology*, 77, 97-108. doi: 10.1111/j.2044-8295.1986.tb01985.x

Williams, J. M. G., & Nulty, D. D. (1986). Construct accessibility, depression and the emotional stroop task: Transient mood or stable structure?. *Personality and Individual Differences*, 7, 485-491. doi: 10.1016/0191-8869(86)90127-3

Williams, J. M. G., Mathews, A., & MacLeod, C. (1996). The Emotional Stroop task and psychopathology. *Psychological Bulletin*, *120*, 3-24. doi: 10.1037/0033-2909.120.1.3.

Chapter Five

"You're not my dad, you're my coach!" When

Paternalism Impairs Agility Performance

Abstract

Objectives

The first aim of the following studies is to examine whether being target of paternalistic coaching used during coach's pre-game speech can lead semi-professional young athletes to underperform. The second aim is to test the mediational role of emotions, specifically of cognitive anxiety and self-confidence.

Design: We performed a linear regression (st.1) with paternalism as predictor of performance and a moderated mediation analysis (st.2) with cognitive anxiety and self-confidence as mediator and valence of the speech as moderator of paternalism's effect on performance.

Methods

In two studies, we confronted participants to a paternalistic pre-game speech (vs. neutral) and examined its effects on their performance to an agility task. In addition, in the second study, we explored cognitive anxiety and self-confidence as potential mediators of the relation between paternalism and underperformance.

Results

Participants receiving the paternalistic speech presented a worse performance than participants who received a neutral speech. Moreover, Study 2 revealed that paternalistic speech predicts a decrease in self-confidence which in turn predicts underperformance, but only when the speech is focusing on positive past performances

Conclusion

The findings indicate that, although positive and helpful in tone, the use of a paternalistic coaching during pre-game speech can deplete motor performance and that this depletion is mediated by a decrease in self-confidence but only if paternalistic speech focuses on team's positive past performance.

Keywords

Motor performance; coaching style; paternalism; emotions.

Introduction

The central aim of many sport teams is to perform to a good level, in order to win games, matches, and competitions. This is partially achieved via the work of a coach who designs some tactics but also motivates his/her team, for instance during the pre-game speech (e.g., Reinboth & Duda, 2006; Smith, Smoll, & Cumming, 2007). It is therefore of great interest for the coach to apply some sort of strategy in his/her way of training, motivating, and coaching, that is, to adopt a certain leadership style (Vella, Oades & Crowe, 2010). Yet, athletes as well as non-athletes might experience social and psychological impairments due partly to the coach's leadership style (e.g., Krane, Greenleaf, & Snow, 1997).

In the current studies, we were interested in the effects of paternalistic coaching (i.e., treating the players in a father like manner) used during the coach's pre-game speech. We investigated this question in a population of young semi-professional football players (Study 1) and basketball players (Study 2), and on motor/agility behavioural performance. In the second study, we further explored the role emotions are playing in the relation between paternalism and performance. More specifically, the role of self-confidence and cognitive anxiety will be of primary interest, as potential mediators of the effect of paternalism on performance.

Paternalism and Motor Performance

In our studies, we focused on a particular style of training, motivating, and managing a team, that is, the paternalistic leadership. Although paternalism has been defined in numerous way, in domains as diverse as sociology, psychology, law and social policies study, management, geriatrics and medicine (Aycan, 2006; Bruch, Marx Ferree, & Soss, 2010; Camerer, Issacharoff, Loewenstein, O'Donoghue, & Rabin, 2003; Cicirelli, 1990, 2003; Falkum & Førde, 2001; Fleming, 2005; Franklin & Fearn, 2008; Jackman, 1994; Padavic &

Earnest, 1994; Pelligrini & Scandura, 2008; Sarlet, Dumont, Delacollette, Dardenne, 2012), the core principle of paternalism is that a person *A* is treating a person *B* in a father like manner, without *B*'s agreement. *A* usually holds the idea, more or less explicitly, that *B* is not capable enough to take care of him or herself, leading *A* to take control and make decision on *B*'s behalf. *A* is taking over not because of some sort of tyrannical authority, but out of concern, because *A* genuinely and deeply thinks that he/she knows best what's good for *B*, at least better than *B* knows him/her-self (Cicirelli, 1992; Gert & Culver, 1976, 1979; Tuckett, 2006). Paternalism is then characterised by benevolence and niceties while simultaneously implying a certain degree of incompetence.

Research has showed that being the target of paternalism is not without negative consequences. Unsolicited help has been showed to decrease performance (Dardenne, Dumont, Boillier, 2007; Dumont, Sarlet, & Dardenne, 2010). Indeed, merely be a member of a group that is eliciting paternalism and benevolence suffices to decrease individual's performance. For instance, Dardenne et al. (2007, see also Vescio, Gervais, Snyder, & Hoover, 2005) have shown that when a woman is confronted with paternalistic sexism, an ideology that defines women as caring and loving but unable to take care of themselves, her performance at cognitive tests decreased. In effect, Dardenne et al. (2007) found that women participants confronted by paternalism had less correct answers to a logical test and to a working memory task too (a reading span test), compared to a control group. Even when accuracy is preserved, for instance on a cued recall task, this is at the cost of longer decision times (Dumont et al., 2010). In the studies reviewed above, the focus was on cognitive performance. In the scope of this research, we interested in taking a look at the effects of paternalism on another type of performance, i.e., behavioural/motor performance. More specifically, we wanted to test the hypothesis that motor performance of young athletes would also be impaired when confronted by paternalistic coach's instructions during the pre-game speech. A few previous researches on implied athletic inferiority of one social group over the other already showed interesting results. For instance, Stone, Lynch, Sjomeling, & Darley (1999) showed that when White athletes were to think that they were less competent on an *athletic* task than Black athletes, their performance on a golf task was significantly reduced. In a similar vein, male participants led to think that women are more competent on a golf putting task than them saw their putting accuracy diminished (Beilock, Jellison, Rydell, McConnell, & Carr, 2006).

Study1

Although of great interest for our research, the two studies cited above used the paradigm of stereotype threat to induce a feeling of inferiority in their participants, by exposing them to the stereotype. In our studies, we were not exposing our participants to a well-known stereotype (i.e. Black are better athletes than White are), but to a seemingly nice and helpful discourse implying their incompetence in a subtle way, without an explicit use of stereotype.

The aim of our first study is to examine the negative effect of paternalism on motor performance, in a desire to complement and enrich the literature on paternalism's deleterious effects on performance. More specifically, Study 1 aimed at examining the impact of paternalistic coaching use during coach's pre-game speech on a motor agility task's performance. We predicted an impaired performance for participants confronted with a paternalistic coaching style.

Methods

Participants and Procedure

Participants were male (N = 20) and female (N = 20) young semi-professional football players. They were aged between 15 and 24 (M = 17.38, SD = 2.06) and had been competing in their respective sport for an average of 10.55 (SD = 3.61) years and had been playing at a semi-professional level for an average of 5.44 (SD = 3.48) years. Participants were all members of the city football club and were all native French speakers. They were asked to participate in a study about general agility.

After reading and signing an informed consent form, participants completed a short demographic questionnaire. They then received two texts to read. The first one was the description of a bogus but credible and plausible team sport. We asked participants to imagine that they will play a game of this sport. The second text was the induction of paternalism (vs. neutral). It consisted in the coach motivational speech just before playing the 7th game of the season. Paternalism was introduced via sentences like "Remember that I know what's best for you, I've been through this already, I know all there is to know about this sport", "If you do exactly what I'm asking you to do, you'll win this game, believe me!", "This team is a lot like a family, I'm your dad and you have to listen to me to make sure today's game is going to go well". In the control condition, these sentences were omitted and replaced by neutral ones.

Both texts were similar in length and in general content (except for the manipulation parts). After few minutes taking the time to think about and imagine the situation, participants were invited to complete the agility/motor task. Before being fully debriefed and thanked, participants were asked to complete a manipulation check measure.

Dependent variable. We measured motor performance using an agility task. The task consisted in an electrical wire - the track - connected to two wood sticks. With an electrical loop attached to another wood stick, participants had to be as fast as possible to complete the track, while touching the electrical wire as less as possible. When the loop touched the main electrical wire, participant heard a "ding". We measured the performance by recording the time (in seconds) that each participant would take to do the task as well as the number of errors (number of time they touched the wire) they made. Two types of paths between the two wood sticks were used. The mean of the two paths was computed to create two general measures of performance, that is, time and errors.

Manipulation check. To confirm that participants perceived the coach's motivational speech as paternalistic, we asked them to rate to what extent they thought the coach was caring, and paternal (r = .361, p < .05), on a seven-point scale ranging from 1 (*not at all*) to 7 (*very much*).

Results

Manipulation Check and Preliminary Analysis

Participants perceived the coach as having more paternalistic characteristics in the paternalistic condition than in the neutral one. They perceived him as more paternal in the paternalistic condition (M = 5.90, SD = 1.21), compared to the neutral condition (M = 4.05, SD = 1.43), t(38) = 4.41, p < .001, d = 1.40). They also tended to perceive him as more caring in the paternalistic condition (M = 5.50, SD = 1.10) than in the neutral condition (M = 4.60, SD = 1.73), t(38) = 1.96, p = .06, d = .62).

Direct effects of Paternalism and Valence on Performance

To test the direct effect of paternalism (vs. control, contrast coded .5 and -.5, respectively) on performance (errors and time), we performed separate linear regression. The analysis revealed a significant effect of paternalism for errors, b = 2.52, SE = .91, t = 2.76, p < .01, $\eta^2 = .17$, and a marginal effect on time, b = 7.92, SE = 4.66, t = 1.70, p = .097, $\eta^2 = .07$. Participants confronted with a paternalistic pre-game speech made more errors (plus 2.52 errors), and tended to take more time (plus 7.92 sec) to complete the task compared to participants exposed to a non-paternalistic speech.

Discussion

The aim of our first study was to test the hypothesis that being confronted with a paternalistic pre-game speech can lead to underperformance on a motor/agility behavioural task. Participants who read the paternalistic coach's pre-game speech were less accurate and tended to be slower to achieve the agility task. Those results are in line with previous research revealing the deleterious effects of being perceived as incompetent or less competent on cognitive and motor tasks (Dardenne et al., 2007, 2010; Stone et al., 1999; Beilock et al., 2006; Laurin, 2013). Next step would be to understand what could be the underlying processes of the negative effect of paternalism on performance. Some processes have already been identified, like reduced working memory capacity (Schmader & Johns, 2003), intrusive thoughts (Dardenne et al., 2007), and anxiety (Bosson, Haymovitz & Pinel, 2004; Laurin, 2013; Spencer, Steele, & Quinn, 1999). Study 2 explored two specific emotions as potential underlying process, i.e. self-confidence and cognitive anxiety. More specifically, the hypothesis that paternalism elicits a lowered feeling of self-confidence as well as an elevated feeling of cognitive anxiety, which in turn provoked a decline in performance, was tested.

Study 2

In Dardenne et al.'s (2007; Dumont et al., 2010) studies, while executing a cognitive task, women participants were interrupted in their thoughts process by ideas related to preoccupation with the task, self-doubt about their performance, and low performance selfesteem (e.g. "During the task, I thought that my performance will be poor"). These thoughts, triggered by the activation of benevolent sexists' views of women (i.e. incompetent but sweet), were found to mediate the relation between this activation of benevolent sexism and poor cognitive performance (Dardenne et al., 2007). However, in these studies, all the intrusive thoughts correlated highly and were then aggregated into a general score of mental intrusions. The present research aimed to refined those results by focusing on two key elements in competitive sports; that is self-confidence and cognitive anxiety. Self-confidence and cognitive anxiety will be assessed in order to determine their respective role in the effect of paternalism on motor performance. Based on the seminal work of Martens, Burton, Vealey, Bump, & Smith (the Competitive State Anxiety Inventory–2, 1990; see also Cox, Martens, & Russel, 2003; Martinent, Ferrand, Guillet, & Gautheur, 2010), it has been showed that selfconfidence and cognitive anxiety clearly have discriminant as well as convergent validity. Ryska (1998), for instance, showed that distinct cognitive-behavioural strategies (e.g., goalsetting and positive self-talk) have distinct effects on cognitive anxiety and self-confidence, respectively.

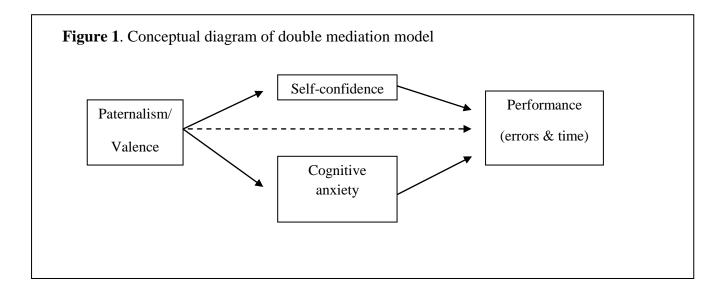
Self-confidence concerning their ability and competence is a crucial element for sport team members. They are now plenty of research showing that self-confidence and success in sport are closely embedded (e.g., Chamberlain & Hale, 2007; Hays, Maynard, Thomas, & Bawden, 2007; Vealey & Chase, 2008; see also Bandura, 1997). In particular, state confidence ("on the spot" belief about being able to perform the task) could be determined in

part by coach's leadership (Hays et al., 2007; Vealey, 1986). Hence, we predicted that coach's paternalistic attitude will undermine self-confidence and feeling of competence, which would be associated to a decrease in performance.

However, a team leader's paternalistic attitude could also have an impact on other emotions related to self-confidence. A wide range of studies has been conducted to test the proposed relationship between cognitive anxiety and sport performance (e.g., Baumeister, 1984; Baumeister & Showers, 1986; Chamberlain & Hale, 2007; Chapman, Lane, Brierley, & Terry, 1997). For instance, Feldman, Zayfert, Sandoval, Dunn, & Cartreine (2013) asked Mt Everest climbers to complete a pre-climbing measure of anxiety and a post-climbing followup assessment, approximately one month later, assessing climbers' highest altitude attained and whether they reached the summit. Climbers showing a lower pre-climb anxiety were more likely to reach the summit and to attain higher altitude. A meta-analysis conducted by Woodman & Hardy (2003) showed that, out of the 43 studies they put into their analysis, 26 (60%) of them reported a significant negative relationship between cognitive anxiety and performance. The data are robust to the file drawer threat (the impact of unpublished nonsignificant results). Therefore, a majority of studies are reporting a significant and negative impact of cognitive anxiety on sport performance. This is echoing some literature in social psychology showing that when one is fearing to be the target of negative expectancies caused by its group membership (a stereotype threat, see Steele & Aronson, 1995), increased level of physiological signs of anxiety likely result, for instance diastolic blood pressure and skin conductance (e.g., Blascovich, Spencer, Quinn, & Steele, 2001; Osborne, 2007). We then predicted that coach's paternalistic attitude, implying low competence, will increase cognitive anxiety, which would be associated to a decrease in performance.

Moreover, in order to ensure ecological validity, we integrated valence in our second study's design. Indeed, while being paternalistic in his/her pre-game speech, a coach could also emphasise either the positive or negative past performances of the team. For a coach, during a season, it is quite usual to refer to previous team's performances in order to motivate the athletes. More specifically, we created neutral and paternalistic pre-game speech in which the coach either focused on the team's positive past performance or negative past performance. Our aim with introducing valence is to enhance realism of the speech and test for its potential moderating role in the relationship between paternalism and the mediators.

In summary, Study 2 aimed at replicating the results of Study 1 with another sample of participants as well as testing the potential mediational role of self-confidence and cognitive anxiety. Paternalism and a negative structure could be lived as a threat, therefore eliciting low self-confidence and high cognitive anxiety, leading to lower performance. More specifically, we predicted that paternalism would decrease performance (Hyp. 1); that a negatively structured coach's speech would decrease performance (Hyp. 2); that the interaction between paternalism and valence would have an effect in that the worst performance would appear following a negative paternalistic speech (Hyp. 3); and, finally, that the effect of paternalism on performance would be mediated by an elevated level of cognitive anxiety (Hyp. 4a) and a lowered level of self-confidence (Hyp. 4b) (see Figure 1.)



Methods

Participants and Procedure

Participants were male (N = 23) and female (N = 37) young semi-professional athletes, who mostly played basket-ball or other collective sports (50 out of 60 participants). They were aged between 18 and 27 (M = 22.55, SD = 2.81) and had been competing in their respective sport for an average of 4.98 (SD = 2.40) years. Participants were recruited mostly via sports teams and were all native French speakers. They were asked to participate in a study about general agility.

The material and procedure were similar as in Study 1, with the addition of valence in the induction of paternalism, creating four texts and the addition of emotional measures as mediators. Valence was introduced by the coach's emphasis on either the positive past performance of the team (for instance, "so far, the results are very positive" and "there is no reason for this game not to be as good as the previous ones") or the negative past performance of the team (for instance, "so far, the results are very negative" and "if there is no reaction from the whole group, this game is going to be as bad as the previous ones").

The four texts were similar in length and in general content (except for the manipulation parts). After few minutes taking the time to think about and imagine the situation, participants were invited to complete the agility/motor task. Before being fully debriefed and thanked, participants were asked to complete the emotional measures (self-confidence and cognitive anxiety) related to their performance as well as the manipulation checks.

Measures

Mediators. We retrospectively measured self-confidence and cognitive anxiety experienced during the motor task. We measured these mediators after the main performance task because we wanted the later to be uncontaminated by the questionnaires. Also, studies have showed that athletes are able to correctly recall their precompetitive anxiety in retrospect (Tenenbaum & Elran, 2003; Tenenbaum, Lloyd, Pretty, & Hanin, 2002). The French version of the Competitive State Anxiety Inventory-2 Revised (CSAI-2R; see Cox et al., 2003 for the original scale) was used as a basis to evaluate both self-confidence and cognitive anxiety. Since these items were collected after the task, we added some items to each subscale in order to increase reliability (mainly coming from Cury, Sarrazin, Pérès, & Famose, 1999). Using a 7-point Likert like scale, from 1 (*not at all*) to 7 (*totally*), 9 items evaluated self-confidence (e.g. "I was feeling competent", "I was confident about performing well", $\alpha = .97$). On the same scale, 7 items evaluated cognitive anxiety (e.g., I was worried about performing poorly" and "I was worried about choking under pressure", $\alpha = .97$).

Dependent variable. Motor performance was assessed using the same agility task as in Study 1, with the exception that there were three different paths and not only two. We used the mean of the three paths to create two general measures of performance, that is, time and errors. Time and errors were strongly correlated (see Table 1). However, we decided not to compute them but to run analyses on both time and errors separately.

Table 1. Descriptive statistics and zero-order correlations matrix for the dependent variables (Study 2)

	Pearson correlations					
	Mean	SD	(4)	(5)	(6)	
(4) Errors	9.17	3.72				
(5) Time	45.63	12.81	.74**			
(6) Cognitive anxiety	3.13	1.60	.78**	.69**		
(7) Self confidence	3.20	1.65	77**	70**	75**	

^{**} p < .01; * p < .05

Manipulation check. To confirm that participants perceived the coach's motivational speech as paternalistic, we asked them to rate to what extent they thought the coach was benevolent, caring, and paternal, on a seven-point scale ranging from 1 (*not at all*) to 7 (*very much*). In addition, we asked them to rate the valence of the coach's speech, on a scale from 1 (*the coach emphasised the positive past performance*) to 7 (*the coach emphasised the negative past performance*).

Results

Manipulation Check and Preliminary Analysis

Participants perceived the coach as having more paternalistic characteristics in the paternalistic conditions than in the neutral ones. They perceived him as more benevolent (M = 5.20, SD = 1.06; M = 4.27, SD = 1.96), more caring (M = 4.47, SD = 1.11; M = 3.53, SD = 2.11), and more paternal (M = 6.73, SD = .64; M = 1.67, SD = 1.63), all t > 2.14, p < .05 and Cohen d > .56 in the paternalistic conditions, compared to the neutral ones. Participants also

perceived the coach feedback as positive in the positive conditions (M = 1.27, SD = .69) and negative in the negative conditions (M = 6.63, SD = 1.13); t(58) = -22.20, p < .001, d = 5.72.

As can be seen in Table 1, self-confidence and cognitive anxiety were highly correlated. Because they tap very different construct and have been used independently in relation to performance (e.g., Chamberlain & Hale, 2007; Chapman et al., 1997; Cox et al., 2003; Martinent et al., 2010), we kept these mediators apart. Higher levels of cognitive anxiety were associated to lower performance (i.e., more errors and time). Finally, higher self-confidence was associated to better performance (i.e., less errors and time).

Impact of paternalism on performance through cognitive anxiety and selfconfidence: moderation analyses

To directly test our proposed model, we used a multiple regression-based approach for estimating indirect effects (Hayes, 2013; Muller, Judd, & Yzerbyt, 2005). Our approach consists of testing three distinct regression models. In all these models, paternalism and valence were contrast coded: -.5 for no paternalism and negative speech, +.5 for paternalism and positive speech, respectively. For Models 3, all independent variables were mean-centered. The parameters estimated for the 3 models are shown in Table 2 A and B (separately for errors and time).

Table 2A. Ordinary least squares regression model coefficients for accuracy (standard errors in parentheses)

	Model 1		Model 2				Model 3	
Outcome	Nr. of errors		Cognitive anxiety		Self-confidence		Nr. of errors	
Predictor	Coefficient	p	Coefficient	p	Coefficient	p	Coefficient	p
Intercept	9.172	<.001	3.133	<.001	3.206	<.001	9.172	<.001
	(.328)		(.138)		(.129)		(.253)	
Paternalism	5.144	<.001	2.095	<.001	-2.396	<.001	1.654	.058
	(.606)		(.277)		(.259)		(.854)	
Valence	-2.633	<.001	-1.190	<.001	.974	<.001	956	.118
	(.606)		(.277)		(.259)		(.603)	
Paternalism X Valence	-1.622	.186	.133	.810	941	.075	-2.468	.022
	(1.211)		(.553)		(.518)		(1.043)	
Cognitive anxiety							.762	<.01
							(0.266)	
Self-confidence							791	<.01
							(0.284)	
Model R ²	.624	<.001	.576	<.001	.648	<.001	.747	<.001
Interaction ΔR^2								

In Models 1, we tested whether paternalism (Hyp. 1), valence (Hyp. 2) as well their interaction (Hyp. 3) were predictors of performances (time and errors, separately). Both intercepts given for Models 1 are the grand means for errors (9.17) and time (45.63). When coach used a paternalistic tone in his pre-game speech as well as when he focused on negative past performance, both performances were impaired compared to the no paternalism and positive speech, respectively, hence confirming our first two hypotheses. More precisely, the impact of being confronted by paternalism (versus not) is to decrease performances by 5.14 errors and 18.08 sec (Hyp. 1). Similarly, the impact of a negative speech (versus a positive one) is to decrease performances by 2.63 errors and 6.83 sec (Hyp. 2). In both Models 1, there was no interaction between paternalism and valence, therefore not confirming our third hypothesis. Indeed, in such a simple test of the Paternalism X Valence interaction, that is,

without the mediators, a paternalistic speech (versus a neutral one) impaired performance in the same direction and with the same strength whether the speech was negative or positive (5.96 and 4.33 more errors; 17.73 and 18.42 seconds more; respectively for a negative and a positive speech).

Table 2B. Ordinary least squares regression model coefficients for time (standard errors in parentheses)

	Model 1		Model 2				Model 3	
Outcome	Time		Cognitive anxiety		Self-confidence		Time	
Predictor	Coefficient	p	Coefficient	p	Coefficient	p	Coefficient	p
Intercept	45.628	<.001	3.133	<.001	3.206	<.001	45.628	<.001
	(1.101)		(.138)		(.129)		(1.061)	
Paternalism	18.078	<.001	2.095	<.001	-2.396	<.001	11.097	<.01
	(2.203)		(.277)		(.259)		(3.584)	
Valence	-6.833	<.01	-1.190	<.001	.974	<.001	-3.358	.190
	(2.203)		(.277)		(.259)		(2.529)	
Paternalism X	.689	.876	.133	.810	941	.075	754	.864
Valence	(4.406)		(.553)		(.518)		(4.376)	
Cognitive anxiety							1.882	.097
							(1.115)	
Self-confidence							-1.267	.292
							(1.190)	
Model R ²	.579	<.001	.576	<.001	.648	<.001	.623	<.001
Interaction ΔR^2								

The second models are similar to the first ones except that paternalism, valence, and their interaction were entered into separate regression analyses as predictors of cognitive anxiety and self-confidence. Both intercepts given for Models 2 are the grand means for cognitive anxiety (3.13) and self-confidence (3.21). As predicted, both paternalistic instructions and a negatively valenced speech impacted cognitive anxiety and self-confidence. More precisely, the impact of being confronted by paternalism (versus not) is to increase cognitive anxiety by 2.10 ladders and to decrease self-confidence by 2.40 ladders. Similarly, the impact of a negative speech (versus a positive one) is to increase cognitive anxiety by 1.19 ladders and to

decrease self-confidence by 0.97 ladders. In both Models 2, there was no interaction between paternalism and valence.

Concerning Models 3, both performances were regressed on paternalism, valence, their interaction and the mediators. According to Hypotheses 4, the effect of paternalism on performances is carried, at least in part, indirectly through cognitive anxiety and self-confidence. Models 2 have revealed that paternalism had an impact on both mediators. Models 3 similarly revealed that both mediators have an impact on the number of errors, but not significantly so on time to complete the task. Concerning the number of errors, an increase of one unit in cognitive anxiety is associated to a significant increase of 0.76 errors, while a decrease of one unit in self-confidence is associated to a significant increase of 0.79 errors. Although the same pattern is observed for time to complete the task, the coefficients are not statistically significant. Also, whereas the direct effect of paternalism on time remains significant (p = .003) even after the inclusion of both mediators, its direct effect on the number of errors decreases and is now at p = .058. In Model 1, the impact of paternalism was to increase the average number of errors by 5.14 units. In Model 3, in which both mediators were included, the direct impact of paternalism is now to increase the average number of errors by only 1.65 units.

As revealed by a significant interaction between paternalism and valence on errors (p = .022), the direct impact of paternalism is however conditioned by the valence of the speech. As a matter of fact, when the speech of the coach emphasized the negative past performances, there is a significant direct effect of the paternalistic speech compared to the neutral one (from 8.21 to 11.09 errors, a difference of 2.89 units, SE = .93, t = 3.10, p = .003). However, this direct effect of paternalism is not significant when the discourse was positive (from 8.90 to 8.48, a difference of .42 more errors, SE = .1.07, t < 1, p = .70). This pattern of means is then

in line with Hypotheses 3. Nevertheless, the whole pattern of results concerning the conditional direct effect of paternalism on errors does not say anything about the possibility of an indirect path through cognitive anxiety and/or self-confidence.

In order to specifically test for conditional indirect effects of paternalism on the number of errors, and given the significant interaction between paternalism and valence, we performed a bootstrapping re-samples procedure (10000 re-samples with bias corrected) on both indirect effects (through cognitive anxiety and self-confidence) for both positive and negative valence of the speech.

On the one hand, for both positive and negative valences, there was a significant conditional indirect effect of paternalism on errors through self-confidence. The average indirect effect through self-confidence was an increase of 1.52 errors (SE = .85) following a negative speech and of 2.27 errors (SE = 1.16) following a positive one, both 95% CI do not contain zero; [.235; 3.758] for a negative speech, and [.530; 5.473] for a positive one. Further analysis revealed that the conditional indirect effect of paternalism on errors through self-confidence is stronger after a positive than a negative speech. More precisely, the indirect effect of paternalism in a positive speech (vs. a negative one) is an increase of .74 errors (SE = .54), 95% CI [.039; 2.347]. In other words, the indirect impact of paternalism on errors through a decrease in self-confidence is particularly strong following a speech emphasizing the positive past performances compared to an emphasis on negative ones (a moderated mediation).

On the other hand, for both positive and negative valences, there were no significant conditional indirect effects through cognitive anxiety. The average indirect effect through cognitive anxiety was an increase of 1.55 errors (SE = .89) following a negative speech and of

1.65 errors (SE = .99) following a positive one, but both 95% CI contain zero; [-.171; 3.423] for a negative speech, and [-.304; 3.570] for a positive one.

Regarding time to complete the task, there was no interaction between paternalism and valence (p = .86). The significant direct effect of paternalism on time to complete the task is not moderated by valence of the speech. Moreover, a specific test of the indirect effects with a bootstrapping re-samples procedure revealed that whatever the valence, cognitive anxiety or self-confidence do not mediate the effect of paternalism on time, all 95% CI [-1.911; 12.012].

Discussion

The aim of this second study was to replicate the encouraging and quite novel results of Study 1, that is, paternalism's negative impacts on motor performance (both time and errors) in a population of young athletes. Moreover, Study 2 showed that pre-game speech's valence is of great importance for the subsequent performances (both time and errors) as well. Results revealed that when a pre-game speech is paternalistic or when it is focusing on negative past performance, performance on an agility task is significantly reduced, participants being less precise and needing more time to complete the task. Contrary to our hypothesis, the interaction between valence and paternalism was not significant in Model 1 (see Tables 2). However, when self-confidence and cognitive anxiety were entered into the analysis as mediators (Model 3), a significant moderation effect of valence was found for the number of errors. The highest number of errors was found in the paternalistic and negative speech condition. In this condition, both direct and indirect (through self-confidence) effects were observed. Moreover, the indirect effect of paternalism through self-confidence was even stronger when valence was positive rather than negative. In other words, when a coach is paternalistic while focusing on positive past performance of the team, the drop in accuracy is particularly due to a lessen self-confidence.

This is in line with previous research showing that the decrease in cognitive performance following an exposition to a paternalistic situation is mediated by intrusive thoughts related to incompetence and self-doubts (Dardenne et al., 2007; Dumont et al., 2010). Moreover, Fiske, Cuddy, Glick, & Xu (2002) defined paternalistic stereotype as being a blend of positive and negative beliefs towards the paternalised, i.e. that they are very nice but incompetent. Our findings nicely enrich this theory, by showing that the beliefs conveyed by the stereotype have the expected effect, meaning that someone who is thought to be incompetent is feeling incompetent and becomes incompetent, by failing to perform on the task.

General discussion

In the present research, we were interested in examining the effect of paternalistic coaching style on performance and in the underlying emotional processes. In Study 1, we showed that young professional athletes saw their performance at an agility task - a blend of both cognitive and motor abilities - diminish following a paternalistic pre-game speech. Even if the time needed to complete the task was not significantly impacted by the coach's paternalistic tone, the number of errors was significantly higher when the coach paternalised his athletes, compared to when he delivered his speech in a more neutral manner. Those findings are of great importance as they are one of the few to show the effect of paternalistic stereotyping on motor performance, in a population other than psychology students. Moreover, knowing the perverse effects of seeing and treating the team members as children might be of interest for sport coaches. Being like a family can be attractive, as it creates a secure and controlled environment, but the performance would most likely suffer from this kind of coaching. In Study 2, we replicated the results of Study 1. Young semi-professional athletes took more time and were less precise when completing the task after a paternalistic pre-game speech than after a neutral one. In addition, the results of Study 2 revealed an effect

of the speech's valence. When it emphasized the positive past performance of the team, the speech enhanced the participants' performance. When it was structured around the negative past performance of the team, the speech significantly reduced the performance at the task. These results complement the literature on feedback valence (Cianci, Klein, & Seijts, 2010; Zhou, 1998). Performance can be impaired not only by negative feedback after the performance, but also by a negatively structured pre-game speech before the performance occurs. Whether it happens before or after the performance task, negative evaluations seem to impact performance in an unfavourable way. The second aim of our second study was to test the role emotions were playing in the relation between paternalism and underperformance. Our analyses of mediation revealed that paternalism decreased performance through a lower feeling of self-confidence. Those findings are in line with previous literature on paternalistic stereotypes (Dardenne et al., 2007; Dumont et al., 2010; Eckes, 2002; Fiske et al., 2002). Dardenne et al. (2007) showed that stereotyped as being nice but incompetent decreased performance through intrusive thoughts about incompetence. Additionally, when we took into account the level of self-confidence of the athletes, the valence of the paternalistic speech was crucial in that when the focus was on positive past performance, the actual performance at a motor task was reduced. A paternalistic message, although, and even more when, positively toned, carries its deleterious effects and prevents its targets to perform at a good level. sum, not only paternalism impacts its target cognitively (intrusive thoughts) but also emotionally (feeling of incompetence) and behaviourally (underperformance). Therefore, it seems that not only paternalised individuals are stereotypically seen as incompetent, but they also think they are incompetent, they feel incompetent, and finally, they behave incompetently.

Limitation and future research

Despite its strengths, our research has limitations. For instance, the task that we used might not be the best to reflect the real impact of paternalism on performance. In effect, the agility task might not have much sense for athletes, as it does not measure real and relevant sport ability. We therefore suggest future research to follow Beilock et al. (2006) as well as Stone et al. (1999) and measure performance using a relevant sport task (e.g. penalties for football players, free-throw for basketball players, etc.).

In addition, a direct effect of paternalism on accuracy is still present even after the introduction of our mediators, which suggest that other variables are in play. Several researchers have been looking at potential processes underlying the underperformance following an exposure to paternalistic stereotypes. Thought intrusions (Cadinu, Maass, Rosabianca, & Kiesner, 2005; Dardenne et al., 2007; Dumont et al., 2010), expectancy (Cadinu, Maass, Frigerio, Impagliazzo, & Latinotti, 2003), dejection (Keller, & Dauenheimer, 2003), disrupted mental load during a task (Croizet, Després, Gauzins, Huguet, Leyens, & Méot, 2004), are but a few possible mediating factors. Perceived control (Vescio et al., 2005) has also been examined as moderating the negative impacts of paternalistic stereotyping. When participants perceived a high level of control over the situation, they performed better on the task, compared to participants who perceived a lesser level of control. An important characteristic of paternalism is in some way the loss of control and autonomy (Falkum et al., 2001; Gert & Culver, 1976; Goodell, Aronoff, Austin, Cadeliña, Emmerson, Hasen, et al., 1985). Research has shown that a controlling motivational style used by gymnasts' coach has been observed to be associated with negative well-being outcomes, compared to a more autonomous style (Gagné, Ryan, & Bargmann, 2003). In addition, locus of control has been found to be strongly correlated to self-efficacy, that is, a strong belief in one's own capabilities (Judge, Erez & Bono, 1998). Similarly, internal control about one's health outcomes is significantly correlated to perception of personal competence in performing behaviour among elderly Chinese women (Wu, Tang, & Kwok, 2004). It seems that a controlling style is more likely to lead to more negative outcomes than an autonomous one. Because internal individuals believe in, and seek, personal control, they might be more impacted by the loss of control paternalistic coaching style implies. Losing control over their own actions and behaviour might be detrimental for internal participants' self-efficacy and competence perception. We thus suggest future research to examine the role of one's perception of one internal control over their actions in the relationship.

We would also recommend examining the possible strategies to overcome, or at least decrease, the deleterious effects of paternalism in performance. Johns, Inzlicht, & Schmader (2008) have already took a look at emotional regulation strategies as a means to restore women's performance who had been suffering from the stereotype of women's lower math abilities. Their research showed encouraging results as women's performance was similar to men's following a reappraisal strategy (reappraise the situation in a neutral and objective way). Since emotional mediators has been identify in our study, applying emotional regulation strategies as a way to reduce negative impacts of paternalism could yield promising and interesting results.

Conclusion

To consider a sports team as a family and treating its members as a good-father might be an attractive way of coaching. It allows nurturance, control, authority and benevolence. Unfortunately, it does not come without consequences. The present research demonstrated that paternalising team members results in underperformance, which is partially caused by a decrease feeling of self-confidence in a population of young semi-professional athletes. These

findings are an interesting addition to the large literature on coach-athletes relationship, drawing attention on subtle stereotypes that can be present in a coach's attitude. The present research also enriches the existing research on stereotypes and their effects on those who are exposed to them, with a focus not only on the cognitive side that has been largely studied (Dardenne et al., 2007; Dumont et al., 2010; Vescio et al., 2005, see also Nguyen & Ryan, 2008; Schmader, Johns, & Forbes, 2008), but also on the behavioural side, in relation with emotions. We know that cognitive, emotional and behavioural components of the attitude are moderately intercorrelated (Breckler, 1984). Therefore, knowing about the cognitive consequences of stereotypes does not allow us to predict what the emotional and behavioural consequences would be. The present research nicely brings together those three sides to present a more complete picture of the attitude.

References

Aycan, Z. (2006). Paternalism. In U. Kim, K. Yang, & K. Hwang (Eds.), *Indigenous and cultural psychology* (pp. 445-466). New York, NY: Springer.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: W H Freeman/Times Books/ Henry Holt & Co.

Baumeister, R. F. (1984). Choking under pressure: Self-consciousness and paradoxical effects of incentives on skillful performance. *Journal of Personality and Social Psychology*, 46, 610- 620. doi: 10.1037/0022-3514.46.3.610

Baumeister, R. F., & Showers, C. J. (1986). A review of paradoxical performance effects: Choking under pressure in sports and mental tests. *European Journal of Social Psychology*, *16*, 361-383. doi: 10.1002/ejsp.2420160405

Beilock, S. L., Jellison, W. A., Rydell, R. J., McConnell, A. R., & Carr, T. H. (2006). On the causal mechanisms of stereotype threat: Can skills that don't rely heavily on working memory still be threatened?. *Personality and Social Psychology Bulletin*, *32*, 1059-1071. doi: 10.1177/0146167206288489

Blascovich, J., Spencer, S. J., Quinn, D., & Steele, C. (2001). African Americans and high blood pressure: The role of stereotype threat. *Psychological science*, *12*, 225-229. doi: 10.1111/1467-9280.00340

Bosson, J. K., Haymovitz, E. L., & Pinel, E. C. (2004). When saying and doing diverge: The effects of stereotype threat on self-reported versus non-verbal anxiety. *Journal of Experimental Social Psychology*, 40, 247-255. doi: 10.1016/S0022-1031(03)00099-4

Breckler, S. J. (1984). Empirical validation of affect, behavior, and cognition as distinct components of attitude. *Journal of Personality and Social Psychology*, 47, 1191-1205. doi: 10.1037/0022-3514.47.6.1191

Bruch, S. K., Ferree, M. M., & Soss, J. (2010). From policy to polity democracy, paternalism, and the incorporation of disadvantaged citizens. *American Sociological Review*, 75, 205-226. doi: 10.1177/0003122410363563

Cadinu, M., Maass, A., Frigerio, S., Impagliazzo, L., & Latinotti, S. (2003). Stereotype threat: The effect of expectancy on performance. *European Journal of Social Psychology*, *33*, 267-285. doi: 10.1002/ejsp.145

Cadinu, M., Maass, A., Rosabianca, A., & Kiesner, J. (2005). Why do women underperform under stereotype threat? Evidence for the role of negative thinking. *Psychological Science*, *16*, 572-578. doi: 10.1111/j.0956-7976.2005.01577.x

Camerer, C., Issacharoff, S., Loewenstein, G., O'donoghue, T., & Rabin, M. (2003). Regulation for Conservatives: Behavioral Economics and the Case for" Asymmetric Paternalism". *University of Pennsylvania Law Review*, *151*, 1211-1254. doi: 10.2307/3312889

Chamberlain, S. T., & Hale, B. D. (2007). Competitive state anxiety and self-confidence: Intensity and direction as relative predictors of performance on a golf putting task. *Anxiety*, *Stress*, *and Coping*, 20, 197-207. doi: 10.1080/10615800701288572

Chapman, C., Lane, A. M., Brierley, J. H., & Terry, P. C. (1997). Anxiety, self-confidence and performance in taekwon-do. *Perceptual and Motor Skills*, 85, 1275-1278. doi: 10.2466/pms.1997.85.3f.1275

Cianci, A. M., Klein, H. J., & Seijts, G. H. (2010). The effect of negative feedback on tension and subsequent performance: The main and interactive effects of goal content and conscientiousness. *Journal of Applied Psychology*, 95, 618-630. doi: 10.1037/a0019130

Cicirelli V. (1992). Family Care Giving: Autonomous and Paternalistic Decision-Making. Newbury Park, CA: Sage.

Cicirelli, V. G. (1990). Relationship of personal-social variables to belief in paternalism in parent caregiving situations. *Psychology and Aging*, *5*, 458-466. doi: 10.1037/0882-7974.5.3.458.

Cicirelli, V. G. (2003). Mothers' and daughters' paternalism beliefs and caregiving decision making. *Research on Aging*, 25, 3-21. doi: 10.1177/0164027502238340

Cox, R. H., Martens, M. P., & Russell, W. D. (2003). Measuring anxiety in athletics: The revised competitive state anxiety inventory-2. *Journal of Sport and Exercise Psychology*, 25, 519-533.

Croizet, J. C., Després, G., Gauzins, M. E., Huguet, P., Leyens, J. P., & Méot, A. (2004). Stereotype threat undermines intellectual performance by triggering a disruptive mental load. *Personality and Social Psychology Bulletin*, *30*, 721-731. doi: 10.1177/0146167204263961

Cury, F., Sarrazin, P., Pérès, C., & Famose, J. P. (1999). Mesurer l'anxiété du sportif en compétition: Présentation de l'échelle d'état d'anxiété en compétition (EEAC). *La gestion du stress, entraînement et compétition. Dossier EPS*, 43, 26-45.

Dardenne, B., Dumont, M., & Bollier, T. (2007). Insidious dangers of benevolent sexism: Consequences for women's performance. *Journal of Personality and Social Psychology*, *93*, 764–779, doi:10.1037/0022-3514.93.5.764

Dumont, M., Sarlet, M., & Dardenne, B. (2010). Be too kind to a woman, she'll feel incompetent: Benevolent sexism shifts self-construal and autobiographical memories toward incompetence. *Sex Roles*, 62, 545–553, doi: 10.1007/s11199-008-9582-4

Eckes, T. (2002). Paternalistic and envious gender stereotypes: Testing predictions from the stereotype content model. *Sex Roles*, 47, 99-114. doi: 10.1023/A:1021020920715

Falkum, E., & Førde, R. (2001). Paternalism, patient autonomy, and moral deliberation in the physician–patient relationship: Attitudes among Norwegian physicians. *Social Science & Medicine*, 52, 239-248. doi: 10.1016/S0277-9536(00)00224-0

Feldman, G., Zayfert, C., Sandoval, L., Dunn, E., & Cartreine, J. A. (2013). Reward responsiveness and anxiety predict performance of Mount Everest climbers. *Journal of Research in Personality*, 47, 111-115. doi: 10.1016/j.jrp.2012.10.001

Fiske, S. T., Cuddy, A. J., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, 82, 878-902. doi: 10.1037/0022-3514.82.6.878

Fleming, P. (2005). 'Kindergarten Cop': Paternalism and Resistance in a High-Commitment Workplace*. *Journal of Management Studies*, 42, 1469-1489. doi: 10.1111/j.1467-6486.2005.00551.x

Franklin, C. A., & Fearn, N. E. (2008). Gender, race, and formal court decision-making outcomes: Chivalry/paternalism, conflict theory or gender conflict? *Journal of Criminal Justice*, *36*, 279-290. doi: 10.1016/j.jcrimjus.2008.04.009

Gagné, M., Ryan, R. M., & Bargmann, K. (2003). Autonomy support and need satisfaction in the motivation and well-being of gymnasts. *Journal of Applied Sport Psychology*, 15, 372-390. doi: 10.1080/714044203

Gert, B., & Culver, C. M. (1976). Paternalistic behavior. *Philosophy & Public Affairs*, 6, 45-57.

Gert, B., & Culver, C. M. (1979). The justification of paternalism. *Ethics*, 89, 199-210. doi: 10.1086/292097

Goodell, G. E., Aronoff, M. J., Austin, D. J., Cadeliña, R. V., Emmerson, D. K., Hansen, K. T., ... & Sinha, A. C. (1985). Paternalism, patronage, and potlatch: The dynamics of giving and being given to [and comments and reply]. *Current Anthropology*, *26*, 247-266. doi: 10.1086/203252

Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York, NY: Guilford Press.

Hays, K., Maynard, I., Thomas, O., & Bawden, M. (2007). Sources and types of confidence identified by world class sport performers. *Journal of Applied Sport Psychology*, 19, 434-456. doi: 10.1080/10413200701599173

Jackman, M. R. (1994). *The velvet glove: Paternalism and conflict in gender, class, and race relations*. California, CA: University of California Press.

Johns, M., Inzlicht, M., & Schmader, T. (2008). Stereotype threat and executive resource depletion: examining the influence of emotion regulation. *Journal of Experimental Psychology: General*, *137*, 691-705. doi: 10.1037/a0013834

Judge, T. A., Erez, A., & Bono, J. E. (1998). The power of being positive: The relation between positive self-concept and job performance. *Human Performance*, 11, 167-187. doi: 10.1080/08959285.1998.9668030

Keller, J., & Dauenheimer, D. (2003). Stereotype threat in the classroom: Dejection mediates the disrupting threat effect on women's math performance. *Personality and Social Psychology Bulletin*, 29, 371-381. doi: 10.1177/0146167202250218

Krane, V., Greenleaf, C. A., & Snow, J. (1997). Reaching for gold and the practice of glory: A motivational case study of an elite gymnast. *The Sport Psychologist*, 11, 53-71.

Laurin, R. (2013). Stereotype Threat and Lift Effects in Motor Task Performance: The Mediating Role of Somatic and Cognitive Anxiety. *The Journal of Social Psychology*, *153*, 687-699. doi:10.1080/00224545.2013.821098

Martens, R., Burton, D., Vealey, R. S., Bump, L. A., & Smith, D. E. (1990). Development and validation of the competitive state anxiety inventory-2. *Competitive Anxiety in Sport*, 117-190.

Martinent, G., Ferrand, C., Guillet, E., & Gautheur, S. (2010). Validation of the French version of the Competitive State Anxiety Inventory-2 Revised (CSAI-2R) including frequency and direction scales. *Psychology of Sport and Exercise*, *11*, 51-57. doi: 10.1016/j.psychsport.2009.05.001

Muller, D., Judd, C. M., & Yzerbyt, V. Y. (2005). When moderation is mediated and mediation is moderated. *Journal of Personality and Social Psychology*, 89, 852-863. doi: 10.1037/0022-3514.89.6.852

Nguyen, H. H. D., & Ryan, A. M. (2008). Does stereotype threat affect test performance of minorities and women? A meta-analysis of experimental evidence. *Journal of Applied Psychology*, 93, 1314-1334. doi: 10.1037/a0012702

Osborne, J. W. (2007). Linking stereotype threat and anxiety. *Educational Psychology*, 27, 135-154. doi: 10.1080/01443410601069929

Padavic, I., & Earnest, W. R. (1994). Paternalism as a component of managerial strategy. *The Social Science Journal*, *31*, 389-405. doi: 10.1016/0362-3319(94)90031-0

Pellegrini, E. K., & Scandura, T. A. (2008). Paternalistic leadership: A review and agenda for future research. *Journal of Management*, *34*, 566-593. doi: 10.1177/0149206308316063

Reinboth, M., & Duda, J. L. (2006). Perceived motivational climate, need satisfaction and indices of well-being in team sports: A longitudinal perspective. *Psychology of Sport and Exercise*, 7, 269-286. doi: 10.1016/j.psychsport.2005.06.002

Ryska, Todd A. (1998). Cognitive-behavioral strategies and precompetitive anxiety among recreational athletes. *The Psychological Record*, 48, 697-708.

Sarlet, M., Dumont, M., Delacollette, N., & Dardenne, B. (2012). Prescription of protective paternalism for men in romantic and work contexts. *Psychology of Women Quarterly*, *36*, 444-457. doi: 10.1177/0361684312454842

Schmader, T., & Johns, M. (2003). Converging evidence that stereotype threat reduces working memory capacity. *Journal of Personality and Social Psychology*, 85, 440. doi: 10.1037/0022-3514.85.3.440

Schmader, T., Johns, M., & Forbes, C. (2008). An integrated process model of stereotype threat effects on performance. *Psychological Review*, *115*, 336-356. doi: 10.1037/0033-295X.115.2.336

Smith, R. E., Smoll, F. L., & Cumming, S. P. (2007). Effects of a motivational climate intervention for coaches on young athletes' sport performance anxiety. *Journal of Sport and Exercise Psychology*, 29, 39-59.

Spencer, S. J., Steele, C. M., & Quinn, D. M. (1999). Stereotype threat and women's math performance. *Journal of Experimental Social Psychology*, *35*, 4-28. doi: 10.1006/jesp.1998.1373

Steele, C. M., & Aronson, J. (1995). Stereotype threat and the intellectual test performance of African Americans. *Journal of Personality and Social Psychology*, 69, 797-781. doi: 10.1037/0022-3514.69.5.797

Stone, J., Lynch, C. I., Sjomeling, M., & Darley, J. M. (1999). Stereotype threat effects on black and white athletic performance. *Journal of Personality and Social Psychology*, 77, 1213-1227. doi: 10.1037/0022-3514.77.6.1213

Tenenbaum, G., & Elran, E. (2003). Congruence between actual and retrospective reports of emotions for pre-and postcompetition states. *Journal of Sport & Exercise Psychology*, 25, 323-340.

Tenenbaum, G., Lloyd, M., Pretty, G., & Hanin, Y. L. (2002). Congruence of actual and retrospective reports of precompetition emotions in equestrians. *Journal of Sport & Exercise Psychology*, 24, 271-288.

Tuckett, A. G. (2006). On paternalism, autonomy and best interests: Telling the (competent) aged-care resident what they want to know. *International Journal of Nursing Practice*, 12, 166-173. doi: 10.1111/j.1440-172X.2006.00565.x

Vealey, R. (1986). Conceptualization of sport-confidence and competitive orientation: Preliminary investigation and instrument development. *Journal of Sport Psychology*, 8, 221-246.

Vealey, R. S., & Chase, M. A. (2008). Self-confidence in sport. *Advances in Sport Psychology*, 3, 65-97.

Vella, S. A., Oades, L. G., & Crowe, T. P. (2010). Review: The application of coach leadership models to coaching practice: Current state and future directions. *International Journal of Sports Science and Coaching*, 5, 425-434. doi: 10.1260/1747-9541.5.3.425

Vescio, T. K., Gervais, S. J., Snyder, M., & Hoover, A. (2005). Power and the creation of patronizing environments: the stereotype-based behaviors of the powerful and their effects on female performance in masculine domains. *Journal of Personality and Social Psychology*, 88, 658-672. doi: 10.1037/0022-3514.88.4.658

Woodman, T., & Hardy, L. (2003). The relative impact of cognitive anxiety and self-confidence upon sport performance: A meta-analysis. *Journal of Sports Sciences*, 21, 443-457. doi: 10.1080/0264041031000101809

Wu, A. M. S., Tang, C. K. K., & Kwok, T. C. Y. (2004). Self-efficacy, health locus of control, and psychological distress in elderly Chinese women with chronic illnesses. *Aging & Mental Health*, 8, 21-28. doi: 10.1080/13607860310001613293

Zhou, J. (1998). Feedback valence, feedback style, task autonomy, and achievement orientation: Interactive effects on creative performance. *Journal of Applied Psychology*, 83, 261-276. doi: 10.1037/0021-9010.83.2.261

Chapter Six

« OK, it's bad, but what could we do about it? » -

Propositions of Strategies to Reduce Paternalistic

Stereotypes' Deleterious Effects on Motor

Performance

Abstract

Through three studies, we explored three types of emotion regulation-based strategies to reduce the negative impact of paternalistic stereotypes on motor performance. Paternalistic stereotypes are applied to individuals that are explicitly perceived as being warm and kind, but more subtly as incompetent. In a first study, we examined the efficiency of two well studied emotion regulation strategies (suppression and reappraisal of anxiety) to reduce the deleterious effects of paternalism on motor performance. In a second study, we proposed a strategy no longer focusing on regulation of specific emotion, but focusing on regulation of a more positive or negative general emotional state. Specifically, we considered a strategy of up-regulation of positive emotions, compared to a strategy of down-regulating negative emotions. In a third and final study, we looked at a regulation strategy that is not focused on any emotion in particular. We used a mindfulness technique as a tool to restore the depleted performance usually observed following a paternalistic stereotyping situation. The results revealed that anxiety-directed strategies did not impact motor performance (Study 1), that down-regulation of negative emotions resulted in underperformance compared to upregulating positive emotions (Study 2), and finally, that an exercise of mindfulness taking place after an exposure to paternalism helps restore usually depleted performance. The less a strategy is directed to a specific emotion, the more it seems to be efficient to diminish, if not eliminate, the negative impacts of paternalism on motor performance.

Keywords: paternalistic stereotypes, emotions regulation, mindfulness

Introduction

Social groups are not all liked and admired in the same way. Some are more admired for their competence and abilities than liked for their sympathy and warmth. For some others, it is the other way around. According to the Stereotype Content Model (Fiske, Cuddy, Glick, and Xu, 2002) stereotypes about social group depend on their position on two principal axes: warmth and competence. Paternalistic stereotypes are associated with warm but incompetent groups (e.g. women, elderly people, disabled people, etc.), resulting in feeling of pity and sympathy towards them. For instance, speakers of nonstandard dialects (e.g., Scottish accents in Great Britain, Chicano accents in the United States) are perceived as less competent but simultaneously friendly (Bradac, 1990; Ruscher, 2001).

It has been shown that cognitive performance can be impaired for individuals that are being exposed to paternalistic stereotypes. Elderly people confronted to the stereotype of lessened working memory capacities underperformed on a memory task when it was presented as a memory task, compared to when the task was presented as an impression formation task (Chasteen, Bhattacharyya, Horhota, Tam, & Hasher, 2005). Moreover women exposed to benevolent sexist comments conveying the message that women are warm and nice but less competent than men experienced a decrease in their performance on a cognitive task, compared to women confronted to hostile sexist comments or no sexism (Dardenne, Dumont, & Bollier, 2007; Dumont, Sarlet, & Dardenne, 2010).

Although less studied, paternalism' emotional and behavioural consequences have been also reported. Silvestre, Huart, & Dardenne (Chapter 4) have shown that being target of paternalism leads participants to experience ambivalent emotions: although reporting mainly positive emotions at an explicit level (self-reports), when using a more implicit measure of emotions, equivalent levels of both positive and negative emotional reactions were reported

by participants following a paternalistic encounter. A research by Silvestre & Dardenne (Chapter 5) also revealed that young semi-professional athletes felt less self-confident following a paternalistic motivational pre-game speech, resulting in an underperformance on an agility task. The results also showed an increase in anxiety following the paternalistic pregame speech.

Although the detrimental effects of paternalistic stereotyping have been extensively shown (Chapters 1 & 2), only a few researchers have been interested in ways to diminish those effects. Two distinct line of research exist: first, researchers have been looking at ways to reduce stereotypes' effects *before* stereotypes arise, and in the second line of research, they have been interested in ways to deal with the stereotypes' negative consequences *after* stereotypes' expression.

Research on the reduction of stereotypes or the threat posed by paternalistic stereotypes before they are activated and expressed has drawn quite an interest amongst researchers (Bowen, Wegmann, & Webber, 2013; Johns, Schmader, & Martens, 2005; Martens, Johns, Greenberg, & Schimel, 2006; Rosenthal & Crisp, 2006; Shaffer, Marx, & Prislin, 2013; Smeding, Dumas, Loose, & Régner, 2013; Weger, Hooper, Meier, & Hopthrow, 2012). For instance, Weger et al. (2012), proposed a short mindfulness intervention to help keeping cognitive performance unaffected after being confronted by paternalistic stereotypes. Mindfulness is a way of redirecting attention "to the present experience on a moment-to-moment basis" (Marlatt & Kristeller, 1999, p. 68), through the exercise of meditation. Results showed that participants listening to a 5-min mindfulness audio file before being exposed to a stereotyped situation performed better on their subsequent maths test than participants exposed to the stereotypes but without any mindfulness intervention.

However, it is rarely possible to change the situation in order to prevent stereotypes to appear. Indeed, stereotypes usually arise without any warnings. Individuals are therefore in need of means to put a stop to paternalistic stereotypes' detrimental effects once the stereotypes had been expressed. Research on strategies to help fighting paternalistic stereotypes' consequences has been scarcer. For instance, Johns, Inzlicht, & Schmader (2008) used emotion regulation strategies to overcome paternalistic stereotype's detrimental effects. Based on Gross and colleague's instructions of emotion regulation (Gross, 1998, 2002; Gross & John, 2003), the authors presented stereotyped individuals with two strategies of emotion regulation: reappraisal of the situation and suppression of the emotions. In the reappraisal condition, participants were instructed to take a neutral and objective look at the situation, by imagining they were mere observers. In the suppression condition, participants had to suppress any manifestation of emotion, by behaving "in such a way that a person watching [them] would not know [they] are feeling anything at all" (Johns et al., 2008, p. 697). The results showed that cognitive and intellectual performance was unaffected when the situation had been reappraised, compared when participants suppressed their emotions. Such a superiority of reappraisal strategy (over suppression) has been largely documented (Gross, 1998, 2002; Gross et al., 2003; Memedovic, Grisham, Denson, & Moulds, 2010). For example, it has been shown that suppression led to memory impairments for social information presented while the participant was regulating emotions, whereas reappraisal did not impair memory (Richards & Gross, 2000). As Johns and colleagues successfully showed, the study of reduction of paternalistic stereotypes' detrimental consequences could benefit from these well documented strategies of emotion regulation.

Following the second line of research, the main aim of this paper is to propose strategies that would be helpful for individuals to deal with emotional consequences of paternalistic

stereotypes once they have been expressed and fight their detrimental consequences on motor behavioural performance. Cognitive impairments following paternalistic stereotypes has been long studied (Dardenne et al., 2007; Dumont et al., 2010; Vescio, Gervais, Snyder, & Hoover, 2005, see also Nguyen & Ryan, 2008; Schmader, Johns, & Forbes, 2008), but behavioural motor impairments has been investigated in a lesser extent (Beilock, Jellison, Rydell, McConnell, & Carr, 2006; Silvestre & Dardenne, Chapter 5; Stone, Lynch, Sjomeling, & Darley, 1999). Therefore, another important aim of this paper is to apply the encouraging aforementioned results on behavioural motor performance.

Studies overview

We proposed to explore three types of emotion regulation-based strategies to reduce paternalistic stereotypes effects on motor performance. In a first study, based on Johns et al. (2008)'s proposition of emotion regulation strategies after an exposition to paternalistic stereotypes to overcome their negative effects, and on Silvestre & Dardenne (Chapter 5)'s results showing that one emotional consequence of paternalistic stereotypes is an increase in anxiety feeling, we focused on the regulation of the feeling of anxiety following exposition to paternalism. Our aim was to replicate Johns et al. (2008)'s results with two amendments: to use motor instead of cognitive performance as dependant variable, and to give participants instructions to regulate their feeling of anxiety as to see it in a positive manner (reappraisal) rather than asking them to reappraise a situation in a neutral and detached way. In a second time, our research (Silvestre, Huart, & Dardenne, Chapter 4) has shown that self-reported explicit (but not implicit) emotions following a paternalistic episode are mainly positive. We therefore proposed, in a second study, that, since participants consciously reported mainly positive emotions, using those emotions and exacerbating them might be a useful tool to counteract paternalism' detrimental impacts on performance. We suggested that, just like

negative emotions have a negative impact on performances (Brown, Westbrook, & Challagalla, 2005; Dardenne et al., 2007; Dumont et al., 2010; Silvestre & Dardenne, Chapter 5; Vieillard & Bougeant, 2005), positive emotions will have a rather positive effect on performance. Our goal was to test whether a regulation of positive affect might be more effective than regulation of negative affect. In a final study, based on Weger et al. (2012)'s results, we used mindfulness practice to alleviate motor performance's impairments following paternalistic stereotypes.

In the subsequent experiments, participants were exposed to paternalistic stereotypes via a motivational speech before a darts tournament (st.1), a motivational speech before intervillages games (st.2) and via a press article (st.3). The three strategies of emotions regulation presented above have then been tested to try to keep behavioural motor performance unaffected. The strategies are evolving in term of constraints in the instructions, moving from regulation of a specific emotion (st.1), to regulation of general positive or negative emotional state (st.2), and, finally, to no instructions regarding emotion regulation whatsoever (st.3). In Study 1, participants had to either reappraise or suppress their anxiety while reading the motivational speech before the darts tournament. The rest of the participants received no instructions. In Study 2, participants were either asked to increase their positive feelings (up regulation) or decrease their negative ones (down regulation), or no instructions were given. Last, in Study 3, participants were asked to listen to a short mindfulness exercise or a neutral audio file after an exposition to paternalism. Participants were compared to a control condition, in which they were not exposed to paternalism and listened to the neutral audio file.

Our hypotheses are that reappraisal of anxiety (st.1), up regulation of positive feelings (st.2) and listening to a mindfulness exercise (st.3) will result in better performance than,

respectively, suppression of anxiety, down regulation of negative emotions and listening to a neutral audio file.

Study 1

According to Johns et al. (2008), when individuals are confronted to the threat of confirming a stereotype (stereotype threat) they regulate the resulting anxiety by spontaneously trying to suppress it. Indeed, when no instructions of regulation have been given, it has been shown that participants spontaneously tried to control the expression of their emotions and that this regulation depletes executive function, resulting in underperformance. As it has been shown before, suppression of emotions is often ineffective (Hofmann, Heering, Sawyer, & Asnaani, 2009). However, when participants were offered a more effective way of regulating their emotions, reappraisal of the situation, performance was superior. Authors concluded that the use of reappraisal helped keep cognitive performance unaffected because executive resources needed to execute the task were no longer depleted. We predicted that participants in our study that received no instructions whatsoever or instructions of suppression of anxiety will perform equally bad. On the other hand, participants instructed to reappraise their anxiety will present the best performance.

Methods

Participants

Participants were sixty Sport Sciences undergraduates (22 female) native French speaker, aged between 18 and 33 years-old (M=21.05, SD=2.25). They were approached by experimenters in different places all across the campus, as well as through social media advertisement and emailing. They were asked to participate in a study allegedly examining concentration ability in various tasks. After reading and signing the consent form, participants

were randomly assigned to one of our three conditions: reappraisal, suppression, or no instructions. Participants were then all exposed to a situation of paternalistic stereotyping.

Materials

Emotional measures. To test the efficiency of anxiety regulation, we measured the feeling of anxiety using the French validation the Competitive State Anxiety Inventory-2 Revised (CSAI-2R, Martinent, Ferrand, Guillet, & Gautheur, 2010) before the experiment (baseline) and after the motor task (post). The scale is composed of three subscales: self-confidence, cognitive anxiety and somatic anxiety. Using a 7-point Likert like scale, from 1 (*not at all*) to 7 (*totally*), 5 items evaluated self-confidence (e.g. "I was feeling competent", "I was confident about performing well", $\alpha = .85$ and $\alpha = .94$ for baseline and post-performance, respectively). On the same scale, 5 items evaluated cognitive anxiety (e.g., I was worried about performing poorly" and "I was worried about choking under pressure", $\alpha = .77$ and $\alpha = .84$ for baseline and post-performance, respectively) and 6 items evaluated somatic anxiety ("I feel nervous", "My heart is racing", $\alpha = .85$ and $\alpha = .83$ for baseline and post-performance, respectively).

Motor performance. The motor task consisted in playing darts. Participants were asked to throw 6 darts as fast as possible and as accurately as possible in a delimited area on the board, three times in a row. We measured the performance by recording the time (in seconds) that each participant would take to throw the whole set of darts (3 sessions of 6 throws) as well as the number of darts they accurately threw in the delimited area on the darts board.

Procedure

Participants first completed a demographics questionnaire, as well as the emotions baseline measure. They then were asked to read a text describing the general context. In that

text, they were instructed to imagine taking part in an inter-faculties darts tournament, as a team. Their team leader is described as a mature student with a lot of experience in darts tournament. The rules of the tournament are then explained to them. After taking a moment to imagine themselves in the situation, participants in the experimental conditions read the emotion regulation instructions, asking them, while reading their team leader's motivation speech, to reappraise their anxiety and its consequences (reappraisal) or with explicit attempts to conceal their anxiety (suppression). The instructions were as followed: "We are now going to ask you to read you team leader's motivational speech just before the start of the tournament. While reading the text, you might experience a certain level of anxiety." In the reappraisal condition, participants read:

However, we would like to know how you manage to control the way you are dealing with your anxiety and its consequences. It is therefore very important for us that you try your best to see your anxiety in another angle, to consider it as something that is not necessarily negative. If, during your reading, you are feeling nervous or worry, please consider it as normal, that others are also feeling this way, that not feeling nervous would rather be odd! Please know that a certain level of anxiety is known to have beneficial effects, allowing better concentration. It could also lead you to score very well during the tournament. If you are afraid to play badly or disappoint your team, think it is probably because you are trying your best and that you are motivated to success. This proves you are a competitor! Hence, read the text very carefully but try to see your anxiety and your concern as a helpful tool to use during the tournament.

In the suppression condition, participants read:

However, we would like to know how you can control your anxiety. It is therefore very important for us that you try your best to suppress your anxiety while reading the text. If, during your reading, you are feeling nervous or worry, please don't think about it, suppress those emotions. Don't think about your anxiety while you are reading. Suppress any manifestation of stress that you could feel. If you are afraid to play badly or disappoint your team, try your best to suppress those thoughts, so to stop thinking about them and conceal them. Try your best so that if someone is looking at you while reading, they will not suspect you are feeling nervous or worried. Hence, read the text very carefully but try to control your anxious thoughts so that no one would know or guess your feelings.

In the no instructions condition, participants read their team leader's motivational speech directly after the general context, without any instructions about emotion regulation. In his speech, the team leader was paternalistic by telling the others what to do, because of his past experience. The team has to follow his advices, without questioning them, if they want to win. The paternalistic team leader made clear to his teammates that he was the expert and that he knew anything there is to know in order to win the tournament. He treated them in a father-like manner. He used sentences like: "So kids, here we are! Time to motivate the troops!", "I have already attended to this kind of tournament with my kids and we always have been successful, and you know how? I told them what to do and they were listening to me!" "It is crucial to follow my advice if we want to win", "Everyone will get a chance to play but you will have to listen to me and not do any odd thing!" or "If you are not listening to what I say, we will not perform as well". Once they were done reading the text, the

experimenter invited them to do the performance task and the post emotional measure.

They were the fully debriefed and thanked for their participation.

Results

To test our hypothesis, we used planned contrasts analyses. These analyses are appropriate because they focus on our specific predictions and use appropriate degree of freedom.

Effect on performance

Contrast analyses were used to analyse the level of performance accuracy and the time to complete the task. With the first contrast we compared reappraisal condition (coded -2) to the two remaining conditions (suppression and no instructions conditions, coded 1). To ascertain no differences between suppression and no instructions conditions, the second contrast had suppression (coded -1) compared to the no instructions condition (coded 1). The analyses revealed no significant effect either on performance accuracy, or on time to complete the task. The reappraisal condition lead to a similar level of accuracy than the two other conditions, b = -12, SE = .11, p = .30, which did not differ from each other, b = .10, SE = .19, p = .61. The reappraisal condition also lead to a similar level of time needed to complete the task than the two other conditions, b = -240.83, SE = 295.59, p = .42, which did not differ from each other, b = 497.50, SE = 511.97, p = .33.

Effect on self-reported emotions

To test the effect of our emotion regulation instructions, we ran three distinct contrast analyses. In the first analysis, we tested the effect of our instructions on somatic anxiety, with baseline somatic anxiety, cognitive anxiety and self-confidence, as well as post instructions cognitive anxiety and self-confidence as covariate. With the first contrast we compared

reappraisal condition (coded -2) to the two remaining conditions (coded -1). To ascertain no differences between suppression and no instructions conditions, the second contrast had suppression (coded -1) compared to the no instructions condition (coded 1). The analyses revealed no significant effect, when baseline and post line emotional measures were controlled for. The reappraisal condition led to a similar level of somatic anxiety than the two other conditions, b = -.11, SE = -1.52, p = .13, which did not differ from each other, b = .02, SE = -.19, p = .85. In the second analysis, we tested the effect of our instructions on cognitive anxiety, with baseline somatic anxiety, cognitive anxiety and self-confidence, as well as post instructions somatic anxiety and self-confidence as covariate. We used the same contrasts as the ones used for somatic anxiety. The analyses revealed no significant effect of our instructions, when baseline and post line emotional measures were controlled for. The reappraisal condition led to a similar level of cognitive anxiety than the two other conditions, b = .20, SE = .43, p = .66, which did not differ from each other, b = .24, SE = 1.66, p = .10. In the third contrast analysis, we tested the effect of our instructions on self-confidence, with baseline somatic anxiety, cognitive anxiety and self-confidence, as well as post instructions somatic anxiety and cognitive anxiety as covariate. We used the same contrasts as the ones used for somatic and cognitive anxiety. The analyses revealed no significant effect of our instructions, when baseline and post line emotional measures were controlled for. The reappraisal condition led to a similar level of self-confidence than the two other conditions, b = -.14, SE = -1.72, p = .09, which did not differ from each other, b = .14, SE = 1.01, p = .32.

Effect of paternalism on anxiety

A 3 (conditions) X 2(time: pre vs. post) ANOVA, with time as within-subject variable, revealed no effect of time neither for somatic anxiety, F(1, 57) = 1.31, $p = .27 \, \eta_p^2 = .04$, nor

cognitive anxiety, F(1, 57) = 1.68, p = .19, $\eta_p^2 = .06$. Participants did not feel more anxious after an episode of paternalism.

Discussion

Our first study did not confirm our predictions. Emotion regulation instructions did not have an impact on performance. Participants in the three conditions performed at a similar level. Those results are surprising since Johns et al. (2008) have shown that reappraisal restore depleted performance following an exposure to paternalistic stereotypes. One possible explanation could be that asking to regulate anxiety is too complex. Defining anxiety and identifying it might not be an easy thing to do. However, given our results, it seems that explanation lies elsewhere. In effect, our results show that participants do not feel anxious after an episode of paternalism; therefore asking them to regulate anxiety might be irrelevant. Anxiety as a mediator between stereotype exposure and underperformance has yield inconsistent results; anxiety has been showed to not mediate at all (Gonzales, Blanton, & Williams, 2002; Schmader, 2002) or only partially mediate (Spencer, Steele, & Quinn, 1999) the relationship between stereotype and impaired performance. We therefore have reasons to think that anxiety might not be involved, or to a lesser degree. We argue that asking participants to regulate more general positive or negative emotional state might be of greater interest. Since only few studies have been examining the emotional reaction to stereotypes' exposure, it is difficult to know which emotion is playing a role, if even playing one, in the relation of stereotype and performance. Previous research has shown that being confronted to paternalistic stereotype is indeed an emotional episode (Silvestre, Huart, & Dardenne, Chapter 4). However, the exact nature of the emotions involved is not yet determined. The results of Silvestre and colleagues' study revealed emotional pattern only in terms of general positive and general negative feelings. Similarly, Cadinu, Maas, Rosabianca, & Kiesner (2005) showed that depletion of math performance following exposure to stereotype was mediated by negative thinking, without further specify to which specific emotion the thoughts were related to.

Study 2

Starting from those scarce and preliminary results, Study 2 aimed at applying emotion regulation strategies not focusing on specific emotions, but instead on more general emotional states. Moreover, we are suggesting that keeping performance unaffected might not be possible only by regulating negative emotions, but also by regulating positive emotions. Since several studies have shown that paternalism can lead to feelings of negative emotions (Dardenne et al., 2007; Dumont et al., 2010; Silvestre, Huart & Dardenne, Chapter 4) and that negative emotions can have negative impact on performance (Brown et al., 2005; Vieillard et al., 2005) we proposed that, in a similar logic, positive emotions will have a rather positive effect on performance. As introduced before, Silvestre, Huart, & Dardenne (Chapter 4) have shown that explicit self-reported emotions following a paternalistic episode are mainly positive. It is solely when more implicit measure of emotions were used that the presence of a somewhat more negative side of paternalism was revealed. Therefore, it seems that only positive emotions are fully and consciously acknowledged by participants in a paternalistic situation. After all, a paternalistic person is helpful, benevolent, caring, and recognizes our warmth and niceness (Glick & Fiske, 1996). We suggested that, since participants consciously reported mainly positive emotions, using those emotions and exacerbating them might be a useful tool to counteract paternalism' detrimental impacts on performance. Up regulating positive emotions has already been shown to have positive effects on well-being and life satisfaction (Quoidbach, Berry, Hansenne, & Mikolajczak, 2010). Thus, we predicted that participants instructed to up regulate their positive emotions – without specifying further which emotions – will present a better performance following an episode of paternalistic stereotyping than participants instructed to down regulate their negative emotions.

Methods

Participants

Participants were 62 undergraduates (32 female) native French speaker, aged between 18 and 28 years-old (M = 21.24, SD = 2.00). They were approached by experimenters in different places all across the campus, as well as through social media advertisement and emailing. They were asked to participate in a study about general ability. After reading and signing the consent form, participants were randomly assigned to one of the three conditions: increase of positive emotions, decrease of negative emotions, or control condition.

Materials

Emotional measures. We measured positive and negative affect before the experiment (baseline) and after the performance, using the negative scale (α = .66 and α = .61, for baseline and post-performance, respectively) as well as the positive scale (α = .85 and α = .88, for baseline and post-performance, respectively) of the Positive And Negative Affect Schedule (PANAS; Clark & Watson, 1998). The PANAS contains ten positive items (e.g. enthusiastic), and ten negative ones (e.g. distressed). Participants rated the extent to which each adjective described their mood at this precise moment, using a 5-point scale (1, "not at all", to 5, "extremely").

Motor performance. We measured motor performance using an agility task. The agility task consisted in an electrical wire connected to two wood sticks. With an electrical loop attached to another wood stick, participants had to be as fast as possible to complete the task, while touching the electrical wire as less as possible. When the loop touched the main

electrical wire, participant heard a "ding". We measured the performance by recording the time (in seconds) that each participant would take to do the task as well as the number of errors (number of time they touched the wire) they made.

Procedure

Participants first completed a demographics questionnaire, as well as the emotions baseline measure. They then were asked to read a text describing the general context. In that text, they were instructed to imagine taking part in inter-village games, as a team. Their team leader is described as an experienced gym teacher, who took part in a lot inter-villages games in the past. After taking a moment to imagine them in the situation, participants in the experimental conditions read the emotion regulation instructions. The instructions were as followed: "We are now going to ask you to read you team leader's motivational speech just before the start of the games. While reading your friend speech, you might experience some positive/negative emotions. Since we are interested in emotions regulation, we will ask you to try your best to increase/decrease the positive/negative emotions you might feel." In the control condition, participants read their team leader's motivational speech directly after the general context. In his speech, the team leader was paternalistic by telling the others what to do, because of his past experience with inter-village games. The team had to follow his advices, without questioning them, if they wanted to win. The sentences used in the speech were similar to the ones used in Study 1, but adapted to the current inter-villages games' situation. Once they were done reading the text, the experimenter invited them to do the performance task and to complete the post emotional measure. Next, participants were asked to tell how successful they thought they were, on a 7-points Likert scale, at decreasing/increasing their positive/negative emotions. Finally, participants were thanked and fully debriefed.

Results

Success at regulating emotions

Participants in the up regulation of positive emotions reported being less successful in regulating their emotions (M = 3.45, SD = 1.47) than participants in the down regulation of negative emotions condition (M = 5.45, SD = 1.34).

Effect on performance

To test our hypothesis, we performed a MANOVA with time and errors as dependent variables and type of instructions (up regulation of positive emotions vs. down regulation of negative emotions vs. no instructions) as independent variables. The analysis revealed a significant effect of condition on time, F(2, 59) = 3.22, p = .047, $\eta^2 = .099$, but not on the number of errors, F(2, 59) < 1, p = .78, $\eta^2 = .008$. Whereas the number of errors was equal across conditions, participants who were instructed to down regulate their negative emotions took more time to complete the task (M = 105.71, SD = 36.67) than participants instructed to up regulate their positive emotions (M = 75.74, SD = 33.09), t(39) = -2.74, p = .009, d = .858. Contrary to our predictions, participants who received emotions regulation instructions did not differ from participants who received no regulation instructions (M = 82.98, SD = 47.32), t(39) = -.56, p = .57, d = .177 for positive emotions up regulation, and t(40) = 1.73, p = .09, d = -.537, for negative down regulation.

Effect on self-reported emotions

We performed two separate linear regressions on the positive scale and negative scales of PANAS, with type of instructions as predictor and baseline positive and negative PANAS, respectively, as covariate. The type of instructions did not have an impact neither on positive emotions, b = -.09, SE = .08, p = .24, nor on negative emotions, b = -.02, SE = .09, p = .85.

Up-regulation of positive emotions did not results in an increase of self-reported positive emotions, and down-regulation of negative emotions did not result in a decrease in self-reported negative emotions.

Discussion

Although our instructions manipulation had no impact on performance, our findings nevertheless suggest that a less directed emotional strategy might be more appropriate to deal with the negative effects of paternalism on performance. Indeed, asking participants to up regulate their general positive emotional experience is resulting in a better performance than asking them to down regulate their general negative emotional experience. Although it seems to be harder to increase positive emotions, participants in our second study presented a better performance after being instructed to increase the positive emotions they might be feeling during a paternalistic motivational speech compared to participants instructed to decrease their negative emotions. However, participants in the "no instructions" condition performed as equally well as in the two other conditions. According to Johns et al. (2008), participants are spontaneously suppressing their emotions. However, we cannot know if that actually was the case in our study. Given our results from Study 1, where no significant difference has been found between conditions, it is possible that the "natural" suppression in the case of stereotype threat does not appear as clearly in the case of benevolent paternalism, which is more subtle and less easily detectable. In effect, in a situation of a stereotype threat, women are clearly aware of the stereotype targeting their social group. However, being target of paternalism is less clear. According to Dardenne et al. (2007), and Barreto & Ellemers (2005), sexist paternalism is not identified as such, because the person who expresses sexist paternalistic comments is not perceived as sexist paternalist. Therefore, we could think that what is happening in the case of a stereotype threat does not necessarily apply in a

paternalistic situation. To avoid this confusion in the future, a pure control condition is needed, in which no paternalism would be activated.

Similarly as in Study 1, the results of our second study did not reveal any difference in the reported emotional state following the emotional regulation strategy. Indeed, participants in the increased positive emotions condition reported the same amount of positive and negative emotions than participants in the no instructions condition and in the decreased negative emotions. Up regulating one's positive emotions can be done through multiple savouring strategies: behavioural display (expressing positive emotion with non-verbal behaviours); be present (focusing on present pleasant experience); capitalizing (communicating and celebrating positive events); and positive mental time travel (remembering or anticipating positive events) (Quoidbach et al., 2010). Unfortunately, it is not possible to say which specific strategy has been used in our study. In Study 3, we will focus our attention on one particular strategy: being present. One application of this strategy is the technique of mindfulness.

Study 3

It has been shown that orienting one's attention on the present moment is positively correlated to happiness intensity and frequency (Bryant, 2003). Moreover, the practice of mindfulness enhances quality of life and reduces stress (Creswell & Lindsay, 2014; Kuyken, Byford, Taylor, Watkins, Holden, White, et al., 2008; Kuyken, Weare, Ukoumunne, Vicary, Motton, Burnett, et al., 2013; see also Grossman, Niemann, Schmidt, & Wallach, 2004, for a review).

Several meditation exercises are presented in the mindfulness literature, encouraging meditators to direct their attention on the present moment, internally (noticing bodily

sensations, thoughts and emotions) or externally (noticing the sounds and sights of their surrounding environment) (Baer, 2003). The common aspect of the different exercise is the emphasis on practicing mindfulness adopting a non-judgmental attitude. Meditators do not try to suppress or avoid their thoughts and emotions when they arise, they observe them without judging them as appropriate or inappropriate, as good or bad, as helpful or not. As soon as they are acknowledged, the attention is redirected to internal or external sensations. Mindfulness based cognitive therapy (MBCT) is starting to be largely used in clinical psychology, to help reduce and prevent depression in children and adolescent at school (Kuyken et al., 2013; Raes, Griffith, Van der Gucht, & Williams, 2013), or to prevent relapse of severe depressive patients (Kuyken et al., 2008; Piet & Hougaard, 2011, see also Williams & Kuyken, 2012). MBCT helps formally depressed individuals to perceive their thoughts and emotions by only observing them, without judging them. They are taught to let their thoughts and feelings pass by, to acknowledge them without assessing them as good or bad. Seeing those feelings and thoughts as not necessarily accurate reflections of reality or aspects of themselves helps prevent individuals to relapse into another depressive episode. Kabat-Zinn, Massion, Kristeller, Peterson, Fletcher, Pbert, et al. (1992) has shown beneficial effects of mindfulness training on anxiety and panic reduction.

As briefly introduced earlier in the introduction, Weger and colleagues' study (2012) used mindfulness as a mean to reduce the effect of stereotype threat on performance. Participants were asked to complete a first math test before they either received the mindfulness intervention or completed a control task (eating two raisins in five minutes), and then were either exposed to the stereotype of women being bad at maths or not exposed to the stereotype, and finally took a second math test. The study revealed that participants that listened to a 5-minutes mindfulness audio file before they have been exposed to the

stereotype threat performed better at the second math test than participants who did not listened to the mindfulness audio file before being exposed to the stereotype threat. Performance after mindfulness intervention was similar to performance in a no threat condition, showing that mindfulness helped restore depleted performance following a stereotype threat. To our knowledge, Weger et al.'s study is the only one to use mindfulness as a strategy to combat the negative effect of stereotype threat on performance. Our third study is aimed at replicating those encouraging results with few amendments: first, participants will not be exposed to stereotype threat of women being bad at math, but exposed to a situation of paternalistic stereotyping in which they will be perceived as nice but incompetent. Second, motor performance will be used as dependent variable in place of cognitive mathematic performance. And last but not least, mindfulness intervention will take place after the exposition to paternalistic stereotypes, and not before. Since many stereotypic minorities are aware of the stereotypes towards their social groups (Pinel, 1999), members of stereotyped group are expecting to a greater extent to be prejudiced than member of a nonstereotyped group. It is nevertheless quite difficult to know when a stereotyping situation is going to take place. Stereotyped individuals are thus in need of means to deal with paternalistic stereotypes' consequences after it has occurred. In summary, our goal is to extend Weger's results by offering targets of paternalistic stereotyping situation a strategy that could help them deal with the situation and fight its detrimental effects on motor performance.

In the following experiment, participants were exposed to paternalistic stereotypes about their social group via a press article. Half of the participants listened to a 4-minutes mindfulness exercise and the other half listened to a neutral audio file. The two paternalistic conditions were compared to a control group, in which participants read a neutral article, in which no stereotypes were expressed, and in which they listened to the neutral audio file.

Similar to Weger et al. (2012)'s results, we predicted that a short mindfulness exercise will help restore the usually observed underperformance after an episode of paternalistic stereotyping. More specifically, participants in the condition of paternalistic stereotyping listening to a mindfulness exercise will present a better performance than participants in the paternalistic stereotyping listening to a neutral audio file. This better performance will be similar to the one in the neutral condition in which participants are listening to a neutral audio file after reading a neutral text.

Methods

Participants

Participants were 60 (30 female) under- and post-graduates (mean age = 22.58; SD = 2.49) native French speakers. They were approached in different places of the campus. The study was said to be about information processing and concentration in students. If they agreed to participate, they were invited to follow the female experimenter to the laboratory. Before taking part in the study, they were asked to read and sign an informed consent form.

Materials

Paternalism induction. Participants were invited to read one paper article and to summarise it. For participants in the paternalism condition, the paper article was about the alcohol regulation policy the University decided to apply. Binge drinking phenomenon was briefly defined and presented as a growing problem in students. Following was a description of several rules all the Universities from the country, as well as several undergraduate's schools (higher education schools), decided to impose in order to regulate alcohol consumption and abuse within the students' population. The article served as induction of paternalism. The University was presented as a familial authority figure, with a responsibility

to look after the weakest, like parents would with their own children. Students' alcohol over-consumption was presented as associated to destructive and disruptive behaviours. Following complains stemming for the community, the Universities all over the country decided to intervene and guide the students to adopt the appropriate behaviour. A spokesman was interviewed and declared that students are the future and it is of schools' responsibility to help and protect them. It is with their best interest at heart that Universities decided to impose new rules (for instance, curfew for the students aged 21 and younger, compulsory educational programmes about deleterious effects of alcohol over-consumption, breath tests all over the campus, etc.). The stress has been put on the need to protect, help, guide, and educate students for their own good, implying that they lack abilities to do it themselves. For participants in the control condition, the article was about the history of computers.

Intervention. Mindfulness was manipulated using a 4-min pre-recorded audio file. Participants in the paternalism with mindfulness intervention listened to a shorter version of the 10-min mindfulness intervention used in Erisman & Roemer (2010). As in Erisman & Roemer (2010), the mindfulness intervention started with a brief introduction to the concept of mindfulness, followed by an experimental exercise in which participants practised how to mindfully be aware of her or his breathing. The exercise had participants notice the places where they touched the chair, where they touched the floor. They were also invited to notice their breathing, where it was coming from and how it was entering their body. The voice pace was similar to the one used in freely downloadable audio recording developed by Pierre Philippot, from the Catholic University of Louvain-la-Neuve⁵. Participants in the paternalism without mindfulness intervention and participants in the control condition listened to a neutral

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⁵ http://mindfulness.cps-emotions.be/materiel-adulte.php

audio file, a reading of the two last pages of Bernard Clavel's novel, *Amarock*, lasting 4 minutes. The reading pace was similar to the one used in the mindfulness audio file.

Performance. The task performance was measured using an agility task, in which participants had to pick up small objects from quite small holes with tweezers without touching the edges of the holes each object was in. When participants touched the edges, they heard a short noise. Time to complete the task as well as the number of time participants touched the edges (errors) were recorded.

Five Facets Mindfulness Questionnaire (FFMQ). To control for individual differences in everyday mindfulness awareness, participants were asked to complete the Five Facets Mindfulness Questionnaire (Baer, Smith, Hopkins, Krietemeyer & Toney, 2006). The overall scale consists of 39 items which participants rate on a scale from one ("Never or very rarely true") to five ("Very often or always true"). The scale was derived from a factor analysis of five previously developed mindfulness measures. The five facets are Observing (e.g. I notice the smells and aromas of things, $\alpha = .69$), Describing (e.g. "I am good at finding words to describe my feelings", $\alpha = .88$), Acting with awareness (e.g. "I find myself doing things without paying attention" – reverse coded, $\alpha = .84$), No judging of inner experience (e.g. "I think some of my emotions are bad or inappropriate and I should not feel them" – reverse coded, $\alpha = .83$) and Non reactivity to inner experience (e.g. "I perceive my feelings and emotions without having to react to them", $\alpha = .79$). Each participant has a score on each of the five subscales.

Procedure

Upon their arrival to the lab, participants were randomly allocated to one of the three conditions (paternalism with mindfulness intervention, paternalism with neutral audio file,

control condition). They were asked to complete demographics questionnaire then were invited to read and summarise the article (our independent variable). Once they read and summarised the article, participants listened to the 4-min mindfulness or control audio file and when it was over, they were asked to do the performance task and then rate their current emotional state. Before being thanked and fully debriefed, both in a written and oral form, participants completed the FFMQ.

Results

Contrast analyses were used to analyse the effect of mindfulness intervention to counteract the negative effect of paternalism on performance (time and errors). With the first contrast, we compared paternalism followed by a neutral audio file (coded 2) to the two others conditions (paternalism followed by mindfulness and control condition were coded -1). To ascertain no differences between the two other conditions, paternalism followed by mindfulness (coded -1) was compared to control condition (coded 1).

For the number of errors, the analyses of contrasts revealed that our first contrast was not significant, b = .05, SE = .23, p = .83. Participants in the paternalism without mindfulness intervention did not perform significantly worse than participants in the two other conditions. Our second contrast was not significant either, b = .50, SE = .80, p = .53. Participants in the control condition performed as well as participants in the paternalism followed by mindfulness condition. When we controlled everyday mindfulness awareness (all 5 subscales of FFMQ), the pattern of results did not change (first contrast: b = .03, SE = .24, p = .89; second contrast: b = .39, SE = .88, p = .66)

For the time needed to complete the task, as predicted, the first contrast was significant, b = 378.98, SE = 190.27, p = .05. Participants in the paternalism not followed by

mindfulness took more time to complete the task, compared to participants in the two other conditions. Also, as expected, participants in the paternalism followed by mindfulness condition showed a similar performance as participants in the control condition, b = 462.30, SE = 659.12, p = .49. When we controlled everyday mindfulness awareness (all 5 subscales of FFMQ), the pattern of results did not change (first contrast: b = 424, SE = 198.54, p = .04; second contrast: b = -81.94, SE = 738.61, p = .91).

Discussion

Despite the fact that mindfulness intervention did not have an impact on accuracy, we can conclude that, irrespective of how mindful participants are in everyday life, it seems that listening to a short exercise of mindfulness allows individuals to fight the deleterious effects of paternalistic stereotypes on performance and to complete the task as rapidly as individuals not confronted to paternalistic stereotypes at all. Indeed, participants listening to a short mindfulness exercise after being victim of paternalism performed as well as participants not confronted to paternalism on an agility task, in terms of time needed to complete the task. When paternalism is not followed by mindfulness, the usual underperformance appears, participants being slower to complete the task. We can conclude that even a short exercise of mindfulness can help individuals to cope with detrimental effects of being stereotyped against. Our findings are in line with Weger et al. (2012)'s results, showing that mindfulness helps reversing the detrimental effects of stereotype threat on performance. Therefore, whether the stereotype is clearly "in the air" or more subtly present, performance decrements arise and a brief mindfulness intervention seems to be a useful tool to alleviate or erase them.

General Discussion

The main aim of this research was to examine few emotional regulations processes in order to deal with the negative consequences of paternalistic stereotypes on performance. In Study 1, we tried to replicate and extend the results of Johns et al. (2008) showing that regulating anxiety via a reappraisal strategy is an effective way of restoring depleted performance following a stereotype threat. Our results were not in line with Johns and colleagues' results. Participants in our first study performed equally well (or equally bad) whether they received instructions to reappraise their anxiety in a more positive light, to suppress their anxiety or received no instructions. Previous research has shown that emotions felt after an exposition to paternalistic stereotypes are reported in more general terms than precise emotions. Indeed, although provided with a range of diverse specific emotions (anxiety, nervousness, joy, anger, etc.) to rate, participants reported feelings of general positive or general negative emotions instead of precise specific emotions (Silvestre, Huart, & Dardenne, Chapter 4). Study 2 therefore aimed at taking a look at emotional regulations targeted not on specific emotions but on more general positive and general negative emotional states. Although our instructions of regulation did not have an impact on performance in general, some results are of interest. Participants instructed to increase their experience of positive emotions performed better than participants instructed to decrease their experience of negative emotions. Those results encouraged us to consider emotion regulation's strategies that are less focused on specific emotions. In Study 3, we examined a strategy that did not ask participants to regulate emotions, but ask participants to take a mindful look at their present experience. Participants were offered with a short exercise of mindfulness following paternalistic stereotyping. The results showed that even a short practice of mindfulness is enough to keep performance to the same level as a situation where no stereotypes were expressed. Although it is hard to affirm that the beneficial effects of mindfulness would last longer than the duration of the experiment, that last approximately 20 minutes, it is reasonable to think that mindfulness can be an everyday tool to combat the perverse effects of stereotyping. MBCT has been shown to have long term efficiency in reducing depression relapses in depressive patients (Kuyken et al., 2008). It is therefore possible that even a short exercise of mindfulness would present the same beneficial effects.

Paternalism, by simultaneously conveying both positive and negative messages, is ambivalent by nature. Emotional states following a paternalistic encounter are therefore ambivalent as well, even if the explicit self-reports show more positive than negative emotions at first (Silvestre, Huart, & Dardenne, Chapter 4). We propose that regulating ambivalent emotions could be a tricky thing to do. Mindfulness practice, because it does not involve emotional instructions, might be the perfect solution, leaving participants with the choice to regulate whatever emotions they want, whenever they want to.

Reappraisal and suppression of emotions only occur at specific time in the sequence of the modal model of emotions (Barrett, Ochsner, & Gross, 2007). The interest of mindfulness is that it impacts every steps of the sequence. It might explain mindfulness success where reappraisal failed. The modal model of emotions is believed to underlie lay intuitions about emotions (Barrett et al., 2007). Its sequence starts with a psychologically relevant situation which triggers attention. The situation is then appraised by the individual who assesses the situation's familiarity, valence, and value relevance (Ellsworth & Scherer, 2003). A response to the situation follows the appraisal. Emotions can be regulated at any point of the preceding sequence. *Antecedent-focused* strategies occur before appraisals cause emotional response, and *response-focused* strategies occur after the response has been produced (Gross & Muñoz, 1995). Individuals can regulate their emotions by either selecting a situation that would

involve (or not) a specific desired (or undesired) emotion or by modifying an existing situation (situation selection/modification). It is also possible to regulate emotions without changing the situation. Individuals can direct their attention in different ways within the situation in order to influence their emotions. They can either distract themselves away from the situation (thinking about something else) or focus on specific emotional aspects of the situation (staying concentrated on one specific emotion). Once the situation has been selected, modified, and attended to, emotions can still be regulated by cognitively changing how the situation is appraised, for instance, by changing the meaning of the situation (e.g. reappraisal of the situation: seeing a rainy day as a perfect day to go to the cinema). Finally, changing the emotional response once is there can be attempted, for instance by hiding one's true feelings from another person (e.g. suppression of emotional state: hiding sadness in front of the professor when failing an oral exam). The practice of mindfulness involves nonjudgmental outlook, control of the focus of attention, observation of appraisals as thoughts that are not necessarily the reflection of reality and acceptance of emotions as they are passing by. Therefore, since it can have an impact on every type of the emotion regulation strategies presented above (situation selection/modification; distraction/focus; reappraisal; suppression), mindfulness is a powerful tool.

To conclude, we suggest that mindfulness, compared to reappraisal strategy used in Study 1, is a most appropriate and powerful strategy given that it can have an effect on different steps of the modal model of emotions, whereas reappraisal only impacts one specific step of the model.

Future research

One surprising result revealed by our research is that the use of a reappraisal strategy has not yield any significant results, which is in contradiction with previous research (Johns et al., 2008). It might be that reappraising one's anxiety as beneficial or neutral is not efficient. According to Brooks (2014), reappraising one's anxiety as excitement would be more effective than trying to calm down, given that excitement and anxiety are both characterized by high arousal, whereas calming down implies both a cognitive change in valence (from negative to positive) and a change in arousal (from high to low arousal). Reappraising anxiety as excitement would therefore only require a cognitive change in valence (from negative to positive). Future research might yield better results if participants would be instructed to turn their anxiety into excitement after being confronted to paternalism.

It might also be more relevant not to regulate anxiety but to regulate self-confidence. Indeed, in our first study, participants in the reappraisal condition tended to feel more confident than participants in the two other conditions. Although those results only are a tendency and have to be interpreted with caution, focusing on the regulation of self-confidence might produce more interesting results. It has been shown that paternalistic stereotyping triggers high level of feelings related to incompetence (Dardenne et al., 2007; Silvestre & Dardenne, Chapter 5). In Silvestre & Dardenne, anxiety and self-confidence have been shown to be consequences of paternalistic pre-game speech, but whereas anxiety had no mediating role, self-confidence had. Therefore, it might be more pertinent and more efficient to focus further efforts on the regulation of feelings of incompetence/self-confidence rather than regulation of feelings of anxiety.

Another surprising result revealed by our research is the absence of significant difference in the emotional states measured after the interventions in each of our three studies. In Study 1, participants felt equally anxious and competent, and did not differ in their reports of negative and positive emotions, whether they reappraised or suppressed their emotions. In Study 2, participants instructed to decrease their negative emotions reported feeling equal

levels negative emotions than participants instructed to increase their positive emotions and participants who received no instructions. Participants reported similar levels of positive emotions across the three conditions as well. Based on our own research (Silvestre, Huart & Dardenne, Chapter 4), we suggest that emotional states following paternalistic encounter is tricky to measure using only self-reports. We showed that the use of implicit measures (e.g. emotional Stroop task) revealed a different pattern of emotions than when self-reports was used. Indeed, explicit self-reports measures showed that paternalistic stereotypes were quite positively reacted to, whereas a Stroop task showed a rather negative reaction to paternalistic stereotypes, within the same participants. Bosson et al. (2004) also showed that only non-verbal measures could detect stereotype threat anxiety, whereas self-reports could not. Future research would need to explore the effect of emotion regulation strategies on emotional states using implicit measures, for instance with an emotional Stroop task (e.g. Silvestre, Huart & Dardenne, Chapter 4), a dot probe task (e.g. Johns et al., 2008) or by measuring nonverbal behaviours (e.g. Bosson et al., 2004).

Conclusions

Our findings nicely complement research on deleterious effects of negative stereotypes on performance, by exploring few strategies to deal with those effects in order to keep performance unaffected. Our research is starting to fill a gap in the literature by not only saying that negative stereotyping is detrimental for cognitive and motor performance but by taking a step further and try to do something about it. We also helped broaden mindfulness' scope of action by showing its efficacy as a strategy of coping with negative stereotyping. Mindfulness is easily accessible for the public. Large amount of books are available in libraries and bookstores, and free-access audio file are available on the Internet. Practice groups are also more and more present throughout Europe. Informing the public that

mindfulness is an effective way to fight the deleterious effects of negative stereotypes could be of great use in the everyday struggle to deal with stereotypes.

References

Baer, R. A. (2003). Mindfulness training as a clinical intervention: A conceptual and empirical review. *Clinical Psychology: Science and Practice*, *10*, 125-143. doi: 10.1093/clipsy.bpg015

Baer, R. A., Smith, G. T., Hopkins, J., Krietemeyer, J., & Toney, L. (2006). Using self-report assessment methods to explore facets of mindfulness. *Assessment*, *13*, 27-45. doi: 10.1177/1073191105283504

Barreto, M., & Ellemers, N. (2005). The burden of benevolent sexism: How it contributes to the maintenance of gender inequalities. *European Journal of Social Psychology*, *35*, 633-642. doi:10.1002/ejsp.270

Barrett, L. F., Ochsner, K. N., & Gross, J. J. (2007). On the automaticity of emotion. In John A. Bargh (Ed.), *Social psychology and the unconscious: the automaticity of higher mental processes* (pp. 173-217). New York, NY: Psychology Press

Beilock, S. L., Jellison, W. A., Rydell, R. J., McConnell, A. R., & Carr, T. H. (2006). On the causal mechanisms of stereotype threat: Can skills that don't rely heavily on working memory still be threatened?. *Personality and Social Psychology Bulletin*, *32*, 1059-1071. doi: 10.1177/0146167206288489

Bowen, N. K., Wegmann, K. M., & Webber, K. C. (2013). Enhancing a brief writing intervention to combat stereotype threat among middle-school students. *Journal of Educational Psychology*, 105, 427-435. doi: 10.1037/a0031177

Bradac, J. J. (1990). Language attitudes and impression formation. In H. Giles & W. P. Robinson (Eds.), *Handbook of language and social psychology* (pp. 387–412). New York, NY: Wiley

Brooks, A. W. (2014). Get excited: Reappraising pre-performance anxiety as excitement. *Journal of Experimental Psychology: General*, *143*, 1144-1158. doi: 10.1037/a0035325

Brown, S. P., Westbrook, R. A., & Challagalla, G. (2005). Good cope, bad cope: adaptive and maladaptive coping strategies following a critical negative work event. *Journal of Applied Psychology*, *90*, 792-798. doi: 10.1037/0021-9010.90.4.792

Bryant, F. (2003). Savoring Beliefs Inventory (SBI): A scale for measuring beliefs about savouring. *Journal of Mental Health*, *12*, 175-196. doi: 10.1080/0963823031000103489

Cadinu, M., Maass, A., Rosabianca, A., & Kiesner, J. (2005). Why do women underperform under stereotype threat? Evidence for the role of negative thinking. *Psychological Science*, *16*, 572-578. doi: 10.1111/j.0956-7976.2005.01577.x

Chasteen, A. L., Bhattacharyya, S., Horhota, M., Tam, R., & Hasher, L. (2005). How feelings of stereotype threat influence older adults' memory performance. *Experimental Aging Research*, *31*, 235-260. doi: 10.1080/03610730590948177

Creswell, J. D., & Lindsay, E. K. (2014). How does mindfulness training affect health? A mindfulness stress buffering account. *Current Directions in Psychological Science*, 23, 401-407. doi: 10.1177/0963721414547415

Dardenne, B., Dumont, M., & Bollier, T. (2007). Insidious dangers of benevolent sexism: consequences for women's performance. *Journal of Personality and Social Psychology*, *93*, 764-779. doi: 10.1037/0022-3514.93.5.764

Dumont, M., Sarlet, M., & Dardenne, B. (2010). Be too kind to a woman, she'll feel incompetent: Benevolent sexism shifts self-construal and autobiographical memories toward incompetence. *Sex Roles*, 62, 545-553. doi: 10.1007/s11199-008-9582-4

Ellsworth, P.C. & Scherer., K R. (2003). Appraisal processes in emotion. In: R. J. Davidson, & K. R. Scherer (Eds.), *Handbook of affective sciences* (pp. 572-595). New York, NY: Oxford University Press.

Erisman, S. M., & Roemer, L. (2010). A preliminary investigation of the effects of experimentally induced mindfulness on emotional responding to film clips. *Emotion*, *10*, 72-82. doi: 10.1037/a0017162

Fiske, S. T., Cuddy, A. J., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, 82, 878-902. doi: 10.1037/0022-3514.82.6.878

Glick, P., & Fiske, S. T. (1996). The Ambivalent Sexism Inventory: Differentiating hostile and benevolent sexism. *Journal of Personality and Social Psychology*, 70, 491. doi: 10.1037/0022-3514.70.3.491

Gonzales, P. M., Blanton, H., & Williams, K. J. (2002). The effects of stereotype threat and double-minority status on the test performance of Latino women. *Personality and Social Psychology Bulletin*, 28, 659–670. doi: 10.1177/0146167202288010

Gross, J. J. (1998). Antecedent-and response-focused emotion regulation: divergent consequences for experience, expression, and physiology. *Journal of Personality and Social Psychology*, 74, 224-237. doi: 10.1037/0022-3514.74.1.224

- Gross, J. J. (2002). Emotion regulation: Affective, cognitive, and social consequences. *Psychophysiology*, *39*, 281-291. doi: 10.1017/S0048577201393198
- Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85, 348-362. doi: 10.1037/0022-3514.85.2.348
- Gross, J. J., & Muñoz, R. F. (1995). Emotion regulation and mental health. *Clinical Psychology: Science and Practice*, 2, 151-164. doi: 10.1111/j.1468-2850.1995.tb00036.x

Grossman, P., Niemann, L., Schmidt, S., & Walach, H. (2004). Mindfulness-based stress reduction and health benefits: A meta-analysis. *Journal of Psychosomatic Research*, *57*, 35-43. doi:10.1016/S0022-3999(03)00573-7

Hofmann, S. G., Heering, S., Sawyer, A., & Asnaani, A. (2009). How to handle anxiety: The effects of reappraisal, acceptance, and suppression strategies on anxious arousal. Behaviour Research and Therapy, 47, 389–394. doi:10.1016/j.brat.2009.02.010

Johns, M., Inzlicht, M., & Schmader, T. (2008). Stereotype Threat and Executive Resource Depletion: Examining the Influence of Emotion Regulation. *Journal of Experimental Psychology: General*, 137, 691-705. doi: 10.1037/a0013834

Johns, M., Schmader, T., & Martens, A. (2005). Knowing is half the battle teaching stereotype threat as a means of improving women's math performance. *Psychological Science*, *16*, 175-179. doi: 10.1111/j.0956-7976.2005.00799.x

Kabat-Zinn, J., Massion, M. D., Kristeller, J., Peterson, L. G., Fletcher, K. E., Pbert, L., ... & Santorelli, S. F. (1992). Effectiveness of a meditation-based stress reduction program in the treatment of anxiety disorders. *American Journal of Psychiatry*, 149, 936-943. doi: 10.1176/ajp.149.7.936

Kuyken, W., Byford, S., Taylor, R. S., Watkins, E., Holden, E., White, K., ... & Teasdale, J. D. (2008). Mindfulness-based cognitive therapy to prevent relapse in recurrent depression. *Journal of Consulting and Clinical Psychology*, 76, 966-978. doi: 10.1037/a0013786

Kuyken, W., Weare, K., Ukoumunne, O. C., Vicary, R., Motton, N., Burnett, R., ... & Huppert, F. (2013). Effectiveness of the Mindfulness in Schools Programme: non-randomised controlled feasibility study. *The British Journal of Psychiatry*, 203, 126-131. doi: 10.1192/bjp.bp.113.126649

Marlatt, G. A., & Kristeller, J. L. (1999). Mindfulness and meditation. In W. R. Miller (Ed.), *Integrating spirituality into treatment* (pp. 67–84). Washington, DC: American Psychological Association.

Martens, A., Johns, M., Greenberg, J., & Schimel, J. (2006). Combating stereotype threat: The effect of self-affirmation on women's intellectual performance. *Journal of Experimental Social Psychology*, 42, 236-243. doi:10.1016/j.jesp.2005.04.010

Martinent, G., Ferrand, C., Guillet, E., & Gautheur, S. (2010). Validation of the French version of the Competitive State Anxiety Inventory-2 Revised (CSAI-2R) including frequency and direction scales. *Psychology of Sport and Exercise*, 11, 51-57. doi: 10.1016/j.psychsport.2009.05.001

Memedovic, S., Grisham, J. R., Denson, T. F., & Moulds, M. L. (2010). The effects of trait reappraisal and suppression on anger and blood pressure in response to provocation. *Journal of Research in Personality*, 44, 540-543. doi: 10.1016/j.jrp.2010.05.002

Nguyen, H. H., & Ryan, A. M. (2008). Does stereotype threat affect test performance of minorities and women? A meta-analysis of experimental evidence. *The Journal of Applied Psychology*, 93, 1314-1334. doi: 10.1037/a0012702

Piet, J., & Hougaard, E. (2011). The effect of mindfulness-based cognitive therapy for prevention of relapse in recurrent major depressive disorder: a systematic review and meta-analysis. *Clinical Psychology Review*, *31*, 1032-1040. doi:10.1016/j.cpr.2011.05.002

Pinel, E. C. (1999). Stigma consciousness: The psychological legacy of social stereotypes. *Journal of Personality and Social Psychology*, 76, 114-128. doi: 10.1037/0022-3514.76.1.114

Quoidbach, J., Berry, E. V., Hansenne, M., & Mikolajczak, M. (2010). Positive emotion regulation and well-being: Comparing the impact of eight savoring and dampening strategies. *Personality and Individual Differences*, 49, 368-373. doi:10.1016/j.paid.2010.03.048

Raes, F., Griffith, J. W., Van der Gucht, K., & Williams, J. M. G. (2014). School-based prevention and reduction of depression in adolescents: A cluster-randomized controlled trial of a mindfulness group program. *Mindfulness*, 5, 477-486. doi: 10.1007/s12671-013-0202-1

Richards, J. M., & Gross, J. J. (2000). Emotion regulation and memory: The cognitive costs of keeping one's cool. *Journal of Personality and Social Psychology*, 79, 410–424. doi: 10.1037/0022-3514.79.3.410

Rosenthal, H. E., & Crisp, R. J. (2006). Reducing stereotype threat by blurring intergroup boundaries. *Personality and Social Psychology Bulletin*, 32, 501-511. doi: 10.1177/0146167205281009

Ruscher, J. B. (2001). *The social psychology of prejudiced communication*. New York, NY: Guilford Press.

Schmader, T. (2002). Gender identification moderates stereotype threat effects on women's math performance. *Journal of Experimental Social Psychology*, *38*, 194–201. doi:10.1006/jesp.2001.1500

Schmader, T., Johns, M., & Forbes, C. (2008). An integrated process model of stereotype threat effects on performance. *Psychological Review*, *115*, 336-356. doi: 10.1037/0033-295X.115.2.336

Shaffer, E. S., Marx, D. M., & Prislin, R. (2013). Mind the gap: Framing of women's success and representation in STEM affects women's math performance under threat. *Sex roles*, 68, 454-463. doi: 10.1007/s11199-012-0252-1

Smeding, A., Dumas, F., Loose, F., & Régner, I. (2013). Order of administration of math and verbal tests: An ecological intervention to reduce stereotype threat on girls' math performance. *Journal of Educational Psychology*, *105*, 850 -860. doi: 10.1037/a0032094

Spencer, S. J., Steele, C. M., & Quinn, D. M. (1999). Stereotype threat and women's math performance. *Journal of Experimental Social Psychology*, *35*, 4-28. doi:10.1006/jesp.1998.1373

Stone, J., Lynch, C. I., Sjomeling, M., & Darley, J. M. (1999). Stereotype threat effects on black and white athletic performance. *Journal of Personality and Social Psychology*, 77, 1213-1227. doi: 10.1037/0022-3514.77.6.1213

Vescio, T. K., Gervais, S. J., Snyder, M., & Hoover, A. (2005). Power and the creation of patronizing environments: the stereotype-based behaviors of the powerful and their effects on female performance in masculine domains. *Journal of Personality and Social Psychology*, 88, 658-672. doi: 10.1037/0022-3514.88.4.658

Vieillard S., & Bougeant J.-C. (2005). Performances à une tâche de mémoire de travail sous induction émotionnelle négative: Influence modulatrice de l'état émotionnel sur les processus exécutifs. *L'année Psychologique*, 105, 63-104. doi: 10.3406/psy.2005.3820

Weger, U. W., Hooper, N., Meier, B. P., & Hopthrow, T. (2012). Mindful maths: Reducing the impact of stereotype threat through a mindfulness exercise. *Consciousness and Cognition*, 21, 471-475. doi:10.1016/j.concog.2011.10.011

Williams, J. M. G., & Kuyken, W. (2012). Mindfulness-based cognitive therapy: A promising new approach to preventing depressive relapse. *The British Journal of Psychiatry*, 200, 359-360. doi: 10.1192/bjp.bp.111.104745

Chapter Seven

General Discussion

The aim of this thesis was to take a closer look at the impacts of stigmatisation on its targets. In two theoretical chapters, we reviewed the relevant literature in an attempt to establish a somewhat complete picture of the state of the research in daily stigmatisation and its consequences. In a first chapter, we focused on daily instances of discrimination, stereotypes and prejudices faced by various stigmatised social groups. The pervasiveness of daily stigmatisation has been evidenced in numerous domains, such as in the field of health care, in the labour market, or in the criminal justice system, to name but a few. Members of a minority group (women, racial minorities, homo- and bi-sexual, mildly to severe obese or mentally ill individuals, etc.) experience many forms of stigmatisation, from inappropriate and derogatory comments to difficulties in health care access or differences in medical treatments; from weaker chances of employability to lower salaries or virtual impossibilities to achieve higher organisational positions; from greater likelihoods of guilty verdicts to longer sentences or higher probabilities to be blamed after being victim of a sexual aggression. In a second chapter, we presented two means through which daily stigmatisation can be expressed: blatant hostility or subtle benevolence. Although it is legally punishable to be overtly racist, sexist or homophobic, we reported instances in which people, either direct victims or merely bystanders of such comments, neither automatically confronted the prejudiced person nor reported their experience of personally endured or witnessed discrimination. The hypothesis of social costs has been suggested as one possible explanation for such inaction. In a second time, we paid a more exclusive attention to the subtler way people express their negative attitudes towards other social groups and their members. We introduced three main theories, i.e. stereotype threat, benevolent sexism and patronizing, and we further presented the relevant research examining the cognitive, affective and behavioural effects of these three respective concepts. Both in Chapter 1 and Chapter 2, we concluded our literature review by tackling a number of prejudice reduction strategies, focused either on decreasing the level of prejudice and intergroup bias within the prejudiced individuals, or on offering tactics of coping with prejudice to those who are targeted by it.

Since the impacts of paternalistic stereotypes on cognition have been well documented, in our experimental chapters, we wanted to further enrich the research examining the effects of paternalistic stereotypes on affects and behaviours. As we introduced in our second chapter, the three sides of the attitudes (cognition, affect and behaviours) being only weakly correlated, in order to have the most complete picture, we need to better apprehend each one of them, separately at first and, then, jointly. In the experimental chapters of this thesis, we were interested in further exploring the effect of paternalistic stereotyping on women's financial behaviour, by examining their decision-making process during interaction with a benevolent man (Chapter 3); we also decided to take a closer look at the affective and behavioural sides of paternalistic stereotypes targeted specifically at female and male young workers (Chapter 4) or young semi-professional athletes (Chapter 5). In Chapter 4, we considered the detection and report of the negative affective state following a paternalistic encounter in a job context. In Chapter 5, we examined the specific impacts of a paternalistic pre-game motivational speech on young athletes' performance on an agility task, and the mediating role of two specific sport-related emotions, i.e. cognitive anxiety and selfconfidence. Finally, to conclude our research, in Chapter 6, we wanted to contribute to the fascinating and more practical field of prejudice reduction and coping with stigmatisation. In that we explored the efficiency of two emotions-regulation-based, and one mindfulness-based, strategies to overcome the negative association between paternalistic stereotyping and motor/behavioural performance identified in Chapter 5.

The reflection in the general discussion section of this thesis will be structured around the attempt to provide a response to three general questions: What have learned?; What are the limitations of our findings?; and, finally, What now?

What have we learned?

• Paternalistic stereotyping impacts women's financial decision-making

The purpose of our first empirical chapter (Chapter 3) was to further explore the impacts paternalistic stereotyping can have on women's behaviour. We focused on paternalistic sexism, better known as the ideology of Benevolent Sexism (BS). This ideology defines the role of men and women in a very particular way. Indeed, although both men and women have an active role in the development and maintenance of a functional family unit, their sphere of action is rather different. Whereas women possess a quite active role in various domestic tasks within the household (i.e. raising the children, fixing diner, keeping the house clean, etc.), men are much more active outside the household, working to provide sufficient financial resources for the household to subsist. BS ideology therefore creates expectations of men being the financial provider of the household. Across two studies we wanted to examine the role of expectations created by BS ideology when it comes to financial decision-making. Female participants either decided how they would share a determined sum of money with a man in several trials of a Dictator Game (Study 1), or decided whether to accept or reject an offer of sharing from a man in several trials of an Ultimatum Game (Study 2). The results of those two studies revealed that women who are expecting benevolence from a man in the form of financial support, either activated by the presence of a benevolent man possessing benevolent facial characteristics, or by their personal beliefs in BS ideology, firmly reject the idea of a financial sharing that is not in line with their expectations. More specifically, women expecting benevolence offered very unequal sharing of money in their advantage in the

Dictator Game, keeping most of the money for themselves; and rejected offers of very unequal sharing in their disadvantage in the Ultimatum Game, punishing the greedy man. These findings demonstrated that men who do not conform to activated women's expectations of benevolence by providing financial support are simply rejected.

• Paternalistic stereotyping is not only positively or only negatively experienced

In our second empirical chapter (Chapter 4), we have learned that, using more implicit or subtler measures of affective state, it looked as if paternalistic stereotyping does not trigger one clear affective state. Indeed, we showed that, whereas the positive acknowledgment of warmth and sympathy conveyed by paternalism appears to be easily reported using selfreported measure, and the negative suggestion of incompetence seems more easily reported using implicit measure, the whole picture is not that simple. In effect, in the third study, we used a more ecological measure of emotional state (i.e. Social Sharing of Emotions), asking participants to write down their reaction to paternalistic stereotyping using their own words (in an email addressed to their best friend). We analysed their words in terms of valence using a validated software program of retrieval of emotional words (EMOTAIX, Piolat & Bannour, 2009). The analyses of the socially shared emotional state revealed that participants reported feeling simultaneously positive and negative emotions after meeting their new paternalistic boss. Those findings evidenced that instead of triggering one clear positive or negative affective state, paternalism seems to leave its targets feel quite ambivalent, which is not surprising given the simultaneous presence of positive (sympathy) and negative evaluations (incompetence).

Paternalistic stereotyping impairs motor/behavioural performance of young athletes

In our third empirical chapter (Chapter 5), we were led by the desire to complement the literature regarding the effects of stereotype threat on athletic performance, as well as the potential mediational role of emotions. Our first aim was, just as Dardenne, Dumont, & Bollier (2007) did before us with cognitive performance, to see whether observed depletion of behavioural performance following a stereotype threat (Chalabaev, Sarazin, Stone, & Cury, 2008; Hively & El-Alayli, 2014; Laurin, 2013) would also be present after a paternalistic encounter. As introduced at the end of our fourth chapter, we also wanted to examine the impacts of paternalistic stereotyping on specific emotions rather than on a general positive or negative emotional state. Our second aim was therefore to examine potential emotional mediators. Since we tested our hypotheses within a population of young athletes, we decided to study emotions relevant to the sport competition domain, i.e. cognitive anxiety and selfconfidence (Chamberlain & Hale, 2007; Feldman, Zayfert, Sandoval, Dunn, & Cartreine, 2013; Hays, Maynard, Thomas, & Bawden, 2007; Vealey & Chase, 2008). We confronted young semi-professional athletes to a pre-game motivational speech allegedly given by their coach. The analyses of the performance on an agility task showed a significant decrease amongst the athletes confronted by the paternalistic speech of their coach, compared to the athletes whose coach was not paternalistic. In addition, we evidenced a partial mediational role of decreased self-confidence, as well as moderating role of speech valence, reflecting a less accurate performance following a paternalistic pre-game speech through a decrease in self-confidence. The indirect effect of paternalism through self-confidence is even stronger when the speech emphasised positive past performance. The findings of our third experimental chapter highlighted the fact that not only paternalism can damage motor/behavioural performance, but it also leaves the athletes feeling less confident, which partially explains their underperformance. It shows that, even if, and especially because, paternalism is concealed behind a layer of positivity, it nonetheless is quite prejudicial for performance.

Given the appropriate means, prejudiced people can overcome deleterious effects
 of paternalistic stereotyping on motor/behavioural performance.

In our final and more exploratory experimental chapter (Chapter 6), we considered strategies to help stigmatised individuals to cope with the effects of paternalistic stereotypes after they took place. In our theoretical chapters, we introduced several strategies developed with the purpose of dealing with stigmatisation, but generally, those strategies offered ways to prevent the negative effects to arise before the stigmatisation took place. However, it is difficult to predict when stigmatisation will occur. Therefore, the aim of our sixth chapter was to explore emotion-based and mindfulness-based strategies to cope with and overcome deleterious effects of paternalistic stereotypes on motor/behavioural performance. Although the first two studies did not demonstrate significant improvements following a reappraisal of anxiety (Study 1) and an up-regulation of positive words (Study 2), when participants listened to a short recording of mindfulness just after an exposition to paternalistic stereotypes (Study 3), their performance at an agility task was better than the one of participants listening to a neutral recording, and was similar to the performance of participants not exposed to paternalism. Those findings demonstrated that a short exercise of mindfulness can be an efficient way to restore depleted performance usually following paternalistic stereotyping.

What are the practical implications of what we have learned?

In this section, we will address practical implications of each of our four findings.

First, whereas showing that women are not as passive as previously thought is somewhat positive, the impacts of benevolent sexism on women's economic decision-making might not be that positive after all. Indeed, whereas women possess a power of decision over which men's offers to accept and which offers to reject, as well as a quite active role in deciding how to share men's money, the fact that they are influenced in their decision-making process by the benevolent sexist ideology is just another evidence of the maintenance of gender inequalities in contemporary society. In effect, the fact that women are expecting men to financially support them, and therefore act accordingly by rejecting men's offers that do not conform to those expectations, reflects the sad reality that women are still acting according to the traditional communal role BS ideology prescribed them. Better understanding the pervasive effect of the BS ideology on women's daily behaviour is still in need of further explorations if women want to get free of these benevolent bonds they sometimes willingly tie around their own wrist.

Second, when it comes to the impacts of paternalistic stereotyping on affective state within a job context, practical implications can be of great importance for the organisation. Indeed, affective experience in the workplace shapes the work-related attitudes of workers (Affective Events Theory, Weiss & Cropanzano, 1996). More specifically, negative affect has been shown to be negatively associated with job satisfaction and positive affect positively associated with job satisfaction (Kafetsios & Zampetakis, 2008). Job satisfaction, in turn, has been negatively linked to absenteeism and turnover (Coutts & Gruman, 2005), and positively linked to job performance (Judge, Thorensen, Bono, & Patton, 2001; see also Coutts & Gruman, 2005). This is not without consequences for the organisation. For instance, when an

employee quits the organisation, the initial costs of their recruitment and training are not only lost, but additional costs appear when it comes to replace them in the organisation (Levy, 2003). It seems therefore important for organisations to keep their employees happy. Daily perception of stereotyping is a key factor in the workers' subsequent affective state (Nye, Brummel, & Drasgow, 2009) and job satisfaction (Bond, Punnett, Pyle, Cazeca, & Cooperman, 2004; Miller & Travers, 2005; Redman & Snape, 2006). Therefore, understanding the effects of paternalistic stereotyping on workers' affective state increases the possibilities to further act upon it.

The general leadership style of the coach or the manager of a team is crucial for a team to function effectively (LaFasto & Larson, 2001; Zaccaro, Rittman, & Marks, 2002). Just as in organisations, the climate in which individuals in sport settings evolve is decisive. The coach possesses a great deal of influence on the type of climate that would be set up. In effect, the type of motivational climate he decides to establish will impact his team members' beliefs in their team efficacy (Magyar, Feltz, & Simpson, 2004). The leadership style the coach decides to apply with his team will also determine the team's task cohesion. Indeed, it has been evidenced that an autocratic leadership style (the coach makes all the decisions and does not delegate any power) negatively impacts task cohesion, whereas a democratic leadership style (the coach involves the team members in the decision-making process) positively impacts task cohesion (Sullivan & Feltz, 2005). The cohesion of the team then is crucial for the team to function and perform effectively (Mullen & Copper, 1994). We can establish a parallel between an autocratic leadership style and a paternalistic leadership style as the one defined in our fifth chapter. In effect, it is not uncommon for sportsmen to perceive their team "as family" (Sullivan & Feltz, 2005). Paternalistic leadership style might therefore appeal to coaches wanting to enhance team cohesion by considering the team like a family unit. However, as our findings in Chapter 5 revealed, limiting the team members in their involvement in the decision-making process can turn out to be detrimental for the individual performance, and their feeling of self-confidence, which in turn might alter the cohesion of the team.

A major practical implication of our findings lies in the reflection around interventions to weaken the negative link that exists between stigmatisation and performance that we developed in our last experimental chapter. We joined the growing literature of coping with stigmatisation by offering some means to deal with the negative consequences of being treated in a paternalistic way. Whereas we were neither able to replicate the promising results of the application of emotion regulation strategies (reappraisal vs suppression, Johns, Inzlicht, & Schmader, 2008), nor were we able either to confirm our hypothesis of a better performance following up regulation of positive emotions, we nonetheless added significant results to the always growing literature on beneficial impacts of mindfulness. Mindfulnessbased therapy or intervention have been evidenced to have widespread positive influences on various life domains, such as physical and mental health (Brown & Ryan, 2003; Chen, Berger, Manheimer, Forde, Magidson, Dachman, et al., 2012; Creswell & Lindsay, 2014; Creswell, Pacilio, Lindsay, & Brown, 2014; Kumar, Feldman, & Hayes, 2008; see also Baer, 2003, for a review), cognition and attention (Bowlin & Baer, 2012; Chambers, Lo, & Allen, 2008; Chan & Woollacott, 2007; Chiesa, Calati, & Serreti, 2011; Jha, Krompinger, & Baime, 2007; Stanley, Schaldach, Kiyonaga, & Jha, 2011; Teper, Segal, & Inzlicht, 2013; van Leeuwen, Müller, & Melloni, 2009), labour market (Fortney, Luchterhand, Zakletskaia, Zgierska, & Rakel, 2013; Hülsheger, Alberts, Feinholdt, & Lang, 2013; Mackenzie, Poulin, & Seidman-Carlson, 2006; Shapiro, Astin, Bishop, & Cordova, 2005), and sports (Birrer, Röthlin, & Morgan, 2012), to name only a few. Applying the principles of mindfulness – a non-judgmental perception of, and look at, the surrounding environment – to the prevention of deleterious effects of stigmatisation opens various possibilities of interventions development in everyday life. We will discuss the array of possibilities of applying mindfulness in the domain of prejudice reduction and coping with stigmatisation further in the "What now?" section of the current thesis.

How do our findings complete the existing state of arts?

In this section, we will present the various ways in which we generally contributed to the research in the paternalistic stereotyping field.

First, we complemented the literature that took an interest in understanding the effects stigmatisation can have on its targets, i.e. how it is experienced, cognitively, affectively, or behaviourally. Throughout all our experimental chapters, we were concerned by the way paternalistic stereotyping can affect members of a stereotyped social group. More specifically, we showed how paternalistic stereotyping influenced women in their financial decision-making, how it is affectively experienced by young workers in the workplace, and how it impacts young athletes' motor performance in a sports context. This complements nicely the literature on the effect of stigmatisation on affects and behaviour presented in our second theoretical chapter.

Second, we complemented the research with our studies focusing more specifically on affects and behaviours. In effect, a large body of research has been mostly interested in the impacts of stereotyping on cognition, such as cognitive performance (Berjot, Girault-Lidvan, Gillet, & Scharnitzky, 2010; Johns, Schmader, & Martens, 2005; Murphy, Richeson, Shelton, Rheinschmidt, & Bergsieker, 2012; Neuville & Croizet, 2007), or working memory (Beilock, Rydell, & McConnell, 2007; Schmader & Johns, 2003). Less attention has been given to how targets of paternalistic stereotyping experience it in terms of affects and emotions. Although some researchers identified negative emotions such as anger, sadness or disappointment (Chateignier, Chekroun, Nugier, & Dutrévis, 2011; Keller & Dauenheimer, 2003), the amount

of research done in the field remains quite weak compared to the one done on cognition. The research looking at the behavioural impacts of stereotyping have been richer, with stereotype threat influencing athletic performance (Beilock, Jellison, Rydell, McConnell, & Carr, 2006; Beilock & McConnell, 2004), women's and old people's driving (Joanisse, Gagnon, & Voloaca, 2013; Yeung & von Hippel, 2008), women's health and beauty behaviour (Fitz & Zucker, 2015; Johannesen-Schmidt & Eagly, 2002), as well as women's academic, career, and life partner choices (Sarlet & Dardenne, 2012). We made our contribution to the field by showing that paternalistic stereotyping may have impacts on women's economic decisionmaking (Chapter 3), as well as on young athletes' motor performance (Chapter 5). In addition, after having taken a look at both the affective and the behavioural side of paternalistic stereotyping separately (Chapter 4 and Chapter 5, respectively), we also considered them all together in an attempt to better understand their mutual influence and role within the context of stereotyping (Chapter 5). These findings bring a response to the need, identified in Chapter 2, to devote an equal and joint amount of attention to the weakly correlated cognitive, affective and behavioural aspect of stigmatisation, in order to increase our complete understanding and enhance our chances to develop relevant and efficient interventions to combat its deleterious impacts.

Third, we made a contribution by showing that although a great deal of the studies done in the paternalistic stereotyping research focused on men-women relationships, being perceived as nice but incompetent by an authoritarian figure, such a new boss, a sport coach, or the university, can affect young men and women indistinctively. Indeed, throughout all our experimental studies, gender never had a significant impact in the relationship between paternalistic stereotyping and affect and behaviour. In addition, male and female participants experienced the benefits, or the absence of benefits, of the strategies explored in our last chapter in a similar way.

And last, but not least, our findings are in line with the literature reflecting on propositions of strategies to combat the usual underperformance observed after an episode of stigmatisation.

What are the limitations of our studies?

In this section, we will not discuss the limitations specific to each of our studies, which have already been presented in each of the general discussion sections of our experimental chapters, focusing instead on general limitations that can be applied to most or all of our studies.

The first limitation of our findings resides in the way we examined the emotional aspect in our experiments. Two points can be made within this general limitation: the emotions/affects we measured, and the emotional/affective measures we used in order to do so. At the beginning of the reflection of this thesis, we reviewed the stigmatisation literature in a hope to find studies that looked at emotions, not as causes of stigmatisation but as consequences. Without many positive results, we decided to measure emotions/affects using a large amount of different emotions we could gathered for different sources, but without using any validated emotional measures, such as the Positive Affect and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988), the Kessler Psychological Distress Scale (Kessler & Mroczek, 1994), or the State and Trait Anxiety Inventory (Spielberger, 1988), or Rosenberg Self-Esteem (Rosenberg, 1965; Vallières & Vallerand, 1990), as we should have done. Hence, we recommend a more complete and validated measure of emotions to be introduced in future research in order to better apprehend the specific role emotional/affective state plays in the context of paternalistic stereotyping. However, one can question the relevance and validity of self-report measures of emotions. Research has evidenced explicit measures of emotions failing to catch the emotional state following stereotype threat (Bosson, Haymovitz, & Pinel,

2004; Gonzales, Blanton, & Williams, 2002; Schmader & Johns, 2003; Spencer, Steele, & Quinn, 1999), whereas studies relying on physiological and other indirect measures have yielded more promising results (Blascovich, Spencer, Quinn, & Steele, 2001; Murphy, Steele, & Gross, 2007). We would therefore suggest future research to use various implicit measures in addition to explicit self-reports in the desire to fully grasp the unique role of emotional/affective states within paternalistic stereotyping. Plenty of implicit and physiological measures are available in literature, from the emotional Stroop task to measure attentional bias towards emotional words (Gotlib & Cane, 1987; Matthews & McLeod, 1985; Richards, French, Johnson, Naparstek, & Williams, 1992; Watts, McKenna, Sharrock, & Trezise, 1986) to the Dot Probe Task measuring anxiety (Johns et al., 2008; Mathews & MacLeod, 1986), or physiological measures, such as blood pressure (Blascovich et al., 2001) as well as cortisol levels (Townsend, Major, Gangi, & Mendes, 2011) as indicators of stress in a stereotype threat situation. In addition, still in line with our call to better measuring emotional/affective state, we come back to the reading of our results in Chapter 4, where we interpreted the non-significant difference between the level of positive and negative emotions our participants socially shared with their best friend as an evidence of ambivalence. However, in the absence of a real and validated measure of ambivalence, it is quite risky to affirm that participants did feel ambivalence and not merely just indifference. We therefore suggest future research to include a validated measure of attitudinal ambivalence (Thompson, Zanna, & Griffin, 1995), such as the one used in the environmental psychology literature. Costarelli & Colloca, (2004) measured ambivalence by simultaneously examining the level of agreement on positive and negative environmental attitudes ("I feel that recycling gives satisfaction", and "I feel that recycling does not give satisfaction").

A second limitation of our work concerns our lack of consideration for individual personality variables as potential moderators of the effects of paternalistic stereotyping on

emotions and behaviours. Just as benevolent sexism literature takes into account the extent to which women accept, and sometimes expect, benevolent sexist ideology (measured via the Ambivalent Sexism Inventory, Glick & Fiske, 1996), the research on paternalistic stereotyping would gain from understanding the level of acceptation or expectation of paternalism, by also creating and validating a measure of paternalism's acceptance. Indeed, when paternalism is considered in the organisational settings, in certain cases, a paternalistic leadership style can be expected from the employees. For instance, in Middle Eastern and Eastern society, paternalistic leadership is not perceived as a negative thing, and some research showed a greater employees' productivity in companies where a more paternalistic culture is in place (Aycan, 2006). Our research could also benefit from group identification measure. Group identification has been evidenced to moderate the deleterious effects of stereotype threat (Kaiser & Hagiwara, 2011; Leyens, Désert, Croizet, & Darcis, 2000; Schmader, 2002). For instance, women's math performance following a stereotype threat was worse for women who highly identified with their social group, compared to women who identified with their group to a lesser extent. Measuring the extent to which young workers or young athletes identify with their group might help further understand paternalistic stereotyping's array of influences. Stigma consciousness could also refine our understanding of paternalistic stereotyping effects on targets. Indeed, in Chapter 4, we introduced the hypothesis that non confrontation to and low reports of stigmatisation was not due to undectability but to high social costs associated with confrontation, for instance. In order to further validate the hypotheses of detection of stigmatisation, we recommend future research to measure the extent to which people are indeed aware of being exposed to stigmatisation. Moreover, researchers have demonstrated that when the targets are not aware that the stereotype is relevant for or affects them personally, the effects of stereotype threat do not appear (Deaux, Bikmen, Gilkes, Ventuneac, Joseph, Payne, & Steele, 2007; McKown & Weinstein, 2003). Stigma consciousness appears to be an interesting factor to measure. As introduced earlier, the coach leadership style can influence the team's cohesion and performance. In addition, it can affect team players' affective state. In effect, Gagné (2003) showed that gymnasts were reporting more positive well-being outcomes when their coach used an autonomous motivational style and reported more negative well-being outcomes when their coach adopted a controlling motivational style. A controlling leadership style, such as a paternalistic style, in which team players do not control the decision-making process, seems to lead to more negative outcomes than an autonomous one. Rotter (1966) introduced the concept of external-internal locus of control, assessing the perceived control individuals have over their actions and behaviours. Individuals who see their actions and behaviours as being under their own control present an internal locus of control. Individuals who think that they are not responsible for and do not have any sort of control over their actions and their consequences present an external locus of control. Internal individuals are usually more confident, more independent and more resilient to failure, whereas external individuals are more dependent and tend to give up more easily (Jutras, 1987). Moreover, research showed that locus of control is strongly correlated to self-efficacy, that is, a strong belief in one's own capabilities (Judge, Erez, & Bono, 1998). Because internal individuals believe in and seek personal control, they might be more impacted by the loss of control a paternalistic coaching style implies. Losing control over their own actions and behaviour might be detrimental for internal participants' self-efficacy and competence perception. We therefore suggest taking into account the potential influence of locus of control in subsequent research. As we took into account individual differences in everyday mindfulness awareness via the FFMQ in our sixth chapter, we could gain from controlling participants' emotional intelligence. Research has shown that the higher the emotional intelligence, the greater the employment of reappraisal and the less frequent the use of suppression (Śmieja, Mrozowicz, & Kobylińska,

2011). Emotional intelligence could have been a potential moderator explaining our absence of results in the first study of our sixth chapter, and further research would be needed to explore that potential role.

A third limitation of our studies is the absence of examination of the potential mechanisms underlying the effects of paternalistic stereotyping on emotions and behaviours. A large literature is devoted to the understanding of how stigmatisation affects its targets (Schmader, Johns, & Forbes, 2008, for a review). We recommend further examination of those possible underlying processes.

First, we suggested expectations of benevolence to drive women's behaviour in economic decision-making. However, this remains unfortunately somewhat hypothetical. A subsequent study could experimentally test women's expectation of men's financial support. Women's expectations could be easily measured by asking them to report what amount of money they would expect a man to give them. As in our studies in Chapter 3, we could present female participants with each of the men's pictured faces, varying in benevolent facial characteristics, and instruct them to report how much money they would expect each man to give them.

Second, in our last chapter, we established the beneficial influence of mindfulness counteracting the negative effects of paternalistic stereotyping on performance. A positive association between mindfulness and attention (Jha et al., 2007; Napoli, Krech, & Holley, 2005), working memory (Chambers et al., 2008; Mrazek, Franklin, Phillips, Baird, & Schooler, 2013), and reduced anxiety (Hofmann, Sawyer, Witt, & Oh, 2010) has been reported in the literature. Research would benefit from the examination of those potential mediators to draw a clearer and more complete picture of mindfulness' positive impact on performance.

Finally, a last limitation of our findings concerns the generalisation of our findings. One can ask whether a population of under- and post-graduate students is representative of the general public. Students never having experienced the labour market, or maybe only briefly during summer jobs, could one risk to say that the affective reactions observed in the laboratory would also be observed in a real job context? Therefore there is a need to test our hypotheses of the impacts of paternalistic stereotyping on various other populations.

What now?

In our last chapter, we proposed ways to work on prejudice reduction and coping with stigmatisation. However, though prejudice reduction strategies provided many positive outcomes on intergroup attitudes, some researchers are not convinced of their efficiency on their current forms.

For instance, Wright & Baray (2012) suggest that prejudice reduction strategies might in fact prevent disadvantaged social groups to take collective action. They consider that the conflict that prejudice reduction strategies try to avoid is in fact essential, because it is "through conflict that inequalities and injustices are exposed, challenged and perhaps reduced." (p.227). The authors propose that prejudice reduction strategies reduce collective actions in four different ways. First it decreases in-group identification, whereas collective action relies on high identification and group salience. Second, one condition presented by Allport (1954) was an equality in group status, yet perceived inequality in status triggers collective action. Third, blurring intergroup boundaries in order to reduce prejudice again is opposite to taking collective action. Indeed, collective action will take place in a situation in which individual mobility is thought to be impossible. And finally, the authors present a fourth reason why prejudice reduction works against collective action. Seeing the dominant out-group in a positive light prevents the minority ingroup to fight them, collective action

needing ingroup to perceive the out-group as the malevolent source of oppression. Similarly, Dovidio, Saguy, Gaertner, & Thomas (2012) propose that intergroup contact focusing on common identity reinforces the status quo and undermines collective action by distracting the attention away from group disparity and inequity.

Another example of an ironic effect of prejudice reduction strategies concerns the reduction of intergroup bias through education. Johns et al. (2005) informed their participants about stereotype threat and its potential effects on their math performance. The results indicated that educating women about stereotype threat resulted in math performance equal to the one of men. However, Tomasetto & Appoloni (2013) pointed that the mere presentation of research on stereotype threat effects is not sufficient on its own to overcome the deteriorating effect of stereotype threat on performance. They argue that it is necessary to associate other interventions to reduce stereotype threat, just as Johns et al. (2005) offered women the possibility to attribute their anxiety to gender stereotypes or when McGlone & Aronson (2007) did by proposing women to focus their attention on alternative positive social identities. However, it is worthy to note that switching to another positive identity in order to avoid any possible negative effect of the threatened stereotyped identity might have damaging effect on self-esteem and life satisfaction (Settles, 2004).

In addition, prejudice reduction strategies, whereas well thought and studied, might be quite difficult to apply. Let's take the example of the positive effect of the presence of the counterstereotypic female role model in a masculine domain. The presence of a female role model in a masculine domain can be inspirational and encouraging for other women to choose to study, work and pursue a career in those domains (Young, Rudman, Buettner, & McLena, 2013). However, because women are not really perceived as being the ideal employee in those fields, and are stereotypically perceived as not cut off for the job or as less committed to their

job than men (von Hippel, Sekaquaptewa, & McFarlane, 2015), women in masculine jobs experience stereotype threat on a daily basis, which has been shown to be linked to decreased job satisfaction and well-being (von Hippel, Kalokerinos, & Henry, 2013; von Hippel, Walsh, & Zouroudis, 2011). Therefore, whereas women need to reach "critical mass" (Torchia, Calabro, & Huse, 2011) in masculine domains to diminish the perceived stereotyped masculinity of those domains (e.g. Science, Technology, Engineering, and Maths, finance, banking, etc.), women who succeed in finding a job in masculine domains are less likely to encourage other women to pursue a career in male-dominated field, because of their daily encounter with stereotypes threat (von Hippel et al., 2015).

What those findings suggest is that prejudice reduction strategies still need to be developed but attention needs to be given to potential opposite and ironic effects.

In that case, we suggest a deeper attention to be devoted to the development of mindfulness-based interventions, and that for several reasons.

First, mindfulness can help restore depleted performance. Indeed, it has been shown that mindfulness helps increase academic performance while reducing distracting thoughts and mind-wandering (Mrazek et al., 2013). Mindfulness helps increase academic performance also via an improved in working memory capacity (Mrazek et al., 2013). In addition, Bellinger, DeCaro, & Ralston (2015) have evidenced that mindfulness indirectly benefits math performance by reducing the state of anxiety. Without any direct link to academic performance, mindfulness is also linked to lower levels of negative affect and higher level of positive affect (Jha, Stanley, Kiyonaga, Wong, & Gelfand, 2010). As introduced earlier in our theoretical chapters, exposition to paternalistic stereotyping has been evidenced to reduce performance through an elevation in intrusive thoughts related to incompetence (Dardenne et al., 2007), a reduction of working memory capacity (Schmader & Johns, 2003), and through

elevated levels of anxiety (Bosson et al., 2004) or negative emotions (Keller et al., 2003; Wraga, Helt, Jacobs, & Sullivan, 2006), among others. If mindfulness has been evidenced to be positively associated with reduction of mind wandering and distracting thoughts, as well as with better working memory capacity, reduced anxiety, and lower level of negative emotions, mindfulness-based intervention should show beneficial effects on the negative link between paternalistic stereotyping and underperformance. Indeed, to our knowledge, at least two studies demonstrated the positive association between mindfulness and restoration of depleted performance (Weger, Hooper, Meier, & Hopthrow, 2012; Silvestre & Dardenne, chap 6), although no mediational roles of anxiety have been found (Weger et al., 2012).

Second, mindfulness can help diminish intergroup bias and discrimination. In effect, a study showed that correspondence bias can be reduced (Hopthrow, Hooper, Mahmood, Meier, & Weger, 2016). Correspondence bias appears when people attach more importance to dispositional rather than situational factors when it comes to explain one's behaviour and attitude (Gilbert & Malone, 1995). Hopthrow and colleagues (2016) showed that an exercise of mindfulness, by drawing attention to the present moment, allowed a greater attention to be devoted to the analysis of the situation, which in turn resulted in lower levels of dispositional attributions, compared to a condition in which participants were asked to pay close attention to details. The reduction of correspondence bias was therefore not due to a mere acute attention to details. It seems therefore that mindfulness can play a distinctive role in the reduction of social bias. Indeed, symbolic and modern racism share the idea that racial discrimination no longer exists in contemporary societies (McConahay, 1986; Sears, 1988), and that the disadvantages racial minorities might suffer from find their origins in their unwillingness to take up their responsibility and change their situation. The attribution of racial minorities' disadvantaged position constitutes an example of correspondence bias. Therefore, since mindfulness reduces correspondence bias, we are entitled to think that it might have a positive effect on a reduction of prejudicial views and attitudes. Experimental tests of this hypothesis have been conducted by several researchers. For instance, it has been experimentally demonstrated that mindfulness reduces implicit age and race bias (Lueke & Gibson, 2015). The authors had participants listen either to a 10-min mindfulness audio recording, in which they were instructed to pay attention to external and internal bodily sensations and accept those sensations without judgment, or to a control recording about natural history before asking them to complete an age and a race IATs. Results showed a significant decrease in implicit race and age bias following a short exercise of mindfulness. Mindfulness also plays a role in diminution of discriminatory behaviours. Participants in Lueke & Gibson (2016)'s experiment were either assigned to a mindfulness condition or a control condition. They then engaged in several trials of a Trust Game, in which they had to decide whether to trust their White or Black game partner. Participants received a virtual sum of money and decided whether to share it with their partner or not, knowing that their partner would obtain quadruple the amount given. In addition, participants learned that their interaction partner already decided either to share the total amount of money in equal parts with them or to keep the total amount for themselves. Participants' decision to share their money therefore contained taking a risk of receiving nothing in return. The results showed that in the mindfulness condition, participants in the mindfulness condition made decision favouring the White partner over the Black partner in a significant lesser extent than participants in the control condition, in other words, participants in the mindfulness condition trusted their White and Black partner to the same degree, giving members of both groups similar levels of money. Mindfulness has also an impact in intergroup behavioural intentions. More positive intercultural and interracial behavioural intentions has been reported by participants learning about racial differences while instructed to adopt a mindful learning style, compared to participants learning about racial differences in a traditional learning context (Lillis & Hayes, 2007).

The above-mentioned findings are a strong suggestion of the beneficial effects of mindfulness-based intervention to both restore depleted performance usually observed within targets of paternalistic stereotyping, and significantly reduce the prevalence of prejudicial attitudes, evaluations, and behaviours within the members of advantaged social groups.

Last, a final reason that consolidates our opinion in the relevance of mindfulness-based intervention is that mindfulness is easily accessible, and easily applicable in various real settings. For instance, mindfulness-based intervention has been successfully introduced within a school context (Kuyken, Weare, Ukoumunne, Vicary, Motton, Burnett, et al., 2013; Raes, Griffith, Van Der Gucht, & Williams, 2013). More than an intervention or a course, mindfulness is a state of mind. Once the basic principles "understood", the application in everyday-life is somewhat effortless and straightforward. Greater levels on mindfulness trait and state scales have been observed after very brief intervention (Lueke & Gibson, 2015; 2016), which in turn is linked to lower levels of both explicit and implicit intergroup bias (Lueke & Gibson, 2015).

With its widespread positive influence on various factors, and its ease of implementation, mindfulness should become an essential variable in the fight against stigmatisation and its impacts.

References

Allport, G. W. (1954). The nature of prejudice. Cambridge, MA: Addison-Wesley.

Aycan, Z. (2006). Paternalism: Towards Conceptual refinement and operationalization. In Yang, K.S., Hwang, K.K., & Kim, U. (Eds.). *Scientific advances in indigenous psychologies: Empirical, philosophical, and cultural contributions* (pp. 445-466). London, United Kingdom: Cambridge University Press.

Baer, R. A. (2003). Mindfulness training as a clinical intervention: A conceptual and empirical review. *Clinical Psychology: Science and Practice*, 10, 125-143. doi: 10.1093/clipsy.bpg015

Beilock, S. L., & McConnell, A. R. (2004). Stereotype threat and sport: Can athletic performance be threatened. *Journal of Sport and Exercise Psychology*, 26, 597-609.

Beilock, S. L., Jellison, W. A., Rydell, R. J., McConnell, A. R., & Carr, T. H. (2006). On the causal mechanisms of stereotype threat: Can skills that don't rely heavily on working memory still be threatened?. *Personality and Social Psychology Bulletin*, *32*, 1059-1071. doi: 10.1177/0146167206288489

Beilock, S. L., Rydell, R. J., & McConnell, A. R. (2007). Stereotype threat and working memory: mechanisms, alleviation, and spillover. *Journal of Experimental Psychology: General*, *136*, 256-276. doi: 10.1037/0096-3445.136.2.256

Bellinger, D. B., DeCaro, M. S., & Ralston, P. A. (2015). Mindfulness, anxiety, and high-stakes mathematics performance in the laboratory and classroom. *Consciousness and Cognition*, *37*, 123-132. doi:10.1016/j.concog.2015.09.001

Berjot, S., Girault-Lidvan, N., Gillet, N., & Scharnitzky, P. (2010). Comment les étudiants français d'origine maghrébine évaluent et font face à la menace du stéréotype?. *L'année Psychologique*, *110*, 427-451. doi:: 10.4074/S0003503310003064

Birrer, D., Röthlin, P., & Morgan, G. (2012). Mindfulness to enhance athletic performance: Theoretical considerations and possible impact mechanisms. *Mindfulness*, *3*, 235-246.

Blascovich, J., Spencer, S. J., Quinn, D., & Steele, C. (2001). African Americans and high blood pressure: The role of stereotype threat. *Psychological Science*, *12*, 225-229. doi: 10.1111/1467-9280.00340

Bond, M. A., Punnett, L., Pyle, J. L., Cazeca, D., & Cooperman, M. (2004). Gendered work conditions, health, and work outcomes. *Journal of Occupational Health Psychology*, 9, 28-45. doi: 10.1037/1076-8998.9.1.28

Bosson, J. K., Haymovitz, E. L., & Pinel, E. C. (2004). When saying and doing diverge: The effects of stereotype threat on self-reported versus non-verbal anxiety. *Journal of Experimental Social Psychology*, 40, 247-255. doi:10.1016/S0022-1031(03)00099-4

Bowlin, S. L., & Baer, R. A. (2012). Relationships between mindfulness, self-control, and psychological functioning. *Personality and Individual Differences*, *52*, 411-415. doi:10.1016/j.paid.2011.10.050

Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*, 84, 822-848. doi: 10.1037/0022-3514.84.4.822

Chalabaev, A., Sarrazin, P., Stone, J., & Cury, F. (2008). Do achievement goals mediate stereotype threat? An investigation on females' soccer performance. *Journal of Sport and Exercise Psychology*, 30, 143-158.

Chamberlain, S. T., & Hale, B. D. (2007). Competitive state anxiety and self-confidence: Intensity and direction as relative predictors of performance on a golf putting task. *Anxiety, Stress, and Coping*, 20, 197-207. doi: 10.1080/10615800701288572

Chambers, R., Lo, B. C. Y., & Allen, N. B. (2008). The impact of intensive mindfulness training on attentional control, cognitive style, and affect. *Cognitive Therapy and Research*, 32, 303-322. doi: 10.1007/s10608-007-9119-0

Chan, D., & Woollacott, M. (2007). Effects of level of meditation experience on attentional focus: is the efficiency of executive or orientation networks improved?. *The Journal of Alternative and Complementary Medicine*, 13, 651-658. doi:10.1089/acm.2007.7022.

Chateignier, C., Chekroun, P., Nugier, A., & Dutrévis, M. (2011). «Femme au volant…»: Effet de la menace du stéréotype et de la colère sur les performances des femmes à une tâche liée à la conduite automobile. *L'année Psychologique*, 111, 673-700. doi: 10.4074/S0003503311004039

Chen, K. W., Berger, C. C., Manheimer, E., Forde, D., Magidson, J., Dachman, L., & Lejuez, C. W. (2012). Meditative therapies for reducing anxiety: A systematic review and meta-analysis of randomized controlled trials. *Depression and Anxiety*, 29, 545-562. doi: 10.1002/da.21964

Chiesa, A., Calati, R., & Serretti, A. (2011). Does mindfulness training improve cognitive abilities? A systematic review of neuropsychological findings. *Clinical Psychology Review*, *31*, 449-464. doi:10.1016/j.cpr.2010.11.003

Costarelli, S., & Colloca, P. (2004). The effects of attitudinal ambivalence on proenvironmental behavioural intentions. *Journal of Environmental Psychology*, 24, 279-288. doi:10.1016/j.jenvp.2004.06.001

Coutts, L. M., & Gruman, J. A. (2005). Applying social psychology to organizations. In F. W. Schneider, J. A. Gruman, & L. M. Coutts (Eds.), *Applied Social Psychology: Understanding and Addressing Social and Practical Problems* (pp. 229-256). Thousand Oaks, CA: Sage Publications, Inc.

Creswell, J. D., & Lindsay, E. K. (2014). How does mindfulness training affect health? A mindfulness stress buffering account. *Current Directions in Psychological Science*, *23*, 401-407. doi: 10.1177/0963721414547415

Creswell, J. D., Pacilio, L. E., Lindsay, E. K., & Brown, K. W. (2014). Brief mindfulness meditation training alters psychological and neuroendocrine responses to social evaluative stress. *Psychoneuroendocrinology*, *44*, 1-12. doi:10.1016/j.psyneuen.2014.02.007

Dardenne, B., Dumont, M., & Bollier, T. (2007). Insidious dangers of benevolent sexism: Consequences for women's performance. *Journal of Personality and Social Psychology*, *93*, 764–779. doi:10.1037/0022-3514.93.5.764

Deaux, K., Bikmen, N., Gilkes, A., Ventuneac, A., Joseph, Y., Payne, Y. A., & Steele, C. M. (2007). Becoming American: Stereotype threat effects in Afro-Caribbean immigrant groups. *Social Psychology Quarterly*, 70, 384-404. doi: 10.1177/019027250707000408

Dovidio, J.F., Saguy, T., Gaertner, S.L., & Thomas, E.L. (2012). From attitudes to (in)action: The darker side of "we". In J. Dixon & M. Levine (Eds.), *Beyond prejudice* (pp.248-268). Cambridge, United Kingdom: Cambridge University Press.

Feldman, G., Zayfert, C., Sandoval, L., Dunn, E., & Cartreine, J. A. (2013). Reward responsiveness and anxiety predict performance of Mount Everest climbers. *Journal of Research in Personality*, 47, 111-115. doi: 10.1016/j.jrp.2012.10.001

Fitz, C. C., & Zucker, A. N. (2015). Everyday exposure to benevolent sexism and condom use among college women. *Women & Health*, 55, 245-262. doi: 10.1080/03630242.2014.996721

Fortney, L., Luchterhand, C., Zakletskaia, L., Zgierska, A., & Rakel, D. (2013). Abbreviated mindfulness intervention for job satisfaction, quality of life, and compassion in primary care clinicians: a pilot study. *The Annals of Family Medicine*, *11*, 412-420. doi: 10.1370/afm.1511

Gagné, M. (2003). Autonomy support and need satisfaction in the motivation and well-being of gymnasts. *Journal of Applied Sport Psychology*, 15, 372-390. doi: 10.1080/714044203

Gilbert, D. T., & Malone, P. S. (1995). The Correspondence Bias. *Psychological Bulletin*, 117, 21-38. doi: 10.1037/0033-2909.117.1.21

Glick, P., & Fiske, S. T. (1996). The Ambivalent Sexism Inventory: Differentiating hostile and benevolent sexism. *Journal of Personality and Social Psychology*, 70, 491-512. doi: 10.1037/0022-3514.70.3.491

Gonzales, P. M., Blanton, H., & Williams, K. J. (2002). The effects of stereotype threat and double-minority status on the test performance of Latino women. *Personality and Social Psychology Bulletin*, 28(5), 659-670. doi: 10.1177/0146167202288010

Gotlib, I. H., & Cane, D. B. (1987). Construct accessibility and clinical depression: a longitudinal investigation. *Journal of Abnormal Psychology*, *96*, 199-204. doi:10.1037/0021-843X.96.3.199.

Hays, K., Maynard, I., Thomas, O., & Bawden, M. (2007). Sources and types of confidence identified by world class sport performers. *Journal of Applied Sport Psychology*, 19, 434-456. doi: 10.1080/10413200701599173

Hively, K., & El-Alayli, A. (2014). "You throw like a girl:" The effect of stereotype threat on women's athletic performance and gender stereotypes. *Psychology of Sport and Exercise*, *15*, 48-55. doi:10.1016/j.psychsport.2013.09.001

Hofmann, S. G., Sawyer, A. T., Witt, A. A., & Oh, D. (2010). The effect of mindfulness-based therapy on anxiety and depression: A meta-analytic review. *Journal of Consulting and Clinical Psychology*, 78, 169-183. doi: 10.1037/a0018555

Hopthrow, T., Hooper, N., Mahmood, L., Meier, B. P., & Weger, U. (2016). Mindfulness reduces the correspondence bias. *The Quarterly Journal of Experimental Psychology*, 1-12. doi: 10.1080/17470218.2016.1149498

Hülsheger, U. R., Alberts, H. J., Feinholdt, A., & Lang, J. W. (2013). Benefits of mindfulness at work: The role of mindfulness in emotion regulation, emotional exhaustion, and job satisfaction. *Journal of Applied Psychology*, 98, 310-325. doi: 10.1037/a0031313

Jha, A. P., Krompinger, J., & Baime, M. J. (2007). Mindfulness training modifies subsystems of attention. *Cognitive, Affective, & Behavioral Neuroscience*, 7, 109-119. doi: 10.3758/CABN.7.2.109

Jha, A. P., Stanley, E. A., Kiyonaga, A., Wong, L., & Gelfand, L. (2010). Examining the protective effects of mindfulness training on working memory capacity and affective experience. *Emotion*, *10*, 54-64. doi: 10.1037/a0018438

Joanisse, M., Gagnon, S., & Voloaca, M. (2013). The impact of stereotype threat on the simulated driving performance of older drivers. *Accident Analysis & Prevention*, *50*, 530-538. doi:10.1016/j.aap.2012.05.032

Johannesen–Schmidt, M. C., & Eagly, A. H. (2002). Another look at sex differences in preferred mate characteristics: The effects of endorsing the traditional female gender role. *Psychology of Women Quarterly*, 26, 322-328. doi: 10.1111/1471-6402.t01-2-00071

Johns, M., Inzlicht, M., & Schmader, T. (2008). Stereotype threat and executive resource depletion: Examining the influence of emotion regulation. *Journal of Experimental Psychology: General*, 137, 691-705. doi: 10.1037/a0013834

Johns, M., Schmader, T., & Martens, A. (2005). Knowing is half the battle teaching stereotype threat as a means of improving women's math performance. *Psychological Science*, *16*, 175-179. doi: 10.1111/j.0956-7976.2005.00799.x

Judge, T. A., Erez, A., & Bono, J. E. (1998). The power of being positive: The relation between positive self-concept and job performance. *Human Performance*, 11, 167-187. doi: 10.1080/08959285.1998.9668030

Judge, T. A., Thoresen, C. J., Bono, J. E., & Patton, G. K. (2001). The job satisfaction-job performance relationship: A qualitative and quantitative review. *Psychological Bulletin*, 127, 376-407. doi: 10.1037/0033-2909.127.3.376

Jutras, S. (1987). L'IPAH, version canadienne-française de l'Échelle de Levenson mesurant le lieu de contrôle tridimensionnel. *Canadian Journal of Behavioural Science/Revue*Canadienne Des Sciences Du Comportement, 19, 74-85. doi: 10.1037/h0079871

Kafetsios, K., & Zampetakis, L. A. (2008). Emotional intelligence and job satisfaction: Testing the mediatory role of positive and negative affect at work. *Personality and Individual Differences*, 44, 712-722. doi:10.1016/j.paid.2007.10.004

Kaiser, C. R., & Hagiwara, N. (2011). Gender identification moderates social identity threat effects on working memory. *Psychology of Women Quarterly*, *35*, 243-251. doi: 10.1177/0361684310384102

Keller, J., & Dauenheimer, D. (2003). Stereotype threat in the classroom: Dejection mediates the disrupting threat effect on women's math performance. *Personality and Social Psychology Bulletin*, 29, 371-381.

Kessler, R., & Mroczek, D. (1994). Final versions of our non-specific psychological distress scale. *Memo dated March*, *10*, 1994. Ann. Arbor (MI): Survey Research Center of the Institute for Social Research, University of Michigan.

Kumar, S., Feldman, G., & Hayes, A. (2008). Changes in mindfulness and emotion regulation in an exposure-based cognitive therapy for depression. *Cognitive Therapy and Research*, 32, 734-744. doi: 10.1007/s10608-008-9190-1

Kuyken, W., Weare, K., Ukoumunne, O. C., Vicary, R., Motton, N., Burnett, R., ... & Huppert, F. (2013). Effectiveness of the Mindfulness in Schools Programme: non-randomised controlled feasibility study. *The British Journal of Psychiatry*, 203, 126-131. doi: 10.1192/bjp.bp.113.126649

LaFasto, F., & Larson, C. (2001). When teams work best: 6,000 team members and leaders tell what it takes to succeed. Thousand Oaks, CA: Sage Publications, Inc.

Laurin, R. (2013). Stereotype threat and lift effects in motor task performance: The mediating role of somatic and cognitive anxiety. *The Journal of Social Psychology*, *153*, 687-699. doi: 10.1080/00224545.2013.821098

Levy, P. E. (2003). *Industrial/Organizational psychology: Understanding the workplace*. Boston, MA: Houghton Mifflin.

Leyens, J.-Ph., Désert M., Croizet J.-C, Darcis, C. (2000) Stereotype threat: Are lower status and history of stigmatization preconditions of stereotype threat? *Personality and Social Psychology Bulletin*, 26, 1189-1199. doi: 10.1177/0146167200262002

Lillis, J., & Hayes, S. C. (2007). Applying acceptance, mindfulness, and values to the reduction of prejudice: A pilot study. *Behavior Modification*, *31*, 389-411. doi: 10.1177/0145445506298413

Lueke, A., & Gibson, B. (2015). Mindfulness Meditation Reduces Implicit Age and Race Bias The Role of Reduced Automaticity of Responding. *Social Psychological and Personality Science*, *6*, 284-291. doi: 10.1177/1948550614559651

Lueke, A., & Gibson, B. (2016). Brief mindfulness meditation reduces discrimination. Psychology of Consciousness: Theory, Research, and Practice, 3, 34-44. doi: 10.1037/cns0000081

Mackenzie, C. S., Poulin, P. A., & Seidman-Carlson, R. (2006). A brief mindfulness-based stress reduction intervention for nurses and nurse aides. *Applied Nursing Research*, 19(2), 105-109. doi: 10.1016/j.apnr.2005.08.002

Magyar, T. M., Feltz, D. L., & Simpson, I. P. (2004). Individual and crew level determinants of collective efficacy in rowing. *Journal of Sport and Exercise Psychology*, 26, 136-153.

Mathews, A., & MacLeod, C. (1985). Selective processing of threat cues in anxiety states. *Behaviour Research and Therapy*, 23, 563-569. doi:10.1016/0005-7967(85)90104-4

Mathews, A., & MacLeod, C. (1986). Discrimination of threat cues without awareness in anxiety states. *Journal of Abnormal Psychology*, 95, 131–138. doi: 10.1037/0021-843X.95.2.131

McConahay, J. B. (1986). Modern racism, ambivalence, and the Modern Racism Scale. In J. F. Dovidio, & S. L. Gaertner (Eds.), *Prejudice, discrimination, and racism* (pp. 91-125). San Diego, CA: Academic Press.

McGlone, M. S., & Aronson, J. (2007). Forewarning and forearming stereotype-threatened students. *Communication Education*, 56, 119-133. doi: 10.1080/03634520601158681

McKown, C., & Weinstein, R. S. (2003). The development and consequences of stereotype consciousness in middle childhood. *Child Development*, 74, 498-515. doi: 10.1111/1467-8624.7402012

Miller, G. V. F., & Travers, C. J. (2005). Ethnicity and the experience of work: Job stress and satisfaction of minority ethnic teachers in the UK. *International Review of Psychiatry*, *17*, 317-327. doi: 10.1080/09540260500238470

Mrazek, M. D., Franklin, M. S., Phillips, D. T., Baird, B., & Schooler, J. W. (2013). Mindfulness training improves working memory capacity and GRE performance while reducing mind wandering. *Psychological Science*, 24, 776-781. doi: 10.1177/0956797612459659

Mullen, B., & Copper, C. (1994). The relation between group cohesiveness and performance: An integration. *Psychological Bulletin*, 115, 210-227. doi: 10.1037/0033-2909.115.2.210

Murphy, M. C., Richeson, J. A., Shelton, J. N., Rheinschmidt, M. L., & Bergsieker, H. B. (2012). Cognitive costs of contemporary prejudice. *Group Processes & Intergroup Relations*, *16*, 560-571. doi: 10.1177/1368430212468170

Murphy, M. C., Steele, C. M., & Gross, J. J. (2007). Signaling threat how situational cues affect women in math, science, and engineering settings. *Psychological Science*, *18*, 879-885. doi: 10.1111/j.1467-9280.2007.01995.x

Napoli, M., Krech, P. R., & Holley, L. C. (2005). Mindfulness training for elementary school students: The attention academy. *Journal of Applied School Psychology*, *21*, 99-125. doi: 10.1300/J370v21n01_05

Neuville, E., & Croizet, J. C. (2007). Can salience of gender identity impair math performance among 7–8 years old girls? The moderating role of task difficulty. *European Journal of Psychology of Education*, 22, 307-316. doi: 10.1007/BF03173428

Nye, C. D., Brummel, B. J., & Drasgow, F. (2009). Differentiating gender discrimination and sexist behavior: An examination of antecedents and outcomes. *Military Psychology*, *21*, 299-314. doi: 10.1080/08995600902914388

Piolat, A., & Bannour, R. (2009). EMOTAIX: un scénario de Tropes pour l'identification automatisée du lexique émotionnel et affectif. *L'année Psychologique*, 109, 655–698. doi:10.4074/S0003503309004047

Raes, F., Griffith, J. W., Van der Gucht, K., & Williams, J. M. G. (2014). School-based prevention and reduction of depression in adolescents: A cluster-randomized controlled trial of a mindfulness group program. *Mindfulness*, *5*, 477-486. doi: 10.1007/s12671-013-0202-1

Redman, T., & Snape, E. (2006). The consequences of perceived age discrimination amongst older police officers: Is social support a buffer?. *British Journal of Management*, *17*, 167-175. doi: 10.1111/j.1467-8551.2006.00492.x

Richards, A., French, C. C., Johnson, W., Naparstek, J., & Williams, J. (1992). Effects of mood manipulation and anxiety on performance of an emotional Stroop task. *British Journal of Psychology*, 83, 479-491. doi: 10.1111/j.2044-8295.1992.tb02454.x

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied*, 80, 1-28. doi: 10.1037/h0092976

Sarlet, M. & Dardenne, B. (2012). Benevolent sexism reinforces warmth in women's self-concept and perceived suitability for feminine jobs. *Unpublished manuscript*, Université de Liège.

Schmader, T. (2002). Gender identification moderates stereotype threat effects on women's math performance. *Journal of Experimental Social Psychology*, *38*, 194-201. doi:10.1006/jesp.2001.1500

Schmader, T., & Johns, M. (2003). Converging evidence that stereotype threat reduces working memory capacity. *Journal of Personality and Social Psychology*, 85, 440-452. doi: 10.1037/0022-3514.85.3.440

Schmader, T., Johns, M., & Forbes, C. (2008). An integrated process model of stereotype threat effects on performance. *Psychological Review*, *115*, 336-356. doi: 10.1037/0033-295X.115.2.336

Sears, D. O. (1988). Symbolic racism. In P. Katz & D. Taylor (Eds.), *Eliminating racism: Profiles in controversy* (pp. 53-84). New York, NY: Plenum Press.

Settles, I. H. (2004). When multiple identities interfere: The role of identity centrality. *Personality and Social Psychology Bulletin*, *30*, 487–500. doi:10.1177/0146167203261885

Shapiro, S. L., Astin, J. A., Bishop, S. R., & Cordova, M. (2005). Mindfulness-based stress reduction for health care professionals: Results from a randomized trial. *International Journal of Stress Management*, 12(2), 164-176. doi: 10.1037/1072-5245.12.2.164

Śmieja, M., Mrozowicz, M., & Kobylińska, D. (2011). Emotional intelligence and emotion regulation strategies. *Studia Psychologiczne*, *49*, 55-64. doi: 10.2478/v10167-010-0040-x

Spencer, S. J., Steele, C. M., & Quinn, D. M. (1999). Stereotype threat and women's math performance. *Journal of Experimental Social Psychology*, *35*, 4-28. doi:10.1006/jesp.1998.1373

Spielberger, C. D. (1988). State-Trait Anxiety Inventory (Form Y). In M. Hersen & A.S. Bellack (Eds.), *Dictionary of behavioral assessment techniques* (pp. 448-450). New York, NY: Pergamon Press.

Stanley, E. A., Schaldach, J. M., Kiyonaga, A., & Jha, A. P. (2011). Mindfulness-based mind fitness training: A case study of a high-stress predeployment military cohort. *Cognitive and Behavioral Practice*, *18*, 566-576. doi:10.1016/j.cbpra.2010.08.002

Sullivan, P., & Feltz, D. L. (2005). Applying social psychology to sports teams. In F. W. Schneider, J. A. Gruman, & L. M. Coutts (Eds.), *Applied social psychology: Understanding and addressing social and practical problems* (pp. 129-149). Thousand Oaks, CA: Sage Publications, Inc.

Teper, R., Segal, Z. V., & Inzlicht, M. (2013). Inside the mindful mind how mindfulness enhances emotion regulation through improvements in executive control. *Current Directions in Psychological Science*, 22, 449-454. doi: 10.1177/0963721413495869

Thompson, M. M., Zanna, M. P., & Griffin, D. W. (1995). Let's not be indifferent about (attitudinal) ambivalence. In R. E. Petty, & J. A. Krosnick (Eds.), *Attitude strength:* antecedents and consequences (pp. 361-386). New York, NY: Psychology Press.

Tomasetto, C., & Appoloni, S. (2013). A lesson not to be learned? Understanding stereotype threat does not protect women from stereotype threat. *Social Psychology of Education*, *16*, 199-213. doi: 10.1007/s11218-012-9210-6

Torchia, M., Calabro`, A., & Huse, M. (2011). Women directors on corporate boards: From tokenism to critical mass. *Journal of Business Ethics*, *102*, 299–317. doi:10.1007/s10551-011-0815-z

Townsend, S. S., Major, B., Gangi, C. E., & Mendes, W. B. (2011). From "in the air" to "under the skin": Cortisol responses to social identity threat. *Personality and Social Psychology Bulletin*, *37*, 151-164. doi: 10.1177/0146167210392384

Vallières, E., & Vallerand, R. (1990). Traduction et validation canadienne-française de l'échelle de l'estime de soi de Rosenberg. *International Journal of Psychology*, 25, 305-316. doi: 10.1080/00207599008247865

van Leeuwen, S., Müller, N. G., & Melloni, L. (2009). Age effects on attentional blink performance in meditation. *Consciousness and Cognition*, 18, 593-599. doi:10.1016/j.concog.2009.05.001

Vealey, R. S., & Chase, M. A. (2008). Self-confidence in sport. *Advances in sport Psychology*, 3, 65-97.

von Hippel, C., Kalokerinos, E. K., & Henry, J. D. (2013). Stereotype threat among older employees: Relationship with job attitudes and turnover intentions. *Psychology and Aging*, 28, 17–27. doi: 10.1037/a0029825

von Hippel, C., Sekaquaptewa, D., & McFarlane, M. (2015). Stereotype threat among women in finance negative effects on identity, workplace well-being, and recruiting. *Psychology of Women Quarterly*, *39*, 405-414. doi: 10.1177/0361684315574501

von Hippel, C., Walsh, A. M., & Zouroudis, A. (2011). Identity separation in response to stereotype threat. *Social Psychological and Personality Science*, 2, 317–324. doi:10.1177/1948550610390391

Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of Positive And Negative Affect: The PANAS scales. *Journal of Personality and Social Psychology*, *54*, 1063-1070. doi: 10.1037/0022-3514.54.6.1063

Watts, F. N., McKenna, F. P., Sharrock, R., & Trezise, L. (1986). Colour naming of phobia-related words. *British Journal of Psychology*, 77, 97-108. doi: 10.1111/j.2044-8295.1986.tb01985.x

Weger, U. W., Hooper, N., Meier, B. P., & Hopthrow, T. (2012). Mindful maths: Reducing the impact of stereotype threat through a mindfulness exercise. *Consciousness and Cognition*, *21*, 471-475. doi:10.1016/j.concog.2011.10.011

Weiss, H. M., & Cropanzano, R. (1996). Affective events theory: A theoretical discussion of the structure, causes and consequences of affective experiences at work. In B. M. Staw, & L. L. Cummings (Eds.). *Research in organizational behavior: An annual series of analytical essays and critical reviews*, (pp. 1-74). Greenwich, CT: JAI Press

Wraga, M., Helt, M., Jacobs, E., & Sullivan, K. (2007). Neural basis of stereotype-induced shifts in women's mental rotation performance. *Social Cognitive and Affective Neuroscience*, 2, 12-19. doi: 10.1093/scan/nsl041

Wright, S. C., & Barray, G. (2012). Models of social change in social psychology: Collective action or prejudice reduction? Conflict or Harmony?. In J. Dixon, & M. Levine (Eds.), *Beyond prejudice* (pp. 225-247). Cambridge, United Kingdom: Cambridge University Press.

Young, D. M., Rudman, L. A., Buettner, H. M., & McLean, M. C. (2013). The influence of female role models on women's implicit science cognitions. *Psychology of Women Quarterly*, *37*, 283–292. doi: 10.1177/0361684313482109

Zaccaro, S. J., Rittman, A. L., & Marks, M. A. (2002). Team leadership. *The Leadership Quarterly*, 12, 451-483. doi:10.1016/S1048-9843(01)00093-5