

The integrative prejudice framework and different forms of weight prejudice: An analysis and expansion

Group Processes & Intergroup Relations

14(3) 429–444

© The Author(s) 2011

Reprints and permission: sagepub.

co.uk/journalsPermissions.nav

DOI: 10.1177/1368430210396520

gpir.sagepub.com



Paula M. Brochu,¹ Bertram Gawronski¹ and
Victoria M. Esses¹

Abstract

We use the integrative prejudice framework to further our understanding of weight prejudice, while simultaneously testing the generalizability of this framework. Participants completed measures of implicit and explicit weight prejudice, egalitarian-based nonprejudicial goals, and perceived weight discrimination. In line with predictions of the integrative prejudice framework based on cognitive consistency principles, implicit and explicit weight prejudice were positively related when nonprejudicial goals were low and perceived discrimination was high, and when nonprejudicial goals were high and perceived discrimination was low, reflecting central components of old-fashioned and modern prejudice, respectively. Furthermore, implicit and explicit weight prejudice were negatively related when nonprejudicial goals and perceived discrimination were both high, reflecting central components of aversive prejudice. In addition to supporting the generalizability of the integrative prejudice framework, this research demonstrates that weight prejudice may operate in different forms that map onto existing theories of prejudice.

Keywords

aversive prejudice, cognitive consistency, implicit prejudice, integrative prejudice framework, modern prejudice, old-fashioned prejudice, weight bias

Paper received 3 July 2010; revised version accepted 5 December 2010

Introduction

Weight prejudice is defined as negative evaluations of people perceived to carry excess weight, and is often described as one of the last acceptable forms of bias (Puhl & Brownell, 2001). Indeed, research has demonstrated that

¹University of Western Ontario, Canada

Corresponding author:

Paula M. Brochu, Department of Psychology, Social Science Centre, University of Western Ontario, London, Ontario

N6A 5C2, Canada

Email: pbrochu2@uwo.ca

negative attitudes toward overweight people are considered socially and normatively acceptable compared to negative attitudes toward other social group categories, such as elderly people, Jews, Hispanics, or Black Americans (Brochu & Esses, in press; Crandall, Eshleman, & O'Brien, 2002). The stigma of excess weight is pervasive and profound in Western societies; although in the past excess weight was perceived as a symbol of wealth and power, today it symbolizes laziness and weak character (Crandall et al., 2001; Crandall & Martinez, 1996). As a result, overweight and obese individuals experience discrimination in almost every life domain, including employment, education, and health care, and this inequity has severe and negative consequences on those targeted (see Brownell, Puhl, Schwartz, & Rudd, 2005). For example, evidence of weight discrimination has been documented at every stage of the employment cycle, from hiring and promotion to firing and disciplinary treatment (Roehling, 1999).

Weight prejudice has typically been examined through the endorsement of direct and blatant expressions of negativity toward overweight, obese, or fat individuals.¹ A common measure of weight bias is the Anti-fat Attitudes Questionnaire (Crandall, 1994), which consists of three subscales measuring dislike of fat individuals, fear of becoming fat, and belief that willpower (or lack thereof) is influential in weight management. Research using self-report measures of weight attitudes has demonstrated that weight prejudice is a potent force, seemingly unaffected by social desirability concerns (Brochu & Esses, 2009; Crandall, 1994; Morrison & O'Connor, 1999). Furthermore, the open expression of negative weight attitudes by health care professionals, fitness professionals, and teachers have been demonstrated in numerous studies (Foster et al., 2003; Hare, Price, Flynn, & King, 2000; Hebl & Xu, 2001; Neumark-Sztainer, Story, & Harris, 1999). The research evidence is clear that weight prejudice is often blatantly and openly expressed.

Weight prejudice has also been examined with indirect measures such as the Implicit Association

Test (IAT; Greenwald, McGhee, & Schwartz, 1998), and has revealed the pervasiveness of implicit weight bias (Bessenoff & Sherman, 2000; Brochu & Morrison, 2007; Teachman, Gapinski, Brownell, Rawlins, & Jeyaram, 2003). Negative automatic weight associations have also been demonstrated for health care professionals and exercise science students (Chambless, Finley, & Blair, 2004; Teachman & Brownell, 2001). Although the prominence of weight prejudice has been demonstrated using both direct and indirect measures, it is not simply the case that negative automatic weight associations lead to negative evaluative judgments about overweight individuals, as evidenced by largely nonsignificant relations between implicit and explicit measures of weight prejudice (Bessenoff & Sherman, 2000; Brochu & Morrison, 2007; see also Hofmann, Gschwendner, Nosek, & Schmitt, 2005).

In this article, we argue that two factors are of primary importance in the overt expression of prejudicial attitudes toward overweight individuals: (1) the general motivation to appear nonprejudiced to oneself and to others; and (2) the specific perception that overweight individuals as a group are the target of systematic discrimination. Although it is clear that weight prejudice is blatantly expressed, we argue that weight prejudice may operate in different forms based upon the interactive influence of egalitarian-based, nonprejudicial goals and perceived weight discrimination. One aim of the current research was to gain further understanding into different forms of weight prejudice, which are elaborated below.

Forms of prejudice

Several forms of prejudice have been proposed in the research literature. In the current investigation, we focus on three major forms: old-fashioned, modern, and aversive prejudice. Old-fashioned prejudice entails blatant and direct expressions of negativity and is predicated upon the endorsement of stereotypes and support for open discrimination toward particular social groups (McConahay, 1986; Swim, Aiken, Hall, & Hunter, 1995). For example, McConahay

(1986) measured old-fashioned racism by assessing support for discrimination, or segregation, of Blacks in housing laws and other arenas of life, and the endorsement of the stereotype that Blacks are less intelligent than whites. In a similar way, the Dislike subscale of Crandall's (1994) Anti-fat Attitudes Questionnaire assesses the old-fashioned form of weight prejudice by focusing on negative evaluations of fat people, support for discrimination toward fat people in employment and social situations, and endorsement of stereotypes about fat people being less intelligent and trustworthy.

Due to changing personal and societal norms about the expression of prejudice, however, more subtle forms of prejudice have been proposed, such as modern prejudice (McConahay, 1986; Swim et al., 1995) and aversive prejudice (Dovidio & Gaertner, 2004; Gaertner & Dovidio, 1986). These subtle forms of prejudice are characterized by conflict between egalitarianism, on the one hand, and underlying negativity toward particular social groups, on the other. More specifically, modern prejudice is exemplified in the case where people deny the occurrence of discrimination. For example, McConahay's (1986) Modern Racism Scale focuses on discrimination against Blacks no longer being a problem and on Blacks receiving more than they should economically and from the government. The denial of discrimination is a particularly subtle, yet insidious form of prejudice because it justifies negative evaluations of the social group in question on the basis that the group is pushing too hard for too much, and supports discriminatory action as the social group is not perceived to be facing any hardship. To our knowledge, no published studies to date have examined the modern form of weight prejudice, or examined the idea that perceptions of weight discrimination may impact attitudes or behaviors toward overweight individuals.

Aversive prejudice, on the other hand, involves the expression of negativity toward particular social groups only when it can be justified on nonprejudicial grounds. For example, Dovidio and Gaertner (2000) found that a White candidate was preferred for a job over a Black

candidate only when their job qualifications were ambiguous; the ambiguity in qualifications allowed justifications for denying the job to the Black candidate for reasons other than race, whereas the ambiguous White candidate was still perceived to be appropriate for the job. Although no self-report measure exists to assess aversive prejudice, it has been operationalized in previous research to reflect positive deliberate evaluations of a social group in conjunction with negative implicit associations toward that group (Son Hing, Li, & Zanna, 2002). To our knowledge, only one published study to date has examined the aversive form of weight prejudice (King, Shapiro, Hebl, Singletary, & Turner, 2006). These researchers found that obese female confederates experienced greater interpersonal discrimination (i.e., less smiling, friendliness, eye contact) from customer service representatives when shopping in stores, but only when they could be blamed for their weight status because they were drinking a high calorie beverage. Responses to obese shoppers who could not be blamed for their weight status (i.e., those drinking a low calorie beverage) did not differ from responses to average weight shoppers regardless of the drink they were consuming. These findings support the contention that people may need to justify the expression of prejudice against overweight individuals (see also Crandall & Eshleman, 2003).

These different forms of prejudice are useful theoretical constructs because they explain various experiences and expressions of prejudice. Until recently, however, they have lacked an integrative framework that explains how these various forms of prejudice relate to each other. We have attempted to address this absence in proposing the integrative prejudice framework which integrates old-fashioned, modern, and aversive prejudice from a cognitive consistency perspective (Gawronski, Peters, Brochu, & Strack, 2008; for reviews, see Brochu, Gawronski, & Esses, 2008; Gawronski, Brochu, Sritharan, & Strack, in press). The goal of the current research was to better understand different forms of weight prejudice using the core assumptions of the integrative

prejudice framework, while simultaneously examining the generalizability of the framework.

Integrative prejudice framework

The integrative prejudice framework integrates old-fashioned, modern, and aversive forms of prejudice using the basic principles of cognitive consistency (Brochu et al., 2008; Gawronski et al., 2008, in press). In brief, this framework proposes that the relation between implicit prejudice (conceptualized as negative automatic reactions toward social groups; see Gawronski & Bodenhausen, 2006) and explicit prejudice (conceptualized as negative evaluative judgments about social groups; see Gawronski & Bodenhausen, 2006) is interactively determined by egalitarian-based nonprejudicial goals and perceptions of discrimination. Nonprejudicial goals refer to the extent to which one believes that negative evaluations of disadvantaged social groups are wrong, whereas perceptions of discrimination refer to the extent to which one believes that a social group is a target of systematic discrimination. In the integrative prejudice framework, it is proposed that cognitive consistency between nonprejudicial goals, perceived discrimination, and implicit prejudice determines prejudice expression (see Festinger, 1957). That is, whether an automatic negative reaction toward a social group will be relied upon in making evaluative judgments about the social group depends on the consistency of the negative evaluation implied by the automatic reaction with nonprejudicial goals and perceptions of discrimination. Thus, even though negative automatic reactions toward social groups are activated unintentionally (Bargh, 1994; Payne & Gawronski, 2010), the framework assumes some level of awareness of automatic negative reactions, such that implicit prejudice is consciously accessible to individuals (Gawronski, Hofmann, & Wilbur, 2006).

Applying this theorizing to the domain of weight prejudice, the relation between implicit and explicit weight prejudice should be determined by the consistency between the evaluative judgment implied by a negative automatic reaction (e.g., "I dislike overweight individuals"), nonprejudicial goals (e.g., "Negative evaluations of

disadvantaged social groups are wrong"), and perceptions of discrimination (e.g., "Overweight individuals are disadvantaged"). As stated, these three statements are inconsistent with each other, as they cannot be endorsed simultaneously without violating the basic notion of cognitive consistency (Festinger, 1957). For example, simultaneously endorsing the views that (1) negative evaluations of disadvantaged social groups are wrong, and (2) overweight individuals are disadvantaged, is inconsistent with endorsing a negative evaluation of overweight individuals. Thus, at least one of the three components must be rejected in order to maintain cognitive consistency. In our previous research testing the integrative prejudice framework within the context of racism, we have found evidence for four routes through which this may occur (Brochu et al., 2008; Gawronski et al., 2008, in press).

First, it is possible that people may reject the component relating to nonprejudicial goals (e.g., "Negative evaluations of disadvantaged social groups are OK"; see Figure 1, Panel A). In this case, people may agree that overweight individuals are disadvantaged, but this belief does not result in a rejection of the negative automatic reaction as a valid basis for a negative evaluative judgment about overweight individuals, as negative evaluations of disadvantaged social groups are considered to be acceptable. Because old-fashioned prejudice is conceptualized in terms of nonegalitarian beliefs and support for open discrimination, this case can be viewed as involving central components of old-fashioned prejudice (McConahay, 1986; Swim et al., 1995).

Alternatively, people may reject the component relating to perceived discrimination (e.g., "Overweight individuals are not disadvantaged"; see Figure 1, Panel B). In this case, people may hold strong nonprejudicial goals, but these goals do not result in a rejection of the negative automatic reaction as a valid basis for a negative evaluative judgment about overweight individuals, as the overweight are not considered to be a target of discrimination. Because modern prejudice is conceptualized in terms of the denial of discrimination while maintaining that discrimination is wrong and espousing egalitarian ideals, this case can be viewed

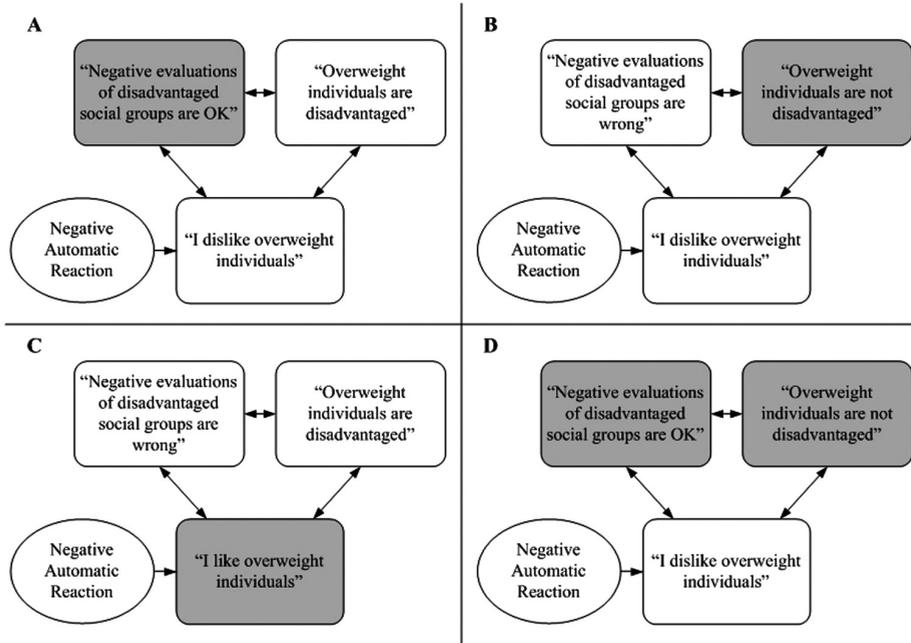


Figure 1. Interplay between automatic reactions, evaluative judgments, nonprejudicial goals, and perceptions of discrimination, implying consistent systems of beliefs about overweight individuals. Panel A depicts central components of old-fashioned prejudice; Panel B depicts central components of modern prejudice; Panel C depicts central components of aversive prejudice; and Panel D depicts central components of a fourth, yet unnamed, form of prejudice identified by Gawronski, Peters, Brochu, and Strack (2008).

as involving central components of modern prejudice (McConahay, 1986; Swim et al., 1995).

Now it is also possible that people may reject their negative automatic reaction as a valid basis for making an evaluative judgment about overweight individuals (e.g., “I like overweight individuals”; see Figure 1, Panel C). Such a rejection may occur when people hold strong nonprejudicial goals and at the same time perceive overweight individuals to be targets of discrimination. Because aversive prejudice is conceptualized in terms of egalitarian beliefs, the acknowledgement that discrimination exists, and underlying negativity toward particular social groups, this case can be viewed as involving central components of aversive prejudice (Dovidio & Gaertner, 2004; Gaertner & Dovidio, 1986).

Finally, Gawronski and colleagues (2008) identified a fourth route through which cognitive consistency was maintained by simultaneously rejecting the components relating to nonprejudicial goals and perceived discrimination.

In this case, negative automatic reactions can be expressed in negative evaluative judgments without violating the basic notion of cognitive consistency. However, Gawronski and colleagues also found that participants with low nonprejudicial goals and low perceptions of racial discrimination evaluated Blacks negatively even when their automatic reactions were neutral or positive. In other words, these participants endorsed negative evaluations at the explicit level irrespective of the degree of negativity at the implicit level. Applied to the present case, this pattern suggests that participants who simultaneously reject the components relating to nonprejudicial goals (e.g., “Negative evaluations of disadvantaged social groups are OK”) and perceived discrimination (e.g., “Overweight individuals are not disadvantaged”) may endorse negative judgments of overweight individuals irrespective of the degree of automatic negativity toward overweight individuals (see Figure 1, Panel D).

Present research and hypotheses

The main purpose of the present research was to extend the integrative framework of prejudice (Brochu et al., 2008; Gawronski et al., 2008, in press) from the domain of racial prejudice to the domain of weight prejudice, and to better understand different forms of prejudice exhibited toward individuals perceived to carry excess weight. The integrative prejudice framework has only been examined within the context of Black–White race relations, and may only articulate relations between different forms of racial prejudice. As such, it is possible that the model may not be generalizable to other target groups. Furthermore, unique aspects of weight bias based upon its more socially acceptable nature suggest that the processes underlying the expression of weight bias may differ from the processes underlying the expression of racial prejudice. Thus, it seemed both theoretically and practically important to test the generalizability of the integrative prejudice framework.

We argue that similar basic processes identified by the integrative prejudice framework underlie the expression of prejudice regardless of the target group in question. Based upon the predictions of the integrative prejudice framework, we hypothesized that: (1) implicit weight prejudice would positively relate to explicit weight prejudice when nonprejudicial goals were low, and at the same time, perceptions of weight discrimination were high, reflecting central components of old-fashioned prejudice; (2) implicit weight prejudice would positively relate to explicit weight prejudice when nonprejudicial goals were high, and at the same time, perceptions of weight discrimination were low, reflecting central components of modern prejudice; and (3) implicit weight prejudice would not be related, and possibly relate negatively, to explicit weight prejudice when nonprejudicial goals were high, and at the same time, perceptions of weight discrimination were high, reflecting central components of aversive prejudice. This study also sought to explore the theoretically consistent, yet unexpected

finding of Gawronski and colleagues (2008) whereby relatively high levels of explicit prejudice were observed when nonprejudicial goals were low, and at the same time, perceptions of discrimination were low, irrespective of the level of implicit prejudice. As such, we expected that implicit weight prejudice would be unrelated to explicit weight prejudice when nonprejudicial goals and perceptions of discrimination were both low, and that this group of participants would exhibit high levels of explicit weight prejudice regardless of the level of negativity of their implicit weight associations.

Method

Participants

Participants were 80 university students (53 females, 27 males) registered in an introductory psychology course, who participated in return for partial course credit. Participants ranged in age from 17 to 49 years ($M = 19.74$, $SD = 5.05$). Of the participants, 71% ($N = 57$) described themselves as White, 14% ($N = 11$) as Asian, 4% ($N = 3$) as East Indian, 3% ($N = 2$) as Black, 3% ($N = 2$) as Hispanic, and 1% ($N = 1$) as other. Four participants did not report their ethnicity. Based upon self-reported height and weight, participants' body mass index (BMI) ranged from 16.21 to 43.26 kg/m² ($M = 22.47$, $SD = 3.93$), with 8% ($N = 6$) being classified as underweight, 68% ($N = 54$) as normal weight, and 18% ($N = 14$) as overweight or obese.² Six participants did not report their height and/or weight.

Measures

Participants completed a sequential priming task as a measure of implicit weight prejudice. Participants were told that the computer task was an investigation into verbal skills, and that they would see a fixation point in the centre of the screen, followed by a string of Xs, and then a letter string. Participants were told that their task was to indicate whether the letter string was a meaningful English word or a meaningless

nonword (lexical decision task). They were told to press the “Y” key on the keyboard if they thought the letter string was a meaningful English word and the “N” key on the keyboard if they thought that the letter string was not a meaningful English word. Participants were told to respond as quickly and accurately as possible, and that if they responded too quickly or too slowly, an error message would appear.

The procedure for the priming task was based upon Wittenbrink, Judd, and Park (1997) and was as follows: first, participants were presented with a fixation point (+) in the centre of the computer screen for 1000 ms; second, participants were presented with the prime stimulus for 15 ms (either OVER-WEIGHT, NORMAL-WEIGHT, or a string of Xs to serve as a control); third, participants were presented with a string of Xs for 250 ms; and fourth, participants were presented with a letter string (either a positive word, negative word, neutral word, or nonword), which cleared after 250 ms. A total of 24 different letter strings were used in this study, six from each category (Positive: FAVOURABLE, GOOD, POSITIVE, VALUABLE, PLEASANT, NICE; Negative: UNFAVOURABLE, BAD, NEGATIVE, USELESS, UNPLEASANT, AWFUL; Neutral: TABLE, COUCH, CHAIR, SOFA, OTTOMAN, BOOKSHELF; Nonwords: VRABLESS, BOOSANTABLE, GOOMANE, AWRITIVE, FOTFULA, PLOFADANT). In addition, a response window of 200 to 600 ms was incorporated, which has been found to increase priming effects (Draine & Greenwald, 1998). If participants responded before the 200 ms onset of the response window, they were presented with the message “Please wait for the stimulus!” for 1000 ms; if participants responded after the 600 ms offset of the response window, they were presented with the message “Please try to respond faster!” for 1000 ms. Participants did not receive any error feedback throughout the priming task.

Participants first completed one practice block consisting of 10 trials, in which they were primed only with the string of Xs and were presented with letter strings from the neutral word or

nonword categories only. Then, participants completed three experimental blocks which consisted of 72 trials each. Participants had the option to take a break of any length in between each experimental block. Prime and letter string stimuli were presented in an a priori random order, which was kept constant for all participants in order to control for possible confounding of presentation order and individual differences in implicit evaluations (see Gawronski, 2002).

Following the priming task, participants completed several questionnaires including measures of explicit weight prejudice, egalitarian-based nonprejudicial goals, and perceptions of weight discrimination. Crandall’s (1994) Anti-fat Attitudes Questionnaire – Dislike subscale served as the measure of explicit weight prejudice with the term fat changed to overweight (e.g., “I really don’t like overweight people much”; $\alpha = .81$). Participants responded to each of the seven items on a scale ranging from 1 (*disagree strongly*) to 9 (*agree strongly*), such that higher scores indicate greater endorsement of negative statements regarding overweight persons. Dunton and Fazio’s (1997) Motivation to Control Prejudiced Reactions scale was used to measure nonprejudicial goals (e.g., “I get angry with myself when I have a thought or feeling that might be considered prejudiced”; $\alpha = .83$). Although most of the items are target-unspecified, the three statements referring to Black people were modified to refer to overweight people (i.e., “If I were participating in a class discussion and an overweight student expressed an opinion with which I disagreed, I would be hesitant to express my own viewpoint”; “I feel guilty when I have a negative thought or feeling about an overweight person”; “When speaking to an overweight person, it’s important to me that s/he not think I’m prejudiced”).³ Participants responded to each of the 17 items on a scale ranging from -3 (*strongly disagree*) to +3 (*strongly agree*), such that higher scores indicate greater endorsement of statements reflecting egalitarian-based nonprejudicial goals. Finally, perceived discrimination toward the overweight person was assessed

Table 1. Descriptive statistics

Measure	Min.	Max.	<i>M</i>	<i>SD</i>
Implicit weight prejudice	-75.69	70.24	3.29	34.48
Explicit weight prejudice	1.00	7.29	2.94	1.28
Nonprejudicial goals	-2.41	1.94	0.28	0.88
Perceived weight discrimination	3.27	7.00	5.14	0.69

Note: Implicit weight prejudice was assessed with a Sequential Priming (Lexical Decision) Task; Explicit weight prejudice was assessed with Crandall's (1994) Anti-fat Attitudes Questionnaire – Dislike subscale; Nonprejudicial goals were assessed with Dunton and Fazio's (1997) Motivation to Control Prejudiced Reactions Scale; and Perceived weight discrimination was assessed with a new scale developed for the purpose of this study (see Appendix).

by 11 items developed for the purpose of this study (e.g., "Overweight people are victims of discrimination"; $\alpha = .73$; see Appendix). Participants responded to each item on a scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*), such that higher scores indicate greater endorsement of statements reflecting the perception that overweight persons are targets of discrimination.

Procedure

Upon arrival in the lab, participants were escorted to a testing room and seated in front of a computer. Guided by verbal and written instructions, participants first completed the sequential priming task and then a series of questionnaires on the computer. Upon completion of the study, participants were thanked, debriefed, and granted partial course credit for their research participation.

Results

Preliminary Analyses

Priming responses that fell outside of the predefined response window—that is, responses that were either faster than 200 ms (0.01%) or slower than 600 ms (9.9%)—were excluded from analyses. Latencies from incorrect responses (12.3%) were also excluded. Priming scores were then aggregated to reveal participants' automatic associations with overweight individuals, or implicit weight prejudice. To this end, participants'

response times to the negative words after being primed with the overweight stimulus were subtracted from participants' response times to the negative words after being primed with the control stimulus (i.e., activation of negativity in response to overweight primes), and participants' response times to the positive words after being primed with the normal weight stimulus were subtracted from participants' response times to the positive words after being primed with the control stimulus (i.e., activation of positivity in response to normal weight primes). Then, the difference observed between the normal weight and control primes on the positive words was subtracted from the difference observed between the overweight and control primes on the negative words (see Wentura & Degner, 2010). This final difference score served as the indicator of implicit weight prejudice with higher scores indicating more negative associations with the overweight. Measures of explicit weight prejudice (Anti-fat Attitudes Questionnaire—Dislike subscale), nonprejudicial goals (Motivation to Control Prejudiced Reactions), and perceived weight discrimination were aggregated by first reverse scoring negatively coded items and then calculating the mean value for each scale. Descriptive statistics for all of the measures are presented in Table 1.

Correlations

Intercorrelations between the measures are presented in Table 2. Implicit weight prejudice was unrelated to all of the self-report measures.

Table 2. Intercorrelations between measures

Measure	Implicit weight prejudice	Explicit weight prejudice	Nonprejudicial goals	Perceived weight discrimination
Implicit weight prejudice	–	.02	.11	–.02
Explicit weight prejudice		–	–.27*	.12
Nonprejudicial goals			–	.05
Perceived weight discrimination				–

Note. Implicit weight prejudice was assessed with a Sequential Priming (Lexical Decision) Task; Explicit weight prejudice was assessed with Crandall's (1994) Anti-fat Attitudes Questionnaire – Dislike subscale; Nonprejudicial goals were assessed with Dunton and Fazio's (1997) Motivation to Control Prejudiced Reactions Scale; and Perceived weight discrimination was assessed with a new scale developed for the purpose of this study (see Appendix). * $p < .05$

Table 3. Regression coefficients for explicit weight prejudice as predicted by implicit weight prejudice (IWP), nonprejudicial goals (NPG), perceived weight discrimination (PWD), and their interactions

	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Intercept	–.04	.11	–0.38	.70
IWP	.13	.11	1.23	.22
NPG	–.26	.11	–2.40	.02
PWD	.04	.11	0.32	.75
IWP × NPG	–.17	.11	–1.57	.12
IWP × PWD	–.12	.12	–.99	.32
NPG × PWD	.12	.10	1.21	.23
IWP × NPG × PWD	–.35	.13	–2.72	.01

Note. Explicit weight prejudice was assessed with Crandall's (1994) Anti-fat Attitudes Questionnaire – Dislike subscale; Implicit weight prejudice was assessed with a Sequential Priming (Lexical Decision) Task; Nonprejudicial goals were assessed with Dunton and Fazio's (1997) Motivation to Control Prejudiced Reactions Scale; and Perceived weight discrimination was assessed with a new scale developed for the purpose of this study (see Appendix). $R^2 = .216$; Adjusted $R^2 = .140$.

Explicit weight prejudice was negatively related with nonprejudicial goals, indicating that a strong personal motivation to appear nonprejudiced to oneself and to others was associated with less negative explicit evaluations of overweight persons. Perceived weight discrimination was unrelated to any of the measures. However, Gawronski and colleagues' (2008) integrative framework of prejudice suggests that zero-order correlations are unable to capture the more complex relations between implicit and explicit prejudice. This framework postulates that personal endorsement

of nonprejudicial goals in conjunction with perceptions of discrimination interactively determine whether automatic reactions toward a social group lead to corresponding evaluative judgments about the group.

Regression analyses

In order to test these predictions, a regression analysis was conducted in which standardized scores of participants' explicit weight prejudice were regressed onto standardized scores of participants' implicit weight prejudice, nonprejudicial goals, perceived weight discrimination, and all of their interactions. Consistent with predictions, this analysis revealed a significant three-way interaction (see Table 3). Simple slope analyses (Aiken & West, 1991) supported each of our hypotheses and were consistent with the findings of Gawronski and colleagues (2008) in the domain of racial prejudice. Entering BMI as a covariate did not change the pattern of results reported below.

Reflecting the central components of old-fashioned prejudice, simple slope analyses indicated that implicit weight prejudice was positively related to explicit weight prejudice when nonprejudicial goals were low, and at the same time, perceptions of weight discrimination were high, $B = .53$, $SE = .22$, $t(78) = 2.42$, $p = .02$ (see Figure 2). In other words, stronger negative automatic reactions toward overweight individuals led to more negative evaluative judgments about the overweight for those who perceived the overweight to be targets of systematic

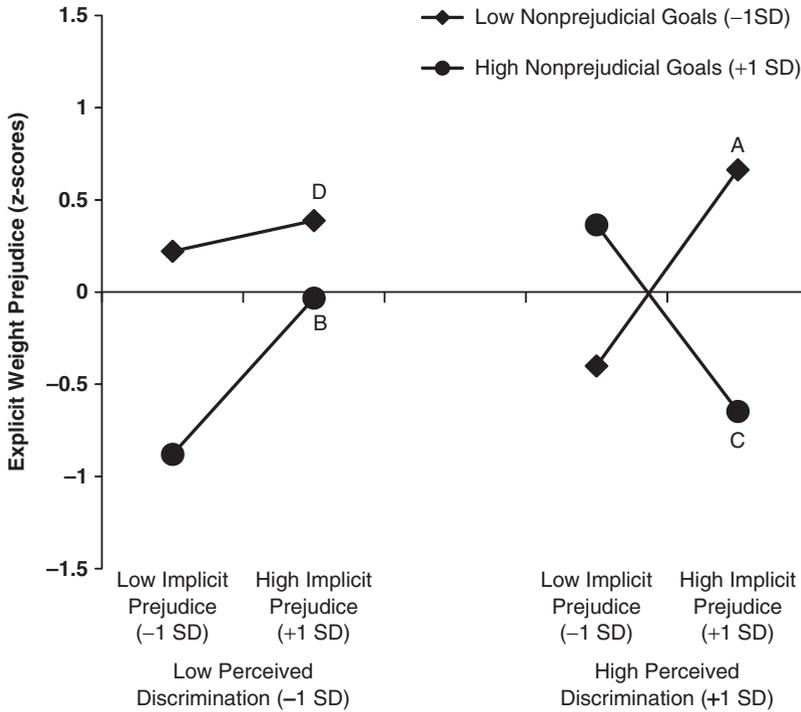


Figure 2. Relation between explicit weight prejudice and implicit weight prejudice as a function of nonprejudicial goals and perceived weight discrimination. The letters A (central components of old-fashioned prejudice), B (central components of modern prejudice), C (central components of aversive prejudice), and D (central components of a fourth form of prejudice) refer to the panels outlined in Figure 1.

discrimination, but did not strongly endorse a personal goal of appearing nonprejudiced.

Reflecting the central components of modern prejudice, implicit weight prejudice tended to be positively related to explicit weight prejudice when nonprejudicial goals were high, and at the same time, perceptions of weight discrimination were low, $B = .42, SE = .22, t(78) = 1.94, p = .06$ (see Figure 2). In other words, stronger negative automatic reactions toward overweight individuals led to more negative evaluative judgments about the overweight by those who strongly endorsed a personal goal of appearing nonprejudiced, but did not perceive the overweight as targets of systematic discrimination.

Reflecting the central components of aversive prejudice, implicit weight prejudice was negatively related to explicit weight prejudice when nonprejudicial goals were high, and at the same

time, perceptions of weight discrimination were high, $B = -.51, SE = .20, t(78) = -2.47, p = .02$ (see Figure 2). In other words, stronger negative automatic reactions toward overweight individuals led to less negative evaluative judgments about the overweight by those who strongly endorsed a personal goal of appearing nonprejudiced and who perceived the overweight to be targets of systematic discrimination.

Replicating the unexpected finding of Gawronski and colleagues (2008), implicit weight prejudice was unrelated to explicit weight prejudice when nonprejudicial goals were low, and at the same time, perceptions of weight discrimination were low, $B = .08, SE = .23, t(78) = 0.36, p = .72$. As can be seen in Figure 2, this group of participants evaluated overweight individuals relatively negatively regardless of the level of negativity of their automatic weight associations.

Discussion

This study extends the generality of the integrative prejudice framework to the domain of weight prejudice and provides evidence for the presence of different forms of weight prejudice. In line with the basic assumptions of the integrative prejudice framework, the findings indicate that the correspondence between implicit and explicit weight prejudice is interactively determined by nonprejudicial goals and perceptions of weight discrimination. Thus, when nonprejudicial goals are low and perceptions of weight discrimination are high, or when nonprejudicial goals are high and perceptions of weight discrimination are low, negative automatic reactions to overweight individuals are likely to be expressed openly in explicit evaluative judgments. In addition, when nonprejudicial goals are high and perceptions of weight discrimination are high, negative automatic reactions to overweight individuals are unlikely to be expressed openly. Instead, this pattern is characterized by a compensatory effect, such that individuals attempt to overcome more negative automatic reactions at the implicit level with more favorable evaluative judgments at the explicit level (see also Dunton & Fazio, 1997; Gawronski et al., 2008). These three patterns map onto the theoretical underpinnings of old-fashioned, modern, and aversive forms of prejudice, respectively. In the case of old-fashioned prejudice, unfavorable evaluations of the overweight are expressed because the expression of negative evaluations is viewed as acceptable (despite the perception that the overweight are disadvantaged); in the case of modern prejudice, unfavorable evaluations of the overweight are expressed because the expression of negative evaluations can be rationalized through the denial of discrimination (despite the endorsement of egalitarian values).⁴ Moreover, replicating an unexpected finding uncovered by Gawronski and colleagues (2008), we also found that implicit and explicit prejudice were unrelated when nonprejudicial goals and perceptions of discrimination were both low, such that these participants evaluated overweight individuals relatively negatively irrespective of the level of their implicit weight prejudice.

This research has several implications, particularly in demonstrating the generality of the integrative framework of prejudice to other prejudice domains and extending theories of old-fashioned, modern, and aversive prejudice to the domain of weight prejudice. These two points are particularly important because the integrative prejudice framework and theories of old-fashioned, modern, and aversive prejudice were all stimulated and have been primarily tested within the domain of black-white race relations.

Implications for the integrative prejudice framework

Examining the integrative prejudice framework within the domain of weight prejudice is not a straightforward enterprise, and could be considered a stringent test of the generality of the framework, as there is much dissimilarity between racism and weight prejudice. As discussed earlier, weight prejudice is considered to be more socially appropriate compared to racial prejudice (Crandall et al., 2002) and the examination of weight prejudice has almost exclusively focused on its blatant expression. In addition, whereas racism is considered a prototypical form of prejudice and discrimination, weight prejudice is not. For instance, Marti, Bobier, and Baron (2000) found that the selection of a White over a Black job candidate was perceived as more prejudicial and more serious than the selection of a thin over an obese job candidate. Furthermore, the negative affectivity elicited by Black and overweight targets likely differs qualitatively. For example, whereas fear may be elicited by Blacks, disgust may be elicited by the overweight (Crandall, 1994; Dovidio & Gaertner, 2004). Notwithstanding these differences, the conceptualizations of old-fashioned, modern, and aversive forms of prejudice in the integrative prejudice framework were supported within the domain of weight prejudice.

The integrative prejudice framework has proven theoretically useful for the scientific goals of integration, prediction, and discovery.

First, it furthers our understanding of the relations between different forms of prejudice through the interactive influence of nonprejudicial goals and perceptions of discrimination. Second, it also allows us to predict the relation between implicit and explicit prejudice, reflecting the overt expression of negative automatic responses. Third, it has uncovered an unexpected yet replicable finding that implicit and explicit prejudice are generally unrelated when both nonprejudicial goals and perceived discrimination are low, such that negative evaluative judgments about social groups are expressed irrespective of the level of negativity of automatic associations. This pattern may point to a fourth form of prejudice that has not been discussed by earlier theories.

A possible explanation for this fourth pattern is that the explicit expression of negative evaluations is enhanced when the members of a social group are seen as personally responsible for their disadvantaged situation, and such an exaggeration of negativity may be most likely when both nonprejudicial goals and perceptions of systematic discrimination are low. If one were to consider the groups in North American society who are most frequently blamed for their disadvantaged status, the situation of overweight people and of Black people immediately comes to mind (Crandall, 1994; Sears & Henry, 2005). If social groups are blamed for their situation, then the exaggeration of negativity observed within this fourth pattern may not be all that surprising. According to this interpretation, the unexpected fourth case may emerge for social groups that are typically blamed for disadvantaged status (e.g., Black people, overweight people), but not for those groups who are considered less responsible for their disadvantaged status (e.g., elderly people). These speculations notwithstanding, what is clear is that people with low nonprejudicial goals and low perceptions of discrimination do not rely on their automatic reactions when evaluating social groups (i.e., low correlation between implicit and explicit prejudice), but instead express relatively high levels of negativity regardless of

their automatic reactions (i.e., high mean values of explicit prejudice irrespective of implicit prejudice).⁵ Future research is needed in order to better understand this fourth case.

Implications for understanding weight prejudice

The present findings also have important implications for better understanding weight prejudice. Importantly, this research demonstrates that weight prejudice can occur in various forms. Although weight prejudice and discrimination may be considered among the last acceptable forms of bias (Puhl & Brownell, 2001), it is not simply the case that weight prejudice is only blatantly expressed. Instead, the current research demonstrates that weight prejudice can operate either in blatant or in more subtle forms that map onto existing theories of prejudice.

More practically, our research demonstrates that nonprejudicial goals and perceived weight discrimination are important factors to examine in the expression of weight prejudice, factors which have not generally been examined in the domain of weight prejudice to date. The idea that prejudice against the overweight is only expressed when it can be justified on nonprejudicial grounds is relatively novel within the weight bias literature, but is theoretically grounded from the perspectives of aversive prejudice (Dovidio & Gaertner, 2004; Gaertner & Dovidio, 1986) and the justification-suppression model of prejudice (Crandall & Eshleman, 2003; King et al., 2006). Further, the idea that prejudice against the overweight may be expressed through the denial of weight discrimination is novel within the weight prejudice literature, but is theoretically grounded from the perspective of modern prejudice (McConahay, 1986; Swim et al., 1995). As perceptions of weight discrimination among overweight and obese individuals are increasing and reaching levels similar to those of racial discrimination among Blacks (Andreyeva, Puhl, & Brownell, 2008), it is now appropriate and necessary to better understand the antecedents and consequences of people's perceptions of weight

discrimination, such as the belief that weight discrimination is justified. Future research may also more closely examine the role of participants' own body weight and identification in the expression of weight bias.

Conclusion

Using the integrative prejudice framework as a theoretical guide, we have conceptualized different forms of weight prejudice from a cognitive consistency perspective. This research demonstrates that the overt expression of negative automatic reactions to overweight individuals is jointly moderated by nonprejudicial goals and perceptions of discrimination. The present research provides but a first step in better understanding weight prejudice, and we hope that this research will encourage novel and innovative approaches to further examining the various expressions of this prejudice.

Acknowledgements

This research was supported by an Ontario Graduate Scholarship awarded to the first author, and a Social Sciences and Humanities Research Council of Canada grant to the third author.

Notes

1. We prefer the term overweight, as it connotes less negativity than other weight-related terms (Brochu & Esses, in press). Throughout the article, we make use of other weight-related terms (e.g., fat or obese) in order to maintain consistency with the terminology employed in other research.
2. The most common computation of body mass index (BMI) is the Quetelet index which is calculated using body weight in kilograms divided by height in meters, squared (kg/m^2). BMI categories are as follows: less than 18.5, underweight; 18.5–24.9, normal weight; 25–29.9, overweight; 30–34.9, mildly obese; 35–39.9, moderately obese; and 40 or greater, morbidly obese.
3. In the integrative prejudice framework, egalitarian-based nonprejudicial goals are considered a general motivation irrespective of target group. Previous research (Gawronski et al., 2008, Study 3) supports this conceptualization by demonstrating the predicted effects using scale items that were

target-unspecified. In the current study, however, we cannot rule out the possibility that participants may have interpreted the measure of nonprejudicial goals in a target-specific manner.

4. Deviating from earlier conceptualizations of modern prejudice (e.g., McConahay, 1986), we do not consider the denial of discrimination as an *antecedent* of attempts to rationalize negative evaluations. According to the integrative prejudice framework, the denial of discrimination is an attempt to rationalize negative evaluations.
5. Note that all scores, including those of the dependent measure, were standardized. Thus, mean levels must be interpreted relative to the distribution of the sample.

References

- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.
- Andreyeva, T., Puhl, R. M., & Brownell, K. D. (2008). Changes in perceived weight discrimination among Americans, 1995–1996 through 2004–2006. *Obesity, 16*, 1129–1134.
- Bargh, J. A. (1994). The four horsemen of automaticity: Awareness, efficiency, intention, and control in social cognition. In R. S. Wyer, Jr. & T. K. Srull (Eds.), *Handbook of social cognition* (pp. 1–40). Hillsdale, NJ: Erlbaum.
- Bessenoff, G. R., & Sherman, J. W. (2000). Automatic and controlled components of prejudice toward fat people: Evaluation versus stereotype activation. *Social Cognition, 18*, 329–353.
- Brochu, P. M., & Esses, V. M. (2009). Weight prejudice and medical policy: Support for an ambiguously discriminatory policy is influenced by prejudice-colored glasses. *Analyses of Social Issues and Public Policy, 9*, 117–133.
- Brochu, P. M., & Esses, V. M. (in press). What's in a name? The effects of the labels "fat" versus "overweight" on weight bias. *Journal of Applied Social Psychology*.
- Brochu, P. M., Gawronski, B., & Esses, V. M. (2008). Cognitive consistency and the relation between implicit and explicit prejudice: Reconceptualizing old-fashioned, modern, and aversive prejudice. In M. A. Morrison & T. G. Morrison (Eds.), *The Psychology of Modern Prejudice* (pp. 27–50). New York: Nova Science Publishers.
- Brochu, P. M., & Morrison, M. A. (2007). Implicit and explicit prejudice toward overweight and

- average-weight men and women: Testing their correspondence and relation to behavioral intentions. *Journal of Social Psychology*, 147, 681–706.
- Brownell, K. D., Puhl, R. M., Schwartz, M. B., & Rudd, L. (2005). *Weight bias: Nature, consequences, and remedies*. New York: Guilford Press.
- Chambless, H. O., Finley, C. E., & Blair, S. N. (2004). Attitudes toward obese individuals among exercise science students. *Medicine & Science in Sports & Exercise*, 36, 468–474.
- Crandall, C. S. (1994). Prejudice against fat people: Ideology and self-interest. *Journal of Personality and Social Psychology*, 66, 882–894.
- Crandall, C. S., D'Anello, S., Sakalli, N., Lazarus, E., Nejtardt, G. W., & Feather, N. T. (2001). An attribution-value model of prejudice: Anti-fat attitudes in six nations. *Personality and Social Psychology Bulletin*, 27, 30–37.
- Crandall, C. S., & Eshleman, A. (2003). A justification-suppression model of the expression and experience of prejudice. *Psychological Bulletin*, 129, 414–446.
- Crandall, C. S., Eshleman, A., & O'Brien, L. (2002). Social norms and the expression and suppression of prejudice: The struggle for internalization. *Journal of Personality and Social Psychology*, 82, 359–378.
- Crandall, C. S., & Martinez, R. (1996). Culture, ideology, and antifat attitudes. *Personality and Social Psychology Bulletin*, 22, 1165–1176.
- Dovidio, J. F., & Gaertner, S. L. (2000). Aversive racism and selection decisions: 1989 and 1999. *Psychological Science*, 11, 315–319.
- Dovidio, J. F., & Gaertner, S. L. (2004). Aversive racism. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (vol. 36, pp. 1–52). New York: Elsevier.
- Draine, S. C., & Greenwald, A. G. (1998). Replicable unconscious semantic priming. *Journal of Experimental Psychology: General*, 127, 286–303.
- Dunton, B. C., & Fazio, R. H. (1997). An individual difference measure of motivation to control prejudiced reactions. *Personality and Social Psychology Bulletin*, 23, 316–326.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Evanston, IL: Row Peterson.
- Foster, G. D., Wadden, T. A., Makris, A. P., Davison, D., Sanderson, R. S., Allison, D. B., et al. (2003). Primary care physicians' attitudes about obesity and its treatment. *Obesity Research*, 11, 1168–1177.
- 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.
- Gawronski, B. (2002). What does the Implicit Association Test measure? A test of the convergent and discriminant validity of prejudice-related IATs. *Experimental Psychology*, 49, 171–180.
- Gawronski, B., & Bodenhausen, G. V. (2006). Associative and propositional processes in evaluation: An integrative review of implicit and explicit attitude change. *Psychological Bulletin*, 132, 692–731.
- Gawronski, B., Brochu, P. M., Sritharan, R., & Strack, F. (in press). Cognitive consistency in prejudice-related belief systems: Integrating old-fashioned, modern, aversive and implicit forms of prejudice. In B. Gawronski & F. Strack (Eds.), *Cognitive consistency: A fundamental principle in social cognition*. New York: Guilford Press.
- Gawronski, B., Hofmann, W., & Wilbur, C. J. (2006). Are “implicit” attitudes unconscious? *Consciousness and Cognition*, 15, 485–499.
- Gawronski, B., Peters, K. R., Brochu, P. M., & Strack, F. (2008). Understanding the relations between different forms of racial prejudice: A cognitive consistency perspective. *Personality and Social Psychology Bulletin*, 34, 648–665.
- Greenwald, A. G., McGhee, D. E., & Schwartz, J. L. K. (1998). Measuring individual differences in implicit cognition: The Implicit Association Test. *Journal of Personality and Social Psychology*, 74, 1464–1480.
- Hare, S. W., Price, J. H., Flynn, M. G., & King, K. A. (2000). Attitudes and perceptions of fitness professionals regarding obesity. *Journal of Community Health*, 25, 5–21.
- Hebl, M. R., & Xu, J. (2001). Weighing the care: Physicians' reactions to the size of a patient. *International Journal of Obesity*, 25, 1246–1252.
- Hofmann, W., Gschwendner, T., Nosek, B. A., & Schmitt, M. (2005). What moderates explicit-implicit consistency? *European Review of Social Psychology*, 16, 335–390.
- King, E. B., Shapiro, J. R., Hebl, M. R., Singletary, S. L., & Turner, S. (2006). The stigma of obesity in customer service: A mechanism for remediation and bottom-line consequences of interpersonal discrimination. *Journal of Applied Psychology*, 91, 579–593.
- Marti, M. W., Bobier, D. M., & Baron, R. S. (2000). Right before our eyes: The failure to recognize non-prototypical forms of prejudice. *Group Processes & Intergroup Relations*, 3, 403–418.
- McConahay, J. B. (1986). Modern racism, ambivalence, and the Modern Racism Scale. In J. F. Dovidio &

- S. L. Gaertner (Eds.), *Prejudice, discrimination, and racism*. Orlando, FL: Academic Press.
- Morrison, T. G., & O'Connor, W. E. (1999). Psychometric properties of a scale measuring negative attitudes toward overweight individuals. *Journal of Social Psychology, 139*, 436–445.
- Neumark-Sztainer, D., Story, M., & Harris, T. (1999). Beliefs and attitudes about obesity among teachers and school health care providers working with adolescents. *Journal of Nutrition Education, 31*, 3–9.
- Payne, B. K., & Gawronski, B. (2010). A history of implicit social cognition: Where is it coming from? Where is it now? Where is it going? In B. Gawronski & B. K. Payne (Eds.), *Handbook of implicit social cognition: Measurement, theory, and applications* (pp. 1–15). New York: Guilford Press.
- Puhl, R., & Brownell, K. D. (2001). Bias, discrimination, and obesity. *Obesity Research, 9*, 788–805.
- Rochling, M. V. (1999). Weight-based discrimination in employment: Psychological and legal aspects. *Personnel Psychology, 52*, 969–1016.
- Sears, D. O., & Henry, P. J. (2005). The origins of symbolic racism. *Journal of Personality and Social Psychology, 85*, 259–275.
- Son Hing, L. S., Li, W., & Zanna, M. P. (2002). Inducing hypocrisy to reduce prejudicial responses among aversive racists. *Journal of Experimental Social Psychology, 38*, 71–78.
- 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.
- Teachman, B. A., & Brownell, K. D. (2001). Implicit anti-fat bias among health professionals: Is anyone immune? *International Journal of Obesity, 25*, 1525–1531.
- Teachman, B. A., Gapinski, K. D., Brownell, K. D., Rawlins, M., & Jeyaram, S. (2003). Demonstrations of implicit anti-fat bias: The impact of providing causal information and evoking empathy. *Health Psychology, 22*, 68–78.
- Wentura, D., & Degner, J. (2010). A practical guide to sequential priming and related tasks. In B. Gawronski & B. K. Payne (Eds.), *Handbook of implicit social cognition: Theory, measurement, and applications* (pp. 95–116). New York: Guilford Press.
- Wittenbrink, B., Judd, C. M., & Park, B. (1997). Evidence for racial prejudice at the implicit level and its relationship with questionnaire measures. *Journal of Personality and Social Psychology, 72*, 262–274.

Biographical notes

PAULA M. BROCHU is a graduate student in the Department of Psychology at the University of Western Ontario, Canada. Her research interests include prejudice, stereotyping, and discrimination, particularly within the domain of weight bias. She is also interested in the processes underlying the expression of prejudice more generally.

BERTRAM GAWRONSKI is Professor of Psychology and Canada Research Chair in Social Psychology at the University of Western Ontario, Canada. He received his MA in philosophy from the Free University Berlin (Germany) in 1998 and his PhD from Humboldt-University Berlin, Germany, in 2001. His research investigates the mental processes underlying social judgments and social behavior, paying particular attention to the interaction of automatic and controlled processes.

VICTORIA M. ESSES is Professor of Psychology and Director of the Centre for Research on Migration and Ethnic Relations at the University of Western Ontario, Canada. Her research examines prejudice, discrimination, and intergroup relations, with a particular interest in issues surrounding immigration and cultural diversity.

Appendix: Items used to measure perceived weight discrimination

1. Overweight people are victims of discrimination.
2. In social settings it is common for overweight people to be ignored or overlooked.
3. Discrimination against overweight people is not a problem in Canada. (R)
4. Our society discriminates more against overweight people than average weight people.
5. Overweight people experience discrimination in employment.
6. Overweight people, as a group, rarely encounter any weight-based prejudice or discrimination. (R)
7. Overweight people are called names, insulted, or threatened by someone else because of their body size.

8. Overweight people receive poorer service than others at restaurants and stores.
9. Overweight people have been deprived of opportunities because of their body weight.
10. Overweight people are treated just like everyone else. (R)
11. Overweight people experience fewer romantic opportunities.

Note. R indicates a reverse-coded item. Participants rated each item on a scale of 1 (*strongly disagree*) to 7 (*strongly agree*). Item 3 is adapted from the Modern Racism Scale (McConahay, 1986).