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4 Prejudice among Egalitarians: The Case of Values and Weight Bias

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26 is available at [https://osf.io/b7v9z/?view\\_only=b9ef22b8920d4383bec66dc1cb5a941c](https://osf.io/b7v9z/?view_only=b9ef22b8920d4383bec66dc1cb5a941c) The  
27 studies followed the ethical guidelines by the 1964 Helsinki declaration and its later  
28 amendments. All persons gave their informed consent prior to their inclusion in the study.  
29 Authors confirm that the manuscript adheres to ethical guidelines specified in the APA Code  
30 of Conduct as well as authors' national ethics guidelines. Our research was conducted  
31 ethically, results are reported honestly, the submitted work is original and not (self-)  
32 plagiarized, and authorship reflects individuals' contributions.

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35 **Abstract**

36 Many domains of research suggest that high favorability to social power and low favorability  
37 to egalitarian ideals predict more prejudice against other groups. In the present article, we  
38 describe theory and evidence suggesting that the relations between power, egalitarianism, and  
39 prejudice may be reversed for one group: fat men. Using both implicit and explicit measures,  
40 we found across four studies ( $N = 602$ ) that target gender moderated the relation between  
41 values and attitude toward fat people. For male targets, implicitly but not explicitly measured  
42 positivity toward power (over egalitarian) values predicted significantly more spontaneous  
43 *positive* attitudes toward fat (over slim) people. Further, implicit attitude toward power (over  
44 egalitarian) values predicted the time-pressured decision to choose a fat male. Together, the  
45 implicit evaluation of values allows us to identify processes in intergroup attitudes and  
46 behaviors that would not be possible to detect using explicit measures of values alone.

47 **Key words:** Values, Fatism, Implicit Measures, Power, Egalitarianism

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## 60 **Prejudice among Egalitarians: The Case of Values and Weight Bias**

61 Prejudice toward other social groups is often greater among people who attach high  
62 importance to social power and low importance to equality (e.g., Duckitt et al., 2002; Sidanius  
63 & Pratto, 1999). For example, research has shown that individuals who implicitly evaluate  
64 power (over egalitarianism) values more positively tended to implicitly evaluate different low  
65 status groups more negatively (Souchon et al., 2017). However, in the present research we  
66 investigate whether this relation is reversed when the target group are fat<sup>1</sup> men. Specifically,  
67 we investigate whether people who value power more and egalitarianism less have more  
68 positive attitudes towards fat male people.

### 69 **Implicit-explicit weight bias**

70 Attitudes are generally defined as tendencies to evaluate any concrete or abstract entity  
71 with some degree of favor or disfavor (Haddock & Maio, 2015). Explicit, self-report  
72 measures are the dominant method for assessing attitudes and research using explicit  
73 measures has shown that people tend to be blamed for carrying excess weight, even though  
74 body weight is determined by a complex interaction of biological and environmental factors  
75 (e.g., Crandall, 1994; Crandall & Martinez, 1996; Offer et al., 2010). More specifically,  
76 weight bias is partly due to attributions of controllability of weight and the belief that people  
77 are responsible for their life situation (e.g., Crandall, 1994; Crandall & Martinez, 1996;  
78 Crandall & Schiffhauer, 1998).

79 Research on attitudes has been enhanced in the past two decades by the inclusion of  
80 implicit measures, which encompass a diverse range of techniques used to infer attitudes  
81 without exclusive reliance on respondents' self-reports. These measures are important  
82 because they relate to judgment and behavior in a way that is different from the explicit

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<sup>1</sup> In line with principles espoused by fat rights organizations, we use the term "fat" as a value-neutral descriptor of higher-weight people, thereby effectively re-appropriating the word and stripping it of its negative connotations. (Meadows & Daniélsdóttir, 2016; Meadows & Higgs, 2022).

83 evaluations, as described in dual processes models of evaluation, including the Associative-  
84 Propositional Evaluation model (APE, Gawronski & Bodenhausen, 2006), the Meta-  
85 Cognitive Model (Petty et al., 2007), the MODE Model (Fazio, 2007), or the Reflective-  
86 Impulsive Model (Strack & Deutsch, 2004). Implicit measures were used to capture views  
87 towards a range of groups, such as fat people. Studies using implicit measures<sup>2</sup> revealed a  
88 weight bias in diverse samples, including students, health care professionals, and women  
89 (e.g., Brochu & Morrison, 2007; Ravary et al., 2019). These biases tend to be (at best) only  
90 weakly related to the explicit indices used in the seminal research (e.g., Brochu & Morrison,  
91 2007; Hofmann et al., 2005). According to the APE, implicit measures assess the behavioral  
92 outcomes of associative processes, while explicit measures assess the behavioral outcomes of  
93 propositional processes. Associative processes are defined as activation of mental  
94 associations based on feature similarity and spatiotemporal contiguity, while propositional  
95 processes are defined as the validation of the information implied by activated associations  
96 (Gawronski & Bodenhausen, 2006). Overall, despite some important limitations and  
97 controversies (e.g., Kurdi et al., 2019; Oswald et al., 2013), dual process theories of attitude-  
98 behavior relations agree that the predictive relations of implicit and explicit evaluations to  
99 overt behavior depend on different moderating factors, such as type of behavior, cognitive  
100 load, intuitive personality (e.g., Strack & Deutsch, 2004).

### 101 **Weight bias and values**

102           Connections between weight bias and basic human values can be modelled using  
103 Schwartz's (1992) cross-cultural model of values, which has been supported in hundreds of  
104 studies worldwide with varied paradigms (Maio, 2016; Schwartz et al., 2012). Among 10  
105 types of values (later included in 19 more specific value types; Schwartz et al., 2012),

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<sup>2</sup> There are well-documented conceptual issues related to implicit measures of evaluation (Corneille & Hütter, 2020). While recognising these concerns, we use the term here because it is the simplest way of enveloping a set of methods that have all been described as implicit measures (see Greenwald & Lai, 2020)

106 Schwartz's (1992) model includes two value types that are particularly relevant to weight  
107 bias: power and universalism. Examples of power values include authority, social power, and  
108 wealth; examples of universalism values include equality, broad-mindedness, and social  
109 justice. Even though some universalism values are more directly relevant to egalitarian  
110 ideology (e.g., equality) than others (e.g., protecting the environment), all universalism values  
111 are conceptualized as congruent with this ideology to some extent and are highly correlated  
112 with each other. Thus, for ease of description, and consistent with their emphasis, we refer to  
113 universalism values as egalitarian values in the remainder of this article.

114 Of importance, Schwartz plots these two types of values on opposite ends of the same  
115 dimension because of their expression of opposing latent motives (self-enhancement vs self-  
116 transcendence). Not only does this opposition fits patterns of correlations between values in  
117 over 80 nations (see Schwartz et al., 2012) and evidence from archival (Bardi et al., 2008),  
118 longitudinal (Bardi et al., 2009), and experimental methodologies (Maio, 2010; 2016), the  
119 evidence for the latent motivational conflicts includes response time measures finding  
120 inhibitions between values on opposite sides of the model, such as power and egalitarian  
121 values (Pakizeh et al., 2007), alongside patterns of neurological activation consistent with  
122 greater response conflict (e.g., Leszkowicz et al., 2017).

123 More relevant to the relations with weight bias, people who express more negative  
124 attitudes toward low-power social groups tend to attach higher importance to values  
125 promoting power and lower importance to values promoting egalitarianism (e.g., Feather,  
126 2004). For instance, explicit power values are associated with stronger negativity toward  
127 Australian aborigines (Feather & McKee, 2008). Also, being in a dominant or a powerful  
128 position leads people to exhibit negative stereotypes and attitudes toward minority members  
129 on both explicit and implicit measures (e.g., Guinote et al., 2010; Richeson & Ambady, 2003;  
130 Vescio et al., 2005). Furthermore, Souchon et al. (2017) revealed that implicit favorability

131 toward power over egalitarian values (as assessed via the universalism value type of  
132 Schwartz's model) predicted implicit negativity toward Blacks, Arabs, and women, even after  
133 controlling for scores on traditional explicit measurement of values. In contrast, explicit  
134 measures of values did not explain these biases (see also Brochu et al., 2011).

### 135 **Contextual effects, weight bias and values**

136 Contrary to initial expectations that only explicit measures of attitude would be  
137 sensitive to context effects, context influences implicit measures as well (Gawronski &  
138 Shritharan, 2010; Greenwald & Lai, 2020). For example, background context (barbecue vs.  
139 ghetto) or social roles (e.g., prisoner vs. lawyer) influence implicit measures of prejudice  
140 (Maddux et al., 2005; Wittenbrick et al., 2001). According to the APE model, exposure to a  
141 given stimulus does not activate all components of the stored representation of that stimulus.  
142 Instead, activation is limited to a subset of stored information, and contextual cues influence  
143 which aspects of the representation are activated in response to given stimulus (Gawronski &  
144 Bodenhausen, 2006).

145 This role of context fits our expectation that the relations between power,  
146 egalitarianism and weight bias may differ according to the gender of the fat person. Most of  
147 studies of weight bias have focused on women (e.g., Hansson et al., 2010; Ravary et al.,  
148 2019), and weight bias is moderated by gender (e.g., Fikkan & Rothblum, 2012). The  
149 stereotypical ideal body for women is thin (e.g., Anixiadis et al., 2019; Halliwell, 2013), but  
150 chunky and muscular for men (e.g., Hargreaves & Tiggemann, 2004; McCreary, 2012). Fear  
151 and negative consequences for fatness are often more important for women (Fikkan &  
152 Rothblum, 2012; Murnen & Don, 2012), and it happens that some men want to be heavier,  
153 while this rarely happens for women (e.g., Silberstein et al., 1988). This difference in fear  
154 may relate to awareness of repercussions of weight bias. For instance, women in the USA or

155 Germany get less income when they gain weight, while men get more income when they gain  
156 weight until the point of obesity (Judge & Cable, 2011).

157 Notwithstanding this evidence, it is noteworthy that higher Body Mass Index (BMI)  
158 also conveys cues to dominance. For instance, BMI is positively correlated with increased  
159 muscle strength (e.g., Ervin et al., 2014; Gallup et al., 2007), and obese people are in absolute  
160 terms physically more powerful than average slim people (e.g., Lafortuna et al., 2005; Rauch  
161 et al., 2012). Also, facial cues from high strength people tend to be similar to facial cues from  
162 high body fat people, and both of them are perceived to be masculine and dominant  
163 (Windhager et al., 2011), while individuals with highly developed male-typical facial features  
164 are consistently perceived as dominant, and aggressive (Perrett et al., 1998; Rhodes, 2006).  
165 Individuals who value power also tend to like all signals of dominance, such as larger body  
166 size (e.g., Laustsen & Petersen, 2016) or physical strength (e.g., Petersen & Laustsen, 2019).  
167 We therefore propose that these connections with dominance may make bodyweight bias an  
168 important exception to the general tendency for prejudice to be higher among people who  
169 attach more importance to social power and less importance to equality (e.g., Duckitt et al.,  
170 2002; Sidanius & Pratto, 1999).

### 171 **Intraspecies Dominance**

172 In many species, direct visual inspection of the physical size of others is the primary  
173 determinant of their social dominance. In non-human animals, research has shown that  
174 natural selection has endowed social species with perceptual processes that allow them, non-  
175 exhaustively, to estimate a conspecific's fighting ability to judge whether or not it would be  
176 profitable to fight (vs. fly) in combat (e.g., Sell et al., 2012; Třebický & Havlicek, 2017). In  
177 humans, studies have shown that body weight predicted perceived fighting ability from male  
178 Mixed Martial Arts fighters (e.g., Třebický et al., 2019) and bulk predicted male physical

179 fighting ability during adolescence (Beaver et al., 2015). Put simply, higher perceived size  
180 within species is linked to higher actual and perceived dominance.

181 This link is the basis for our expectation that the relation between values and body  
182 weight prejudice is different from the relation between values and other types of prejudice. If  
183 the perception of more dominance in a target automatically evokes concepts related to power,  
184 then people who regard power as more important should respond more positively to the target.  
185 As a result, higher power values may predict *more* favorability to higher weight targets.

186 In parallel, although egalitarians tend to be less prejudiced against low-status group  
187 members (e.g., Sidanius & Pratto, 1999), they express more prejudice against groups that  
188 violate egalitarian values (e.g., Chambers et al., 2012). Price et al. (2011) have shown that  
189 higher muscularity and bulk in target males was associated with lesser perception of  
190 egalitarianism. Thus, if average weight people are seen as physically less powerful and  
191 physically dominant than fat people (i.e., physically weaker), egalitarian-oriented individuals  
192 could spontaneously be more positive toward slim people than fat people, as they could be  
193 more positive toward the weaker (sharing their values) than the stronger (violating their  
194 values). Also, egalitarianism values are associated with a healthier way of eating, including  
195 more vegetables and less meat (Hayley et al., 2015), and greater favorability to organic  
196 products and healthiness of food (e.g., Brunsø et al., 2004). Such a healthy diet is typically  
197 associated with a slimmer body. Furthermore, many people who are frequently held up as  
198 exemplars of egalitarian ideals tend to be thinner. Examples include Ghandi, Nelson  
199 Mandela, Mother Teresa, and, in the nation where this research was conducted, l'Abbe Pierre.

## 200 **The Present Research**

201 To test our inferences about the implications of high weight for associations with  
202 values, our research examined for the first time the relationships between both implicit and  
203 explicit measures of values and of weight bias. Our expectations were initially supported in



204 three pilot studies completed in a gender-neutral condition ( $N=389$ , see from Table S1 to S8  
205 supplementary material). Our next question was whether these implications arise for male  
206 targets in particular. Based on the predictions of the APE model (Gawronski & Bodenhausen,  
207 2006), knowledge of contextual effects on both implicit and explicit evaluation (Gawronski &  
208 Shritharan, 2010; Greenwald & Lai, 2020), and the role of gender in our research context (see  
209 for example Griskevicius et al., 2009; Sell et al., 2012), we hypothesized that (1) our implicit  
210 measures of power (over egalitarianism) values predicts more positivity in our implicit  
211 measures of attitudes toward fat (over slim) for male targets, but not for female targets, after  
212 controlling for an explicit measure of power (over egalitarianism) values and (2) the explicit  
213 measures of power (over egalitarianism) values predicts more explicit negativity toward fat  
214 people in the female targets condition, but not in the male targets condition, after controlling  
215 for the implicit measure of power (over egalitarianism) values.

216         Consequently, our aim within Studies 1, 2, and 4 was to vary target gender and test  
217 whether this manipulation moderates the relation between values and weight bias. Study 1  
218 provided the first test of this moderation, and then Study 2 used single-category-IATs  
219 (Karpinski & Steinman, 2006) to re-test it while assessing whether power or egalitarian values  
220 are independently related to weight bias (instead of contrasting the values as in our prior  
221 studies). Study 3 tested if the relation between implicit measures of weight bias and attitude  
222 toward power (over egalitarianism) is mediated by perceptions of physical powerfulness.  
223 Study 4 tested whether implicitly measured attitude toward power (over egalitarianism) would  
224 predict a greater tendency to choose fat men over slim men for situations involving physical  
225 powerfulness. The materials were presented in French to French-speaking participants, but  
226 we describe here the English back-translations. All data and the materials can be found on  
227 <https://osf.io/b7v9z/>

## 228 **STUDY 1**

229           Within Study 1, we tested whether the relation between implicit measures of attitudes  
230 towards power (over egalitarianism) and weight bias is moderated by target gender. We  
231 expected that people associate power with fat among men, as men are heavier, physically  
232 stronger, and more aggressive on average than women (e.g., Griskevicius et al., 2009; Sell et  
233 al., 2012) and ideal body expectations for men include being muscular (Thompson & Cafri,  
234 2007; Kelley et al., 2010), whereas ideal body expectations among women include being thin  
235 (e.g., Anixiadis et al., 2019). In fact, our expectation was also indirectly supported by an  
236 experimental study on the role of weight bias in political candidate evaluation (Miller &  
237 Lundgren, 2010), which revealed that obese female candidates were evaluated more  
238 negatively than nonobese female candidates, but nonobese male candidates were evaluated  
239 more negatively than were obese male candidates.

240           Consequently, fatness in men might activate the idea of power more strongly than in  
241 women, which should result in a stronger association between implicit power (over  
242 egalitarianism) values and implicit favorability toward fat men, because of the congruence  
243 with the frequent gender expectations for men (i.e., being physically strong) and the  
244 aforementioned link between higher body weight and physical power. For women, the  
245 physical powerfulness attached to fat women would be incongruent with the body ideal and  
246 gender stereotype attached to women (e.g., being graceful; Deaux & LaFrance, 1998; Eagly et  
247 al., 2000), which may negate the association between power values and favorability.

## 248 **Method**

### 249 **Participants and Procedure**

250           One hundred and sixty-eight participants<sup>3</sup> (80 women,  $M_{age}=26.23$ ,  $SD=8.28$ ,  
251  $M_{BMI}=23.13$ ,  $SD=3.88$ ), were told that they were taking part in a series of unrelated

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<sup>3</sup> Based on related previous research (Souchon et al., 2017), we assumed an effect size of  $r = .26$ . To detect this effect with a power of .80, a sample size of 90 is required (assuming a one-sided test). This was the minimum threshold we sought for all of the studies, but we sought to obtain a larger sample size if recruitment options made it possible (e.g., more than 90 students in a specific course).

252 categorization tasks. Participants completed the study individually in a lab in one of two  
253 conditions. Half of the participants completed our implicit measures of values and a weight  
254 IAT using pictures of men to represent slim and fat people. The other half of participants  
255 completed the same implicit measures of values, but with a weight IAT using pictures of  
256 women to represent slim and fat people. The order of the IAT measures was counterbalanced  
257 across participants.

## 258 **Implicit Measures**

259 **Weight IAT.** Validated by Brochu and Morrisson (2007), we used 12 White male (6  
260 pictures for slim and 6 pictures for obese) or 12 White female (6 pictures for slim and 6  
261 pictures for obese) pictures to represent obese and slim categories (see Table S9  
262 supplementary material). Participants were first asked to categorize pictures relating to obese  
263 and slim people. Participants used a letter at their right hand on a keyboard (I) for obese  
264 people and a letter at their left hand (E) for slim people. In the second block, participants  
265 were asked to categorize positive and negative words according to their valence. Participants  
266 were asked to press the left-hand key when the word was positive and the right-hand key  
267 when the word was negative. In the third (20 items) and fourth blocks (40 items), the two  
268 discrimination tasks were combined with a prejudice-congruent key assignment. Participants  
269 were asked to press the left-hand key when they saw either a picture relating to slim people or  
270 a positive word and the right-hand key when they saw either a picture relating to obese people  
271 or a negative word. In the fifth block, participants were again presented with pictures relating  
272 to slim and obese people, but the fat category was shown on the left and the slim category was  
273 shown on the right. Finally, the sixth and seventh blocks again combined the two  
274 discrimination tasks, but now in a prejudice-incongruent manner. Specifically, participants  
275 were asked to press the left-hand key when they saw either a picture relating to obese people

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276 or a positive word and the right-hand key when they saw either a picture relating to slim  
277 people or a negative word. The order of the critical blocks (i.e., Slim + Positive vs. Obese +  
278 Negative, and Obese + Positive vs. Slim + Negative) was counterbalanced across participants.  
279 IAT scores were calculated by taking the difference in reaction times between the critical  
280 blocks (i.e., Obese + Positive and Slim + Negative vs. Slim + Positive and Obese + Negative)  
281 and transformed using the *D* algorithm (see Greenwald et al., 2003; Nosek et al., 2007). We  
282 followed Greenwald et al.'s (2003) suggestion to omit participants with more than 10% of  
283 responses below 300ms from this calculation (see supplementary material). Positive *D* scores  
284 reflected greater implicit negativity toward obese people vs slim people.

285         **Implicit measures of values.** We presented two implicit measures of values. One  
286 was a power-egalitarianism AV-IAT (Attitude to Values Implicit Association Test), and the  
287 other was a power-egalitarianism I-IAT (Importance Implicit Association Test) (see Souchon  
288 et al., 2017). These two IATs have different levels of emphasis on favorability to values (AV-  
289 IAT) versus the importance of values (I-IAT), but are highly correlated and exhibit similar  
290 correlations to other constructs (Souchon et al., 2017). The power vs. egalitarianism AV-IAT  
291 was the same as the weight IAT above except that we use lexical items to represent power and  
292 egalitarianism values (see Table S9 supplementary material). A positive *D* score reflected an  
293 implicit preference for power vs. egalitarianism values. Similarly, the power vs.  
294 egalitarianism importance IAT was the same as the power vs. egalitarianism AV-IAT above,  
295 except that we used importance and unimportance lexical items to replace the positive and  
296 negative items (see Table S9 supplementary material). A positive *D* score reflected more  
297 implicit importance attached to power vs. egalitarianism values. The order of presentation of  
298 these two IATs was counterbalanced in the block of IAT measures presented to participants.

299         **Split-half correlations.** To assess the internal consistency of the *D*-IAT scores, we  
300 used the standard procedure: We calculated the split-half reliabilities over the differences

301 scores of Block 6/3 and Block 7/4 (Schnabel et al., 2008). After applying the Spearman-  
302 Brown correction, split-half correlations for the power-egalitarianism AV-IAT,  $r(156)=.79$ ,  
303  $p<.001$ , power-egalitarianism importance IAT,  $r(148)=.75$ ,  $p<.001$ , and the weight IAT  
304  $r(158)=.72$ ,  $p<.001$ , were large.

## 305 **Results and Discussion**

### 306 **Response Tendencies**

307 For the three types of implicit measures, *D*-scores were calculated following the  
308 classical algorithm (see Greenwald et al., 2003; Nosek et al., 2007). Overall, participants  
309 tended to exhibit less positivity toward obese than slim people and to power than  
310 egalitarianism values (see Table S10 supplementary material). Also, weight bias was larger  
311 for the IAT using pictures of women than pictures of men,  $F(1,157)=7.94$ ,  $p=.005$ ,  $\eta_p^2=.05$ ,  
312 95%-CI[.004, .13]. Our main objective was to replicate the relation between implicit values  
313 and implicit weight bias using the pictorial IAT and to test whether target gender may  
314 moderate the relation between implicit values and implicit weight bias. Because the implicit  
315 measure of attitude toward values correlated highly with the implicit measure of value  
316 importance,  $r(147)=.60$ ,  $p<.001$  (see Table S12), we conducted additional regression analyses  
317 (see Table 1) that included both measures combined, which can yield a more reliable implicit  
318 measure (Greenwald & Lai, 2020). Results indicated that there was a marginal significant  
319 interaction between Target Gender and the values AV-IAT, a significant interaction between  
320 Target Gender and the values Importance-IAT, and a significant interaction between Target  
321 Gender and the mean across the two values IAT. More precisely, controlling for the influence  
322 of gender, age and BMI, the implicit measures of power (over egalitarianism) values  
323 marginally predicted in the male condition the implicit weight bias for the single values  
324 measures, but significantly for the double IAT measure. The more that participants were  
325 implicitly positive toward power (over egalitarianism) values, the more they were implicitly

326 positive toward the fat (over the slim) targets. In the female condition, the implicit  
327 measurements of values did not predict the implicit weight bias. Thus, the relation between  
328 implicit weight bias and implicit judgments of values depends on the target gender, such that  
329 the effect is present only for male targets.

## 330 **STUDY 2**

331 The oppositional motives between power and egalitarianism postulated by Schwartz's  
332 (1992) model provide a theoretical basis for using the standard IAT, but the Single Category-  
333 IAT (SC-IAT) can provide useful additional information (Karpinski & Steinman, 2006) by  
334 focusing on one value category at a time (e.g., egalitarianism). This single-category focus can  
335 help to detect whether one end of a value dimension is particularly relevant for the obtained  
336 effects. Study 2 therefore used Single Categories IATs (Karpinski & Steinman, 2006) to  
337 assess implicit attitudes toward power, egalitarianism, slim and fat people. As in Study 1,  
338 slim and fat targets were represented by pictures of men and women.

339 An additional objective was to test the relation between explicit measures of values  
340 and attitude toward fat people in the male targets condition and in the female targets  
341 condition. We had revealed mixed relations between these measures in the third pilot study  
342 (in a neutral gender condition), which used the Anti-Fat Attitude Questionnaire (AFA,  
343 Crandall, 1994, see Tables S7-S8). In Study 2, we tested how implicit and explicit measures  
344 of values may relate to explicit attitudes toward fat people using the AFA.

## 345 **Method**

### 346 **Participants and Procedure**

347 One hundred and sixty-eight participants (83 women,  $M_{age}=30.1$ ,  $SD=12.8$ ,  $M_{BMI}$   
348  $=23.25$ ,  $SD=3.53$ ) were told that they would complete a series of unrelated categorization  
349 tasks on computers, before completing a traditional personality questionnaire. In fact, all  
350 participants completed a SC-IAT toward power values and a SC-IAT toward egalitarianism.

351 In addition, half of the participants completed a SC-IAT toward slim people and a SC-IAT  
352 toward fat people using pictures of men, and half of the participants completed the same SC-  
353 IATs using pictures of women. The order of the IATs and the position of good/bad categories  
354 were counterbalanced across participants. Next, participants completed the AFA  
355 questionnaire (Crandall, 1994), a 10-item version of the Schwartz's Values Survey (SVS)  
356 measuring importance attached to power and egalitarian values (Schwartz, 1992), and  
357 semantic differential scales measuring attitudes toward power, egalitarianism, slim people,  
358 and fat people.

### 359 **Implicit Measures**

360 SC-IATs follow the same principles as traditional IATs, but with only one specific  
361 target category. To represent power or egalitarianism values, we used the same lexical items  
362 and categories as in previous studies. To present slim and fat targets, we used 24 pictures  
363 from Brochu and Morriison (2007), including 6 pictures of men and women in each of the  
364 four conditions (e.g., slim women). The *D*-score algorithm was calculated following  
365 Karpinski and Steinman (2006), with the exception that responses faster than 350ms or slower  
366 than 10000ms were omitted. Error responses were replaced with the sum of the mean block  
367 time plus a penalty of 400ms. Following Karpinski and Steinman (2006), error rate greater  
368 than 20% within the two blocks were excluded. Positive *D* scores reflected greater implicit  
369 positivity toward power values, egalitarian values, slim people, and fat people.

### 370 **Explicit Measures**

371 Participants completed the AFA (Crandall, 1994) and then a shortened 10-item version  
372 of the SVS (Schwartz, 1992). We translated the AFA (Crandall, 1994) to French, using back-  
373 translation procedure. The 13 items of the AFA ( $\alpha=.74$ ) can be combined into three  
374 subscales: dislike, willpower, and fear of fat. Example items of the scale included "I really  
375 don't like fat people much" (dislike subscale,  $\alpha=.63$ ), "Some people are fat because they have

376 no willpower” (willpower,  $\alpha=.42$ ), and “I worry about becoming fat” (fear of fat,  $\alpha=.58$ ).  
377 Participants responded to each item using a scale from 0 (totally disagree) to 9 (totally agree).

378 The short value measure contained the same power and egalitarian values used in the  
379 implicit measure (see Table S9, supplementary material), with two openness values (freedom  
380 and stimulating life) and two conservation values (obedience, faith). In this survey, each of  
381 the 10 values was followed by a definition of the value (e.g., equality, equal opportunity for  
382 all). Participants were asked to rate each value in terms of its importance as a guiding  
383 principle in their life, using the 9-point scale (Schwartz, 1992): -1 (opposed to my values), to  
384 7 (extremely important). Next, participants were asked to rate their feelings about “obese  
385 people,” “slim people,” “power values,” and “egalitarianism values” on 7-point semantic  
386 differential scales from -3 (bad) to +3 (good). To parallel the relative nature of the IAT, we  
387 then subtracted (a) the attitude to obese people from the attitude to slim people in order to  
388 create an index of weight bias, and (b) the attitude to egalitarianism from the attitude to power  
389 in order to create an index of power vs. egalitarianism. A score above the neutral point on the  
390 scale indicated an anti-obese/pro-slim bias, whereas a score below the neutral point indicated  
391 a pro-obese/anti-slim bias. A score above the neutral point indicated relatively pro-  
392 power/anti-egalitarianism values, where a score below the neutral point indicated relatively  
393 pro-egalitarianism/anti-power values.

## 394 **Results and Discussion**

### 395 **Response Tendencies**

396 Participants tended to show more implicit positivity toward egalitarianism than power  
397 values, but were positive both to power and to egalitarianism values (Table S13  
398 supplementary material). Also, participants were implicitly more positive toward slim people  
399 over fat people, but neutral toward fat people. Further, the explicit measures revealed that



400 participants attached more importance and positivity toward egalitarian than power values,  
401 were positive toward slim people, and negative toward fat people.

## 402 **Values and Weight Bias Across Gender**

403 To replicate Study 1's findings using the SC-IATs, we calculated a power vs.  
404 egalitarianism score by subtracting the SC-IAT egalitarianism score from the SC-IAT power  
405 score, and we calculated a slim vs. fat score by subtracting the SC-IAT fat score from the SC-  
406 IAT slim score. The implicit measure of attitudes toward power versus egalitarianism,  
407  $R^2=.025$ ,  $F(4,138)=1.92$ ,  $p=.109$ , continued to predict the implicit measure of weight bias ( $\beta=-$   
408  $.23$ ,  $p=.007$ , 95%-CI[-.39, -.06]) while participants' gender ( $\beta=.04$ ,  $p=.630$ , 95%-CI[-.13,  
409 .21]), age ( $\beta=-.01$ ,  $p=.939$ , 95%-CI[-.18, .17]) and BMI ( $\beta=.04$ ,  $p=.651$ , 95%-CI[-.14, .22]),  
410 did not. In addition, Table 2 shows that the implicit measure of power marginally predicted  
411 more positive attitudes toward fat targets on the implicit measure, and the implicit measure of  
412 egalitarianism significantly predicted more positive attitudes toward slim targets on the  
413 implicit measure. The explicit measures revealed the opposite pattern. The explicit measure  
414 of power versus egalitarianism through Schwartz's Values Survey,  $R^2=.085$ ,  $F(5,142)=3.75$ ,  
415  $p=.003$ , continued to predict more negative attitudes toward fat people in the AFA ( $\beta=.28$ ,  
416  $p<.001$ , 95%-CI[.12, .44]), while participants' gender ( $\beta=.08$ ,  $p=.330$ , 95%-CI[-.08, .24]), age  
417 ( $\beta=-.06$ ,  $p=.432$ , 95%-CI[-.23, .09]), BMI ( $\beta=.11$ ,  $p=.191$ , 95%-CI[-.05, .28]) and the implicit  
418 measure of power (over egalitarianism), ( $\beta=.04$ ,  $p=.620$ , 95%-CI[-.11, .19]) did not. This  
419 finding replicated the results of Pilot Study 3 (see Table S7).

## 420 **Values and Weight Bias According to Gender**

421 To test whether target gender moderates the relation between values and weight bias,  
422 we conducted different regression analyses (see Table 2). These regressions revealed that the  
423 implicit measure of egalitarianism predicted more positive attitudes toward slim male targets  
424 on the implicit measure, but not toward female targets. Also, the implicit measure of power

425 predicted more positivity on the implicit measure of attitudes toward fat male targets, but  
426 marginally toward female targets.

427 Moreover, the explicit measures were also sensitive to target gender (see Table 2, and  
428 Table S19-20 for more information). Power vs egalitarianism values measured through the  
429 SVS did not predict all AFA, fear of fat, willpower, and dislike scores in the male targets  
430 condition, but predicted a more negative attitude toward obese people in the female targets  
431 condition. Egalitarianism values predicted less negativity toward fat people on the AFA, and  
432 both the willpower and dislike scales in the female targets condition.

### 433 **STUDY 3**

434 The previous studies consistently revealed that implicit measures of favorability to  
435 power (over egalitarianism) yield scores that predict more positivity toward fat (over slim)  
436 men, but not women, on implicit measures of weight bias. In Study 3, we tested whether the  
437 relation between implicit measures of power and weight bias is mediated by an association  
438 between fat people and physical powerfulness. This mediation would extend evidence of  
439 associations between power values and preferences for muscularity and size (Price et al.,  
440 2017; Swami et al., 2013, see Petersen & Laustsen, 2019, for a review), along with evidence  
441 that obese people have (in absolute terms) more physical strength and powerfulness than  
442 people of average weight (e.g., Lafortuna et al., 2005; Rauch et al., 2012). Given our  
443 consistent evidence for a stronger link between values and weight bias regarding male than  
444 female targets, we focused on implicit and explicit stereotypical associations with men.

### 445 **Method**

#### 446 **Participants**

447 Ninety-five students from a sport sciences department ( $M_{\text{age}}=22.98$ ,  $SD=5.07$ ,  $M_{\text{BMI}}=$   
448  $22.21$ ,  $SD=3.34$ ) completed the study individually. Participants were 50 women ( $M_{\text{age}}=23.36$ ,  
449  $SD=5.69$ ,  $M_{\text{BMI}}=22.19$ ,  $SD=2.82$ ) and 45 men ( $M_{\text{age}}=22.57$ ,  $SD=4.29$ ,  $M_{\text{BMI}}=22.23$ ,  $SD=3.87$ ).

450 **Procedure**

451 Participants were told that they were taking part in unrelated studies. They completed  
452 three IATs and a set of explicit measures. That is, each participant completed in different  
453 orders a power-egalitarianism AV-IAT, a physically strong-fat and physically weak-thin  
454 stereotype IAT, and a slim-fat attitude IAT. Also, each participant completed the Anti-Fat  
455 Attitude Questionnaire, an explicit measure of stereotypes linking fat with physical  
456 powerfulness and slim with physical weakness, a semantic differential scale measure of  
457 attitude toward slim and fat people, and a short measure of power and egalitarianism values  
458 (in this order). Finally, participants were debriefed.

459 **Measures**

460 **Implicit Measures**

461 **AV-IAT.** The power-egalitarianism AV-IAT used in Study 1 was also administered  
462 in this study.

463 **Weight IAT.** The IAT used to measure implicit attitude toward slim vs. fat people  
464 was the same as in Study 1, but we used different pictures validated by Sabin et al. (2015, see  
465 Table S9 supplementary material). We only used pictures representing men.

466 **Stereotype IAT.** The measure was similar to the IATs used in our previous studies,  
467 except that positive and negative items were replaced by items related to physical strength and  
468 physical weakness (see Table S9 supplementary material). To obtain those, we selected 33  
469 words describing physical powerfulness (21 words) and physical weakness (12) and presented  
470 them to 7 participants. These individuals assessed whether each term describes physical  
471 strength, physical weakness, obese people, and slim people, using a scale from 1 (absolutely  
472 inaccurate) to 10 (absolutely accurate). This pre-testing helped to ensure that the items we  
473 used to describe physical strength and physical weakness were not also explicitly attributed  
474 with fat and slim people (Steffens & Plewe, 2001). For example, “muscular” was rated to

475 describe physical strength ( $M = 9.00$ ), but not to describe fat people ( $M = 2.43$ ). As in  
476 previous studies, the order of the critical blocks and the order of the IATs was  
477 counterbalanced across participants. IAT scores were calculated as in our previous studies.  
478 Positive  $D$  scores reflected greater implicit positivity toward power values, stronger negativity  
479 toward obese people vs. slim people or greater associations between obese people and  
480 physical powerfulness.

481 **Split-half correlations.** After applying the Spearman-Brown correction, split-half  
482 correlations for the power-egalitarianism AV-IAT,  $r(94) = .77$ ,  $p < .001$ , the stereotypical IAT  
483 measure,  $r(86) = .77$ ,  $p < .001$ , and the weight IAT,  $r(87) = .64$ ,  $p < .001$ , were large.

#### 484 **Explicit Measures**

485 Participants completed the Anti-Fat Attitude scale (AFA,  $\alpha = .85$ ) as used in Study 2.  
486 Next, they completed an explicit measure of physically strong-fat and physically weak-slim  
487 stereotypes, including three concepts related to physical powerfulness (see Table S9  
488 supplementary material,  $\alpha = .69$ ) and three concepts related to physical weakness ( $\alpha = .76$ ),  
489 which were drawn from the corresponding implicit measure. For each concept, participants  
490 responded to a scale ranging from -3 (more true of slim people) to +3 (more true of fat  
491 people). Mean judgments of physically weak (slim) concepts were subtracted from mean  
492 judgements of physically strong (obese) concepts. Thus, high scores indicated higher  
493 physically strong-fat and physically weak-slim stereotypical belief. This measure has a  
494 possible range of -6 (strong stereotypical association between physical powerfulness and slim)  
495 to 6 (strong stereotypical association between physical powerfulness and fat). Participants  
496 then rated their feelings about “obese people” and their feelings about “slim people” on 7-  
497 point semantic differential scales from -3 (bad) to +3 (good) to parallel the relative nature of  
498 the IAT. Finally, participants completed the shortened 10-item version of the SVS we used in  
499 Study 2 (Schwartz, 1992).

## 500 **Results and Discussion**

### 501 **Response Tendencies**

502 IAT effects were calculated using the same algorithm, procedure, and exclusion  
503 criteria as in the previous studies. Participants' evaluations of obese people were significantly  
504 more negative on these measures than their evaluations of slim people and participants  
505 marginally associated obese people with physical powerfulness and slim people with physical  
506 weakness (Table S21 supplementary material). Also, participants' implicit evaluations of  
507 power were less positive than their implicit evaluations of egalitarianism. These replications  
508 provided further evidence of the measures' validity.

509 Consistent with the results for the implicit measures, participants' responses to the  
510 explicit measures revealed significantly more negativity toward *obese people* ( $M=-0.21$ ,  
511  $SD=0.88$ ) than toward *slim people* ( $M=0.61$ ,  $SD=0.81$ ),  $F(1,94)=43.84$ ,  $p<.001$ ,  $\eta_p^2=.31$ , 95%-  
512  $CI[.17, .45]$ , and significantly less importance for power ( $M=-1.95$ ,  $SD=1.28$ ) than  
513 egalitarianism ( $M=1.66$ ,  $SD=1.18$ ),  $F(1,94)=252.42$ ,  $p<.001$ ,  $\eta_p^2=.72$ , 95%- $CI[.63, .79]$ .  
514 Nevertheless, participants did not explicitly link fat people with physical powerfulness,  
515 consistent with our pilot testing for the measure of powerfulness (see Table S21  
516 supplementary material).

### 517 **Values, Weight Bias, and Physical Powerfulness**

518 Replicating our prior findings, more positive implicit evaluations of power marginally  
519 predicted less implicitly measured weight bias (Table 3). Also, more implicit positive  
520 evaluations of power (vs. egalitarianism) marginally predicted a stronger implicit association  
521 between fat and physical powerfulness and slim and physical weakness. Nevertheless,  
522 implicit stereotypical associations between fat and physical powerfulness did not predict a  
523 more implicit positive evaluation toward fat people. Thus, contrary to our expectation, the  
524 assumptions for a mediation analysis were not met. Nevertheless, greater explicit importance

525 to power over egalitarianism values marginally predicted an explicit link between fat people  
526 and physical powerfulness and slim people with physical weakness. Further, this link  
527 marginally predicted less negative attitudes to the dislike subscale (Table S24). Moreover, the  
528 more importance that participants attached to power over egalitarianism values in the implicit  
529 measure of values, the lower they scored on the AFA (see Table 4) and “fear of fat” scale  
530 (Table S24).

#### 531 **STUDY 4**

532 Dual process theories of attitude-behavior relations claim that the predictive relations  
533 of implicit and explicit measures to overt behavior depend on different moderators  
534 (Gawronski & Brannon, 2019; Perugini et al., 2010), such as the type of behavior that is  
535 predicted (e.g., spontaneous vs. deliberate), the conditions under which the to-be-predicted  
536 behavior is performed (e.g., high vs. low cognitive capacity), and the characteristics of the  
537 person who is performing the to-be-predicted behavior (e.g., low vs. high working memory  
538 capacity). In this last study, we tested whether implicit and explicit measures of favorability  
539 toward power (over egalitarianism) values predicted the intention to choose someone slim or  
540 fat according to his or her gender and two types of situations, atypical vs. typical  
541 discrimination situations, with both decisions made under time pressure. Our “atypical  
542 discrimination situations” (e.g., moving something heavy) were contexts wherein obese  
543 people could be categorized as relevant due to their physicality. Our “typical (or control)  
544 discrimination situations” (e.g., choosing a roommate) were situations that involved more  
545 traditional prejudice unrelated to physicality (i.e., social avoidance). We expected that our  
546 implicit measure of power (over egalitarianism) values would predict a greater tendency to  
547 choose fat men over slim men in the time-pressured choices within atypical discrimination  
548 situations, consistent with past evidence that implicit measures are better predictors of  
549 behaviors under conditions that impair cognitive deliberation (e.g., Friese et al., 2008). We

550 expected too that the implicit measure of values would not predict the choice in the female  
551 condition. We formed no expectations for decisions in the control (typical discrimination)  
552 situations.

## 553 **Method**

### 554 **Participants**

555 One hundred and seventy-one participants ( $M_{\text{age}}=20.54$ ,  $SD=2.02$ ,  $M_{\text{BMI}}=22.58$ ,  
556  $SD=3.50$ ) completed the study in class before lectures in a sport science department.  
557 Participants were 47 women ( $M_{\text{age}}=20.80$ ,  $SD=2.16$ ,  $M_{\text{BMI}}=21.83$ ,  $SD=3.50$ ) and 124 men  
558 ( $M_{\text{age}}=20.44$ ,  $SD=1.96$ ,  $M_{\text{BMI}}=23.03$ ,  $SD=2.79$ ). Eighty-two participants ( $M_{\text{age}}=21.13$ ,  
559  $SD=2.21$ ,  $M_{\text{BMI}}=22.51$ ,  $SD=2.44$ , 23 women) completed the study in the male scenario  
560 condition and eighty-nine participants ( $M_{\text{age}}=20.00$ ,  $SD=1.66$ ,  $M_{\text{BMI}}=22.89$ ,  $SD=3.51$ , 35  
561 women) in the female scenario condition.

### 562 **Procedure**

563 Participants were told that they were taking part in unrelated studies. They completed  
564 two pen-and-paper IATs and a set of explicit measures. As practice, they first completed a  
565 pen-and-paper IAT assessing favorability toward flowers versus insects (Greenwald et al.,  
566 1998). Next, participants completed a pen-and-paper power-egalitarianism AV-IAT.  
567 Participants then responded to different scenarios (see Table S25 supplementary material)  
568 describing typical social discrimination situations or physical situations involving the need for  
569 physical powerfulness. The experimenter read aloud each scenario to the group, before  
570 participants had twenty seconds to make their decisions. In the “male condition”, participants  
571 made two separate ratings for a fat and a slim man, and in the “female condition” for a fat or a  
572 slim woman. Finally, each participant completed explicit measures of power and  
573 egalitarianism values and an explicit measure of stereotypes linking fat with physical  
574 powerfulness and slim with physical weakness.

575 **Measures**

576 **Implicit measures.**

577 **Pen-and-paper IATs.** The flower-insects IAT and the power-egalitarianism AV-IAT  
578 used in this study to measure implicit attitude toward power vs. egalitarianism values were the  
579 same as in pilot Studies 1-3. Each pen-and-paper IAT consisted of two pages (in  
580 counterbalanced order). For the sake of brevity, we describe the new pen-and-paper IAT for  
581 measuring values, which had the same structure as the other IATs (see Table S9 for the  
582 stimuli). Each page of the power-egalitarianism IAT presented a column containing names of  
583 power and egalitarian values, as well as adjectives with positive or negative connotations.  
584 Headings to the left and right of each column indicated either “Power and Good” and  
585 “Egalitarianism and Bad” or “Power and Bad” and “Egalitarianism and Good.” Participants  
586 were asked to work their way down the column of words, placing a check in a response  
587 bubble to the left or right of each word to indicate the column category to which the word  
588 belonged. Participants were asked to work as quickly and accurately as possible, to try to  
589 avoid misclassification, but to continue without stopping if mistakes occur. Participants were  
590 given 20 seconds to classify as many words as possible on each page. We counterbalanced  
591 the order of the pairs of headings across pages and the left-right order within each pair of  
592 headings (Lemm et al., 2008; Sekaquaptewa et al., 2010).

593 **IAT effect calculations.** The variable of interest was the difference in the number of  
594 correctly classified items under the two category pairings. The reliability and validity of the  
595 measure may be improved by considering the data without participants who exhibited  
596 inattention or lack of understanding. This issue has been addressed by analyzing data without  
597 participants who failed to classify at least 4 (e.g., Teachman & Brownell, 2001) or 8 items per  
598 page (e.g., Lane et al., 2005). Therefore, data were analyzed three times with different  
599 exclusion criteria applied (a) no exclusions, (b) minimum 4 items classified per page and 35%



600 errors maximum per page, and (c) minimum 8 items classified per page and 20% errors  
601 maximum per page. The results were largely consistent across these criteria. A full summary  
602 is available in the supplementary materials (see Table S27), but, for the sake of brevity, we  
603 report the results with the moderate, 4-item exclusion.

604 Effects were calculated as  $\pm[\text{maximum}/\text{minimum}] * \sqrt{(\text{maximum}-\text{minimum})}$ , where  
605 *maximum* is the number of correctly categorized items on the block for which participants  
606 completed more correct items and *minimum* is the number of items correctly categorized on  
607 the block for which they completed fewer correct items. According to Lane et al. (2005), this  
608 algorithm (a) best accounts for the difference between the number of items completed and  
609 individual differences in speed in completing categorization tasks in general, (b) minimizes  
610 the influence of extreme scores, and (c) reduces the overall skewness of the distribution of the  
611 data. In the analysis of the IAT for power vs egalitarian values, effects were multiplied by -1  
612 if the maximum scores arose from the *power-negative* and *universalism-positive* block,  
613 thereby making higher scores indicate more positivity toward power values and more  
614 negativity to egalitarian values. In the analysis of the weight bias IAT, effects were  
615 multiplied by - 1 if the maximum scores arose from the *obese people-positive* and *slim*  
616 *people-negative* block, thereby making higher scores indicate more negativity toward obese  
617 people and more positivity toward slim people.

#### 618 **Explicit measures.**

619 **Scenarios.** Table S25 (supplementary material) lists two social discrimination  
620 situations and four physical discrimination conditions wherein physical powerfulness is  
621 important. For each situation, a vignette of a fat man and a thin man (in the male condition)  
622 or a vignette of a fat woman and a thin woman (in the female condition) was presented as a  
623 choice. Below each vignette, participants were asked to rate the likelihood on a scale of 1 (no  
624 likelihood) to 10 (absolute likelihood) of choosing the person presented in the vignette.

625           **Power and egalitarian values.** We used the same shortened 10-item value measure  
626 as in Studies 2 and 3.

627           **Physical strong-fat and physically weak-thin stereotype.** The measure was the  
628 same as in Study 3.

## 629 **Results and Discussion**

### 630 **Values and Stereotypes**

631           Participants' evaluations of power values were significantly more negative than their  
632 evaluations of egalitarianism values in the pen-and-paper IATs (see Table S26 supplementary  
633 material). Also, participants' attributed explicitly less importance toward power ( $M=-1.47$ ,  
634  $SD=1.26$ ) than toward egalitarianism ( $M=1.20$ ,  $SD=0.99$ ),  $F(1,170)=274.29$ ,  $p<.001$ ,  $\eta_p^2=.61$ ,  
635 95%-CI [.53, .68]. Finally, participants explicitly associated fat people with physical  
636 powerfulness and slim people with physical weakness in the female scenario condition, the  
637 male scenario condition, and across conditions (see Table S26 supplementary material).

### 638 **Behavioral Intention**

639           The dependent variables were the decisions to choose the fat and to choose the slim  
640 within the situations. A mixed-model ANOVA (2 x 2 x 2) on choice was conducted. Target  
641 gender (male vs. female target) and type of situation (social discrimination situation vs.  
642 physical discrimination situation) served as between subject factors, while weight status  
643 (decisions to choose the slim vs. decisions to choose the fat) served as within subject factor.

644           Results indicated a significant main effect of weight status,  $F(1,325)=55.07$ ,  $p<.001$ ,  
645  $\eta_p^2=.14$ , a significant two-way interaction between weight status and target gender,  
646  $F(1,325)=30.01$ ,  $p<.001$ ,  $\eta_p^2=.08$ , a significant two-way interaction between weight status and  
647 type of situation,  $F(1,325)=344.75$ ,  $p<.001$ ,  $\eta_p^2=.51$ , and a significant three-way interaction  
648 between weight status, target gender and type of situation,  $F(1,325)=3.86$ ,  $p=.050$ ,  $\eta_p^2=.01$ .

649 The three-way interaction between weight status, target gender and type of situation  
650 (see Fig. 1) indicated that participants, for social discrimination situations, consistently choose  
651 the slim over the fat for both the male ( $M=7.53$ ,  $SD=1.78$  vs.  $M=5.05$ ,  $SD=2.23$ ,  $p < .001$ ,  
652 95%-CI of mean difference [2.02, 3.15]) and the female target situations ( $M=8.65$ ,  $SD=1.41$   
653 vs.  $3.97$ ,  $SD=2.40$ ,  $p < .001$ , 95%-CI[4.14, 5.19]). The three-way interaction also indicated  
654 that participants, for physical discrimination situations, consistently choose the fat over the  
655 slim for both the male ( $M=7.56$ ,  $SD=1.41$  vs.  $M=5.45$ ,  $SD=1.94$ ,  $p < .001$ , 95%-CI[1.54, 2.65])  
656 and the female target situations ( $M=6.58$ ,  $SD=1.53$  vs.  $M=5.52$ ,  $SD=1.55$ ,  $p < .001$ , 95%-  
657 CI[.49, 1.60]). Nevertheless, the fat was more likely to be chosen for the male situations than  
658 for the female situations ( $M=7.56$ ,  $SD=1.41$  vs.  $M= 6.58$ ,  $SD=1.53$ ,  $p < .001$ , 95%-CI[.42,  
659 1.55]), while the slim was as likely to be chosen within the female situations than within the  
660 male situations ( $M=5.52$ ,  $SD=1.55$  vs.  $M=5.45$ ,  $SD=1.94$ ,  $p=.953$ , 95%-CI[-.55, .57]). The  
661 two-way interaction between weight status and target gender indicated that participants, for  
662 male situations, were marginally more likely to choose the slim over the fat person ( $M=6.49$ ,  
663  $SD= 1.57$  vs.  $M=6.28$ ,  $SD=1.53$ ,  $p= .055$ , 95%-CI[-.05, .75]), while for the female situations  
664 participants were more likely to choose the slim over the fat person ( $M=7.09$ ,  $SD=1.08$  vs.  
665  $M=5.28$ ,  $SD=1.61$ ,  $p < .001$ , 95%-CI[1.43, 2.17]). The two-way interaction between weight  
666 status and type of situation indicated that participants, for social discrimination situations,  
667 were more likely to choose the slim over the fat person ( $M=8.13$ ,  $SD=1.68$  vs.  $M=4.47$ ,  
668  $SD=2.38$ ,  $p < .001$ , 95%-CI[3.32, 4.09]), but they were more likely to choose the fat over the  
669 slim for physical discrimination situations ( $M=7.02$ ,  $SD=1.55$  vs.  $M=5.48$ ,  $SD=1.73$ ,  $p < .001$ ,  
670 95%-CI[1.11, 1.89]). The main effect of weight status indicated that participants were more  
671 likely to choose the slim people over the fat person ( $M=6.87$ ,  $SD=1.26$  vs.  $M=5.73$ ,  $SD=1.69$ ,  
672  $p < .001$ ; 95%-CI[.87, 1.41]).

### 673 Values, Stereotype, and Behavioral Intention

674 Table 4 shows that explicit power (over egalitarianism) values measured through  
675 Schwartz's values survey predicted the tendency to choose across conditions (male and  
676 female conditions) the slim over the fat target within the two social discrimination situations  
677 (i.e., typical bias). In parallel, implicit measurement of values and explicit stereotype were  
678 not predictive of decisions within typical bias and there was no interaction between the  
679 conditions and the different measurement.

680 Moreover, Table 4 indicates that implicit measurement of power (over egalitarianism)  
681 values and not the explicit measurement of power (over egalitarianism) values, predicted the  
682 decision to choose the fat (over the slim) target in the male condition, but not in the female  
683 condition. On the contrary, explicit stereotypes linking fat people and physical powerfulness,  
684 which were measured at the end of the protocol, predicted the decision to choose the fat over  
685 the slim target across conditions.

#### 686 **Values and weight bias according to target gender condition across all studies and pilot** 687 **studies**

688 We conducted additional regression analyses to test whether the computer-based  
689 implicit measure of power (over egalitarianism) values predicted the explicit measures of  
690 attitude toward slim and fat people in the neutral (pilot Study 2), female (half of Study 2), and  
691 male conditions (half of Study 2 and Study 3). Also, in the neutral, female, and male  
692 conditions, we tested associations between scores on the implicit and explicit measures of  
693 values and responses on the AFA. Table 5 describes the main results (more detailed results  
694 are in the supplemental materials). The regressions indicated that the implicit measures of  
695 power (over egalitarianism) values predicted, across the studies, the tendency to be positive  
696 toward fat people on semantic differential scales in the male targets condition only. Also,  
697 explicit measurement of power over egalitarianism values through the Portrait Values  
698 Questionnaire (PVQ) or SVS predicted more negative attitudes on the AFA on the neutral and

699 female targets condition, but with no effects in the male targets condition (see also Table  
700 S38). Explicit values did not predict responses on the AFA in the male condition.  
701 Nevertheless, power values (see Table S41) predicted a more positive attitude toward fat  
702 people in the male targets condition within the willpower subscale. Moreover, regressions  
703 indicated that the implicit measure of power (over egalitarianism) values predicted more  
704 positivity in the implicit measures of attitude toward fat people for male targets and in the  
705 neutral condition, but not in the female targets condition (see Table S35 and S36).

## 706 **General Discussion**

707         The aim of this research was to examine the relations between values and Fatism (i.e.,  
708 negative attitudes toward fat people) using implicit and explicit measures. Drawing on  
709 distinction between associative and propositional evaluative processes (Gawronski &  
710 Bodenhausen, 2006), we hypothesized that (1) implicit favorability toward power (over  
711 egalitarianism) values is positively associated with implicit positivity toward fat (over slim)  
712 male targets, but not fat (over slim) female targets, and (2) explicit favorability toward power  
713 (over egalitarianism) values is positively associated with negativity toward fat in the female  
714 targets condition, but not in the male targets condition.

715         Supporting our first hypothesis, implicit measures revealed consistently across studies  
716 that greater positivity toward power over egalitarianism predicted more positivity toward fat  
717 men even after controlling for explicit measures of values, participants' gender, age and BMI  
718 (see Table S36). The interaction between implicit measure of values and target gender was  
719 significant in Study 1. Using single-category implicit measures, Study 2 revealed that  
720 favorability to egalitarianism predicted a more positive attitude toward male slim people,  
721 while favorability to power predicted a more positive attitude toward fat people in the male  
722 targets condition than in the female targets condition. In Study 4, the interaction between  
723 implicit measure of values and target gender indicated that power (over egalitarianism) values

724 strongly predicted the tendency to choose a fat (over a slim) man for tasks involving physical  
725 powerfulness. Finally, across all studies (see Table 5), the implicit measures of power (over  
726 egalitarianism) values predicted the tendency to be positive toward fat people on semantic  
727 differential scales in the male targets condition only. While the implicit measures in our pilot  
728 studies showed a general tendency for participants' power (over egalitarian) values to be  
729 associated with positivity toward fat people in general, the main studies indicate that the  
730 power (over egalitarian) values were driving an effect related to men specifically. Moreover,  
731 our SC-IAT data reveal that both power and egalitarianism values are active in this process.

732         These results may be viewed as congruent with the idea that women suffer more from  
733 obesity stigma than men (Anixiadis et al., 2019; Halliwell, 2013; Puhl et al., 2008). The  
734 body norm for men is different, as the ideal body norm for men is chunkier and more  
735 muscular (Hargreaves & Tiggemann, 2004; Kelley et al., 2010; McCreary, 2012; Thompson  
736 & Cafri, 2007), and men even earn more money at higher levels of weight until the point of  
737 obesity (Judge & Cable, 2011). Indeed, our findings also align with recent evidence that  
738 obese male political candidates were evaluated more positively than slim candidates, while  
739 obese female political candidates were strongly negatively evaluated (Miller & Lundgren,  
740 2010). Our consistent evidence for associations between values and attitudes in the implicit  
741 measures provide a new explanation for this asymmetry, based on a power-enhancing  
742 perception of body fat in men, but not of body fat in women.

743         This power-enhancing perception was expected based on past evidence that weight,  
744 bulk, and a larger body in general is associated with higher dominance (e.g., Griskevicius et  
745 al., 2009; Witkower et al., 2020), and with physical strength and fighting ability among men  
746 (Beaver et al., 2015; Sell et al., 2012; Třebický et al., 2019; Třebický & Havlíček, 2017).  
747 This hypothesis was also congruent with the finding that facial cues from high strength people  
748 tend to be similar to facial cues from high body fat people, and both of them are perceived to

749 be masculine and dominant (Windhager et al., 2011). Also relevant, research has shown that  
750 animals, including humans, have evolved mechanisms to manage status hierarchies (Van Vugt  
751 & Kameda, 2012). It is conceivable that individuals who attach importance to power values  
752 could be automatically attentive to non-verbal signals that may imply power, including height  
753 (Blaker & Van Vugt, 2014) and body size (e.g., Laustsen & Petersen, 2016). Individuals who  
754 attach more importance to power might automatically evaluate obese people for their physical  
755 dominance just as they might automatically evaluate people in general for ways in which their  
756 bodies assert power (e.g., posture, gait).

757         Relatedly, an important question was how implicit and explicit measures of values  
758 relate to explicit measures of attitude toward fat people. Our second hypothesis was that the  
759 explicit measures would reveal that more favorability toward power (over egalitarianism)  
760 values would predict more negativity toward fat in the female targets condition, but not in the  
761 male targets condition. Results supported this hypothesis. In the female targets condition, the  
762 results of Study 2 indicate that power over egalitarianism values predicted more negative  
763 attitudes toward fat people, while power over egalitarianism values did not in the male targets  
764 condition. In Study 3, which focused on male targets, interestingly, the implicit measurement  
765 of power (over egalitarianism) values predicted more positive attitudes toward fat people on  
766 the AFA, and a lesser fear of fat, while the explicit measure of values did not. For Studies 2  
767 and 3 in combination and in the male targets condition, the explicit measurement of power  
768 and egalitarianism values did not predict responses on the AFA, fear of fat (Table S39), and  
769 dislike (Table S40), although power values (see Table S41) predicted attributing significantly  
770 more willpower to the fat people.

771         These results are interesting in light of evidence that contextual cues influence which  
772 aspects of the representation are activated in response to a given stimulus (Gawronski &  
773 Bodenhausen, 2006). While responses on the AFA are thoughtful (propositional) and not

774 directed specifically toward a specific target gender, IATs with pictures representing men (vs.  
775 pictures representing women) may activate in memory different aspects of the representation  
776 of fat and influence the relation between values and attitudes. Although our results found  
777 that implicit and explicit measures of values are associated with implicit measures attitudes  
778 toward fat people in similar directions in the male targets condition and in the female targets  
779 condition, the direction of these relations reverses between these targets. That is, power (over  
780 egalitarianism) values predicted a more positive attitude toward fat males, while power (over  
781 egalitarianism) values predicted a more negative attitude toward fat females. These results  
782 are congruent with context effects predicted by the APE model and the implicit literature in  
783 general (Gawronski & Bodenhausen, 2006), while showing their relevance to the  
784 measurement of the psychological role of values in attitudes and behaviors (see Maio, 2010,  
785 Souchon et al., 2017).

786 Furthermore, recognition of this complexity may have implications in anti-obesity  
787 campaigns, which need to carefully balance health messaging with the avoidance of unhelpful  
788 stigma. It may be helpful to base the ideal weight more on health goals than on how weight  
789 implicitly relates to a powerful, masculine image of men (Windhager et al., 2011), in the same  
790 way as it has been argued that women should base their ideal weight more on health goals  
791 than on how their weight is related to unhealthy female norms for women (Einseberg et al.,  
792 2005).

793 Nevertheless, explicit power (over egalitarianism) values predicted in Study 4 across  
794 targets the tendency to discriminate against fat people in typical discrimination situations.  
795 Consequently, power (over egalitarianism) values may predict more positive (or neutral)  
796 attitudes toward fat men without changing typical discriminatory behaviors against those  
797 targets. An explanation could be the behavioral norms in the specific context we made the  
798 fourth study. Students within sport sciences department may have applied a normative



799 discriminatory bias toward fat men in typical discrimination situations (e.g., choosing a  
800 roommate) motivated by public image (e.g., Shabahang et al., 2020).

801         Although the finding that more power-oriented and less egalitarian-oriented values  
802 predict lower implicit weight bias toward men is counter to the role of values in attitudes  
803 toward other stigmatized groups, it is also interesting in light of evidence from past research  
804 that they predict reduced bias only in the context of *typical* exemplar groups protected by  
805 these values (e.g., legally protected categories like race and gender) and not the atypical  
806 exemplar groups that receive discrimination (Crandall, 1994; Maio et al., 2009). Our findings  
807 take this pattern a step further by showing that the effects of egalitarian vs power values might  
808 even reverse. This reversal is interesting in light of evidence that people who identify  
809 themselves as left-wing when it comes to politics (i.e., people who tend to value power less;  
810 Caprara et al., 2006) are on average as biased as right-wingers (i.e., people who tend to value  
811 universalism less; Ditto et al., 2019). Although having egalitarian values helps counter bias  
812 against many groups, it also appears that these directions of these effects depend on which  
813 groups are considered (Czarnek et al., 2019).

#### 814 **Limitations and Future Directions**

815         Limitations of this work point to several opportunities for future investigation.  
816 Although IATs demonstrate acceptable levels of reliability and outperform other implicit  
817 measures in terms of internal consistency and test re-test reliability (e.g., Gawronski & Hahn,  
818 2019), while also predicting variance in behavior distinct from the variance explained by  
819 explicit measures (see Greenwald et al., 2009; Greenwald et al., 2015; Oswald et al., 2013;  
820 Kurdi et al., 2019), it would be interesting to study the relation between implicit weight bias  
821 and implicit attitudes towards power using other types of implicit measures, such as the  
822 Single-Block IAT (SB-IAT, Teige-Mocigemba et al., 2008) or the Recoding-Free IAT (IAT-

823 RF, Rothmund et al., 2009) to avoid the block structure of the IAT and thus eliminate  
824 method-related variance.

825         Moreover, such measures could be applied in novel participant populations. To ensure  
826 diversity of our participant populations, Pilot Studies 1 and 2 as well as Studies 1 and 2  
827 included participants from the general public, while the remaining studies included students  
828 from a sport science department. This sampling strategy allowed us to ensure diversity in  
829 terms of Body Mass Index (BMI), which is important because past findings raised the  
830 possibility that there could be positive associations between own BMI and power (vs  
831 universalism) values (e.g., Hayley et al., 2015) and negative associations between own BMI  
832 and weight bias (see Marini et al., 2013; Teachman & Brownell, 2001). Indeed, across seven  
833 studies, scores on the implicit measures of power over egalitarianism values were more  
834 positive among participants who were heavier (see Table S31). However, the relation  
835 between implicit evaluations of values and implicit weight bias was independent of individual  
836 differences in BMI in all our regression analyses. Nevertheless, there may be important  
837 effects of culture and ethnicity, neither of which were examined in our studies. A cross-  
838 cultural comparison of effects would be particularly useful for testing the role of associations  
839 between body size and power.

840         There is also a limitation inherent in our focus on power and egalitarianism values.  
841 We focused on these values because of the relations between them and prejudice in past  
842 research, but other values may also be relevant. For instance, achievement and benevolence  
843 values are implicated in some analyses of racism (Katz & Hass, 1988). Although our  
844 hypotheses and research designs specifically pertained to relations between size and the  
845 power-egalitarianism dimension, it would be interesting to examine the role of other values in  
846 weight bias. For example, benevolence values may be associated with more favorability  
847 toward larger women because they may be socially stereotyped as benevolent maternal

848 figures. In this case, the pattern would be more consistent with the typical relation between  
849 self-transcending values and attitudes toward other groups.

850 In sum, when considered in relation to the larger literature on values and intergroup  
851 attitudes, research needs to recognize the potential for values to play different roles for  
852 different social groups, including intersectional aspects (e.g., varying by gender), depending  
853 on how the groups are stereotyped in relation to values.

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**Table 1.**

*Slim-Fat IAT predictions according to the type of values IAT and target gender in study 1 (n=168)*

		<b>T</b>	<b>p</b>	<b>B</b>	<b>95% CI</b>
<b>Evaluative values IAT (AV-IAT)</b>	<b>R<sup>2</sup>=.067, F(3,147)=4.61, p=.004</b>				
	Target Gender (TG)	-3.01	.003	-.23	[-.39, -.08]
	Power-egalitarianism AV-IAT	-1.67	.096	-.13	[-.29, .02]
	TG X power-egalitarianism AV-IAT	-1.95	.052	-.15	[-.31, .00]
Male gender	<b>R<sup>2</sup>=.059, F(4, 68)=2.12, p=.086</b>				
	Gender	-1.48	.142	-.19	[-.44, .06]
	Age	-.23	.813	-.03	[-.27, .21]
	BMI	-.28	.777	-.04	[-.29, .22]
	Power-egalitarianism AV- IAT	-1.88	.063	-.22	[-.45, .00]
Female gender	<b>R<sup>2</sup>=.089, F(4,73)=2.88, p=.028</b>				
	Gender	2.07	.041	.23	[.01, .45]
	Age	2.24	.027	.25	[.03, .47]
	BMI	-.06	.949	-.01	[-.23, .21]
	Power-egalitarianism AV-IAT	.13	.895	.01	[-.20, .23]
<b>Importance values IAT</b>	<b>R<sup>2</sup>=.087, F(3,142)=5.63, p=.001</b>				
	Target Gender (TG)	-3.18	.001	-.25	[-.41, -.09]
	Power-ega Imp-IAT	-.68	.497	-.05	[-.21, .10]
	TG X power-egalitarianism Imp-IAT	-2.56	.011	-.20	[-.36, -.05]
Male gender	<b>R<sup>2</sup>=.071, F(4, 67)=2.36, p=.061</b>				
	Gender	-1.73	.087	-.22	[-.47, .03]
	Age	-1.10	.272	-.14	[-.39, .11]
	BMI	.50	.613	.07	[-.20, .34]
	Power-egalitarianism Imp-IAT	-1.68	.097	-.20	[-.44, .04]
Female gender	<b>R<sup>2</sup>=.134, F(4,70)=3.86, p=.006</b>				
	Gender	2.47	.015	.27	[.05, .49]
	Age	2.34	.022	.26	[.04, .48]
	BMI	-.32	.745	-.03	[-.26, .18]
	Power-egalitarianism Imp-IAT	.92	.357	.10	[-.12, .32]
<b>Mean AV-Imp values IAT</b>	<b>R<sup>2</sup>=.085, F(3,139)=5.36, p=.001</b>				
	Target Gender (TG)	-3.17	.001	-.25	[-.41, -.09]
	Power-egalitarianism mean IAT	-1.24	.217	-.10	[-.26, .06]
	TG X power-egalitarianism mean IAT	-2.49	.013	-.20	[-.36, -.04]
Male gender	<b>R<sup>2</sup>=.089, F(4, 65)=2.70, p=.037</b>				
	Gender	-1.75	.084	-.22	[-.48, .03]
	Age	-1.18	.238	-.15	[-.40, .10]
	BMI	.66	.508	.09	[-.18, .37]
	Power-egalitarianism mean IAT	-2.00	.049	-.24	[-.48, .00]
Female gender	<b>R<sup>2</sup>=.131, F(4,69)=3.76, p=.007</b>				
	Gender	2.36	.020	.26	[.04, .48]
	Age	2.54	.013	.28	[.06, .51]
	BMI	-.39	.691	-.04	[-.27, .18]
	Power-egalitarianism mean IAT	.64	.517	.07	[-.14, .29]

*Note. Imp means Importance*

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**Table 2.**

*Attitudes toward slim and fat people according to values in study 2 (n=168)*

		<b>T</b>	<b>p</b>	<b>B</b>	<b>95% CI</b>
<b>Slim IAT according to gender</b>	<b>R<sup>2</sup>=.152, F(7,140)=4.77 p &lt;.001</b>				
	Target Gender (TG)	-.74	.457	-.05	[-.20, .09]
	Power IAT	1.17	.241	.09	[-.06, .25]
	Egalitarianism IAT	2.42	.016	.19	[.03, .34]
	TG X power IAT	1.67	.097	.13	[-.02, .29]
	TG X egalitarianism IAT	2.03	.043	.16	[.01, .31]
<b>Egalitarianism male gender</b>	<b>R<sup>2</sup>=.243, F(7,60)=4.07, p=.001</b>				
	Gender	.88	.377	.10	[-.12, .32]
	Age	-.42	.674	-.04	[-.27, .17]
	BMI	-.33	.738	-.03	[-.27, .19]
	Slim semantic	.50	.615	.05	[-.17, .29]
	Egalitarianism IAT	4.54	<.001	.49	[.27, .71]
	Egalitarianism semantic	2.52	.014	.32	[.07, .59]
	Egalitarianism SVS	-2.31	.024	-.28	[-.53, -.04]
<b>Egalitarianism female gender</b>	<b>R<sup>2</sup>=.003, F(7,71)=.95, p=.467</b>				
	Gender	-1.07	.284	-.14	[-.39, .11]
	Age	1.60	.112	.21	[-.05, .48]
	BMI	-1.64	.104	-.21	[-.46, .04]
	Slim semantic	-.07	.943	-.01	[-.24, .23]
	Egalitarianism IAT	.27	.781	.03	[-.21, .27]
	Egalitarianism semantic	-.32	.747	-.04	[-.29, .21]
	Egalitarianism SVS	.68	.498	.07	[-.15, .31]
<b>Fat IAT according to gender</b>	<b>R<sup>2</sup>=.002, F(7,139)=.95, p=.465</b>				
	Target Gender (TG)	-.36	.713	-.03	[-.19, .13]
	Power IAT	1.78	.075	.15	[-.01, .32]
	Egalitarianism IAT	-.44	.653	-.03	[-.20, .12]
	TG X power IAT	-.48	.631	-.04	[-.21, .12]
	TG X Egalitarianism IAT	-.50	.617	-.04	[-.21, .12]
<b>Power male gender</b>	<b>R<sup>2</sup>=.009, F(7,61)=1.09, p=.379</b>				
	Gender	-.88	.379	-.11	[-.38, .14]
	Age	-.98	.328	-.13	[-.38, .13]
	BMI	-.26	.795	-.03	[-.29, .23]
	Fat semantic	-.08	.933	-.01	[-.26, .24]
	Power IAT	2.09	.040	.27	[.02, .52]
	Power semantic	-.81	.417	-.11	[-.41, .17]
	Power SVS	-.59	.550	-.08	[-.37, .20]
<b>Power female gender</b>	<b>R<sup>2</sup>=.107, F(7,69)=2.30, p=.035</b>				
	Gender	-.60	.544	-.07	[-.32, .17]
	Age	.85	.396	.10	[-.14, .36]
	BMI	-2.67	.009	-.32	[-.56, -.08]
	Fat semantic	1.86	.066	.21	[-.01, .43]
	Power IAT	1.70	.092	.19	[-.03, .43]
	Power semantic	-1.13	.260	-.17	[-.46, .13]
	Power SVS	.83	.407	.12	[-.17, .41]
<b>AFA Male gender</b>	<b>R<sup>2</sup>=.008, F(7,58)=1.08, p=.387</b>				
	Gender	.93	.356	.12	[-.13, .38]
	Age	-1.29	.199	-.17	[-.42, .09]
	BMI	.62	.537	.09	[-.19, .36]
	Slim-Fat IAT	1.26	.209	.16	[-.09, .42]
	Power SVS	.67	.504	.12	[-.23, .47]
	Egalitarianism SVS	-.17	.865	-.03	[-.38, .32]
	Power-egalitarianism IAT	.54	.588	.07	[-.19, .34]
<b>Female gender</b>	<b>R<sup>2</sup>=.133, F(7,71)=2.72, p=.014</b>				
	Gender	-.45	.652	-.05	[-.29, .18]
	Age	.39	.699	.05	[-.19, .29]
	BMI	.71	.474	.08	[-.15, .32]
	Slim-Fat IAT	.95	.341	.10	[-.11, .32]
	Power SVS	.42	.673	.06	[-.26, .40]
	Egalitarianism SVS	-2.15	.034	-.35	[-.67, -.03]
	Power-egalitarianism IAT	1.01	.316	.11	[-.11, .33]

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*Note.* AFA means Anti-Fat Attitude Questionnaire; BMI means Body Mass Index; semantic means semantic differential scale; SVS means Schwartz's Values Survey.

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Table 3

*Implicit and explicit relations between values, stereotypes and attitudes in study 3 (n=95)*

	<b>T</b>	<b>p</b>	<b>B</b>	<b>95% CI</b>
<b>Slim-Fat IAT and implicit/explicit power-egalitarianism</b>				
<b>R<sup>2</sup> = .016, F(5,75) = .74, p = .596</b>				
Gender	.32	.748	.03	[-.19, .27]
Age	-.49	.625	-.05	[-.29, .18]
BMI	.11	.907	.01	[-.22, .25]
Power-egalitarianism IAT	-1.46	.148	-.17	[-.40, .06]
Explicit power-egalitarianism (SVS)	-.74	.456	-.09	[-.32, .14]
<b>R<sup>2</sup> = .0002, F(3,77) = 1.01, p = .394</b>				
Gender	.21	.832	.02	[-.20, .24]
BMI	-.10	.918	-.01	[-.23, .21]
Power-egalitarianism IAT	-1.72	.090	-.19	[-.42, .03]
<b>Stereotype IAT and implicit/explicit power-egalitarianism</b>				
<b>R<sup>2</sup> = .073, F(5,75) = 2.26, p = .056</b>				
Gender	1.33	.187	.14	[-.07, .36]
Age	.23	.813	.02	[-.20, .25]
BMI	1.98	.051	.22	[.00, .45]
Power-egalitarianism IAT	1.69	.094	.19	[-.03, .41]
Explicit power-egalitarianism (SVS)	-.29	.771	-.03	[-.25, .19]
<b>R<sup>2</sup> = .095, F(3,77) = 3.81, p = .013</b>				
Gender	1.30	.196	.14	[-.07, .35]
BMI	2.18	.032	.23	[.02, .44]
Power-egalitarianism IAT	1.73	.086	.18	[-.02, .40]
<b>Slim-Fat IAT and implicit/explicit stereotype</b>				
<b>R<sup>2</sup> = .040, F(5,81) = .32, p = .896</b>				
Gender	.54	.584	.06	[-.16, .28]
Age	-.02	.979	-.00	[-.23, .23]
BMI	-.38	.699	-.04	[-.28, .19]
Stereotype IAT	-.93	.353	-.10	[-.33, .12]
Explicit stereotype	.35	.723	.04	[-.18, .27]
<b>Slim-Fat semantic and implicit/explicit power-egalitarianism</b>				
<b>R<sup>2</sup> = .029, F(5,77) = 1.49, p = .201</b>				
Gender	.59	.556	.06	[-.15, .29]
Age	2.62	.010	.30	[.07, .53]
BMI	-1.16	.245	-.13	[-.36, .09]
Power-egalitarianism IAT	.04	.967	.004	[-.22, .23]
Explicit power-egalitarianism (SVS)	-.03	.971	-.004	[-.23, .22]
<b>Explicit Stereotype and implicit/explicit power-egalitarianism</b>				
<b>R<sup>2</sup> = .036, F(5,77) = 1.62, p = .163</b>				
Gender	1.27	.206	.14	[-.08, .36]
Age	-1.60	.111	-.18	[-.41, .04]
BMI	.08	.932	.01	[-.22, .24]
Power-egalitarianism IAT	-.01	.989	-.01	[-.23, .21]
Explicit power-egalitarianism (SVS)	1.47	.145	.17	[-.05, .39]
<b>R<sup>2</sup> = .025, F(3,91) = 1.81, p = .150</b>				
Gender	1.13	.259	.11	[-.08, .32]
BMI	-.22	.820	-.02	[-.22, .18]
Explicit power-egalitarianism (SVS)	1.84	.067	.19	[-.01, .39]
<b>Slim-Fat semantic and implicit/explicit stereotype</b>				
<b>R<sup>2</sup> = .090, F(5,83) = 2.74, p = .023</b>				
Gender	1.04	.299	.11	[-.09, .31]
Age	3.00	.003	.32	[.11, .54]
BMI	-1.09	.278	-.12	[-.33, .10]
Stereotype IAT	-1.10	.273	-.11	[-.32, .09]
Explicit stereotype	-1.17	.241	-.12	[-.33, .08]
<b>Anti-Fat Attitude Questionnaire (AFA)</b>				
<b>R<sup>2</sup> = .097, F(7,73) = 2.23, p = .040</b>				
Gender	1.43	.154	.16	[-.06, .38]
Age	1.75	.083	.20	[-.02, .43]
BMI	.86	.391	.10	[-.13, .33]
Power-egalitarianism IAT	-2.40	.018	-.27	[-.49, -.04]
Stereotype IAT	.77	.441	.09	[-.14, .31]
Power-egalitarianism SVS	1.00	.318	.11	[-.11, .34]
Explicit stereotype	-1.51	.133	-.17	[-.39, .05]

Note. BMI means Body Mass Index; SVS means Schwartz's Values Survey.

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Prediction of bias according to values, target gender and nature of the bias in study 4 (n=171)

		T	p	B	95% CI
<b>Typical bias</b>					
Power-egalitarianism IAT	R <sup>2</sup> =.091, F(3,158)=6.37, p<.001				
Target Gender (TG)		4.35	<.001	.32	[.17, .47]
Power-egalitarianism IAT		.28	.775	.02	[-.13, .17]
TG X power-egalitarianism IAT		.19	.849	.01	[-.14, .16]
Power-egalitarianism SVS	R <sup>2</sup> =.141, F(3,163)=10.13, p<.001				
Target Gender (TG)		4.99	<.001	.36	[.22, .50]
Explicit power-egalitarianism (SVS)		-2.79	.005	-.20	[-.35, -.06]
TG X explicit power-egalitarianism		.55	.581	.04	[-.10, .18]
Explicit stereotype	R <sup>2</sup> =.109, F(3,162)=7.74, p<.001				
Target Gender (TG)		4.73	<.001	.35	[.20, .49]
Explicit stereotype		-.40	.688	-.03	[-.17, .11]
TG X explicit stereotype		.92	.358	.06	[-.08, .21]
<b>Atypical bias</b>					
Power-egalitarianism IAT	R <sup>2</sup> =.124, F(3,153)=7.22, p<.001				
Target Gender (TG)		3.21	.001	.24	[.09, .39]
Power-egalitarianism IAT		1.45	.148	.11	[-.04, .26]
TG X power-egalitarianism IAT		3.19	.001	.24	[.09, .40]
<b>Male gender</b>					
	R <sup>2</sup> =.163, F(4,64)=4.31, p=.003				
Gender		-1.17	.245	-.14	[-.38, .10]
Age		-2.73	.008	-.32	[-.55, -.08]
BMI		.68	.495	.08	[-.15, .32]
Power-egalitarianism IAT		3.32	.001	.37	[.14, .59]
<b>Female gender</b>					
	R <sup>2</sup> =.002, F(4,82)=1.06, p=.379				
Gender		-.80	.420	-.08	[-.29, .13]
Age		-1.32	.188	-.14	[-.36, .07]
BMI		.44	.657	.05	[-.17, .27]
Power-egalitarianism IAT		-1.19	.235	-.13	[-.36, .08]
Power-egalitarianism SVS	R <sup>2</sup> =.044, F(3,158)=3.52, p=.016				
Target Gender (TG)		2.75	.006	.21	[.06, .37]
Explicit power-egalitarianism (SVS)		.61	.540	.04	[-.10, .20]
TG X explicit power-egalitarianism		1.17	.243	.09	[-.06, .23]
Explicit stereotype	R <sup>2</sup> =.116, F(3,157)=8.00, p<.001				
Target Gender (TG)		2.69	.007	.20	[.05, .34]
Explicit stereotype		3.85	<.001	.28	[.14, .43]
TG X explicit stereotype		.75	.449	.05	[-.09, .20]
<b>Implicit values and explicit stereotype</b>					
Male gender	R <sup>2</sup> =.205, F(5,62)=4.47, p=.001				
Gender		-.98	.330	-.12	[-.35, .12]
Age		-1.86	.066	-.22	[-.47, .01]
BMI		.87	.384	.10	[-.13, .34]
Explicit stereotype		2.30	.024	.27	[.03, .50]
Power-egalitarianism IAT		2.90	.005	.32	[.10, .55]
Female gender	R <sup>2</sup> =.044, F(5,81)=1.79, p=.122				
Gender		-1.05	.295	-.11	[-.32, .10]
Age		-.71	.478	-.08	[-.30, .14]
BMI		-.10	.917	-.01	[-.24, .21]
Explicit stereotype		2.13	.035	.24	[.01, .47]
Power-egalitarianism IAT		-.94	.347	-.10	[-.32, .11]

1217  
 1218 Note. Typical bias is the difference between choosing the Fat and choosing the Slim within the Typical  
 1219 Discrimination situations (a positive score means choosing more the fat than the Slim); Atypical bias is the  
 1220 difference between choosing the Fat and choosing the Slim within the Atypical Discrimination situations (a  
 1221 positive score mean choosing more the Fat than the Slim); stereotype means the explicit association between fat  
 1222 and physical powerfulness and slim and physical weakness (a positive score mean a stronger association between  
 1223 fat-strong and slim-weak than fat-weak and slim-strong). The results presented are for the condition in which  
 1224 participants answered all questions (2 questions for typical situations and 4 questions for atypical situations,  
 1225 results remain consistent across different ways how the bias is calculated, see Table S26).

1226 Table 5

1227 *Gender influence across the 3 pilot studies and 4 main studies on AFA, Fat semantic and Slim semantic*

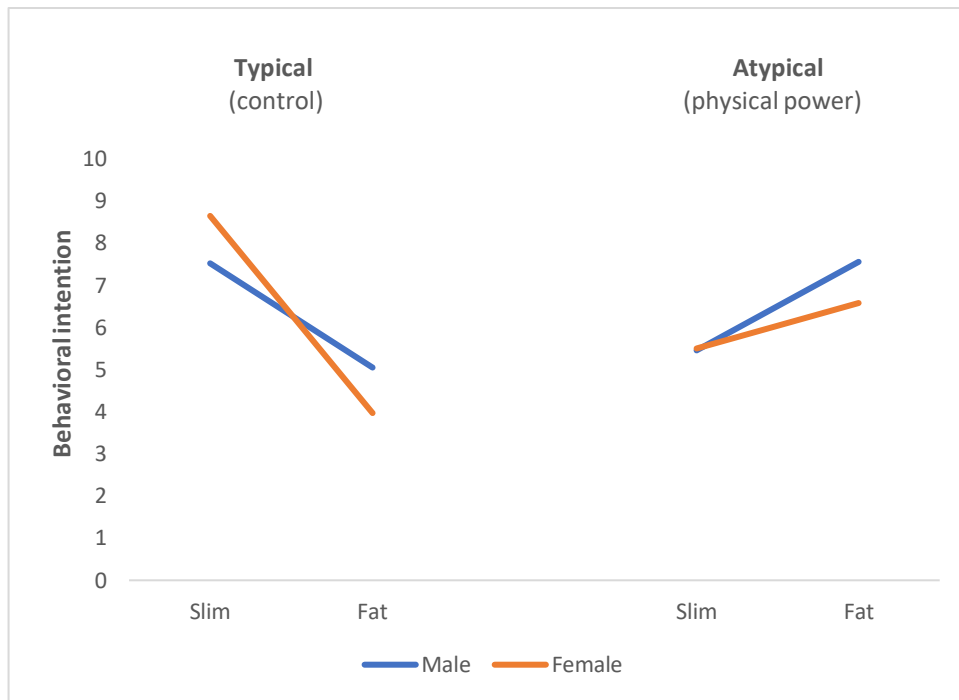
	NEUTRAL				FEMALE GENDER				MALE GENDER					
AFA	T	p	B	95% CI	T	p	B	95% CI	T	p	B	95% CI		
<b>R<sup>2</sup>=.010, F(6,137)=1.24, p=.288</b>	(pilot study 3, n=157)				<b>R<sup>2</sup>=.128, F(6,70)=2.85, p=.015</b>	(half study 2, n=84)				<b>R<sup>2</sup>=.013, F(6,140)=1.32, p=.248</b>	(half study 2 - study 3, n=179)			
Gender	-.24	.809	-.02	[-.20, .15]	Gender	-.48	.631	-.05	[-.29, .18]	Gender	1.55	.121	.13	[-.03, .30]
Age	-1.35	.176	-.12	[-.28, .05]	Age	.18	.852	.02	[-.21, .26]	Age	.51	.604	.04	[-.13, .21]
BMI	.39	.696	.03	[-.13, .20]	BMI	.94	.348	.11	[-.12, .34]	BMI	1.57	.118	.14	[-.03, .30]
Pp Slim-Fat IAT 4-35	-.67	.503	-.06	[-.22, .11]	Slim-Fat IAT	.94	.347	.10	[-.11, .32]	Slim-Fat IAT	-.46	.641	-.04	[-.21, .13]
Pp pow-ega IAT 4-35	-.55	.582	-.05	[-.22, .12]	Power-ega IAT	.89	.374	.10	[-.12, .32]	Power-ega IAT	-.86	.388	-.07	[-.24, .09]
Power-ega PVQ	1.97	.050	.17	[.00, .34]	Power-ega SVS	3.52	<.001	.39	[.17, .61]	Power-ega SVS	.78	.436	.06	[-.10, .23]
<b>ATTITUDE TOWARD FAT through semantic differential scale (with computer IATs only)</b>														
<b>R<sup>2</sup>=-.001, F(6,63)=-.97, p=.447</b>	(pilot study 2, n=87)				<b>R<sup>2</sup>=.017, F(6,70)=1.22, p=.303</b>	(half study 2, n=84)				<b>R<sup>2</sup>=.031, F(6,140)=1.78, p=.107</b>	(half study 2 - study 3, n=179)			
Gender	-.24	.804	-.03	[-.27, .21]	Gender	-.69	.490	-.08	[-.34, .16]	Gender	-1.52	.129	-.13	[-.29, .03]
Age	-.35	.720	-.04	[-.31, .21]	Age	1.67	.098	.21	[-.04, .46]	Age	-.69	.486	-.05	[-.23, .11]
BMI	1.11	.271	.15	[-.12, .43]	BMI	.42	.670	.05	[-.19, .30]	BMI	-.10	.918	-.01	[-.17, .16]
Slim-Fat IAT	-1.27	.208	-.16	[-.43, .09]	Slim-Fat IAT	-1.55	.123	-.18	[-.41, .05]	Slim-fat IAT	1.63	.106	.14	[-.03, .30]
Power-ega IAT	-2.02	.047	-.29	[-.57, .00]	Power-ega IAT	-.27	.782	-.03	[-.26, .20]	Power-ega IAT	2.74	.006	.24	[.06, .41]
Power-ega semantic	1.22	.225	.16	[-.10, .42]	Power-ega SVS	-.98	.325	-.11	[-.35, .11]	Power-ega SVS	-.66	.505	-.05	[-.22, .10]
<b>ATTITUDE TOWARD SLIM through semantic differential scale (with computer IATs only)</b>														
<b>R<sup>2</sup>=-.045, F(6,63)=-.494, p=.810</b>	(pilot study 2, n=87)				<b>R<sup>2</sup>=.026, F(6,70)=1.34, p=.248</b>	(half study 2, n=84)				<b>R<sup>2</sup>=-.010, F(6,140)=-.75, p=.605</b>	(half study 2 - study 3, n=179)			
Gender	1.09	.277	.13	[-.11, .38]	Gender	1.19	.235	.15	[-.10, .40]	Gender	-.24	.808	-.02	[-.19, .14]
Age	-.21	.831	-.03	[-.30, .24]	Age	-1.62	.108	-.20	[-.45, .04]	Age	-.69	.490	-.06	[-.23, .11]
BMI	-1.00	.317	-.14	[-.42, .14]	BMI	-1.10	.274	-.13	[-.38, .11]	BMI	-.28	.778	-.02	[-.20, .15]
Slim-Fat IAT	-.03	.971	.00	[-.27, .26]	Slim-Fat IAT	-1.02	.308	-.11	[-.34, .11]	Slim-fat IAT	.87	.381	.07	[-.09, .25]
Power-ega IAT	.57	.565	.08	[-.20, .37]	Power-ega IAT	-1.36	.177	-.16	[-.39, .07]	Power-ega IAT	1.91	.057	.17	[-.01, .34]
Power-ega semantic	.36	.715	.05	[-.22, .32]	Power-ega SVS	.38	.703	.04	[-.18, .27]	Power-ega SVS	-.87	.380	-.07	[-.24, .09]

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1229 *Note.* AFA means Anti-Fat Attitude Questionnaire; BMI means Body Mass Index; PVQ means Portrait Values Questionnaire; SVS means Schwartz's Values Survey.

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1233 *Figure 1.* Three-way interaction between weight status, target gender and type of situation in  
 1234 Study 4. The interaction describes the responses made by participants when they  
 1235 systematically responded to all the questions (2 situations X 2 target for typical situations and  
 1236 4 situations X 2 target for atypical situations)". The three-ways interaction is  $p=.053$  when it  
 1237 describes the responses made by participants when they did not systematically responded to  
 1238 all the questions (see Table S26).

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