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The Intersectionality of Anti-fat Prejudice

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Bard

The Intersectionality of Anti-Fat Prejudice

Senior Project Submitted to

The Division of Science, Math, and Computing

Of Bard College

By

Lily Moerschel

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Acknowledgements

This project would not have been possible without the guidance of my academic advisors and psychology mentors. I would like to give a special thank you to Frank Scalzo for overseeing the research process and for providing weekly check-ins and written feedback. I am especially grateful to him for helping me organize my time and pace myself during this difficult process.

I would also like to acknowledge Kristin Lane for her invaluable guidance during the early stages of my project. Professor Lane is one of the leading IAT researchers in the country, and I feel extremely fortunate to have connected with her during my time at Bard. She directed me to several publications, including one of her own, that helped me design and program my IAT.

Another important mentor of mine is Kathryn Tabb. I took Professor Tabb's "Philosophy of Psychiatry" class in the fall of 2019, which helped me cast a critical eye on psychiatry and medicine. Analyzing psychology from a philosophical perspective has impacted how I read and interpret psychological research, in the best way possible. I have even more of an appreciation for the research process and for all the hard work that goes into it.

Finally, I would like to thank my brilliant classmate, Hadley Parum. They helped me program my IAT on Inquisit and helped me conduct my statistical analyses. Without their help, I might have given up on launching my study altogether, since I am technologically challenged, and easily overwhelmed by numbers.

I have a tremendous amount of respect for these four individuals. I have learned so much over the course of this year, and none of it would have been possible without the support of my advisors and mentors.

Preface

I began brainstorming ideas for my senior project in May of 2020. At that point, it was impossible to narrow down my interests. They ranged widely, from Neurolinguistic Programming for musicians, to weight bias in medical professionals. As anxious as I was to choose a topic, I did so carefully, knowing that I would be stuck with it all year. I chose weight bias, because I was inspired by a talk that Professor Kathryn Tabb gave on personal responsibility early in 2020. My initial idea was to assess whether biological or behavioral attributions of obesity affect the judgement of medical professionals.

Shortly thereafter I gave up on this idea. I was strongly determined to collect data for my project, and I worried that logistical difficulties would prevent me from doing so. I brainstormed other ideas and continued to read as much as I could about weight stigma and anti-fat prejudice. But my project did not take shape until a few weeks later, after participating in several Black Lives Matter protests.

The Black Lives Matter movement inspired my decision to incorporate anti-racism work into my project. I delved into historical and sociological narratives about racism and anti-fat prejudice. Sabrina Strings' *Fearing the Black Body: The Racial Origins of Fat phobia* introduced me to the intersection of racism and anti-fat prejudice. After finishing that book, I narrowed down my topic considerably, and decided to examine whether racism and anti-fat prejudice are motivated by similar ideologies. In my literature review, I kept coming across the IAT. I took several IATs of my own and was fascinated with the methodology. I knew that programming an IAT was way beyond my capabilities, but I was willing to put in extra time and effort into learning how to do it. I met with both of my academic advisors, Frank Scalzo and Kathyrn Tabb, who helped guide my reasoning.

This project challenged me in many ways. I learned more about computers in one year than I have in my entire life. I dipped my toes into computer programming, and I learned how to conduct multiple linear regression. I enjoyed the interdisciplinary components of this project the most. I especially liked incorporating sociological theories into my study rationale. The Theory of Intersectionality and Symbolic Racism theories are concepts that I think about in other academic courses and will continue to think about long after this project is complete.

This semester, I am taking a Human Rights course about health inequities. This course has helped me gain a deeper understanding of how racism manifests in healthcare today. I was particularly interested in learning about the social determinants of health, medical experimentation on people of color and "red lining". I am writing a policy paper for my Human Rights final and hope to design a community-based intervention that targets anti-fat prejudice and racism in healthcare settings. In doing so, I will return briefly to my first idea, giving this project a circuitous path, and a sense of closure.

This senior project marks the culmination of my Psychology degree. I could not be more grateful for the inspiring faculty and peer mentors that have guided me along the way. The experience of conducting my own research is one that I will keep with me forever, no matter how my career unfolds.

This is the longest work I have written to date. My only hope is that it will be received with curiosity and interest.

Abstract

Anti-fat prejudice has received little to no attention in social justice discourse. Fat Americans are discriminated against in healthcare, education and in the workplace. This discrimination includes, but is not limited to, lowered salary, unexplained termination from a job, unsolicited medical advice, body scrutiny, bullying, social exclusion, and being denied *in vitro* fertilization. Situating anti-fat prejudice in an intersectional framework will facilitate the dismantling of weight-normative doctrines. In the present study, participants completed a race IAT and a weight IAT, as well as a demographic questionnaire and the Multigroup Ethnic Identity Measure (MEIM). Implicit racial bias was positively correlated with implicit weight bias. Non-white participants scored significantly higher in ethnic identity than white participants. There was no difference in implicit weight bias and implicit racial bias between white and non-white participants. However, white participants scored significantly lower in implicit weight bias when controlling for BMI.

Keywords: implicit bias, intersectionality, weight stigma, racism, ethnic identity

Introduction

COVID-19 and health disparities

In 2021, no scientific paper is complete without a discussion of COVID-19. Fortunately, the global pandemic is extremely relevant to this project, as disparities in covid-related health complications are based largely on race and body size. An important lesson that can be learned COVID-19 is that people of marginalized identities are victims of a flawed system. When the pandemic spread to the United States in early 2020, the health care system was gravely unprepared to handle a crisis of such magnitude. Efforts to contain the spread of COVID-19 all but failed, which revealed the fragility of the American government its and healthcare system. Throughout the pandemic, black and Hispanic Americans have been disproportionately more likely to suffer from severe health complications than white Americans (Millett et al., 2020). It goes without saying that COVID-19 is not the “equalizer” people claim it to be. There can be no equalizer in a country built upon structural racism and minority exploitation.

COVID-19 disparities are two-fold. First, there are disparities in health outcomes, where Black, Hispanic, and Indigenous Americans experience higher hospitalization and mortality rates than white and Asian Americans (Center for Disease Control). This is explained in part by lack of access to health care, especially preventive care. Black, Hispanic and Indigenous Americans are also more likely to be “essential workers", which increases their risk of exposure. Unfortunately, the racial disparities do not stop there. Black, Hispanic, and Indigenous Americans were hit hardest by the economic recession brought on by COVID-19, making food and housing insecurity rampant in their communities (Martinez-Juarez, Sedas, Orcutt & Bhopal, 2020). The nature of social stratification in America is such that people of

color are systematically disadvantaged in every aspect of life, which increases the likelihood that they will suffer during nationwide crises.

Black Americans faced another layer of challenges when racial violence erupted across the country. Though racial violence is not a rare occurrence, the murders of George Floyd and Breona Taylor hit the black community especially hard, leading many Americans into a resurgence of activism and civic engagement (Pleyers, 2020). The Black Lives Matter movement brought social justice to the forefront, giving greater visibility to people of marginalized identities. Nationwide protest and activist campaigns swept the nation in a show of racial solidarity. Though the Black Lives Matter movement addressed structural and institutional racism in a meaningful way, it was only the very beginning of a long road to equal rights. Much progress needs to be made at the federal level to ensure that ethnic minorities are granted equal access to medical care and are guaranteed safety from racial violence.

Obesity and COVID-19

There is another marginalized group whose struggles have yet to be acknowledged, even amidst this period of social reform -- overweight and obese Americans. During the COVID-19 pandemic, overweight and obese individuals face biological vulnerabilities that place them at risk for severe medical complications and mortality. Obese individuals frequently suffer from impairments in pulmonary function, which is likely to worsen COVID-19 infections that reach the lungs (Dietz & Santos-Burgua, 2020). Additionally, conditions associated with obesity, such as chronic inflammation, immune dysregulation, hypertension, insulin resistance and endocrine dysfunction, are likely to worsen COVID-19 severity (Kwok et al., 2020). Yet it is important to note that any association between COVID-19 infection severity and obesity is purely correlational now. It is simply too early to imply a causal pathway. This does not stop the Center

for Disease Control from labelling obesity as a risk factor for COVID-19, alongside smoking, age, and compromised immunity. In January and February of 2021, obese patients were not given earlier access to vaccines in several states. Labelling obesity as a risk factor for COVID-19 without robust evidence is just another example of pathologizing body size. It is unclear what the motives were behind labelling obesity as a risk factor if obese people were not given earlier access to vaccination.

There are a few interesting parallels between the COVID-19 pandemic and the HINI influenza in 2009. Obesity was listed as a risk factor for the HINI influenza, as it seemed to be associated with more severe health complications (Fezeu et al., 2011). However, a 2015 meta-analysis noted that any association between obesity and health complications disappeared after controlling for patients' quality of care (Sun et al., 2016). One cannot but wonder if a similar pattern will be observed in the years following COVID-19.

Physicians spend less time with their overweight and obese patients (Bertakis & Azari, 2005). They make less frequent eye contact with obese patients and are likely to attribute heath complaints to body size and poor lifestyle (Persky & Eccleston, 2011). When obese patients face weight stigma in doctor's offices, they are more likely to delay seeking medical help, or avoid it entirely (Townshead, Kyle & Stanford, 2020). In these uniquely challenging times, it is crucial to spread awareness of anti-fat prejudice and dispel weight-normative doctrines that oppress people in larger bodies.

Fat phobia

Contrary to popular belief, fat phobia is a relatively recent phenomenon. Fat phobia, or the pathological fear of fatness, has risen steadily over the past century, and shows no sign of decline. But fat phobia was not always so pervasive. In the United States, fatness was a status

symbol well in the late nineteenth century (Stoll, 2019). Agricultural changes in the early 1900s led to an abundance of food, and a change in the status quo. When fat bodies ceased to exist solely in the upper class, they were no longer socially desirable. Thinness became associated with moral purity and self-actualization, while fatness became a marker of social deviance, gluttony, and laziness (Farrell, 2011). In America, body ideals change at least once every decade. Yet the thin ideal prevails. In the 1920s, the slim "flapper" with a bob was the feminine ideal. In the 60s, it was Twiggy. The 90s were the decade of the "heroine chick". Today, women are expected to be both thin and curvaceous, which is anatomically impossible for much of the population (Martin, 2010). Today, the average American is heavier than ever before.

Fatphobia is in part derived from the Body Mass Index (BMI). This profoundly unscientific instrument traces its origins to the 1830s. Belgian statistician Adolphe Quetelet began using a height to weight ratio for statistical purposes. This ratio was originally referred to as "Quetelet's Index" and was not intended to be used outside of mathematics (Muller, Braun, Enderle & Bosy-Westphal, 2016). American physician Ancel Keys adapted Quetelet's work and incorporated it into his study of medicine. He was the first to coin the term Body Mass Index. However, Keys explicitly stated that the BMI was not intended to be used at the population level, given its lack of scientific validity. It goes without saying that the BMI scale has expanded much beyond its original scope. BMI is calculated at every doctor's office and included in patient charts. Some schools put BMI on student report cards, as if it were a measure of success or failure like a class grade.

With the creation of the BMI scale, fat bodies were deemed pathological if they exceeded an arbitrary threshold. Demonizing fat bodies often occurs under the guise of "health concern trolling" (Womack & Mathieson, 2019). Weight loss is not a panacea for people in larger bodies,

or for people in any size body, for that matter. In fact, weight cycling that occurs through dieting behaviors is a greater risk factor for poor health than an individual's BMI (Bacon & Aphramor, 2011). Furthermore, people in the "overweight" category were found to have lower mortality rates than people in the "normal" category, after controlling for several lifestyle factors, such as smoking, gender and age (Flegal, 2005). In medicine, there exists a phenomenon known as "the Obesity Paradox". Despite having a lower perceived health status, overweight and obese people often fare better in coronary heart disease, stroke, and peripheral artery disease than their normal-weighted counterparts (Hainer & Adhoon-Hainerova, 2013),

In 1995, America declared war on obesity. This was due in no small part to pressures from the pharmaceutical industry and the multi-million-dollar diet industry. The "war on obesity" rhetoric only furthers weight stigma (O'Hara & Taylor, 2018), treating it as if it were a social contagion, and a marker of the utmost disgrace (Stoll, 2019). When body size is medicalized, healthcare settings feel unsafe for people in larger bodies, making them more likely to delay seeking health care. (Alegria Drury & Louis, 2002). It is also important to note that the medical system has a lot to gain from labelling obesity as a disease. Bariatric medicine is fast growing and capitalizes on fat phobia. In many ways, the fat body is a battleground in present-day America. Fat Americans face discrimination in healthcare (Balkhi, Parent & Mayor, 2013; Phelan et al., 2015; Bombak, McVail & Ward, 2016) and in the workplace (Puhl & Brownell, 2001; Baum & Ford, 2004). Fat people are also more likely to live in poverty (Levine, 2011; Drewnowski & Specter, 2004) and to have suffered severe childhood trauma (Felitti et al., 1998). Obesity is disproportionately higher in ethnic minorities. Native Americans, African Americans, Puerto Ricans, and Mexican Americans have a higher body mass index, on average, than their European American counterparts (Denney et al., 2004).

Reclaiming the word "fat"

"Fat" holds societal baggage. To be fat is to be unsuccessful, disgraceful, and unattractive. Many fat scholars choose to reclaim the word "fat", and use it as a neutral descriptor, rather than a derogatory one (Farrell, 2011). It is difficult to imagine a future in which the word "fat" is devoid of any negative connotations. Yet social change happens incrementally; perhaps embracing the word "fat" is a small step in the right direction.

Many young children, myself included, were scolded by caregivers for publicly drawing attention to a person's body size. Some would consider this fatphobic. By scolding a child for using the word "fat", we are teaching them that fatness is undesirable, unattractive, and lazy. We are also teaching them that their worth depends on their body size, and that fatness must be avoided at all costs. Destigmatizing the word "fat" is one of many ways that we can fight weight stigma and normalize body diversity.

The fat liberation movement seeks to dismantle systems of oppression that marginalize people in larger bodies. It was first created in 1969 in response to the stigmatization of people based on their body size. The National Association to Aid Fat Americans (NAAFA) demanded equal rights for fat people in all areas of life and quickly grew into a social justice movement that continues to this day. For much of this time, fat liberation has remained on the fringe, and has entered the popular press only in the last decade. Unfortunately, the wider scope of fat liberation has resulted in the co-opting of phrases such as "body positive" by those who hold the most privileged identities of all, being white, cis-gendered, and conventionally attractive.

The body positivity movement was created by queer black activists. Their unapologetic love for their bodies was radical and shocking to a society that idealized thinness and heteronormativity. With social media came an explosion of body positivity to the mainstream.

Viewing the hashtag #bodypositivity now will yield images of white, cisgender women who are conventionally attractive. Though all bodies deserve the utmost positive regard, it is important to remember the original intention of the movement, which was to liberate the most marginalized bodies of all.

Marginalized voices are frequently drowned out by people with privilege. This phenomenon is present in anti-racism work, too, where white individuals use performative advocacy for their own social benefit and take up space in a movement that was not meant for them (Kalina, 2020). Social justice movements must be centered around people with lived experiences. The role of allies is to support, but not overshadow. In any social justice discourse, language needs to be carefully thought out. The words that we use can perpetuate stigma if not used appropriately. This holds true in the fat liberation movement. The term "obese" is considerably more stigmatizing than the term "fat" yet is used more frequently in many circles. The following section will discuss how the word "obese" contributes to negative stereotyping.

Obesity causes

The term "obese" is highly stigmatizing. If we are to look at the etymology of the word "obese", it becomes clear why this is so. The word "obese" comes from *obesus*, which is Latin for "fat, plump, or stout". A literal translation of "obese" would read "that has eaten itself fat". This translation implies that obesity is the result of overconsumption of food. While obesity can be somewhat attributed to eating behavior, it is best predicted by genetic and environmental factors (Ulijaszek & Lofink, 2006). Twin studies show that obesity and fatness phenotypes are largely heritable (Stunkard, Fock & Hrubec, 1986). According to Keller & Faith (2003), the heritability for human adiposity, or fat tissue, is between 0.49 to 0.93, indicating that genetics play a substantial role in body size. Another twin study demonstrates that genetics influence not

only body weight, but also nutritional intake (Castro, 1999). Despite the myriad evidence that body size is largely attributed to genetics, people still consider obesity a matter of personal responsibility.

The "personal responsibility" rhetoric is hugely problematic. Firstly, blaming an individual for their body size is not likely to improve health outcomes. Obese and overweight people are less likely to seek health promoting behaviors, such as eating more fruits and vegetables, or engaging in physical activity, when they endorse biological attributions for weight. Furthermore, biological attributions for weight only increase internalized weight stigma because it gives the assumption that higher body weight is a fundamental flaw or character deficit (Pearl & Leibowitz, 2014). Another reason why it is harmful to consider weight management a personal responsibility is that to do so is to ignore structural inequalities that create this problem in the first place. In the United States, whole, unprocessed foods, such as fruits and vegetables, have become increasingly expensive, while convenience food, such as frozen dinners and prepackaged snacks, are cheaper than ever (Sturm, 2005). Additionally, it takes more time to prepare whole foods than it does to visit the local drive-through for fast food. Even when poor Americans have access to healthy foods, time and energy constraints make convenience food the only viable option. People who live in poverty are thus more likely to rely on convenience foods, and in turn, experience higher levels of obesity (Pickett et al., 2005). Finally, impoverished areas are higher in crime, which discourages people from engaging in outdoor exercise (Pucher & Dijkstra 2003).

The third and most significant reason why it is problematic to consider body weight a matter of personal responsibility is that it increases weight stigma and anti-fat prejudice. Weight stigma, or discrimination and stereotyping based on a person's weight, is associated with higher

allostatic load (Vadiveloo & Mattei, 2018), as well as higher cortisol reactivity (Himmelstein, Incollingo & Tomiyama, 2014). Weight stigma is also associated with psychological problems such as depressive symptoms (Ashmore et al., 2008), low self-esteem (Friedman et al., 2008), and binge eating (Ashmore, Friedman, Reichmann & Musante, 2008). Weight stigma is a product of anti-fat prejudice, which is pervasive in American society. Daníelsdóttir, O'Brien, and Ciao (2010) provide the following definition of anti-fat prejudice, "a negative attitude towards (dislike), belief about (stereotype) and behavior against (discrimination) people perceived as being fat" (p. 47-48). Unlike other forms of prejudice, such as racism and homophobia, anti-fat prejudice has yet to receive widespread recognition (Stoll, 2019). Rates of weight discrimination are steadily rising (Puhl & Heyer, 2009) and are now comparable to rates of racial discrimination (Puhl, Andreyeva & Brownell, 2008). Despite this, anti-fat prejudice is not considered a social justice issue, even though it occurs in tandem with recognized systems of oppression; namely, racism, classism, and sexism (Stoll, 2019). A sobering meta-analysis by Daníelsdóttir, O'Brien and Ciao (2010) found that there are a mere 16 published studies on reducing anti-fat prejudice, all of which yielded little to no significant results and had several methodological problems. All of this points to a need for further research on anti-fat prejudice that will help point to interventions for positive change.

Anti-fat prejudice in an Intersectional framework

I propose that situating anti-fat prejudice among other forms of systematic oppression will increase public support for, and give greater visibility to, those suffering from weight discrimination. Anti-fat prejudice is largely intersectional, and deserves recognition alongside other social justice movements, such as racism, sexism, and homophobia. The theory of intersectionality (Crenshaw, 1989) explains how people of marginalized identities experience

systemic oppression at both micro and macro levels in society. According to this theory, people are affected differently based on their overlapping identities (Carbabo, Crenshaw, Mays & Tomlinson, 2013). For example, a fat black trans woman will experience different levels of systemic oppression than a cis-gender fat man, and consequently will hold a different worldview. Based on this theory, it is likely that people who benefit from social stratification (i.e.: white cis-gender men) to be more racist and sexist than people in more marginalized identities. The same should hold true for anti-fat prejudice. According to Perez-Lopez, Lewis and Cash (2001), men, non-Hispanic whites, and people of binary genders are more likely to hold anti-fat attitudes than women, African Americans, and people who identify as non-binary. In another study, African Americans had significantly lower levels of anti-fat bias than non-Hispanic white Americans (Puhl et al., 2015).

Anti-fat prejudice is associated with other forms of prejudice, such as racism, homophobia, and sexism. Perez-Lopez, Lewis and Cash (2001) found that weight bias was significantly correlated with racism, homophobia and egalitarian gender roles when controlling for demographic and weight-related factors. The research behind this association is preliminary. Some suggest that political conservativism at least partially explains the association between different forms of oppression (Crawford et al., 2017). Others suggest that essentialist belief-systems predicts prejudice towards multiple groups (Allport, Clark & Pettigrew, 1954; Haslam, Rothschild & Ernst, 2002). However, the theoretical framework that is most relevant to this study is that of symbolic racism (Kinder, 1986). The following section will explain symbolic racism theories in relation to anti-fat prejudice.

Anti-fat Prejudice and Symbolic Racism

This study seeks to examine the association between racism and anti-fat prejudice. The parallels between them are staggering. Stereotypes associated with fatness, such as laziness, lack of control and bodily excess uphold Puritanical ideals of moral virtue and purity. Crandall (1994) explores the commonalities between fatphobia and "symbolic racism". Symbolic racism (Kinder, 1986) is prejudice against black people that comes from old fashioned racial hatred and the belief that black people lack discipline, self-control, and self-reliance. The original theory of symbolic racism proposed that symbolic racism replaced Jim Crow, or pre-civil rights era racism. While the theoretical framework of symbolic racism has evolved over several decades, it influences contemporary politics (Hutchings & Valentino, 2004) and continues to affect social policies involving race (Sears, Sidanius & Bobo, 2000). White supremacists rely on the supposed degenerative characteristics of "blackness" to uphold the status quo and to justify racial discrimination.

On the surface, racism and fatphobia appear to exist separately from one another. Yet they are inextricably linked. Both racial prejudice and anti-fat prejudice are motivated by white supremacist ideologies. In American society, fat people are perceived to lack in discipline, self-control, and self-reliance. Fat people are deemed unworthy of medical treatment because any medical problem is attributed to their body size, which they "should" be able to control. In the ground-breaking *Fearing the Black Body: The Racist Origins of Fatphobia*, Sabrina Strings asserts that the fear of fatness is directed almost exclusively towards low-income women of color. She traces body ideals from the Atlantic slave trade to the present day, demonstrating that beauty standards often reflect cultural values. Strings argues that fatphobia emerged as a racial "othering" that preserved white supremacy in contemporary America. The Mammy (*Figure 1*)

and Jezebel (*Figure* 2) stereotypes portray black women as morally and sexually deviant. The corpulent Mammy represents a lack of dietary restraint, while the promiscuous Jezebel represents a lack of sexual restraint (Strings, 2019). Both racist tropes seek to delegitimize black bodies and uphold popular notions of white superiority.

Figure 1 *The "Mammy" trope*

Figure 1: This is an image of the stereotypical "Mammy" figure, who is portrayed as larger- bodied and subservient.

Figure 2 *The "Jezebel" trope*

Figure 2: This is an image of the stereotypical "Jezebel" figure, who is depicted as hyper-sexual and carefree.

We still see traces of fatphobia's racist roots. The obesity epidemic discourse is highly racialized (Campos, 2004; Farrell, 2011), most likely because racial minorities have higher rates of obesity than non-Hispanic whites (Krueger & Reither, 2015). Yet even the strongest obesity research often fails to address structural disparities in the food and health care systems that cause discrepancies in obesity prevalence (Syed, 2019). When these disparities are addressed,

communities of color are rarely included in the discussion. Any intervention aimed at improving the health of marginalized populations must target systemic inequalities that affect resource access. This study seeks to address anti-fat and racial bias at a theoretical level to determine its associative characteristics. My hope is that this study will help future researchers develop interventions that will have a direct impact on marginalized communities and reduce their health disparities.

Implicit Bias

As with other biases, anti-fat bias exists even when it is not explicitly endorsed. Teachman et al. (2003) found that people hold strong implicit anti-fat stereotypes and prejudice, despite showing no explicit measures of such. Implicit bias is the tendency to use unconscious associations and feelings to process information, even when it contradicts explicitly stated beliefs (Greenwald & Krieger, 2006). Some research suggests that implicit bias is a better predictor of behavior than explicit bias. Bessenoff and Sherman (2000) found that only implicit measures of anti-fat bias predicted how far people would sit from an overweight woman. This has profound implications for people who face discrimination. One example of this is that medical professionals hold strong implicit anti-fat bias (Sabin, Marini & Nosek, 2012), and are likely to administer lower quality care towards fat patients (Seymour, Barnes, Schumacher & Vollmer, 2018). Anti-fat prejudice is therefore most accurately studied using implicit measures, which can detect it even in its subtlest forms.

Implicit Association Test

The Implicit Association Test (IAT) measures implicit bias using an item and attribute sorting task. When taking an IAT, people classify stimuli associated with an attribute (ie: good or bad) and a category (ie: white and black). In a race IAT, the attributes and categories might be

"good" and "bad", and "white" and "black", respectively. An IAT has two rounds so that participants are presented with two different versions of classification pairs. For example, in a race IAT, the first round might contain the pairings "white" and "good", and "black" and "bad", where the second round might contain the pairings "white" and "bad", and "black" and "good". If it takes someone longer to classify stimuli in one pairing than in another, it is likely that their intuitive judgement is being challenged. This would indicate an implicit bias (Lane, Banaji, Nosek & Greenwald, 2007). Therefore, a person who takes longer to classify "good" words, such as "friendly", "sincere", and "honest" with a picture of a black face is assumed to hold implicit racial bias.

The IAT is a standard instrument that has been used in social, developmental, and cognitive psychology. The IAT is also known outside of scientific circles, due to the ever-growing popularity of Harvard's Project Implicit. Project Implicit is a free resource designed for the layperson concerned about their own implicit biases. In recent years, the IAT has become somewhat of a controversy within the scientific community. Much of the criticism surrounds the construct, predictive and internal validity of the IAT. Some critics argue that it might measure attribute salience (Rothermund & Wentura, 2004) or cultural awareness (Arkes & Tetlock, 2004) more so than implicit bias. Another common criticism is that IAT scores do not predict discriminatory behavior. Blanton et al. (2009) found that the IAT does not accurately predict racist behavior as it claims to do. It has also been argued that higher levels of implicit racial bias might reflect sympathy rather than antipathy towards racial minorities (Uhlmann, Brescoll & Paluck, 2006). It is also possible that people who are more familiar with IAT-like testing procedures might skew study data (Rothermund, Wentura & De Houwer, 2005) and that differences in IAT scores can be attributed to differences in cognitive proficiency, rather than

implicit bias (Blanton, Jaccard, Gonzales & Christie, 2006). The most potent research tools are often subject to the greatest scientific scrutiny. The IAT is a clear example of this. It is featured in more publications than any other measure of implicit bias (Mitchell & Tetlock, 2017). It is also known outside of scientific circles. Harvard's Project Implicit makes it possible for anyone to take an IAT and get instant results. The Obama administration featured the IAT in some of its anti-racism campaigns, encouraging people to recognize that racist ideologies often lurk beneath conscious awareness. Only time will tell whether improvements can be made to the IAT, or whether it can be replaced with another instrument with greater scientific validity.

All criticism aside, the IAT is a practical tool for measuring implicit bias and might be the best that we have. One advantage of the IAT is that it is adaptable. Though it is associated primarily with racial bias, the IAT is also used to measure weight bias, gender bias, and age bias, to name a few. Another advantage of the IAT is that the standardized scoring algorithm facilitates comparison between studies. In designing this study, I was able to make predictions based on the existing literature. Several studies have used the IAT to determine characteristics associated with weight bias. In one study, people scored higher in implicit anti-fat bias when primed with behavioral attributions of obesity than when primed with genetic attributions (Teachman et al., 2003). This same study found that reading stories of discrimination against fat people reduced implicit anti-fat bias in overweight participants, but not in normal weighted participants. Elran-Barak and Bar-Anan (2018) found that men have higher levels of implicit anti-fat bias than women and were more likely to endorse the belief that weight is controllable. The strongest predictor of anti-fat bias in this study was belief that weight is an important reflection of character.

In addition to measuring associative characteristics, the IAT can also be used to test theoretical frameworks. Elran-Barak and Bar-Anan (2018) measured implicit and explicit anti-fat bias in a large sample (N=66,799) to test three theories -- social identity theory, attribution theory, and socio-cultural theory. The results from the study support the social identity theory (Tajfel, Turner, Austin & Worchel, 1979) which proposes that people are accepting of in-group members, and critical of out-group members. For example, people who belong to a social group associated with thinness, such as athletes, maintain positive social identity by negatively stereotyping overweight and obese individuals. Elran-Barak and Bar-Anan's study (2018) also supports the socio-cultural theory (Heinberg et al., 1995), which proposes that societal expectations and cultural values have a strong impact on beliefs and attitudes. According to this theory, cultures that uphold the "thin ideal" should be higher in anti-fat bias. However, it is likely that there are other factors that affect anti-fat bias, such as ethnic identity.

Hart, Sbrocco and Carter (2016) demonstrated that African American women exhibited similar levels of anti-fat bias. However, African American women who identified more strongly with their ethnic group scored lower in anti-fat prejudice than African American women who identified less strongly with their ethnic group. The reverse was true for Caucasian women; Caucasian women who identified more strongly with their ethnic group scored higher in implicit anti-fat bias than Caucasian women who identified less strongly with their ethnic group. This finding provides insight into within and between-group variations of anti-fat bias and is worthy of further examination.

Rationale

Given the racist history of anti-fat prejudice and its intersection with symbolic racism, I predict that implicit anti-fat bias will be positively correlated with implicit racial bias.

Based on the findings of Hart, Sbrocco and Carter (2016), I expect that ethnic identity and race will be predictors of implicit racial bias. I hope to extend these findings by including people of all genders and racial demographics. Participants will complete a race IAT, a weight IAT, a demographic questionnaire, and the Multigroup Ethnic Identity Measure (MEIM) to measure the extent to which they identity with their ethnic group.

Methods

Participants

Participants were recruited on Amazon Mechanical Turk. Anyone aged eighteen or older was eligible to participate. Participants who did not complete all parts of the study were excluded. Any participant for whom > 10% of trials were faster than 300 milliseconds were excluded. This is a parameter used to eliminate any non-respondents, or "bots" (Lane et al., 2007). To detect non-respondents, I programmed Inquisit to calculate a variable called "propRT300", which records the proportion of trials that took 300 milliseconds or less to complete. I excluded participants whose propRT300 value was greater than 0.1. A power analysis on GPower yielded an ideal sample size of N=107. Participants were compensated $2.50 through Amazon if they completed all parts of the study.

A total of 175 MTurk users opened the study with 123 respondents completing all parts of the study. Of these 123, seventeen were excluded for being identified as non-respondents, or "bots". Thus, the final sample consisted of 106 participants (mean age = 39.8). *Table 1* summarizes the demographics of the respondents.

Table 1. *Participant Demographics*

Gender	*n*	%	Race	*n*	%
Male	67	63.2	Asian	11	10.4
Female	38	35.8	Black	14	13.2
Non-binary	1	0.9	White	78	74
			Pacific Islander	1	0.9
			Mixed	2	1.9

Seventy-eight participants identified as "European White" in the demographic questionnaire. The remaining twenty-eight participants identified as "Asian", "Black", "Pacific Islander" or "Mixed Race". For analyses on racial and weight biases, a new variable "Race Category" was created which sorted participants into the categories "White" and "non-White" (*Table 2*). To facilitate between-group analyses, the two mixed race participants were omitted because they identified as both "White" and "non-White". Independent sample t-tests were used to conduct between-group analyses (all p's < 0.05).

Table 2. *Participant Racial Demographics for between-group comparisons*

Race category	*n*	%
white	78	75
non-white	26	25

Materials

The primary outcome measures were implicit racial bias and implicit weight bias. Implicit bias occurs automatically and unintentionally. Implicit bias results from unconscious feelings and associations and may contradict explicitly endorsed beliefs. The primary predictor variable was ethnic identity. Ethnic identity is the degree to which someone associates with their ethnic group. The secondary predictor variables were demographic measures, including age, race, gender, and body mass index. These variables were used in exploratory analyses.

Implicit bias

The Implicit Association Test (Greenwald, McGhee & Schwartz, 1998) was used to measure implicit bias. In the IAT, participants classify items and attributes into categories on the left- and right-hand corners of their screen.

Their reaction time, in milliseconds, is used to calculate a *D* score, which is the mean difference divided by the overall standard deviation. Scores range from -2 to 2. Positive *D* scores indicate a potential implicit bias in the predicted direction, where negative *D* scores indicate a potential bias in the unexpected direction. The following parameters (Nosek, Greenwald & Banaji, 2003) are used in interpreting *D* scores:

$|D| > \pm 0.15$ indicates a "slight" implicit bias

$|D| > \pm 0.35$ indicates a "moderate" implicit bias

$|D| = \pm 0.65$ indicates a "strong" implicit bias

The race and weight IATS were programmed on Inquisit 6. Stimuli came from the Project Implicit and Millisecond online repositories. The stimuli for the race IAT came from Brian Nosek's online repository and has been featured in the "race attitude" IAT. The stimuli for the weight IAT came from the Millisecond online repository, in the "Weight IAT - Bodies" folder. See *Appendix A1 and A2* for both sets of stimuli. See *Appendix F* for this study's syntax.

Ethnic Identity

The Multigroup Ethnic Identity Measure (Phinney, 1992) measured the degree to which participants associate with their ethnic group. Participants indicate their level of agreement on a 5-point scale with statements ranging from "Strongly agree" to "Strongly disagree". In the original MEIM questionnaire, participants can opt out of any question by choosing "refuse to answer". This option was not included in the present study because it would have eliminated too

many participants from analyses. Participants' scores on each individual item were averaged to create a composite score. See *Appendix B* for the complete MEIM questionnaire.

Demographics

The demographic questionnaire consisted of age, gender, race, height, and weight questions. All demographic questions were coded as "forced-choice". See *Appendix C* for the complete demographic questionnaire.

Procedure

A two-sentence summary of the study was posted on MTurk. People who wished to learn more about the research could click on the study description, which led them to an online consent form. See *Appendix D* for the full consent form. After giving consent, participants opened Inquisit 6, which contained all components of the study.

To begin, participants completed a race and a weight IAT, presented to them in a randomized order. There were four possible condition orders. Each IAT was preceded by a practice round to help familiarize participants with the study task. After completing the two IATs, participants completed the MEIM questionnaire, followed by the demographic questionnaire. Finally, they were debriefed. The full debriefing statement appears in *Appendix E*.

Analyses

All analyses were conducted on Jamovi 1.2.27. A correlation matrix was used to test whether there was an association between implicit weight bias and implicit racial bias. An ANCOVA was used to test the hypothesis that ethnic identity scores and race would predict implicit weight bias.

Between-group comparisons were conducted using independent sample t-tests. Multiple linear regression was used to determine whether BMI and race were predictors of implicit weight bias.

Results

Do white and non-white participants differ in ethnic identity?

There was a significant difference in MEIM scores between white (M=3.00, SD=0.76) and nonwhite (M=3.86, SD=0.59) participants (t (102) = - 4.98, p < .001), such that that nonwhite participants identified more strongly with their ethnic group (*Figure 3*).

Figure 3 *Multigroup Ethnic Identity Measures (MEIM) in white and non-white participants*

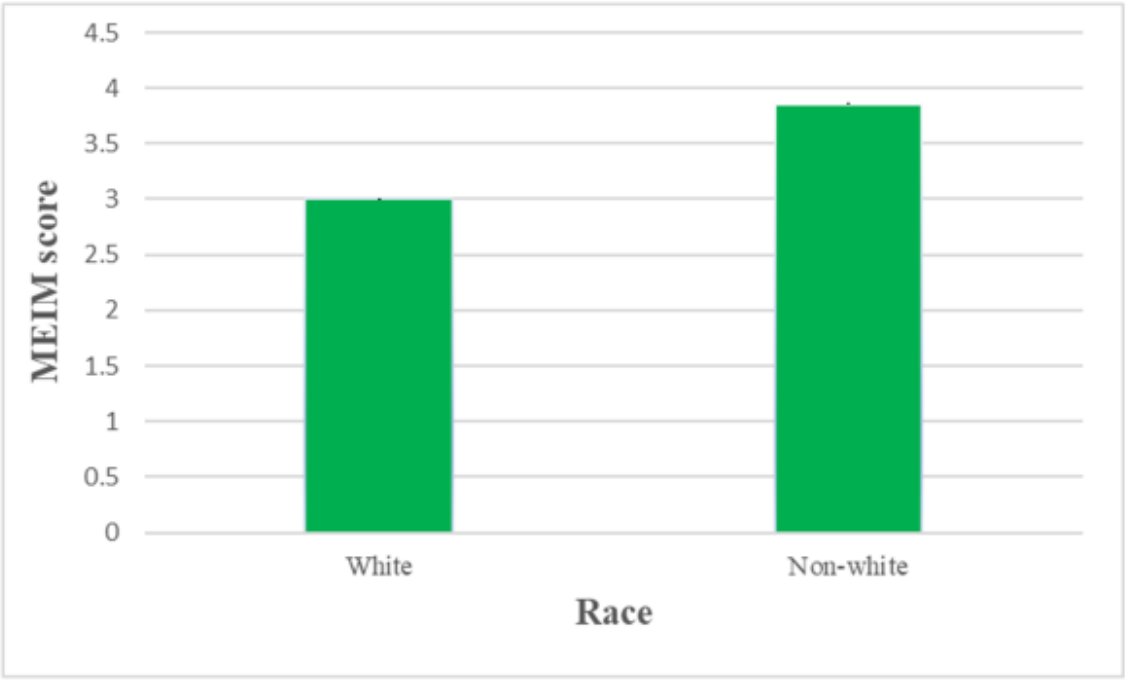

Figure 3 White participants (M=3.00, SD=0.76) scored significantly lower than non-white participants (M=3.86, SD=0.59) on the Multigroup Ethnic Identity Measure (t (102) = - 4.98, p < .001). This suggests that people who are non-white might feel a greater connection to their ethnic identity.

Does implicit weight and racial bias differ between white and non-white participants?

There was no significant difference in implicit weight bias between white (M= 0.12, SD=0.12) and nonwhite (M=0.19, SD=0.20) participants (t (102) = -0.78, $p > 0.4$). There was also no significant difference in implicit racial bias between white (M=0.27, SD=0.40) and nonwhite (M=0.33, SD=0.43) participants (t (102) = -0.73, $p > 0.45$).

Is there a correlation between implicit racial bias and implicit weight bias?

To test whether implicit weight bias was associated with implicit racial bias, a correlational analysis was conducted. As predicted, implicit weight bias was positively correlated (r= 0.29, $p < .002$) with implicit racial bias (*Figure* 4).

Figure 4
Association between implicit weight bias and implicit racial bias

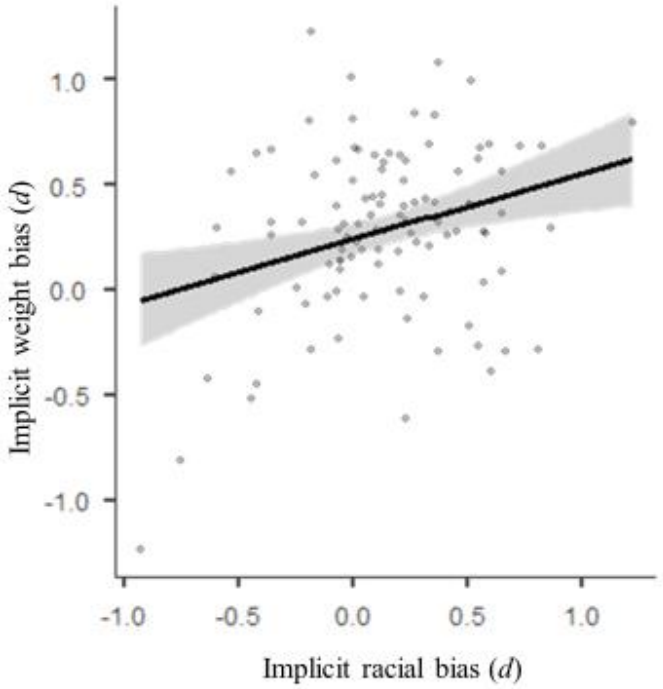

Figure 4: Participants completed a weight IAT and a race IAT, presented to them in a randomized order. There was a significant positive correlation between implicit racial bias and implicit weight bias (r= 0.29, $p < .002$)

Does race and ethnic identity predict implicit weight bias?

To test whether race and MEIM score predicted implicit weight bias, a factorial ANCOVA was conducted. There was no significant difference in implicit weight bias (F (1,102) = 0.60, $p > 0.44$) between white and non-white participants while adjusting for MEIM score.

Does BMI and race predict implicit weight bias?

Multiple linear regression was used to determine whether BMI and race predicted implicit weight bias. Nineteen participants were excluded in this analysis for having used incorrect units for height and weight. That left a total of 87 participants in the BMI exploratory analysis. BMI was computed using the formula below:

$$\frac{\text{(weight in pounds x 703)}}{\text{height in inches}^2}$$

The overall model was marginally significant (F (2,82) = 2.68, $p = 0.07$), with an adjusted R^2 of 0.06. Race was a significant predictor of implicit weight bias when controlling for BMI (b=0.24, $p < 0.05$), such that white participants scored lower in implicit weight bias than non-white participants (*Table 3*). The difference in implicit weight bias was not in the predicted direction.

Table 3

Adjusting for BMI in white and non-white participants' implicit weight bias

Predictor	**Estimate (*b*)**	**SE**	**t**	**p**
Intercept	0.147	0.17014	0.8626	0.391
BMI	-2.77×10^{-4}	0.00635	-0.0436	0.965
Race*	0.241	0.10402	2.3160	0.023

*Race was dummy coded as the difference between nonwhite and white participants. The predictor race variable was used to estimate nonwhite minus white participants' weight bias. Positive values indicate that nonwhite participants scored higher on implicit weight bias after controlling for BMI.

Do race and MEIM scores predict implicit racial bias?

To determine whether race and MEIM score predicted implicit racial bias an ANCOVA was conducted. There was no difference in weight bias between white and non-white participants (F (1,102) =1.71, $p > 0.20$) when adjusting for MEIM score.

Discussion

The study yielded some interesting and unexpected results. As predicted, there was a significant association between implicit racial bias and implicit weight bias. Higher levels of implicit racial bias were associated with higher levels of implicit weight bias. However, ethnic identity and race were not predictors of implicit weight and racial bias. Exploratory analyses provided deeper insight into the relationship between race and implicit bias, suggesting that BMI might be an important factor in between-group difference.

Ethnic Identity

Non-white participants scored significantly higher than white participants on the MEIM questionnaire. This suggests that non-white participants have stronger ethnic ties and participate more actively in cultural traditions. This also suggests that non-white participants attach more meaning to their ethnic identity and take greater pride in their cultural heritage.

Yet these results must be prefaced by addressing a major flaw of this study: participants were not given a concrete definition of ethnicity. It is possible that the differences in MEIM scores reflected different understandings of ethnicity. It is also possible that ethnicity was mistaken for race. Though ethnicity and race are entirely separate constructs, people commonly misunderstand the distinction. Race is largely dependent on physical characteristics, whereas ethnicity is based on tradition, nationality, language, and cultural heritage. Because ethnicity is

so deeply personal, it is harder to measure empirically. But it should not be disregarded entirely; ethnicity shapes perspective and is likely to affect sociocultural beliefs and values. In the present study, ethnic identity was not a significant predictor of implicit racial or weight bias.

Ethnic Identity and Implicit Weight Bias

There was no significant difference in implicit weight bias between white and non-white participants when adjusting for MEIM score. These results were inconsistent with a similar study which found that implicit bias was higher in white women who had stronger ethnic ties, whereas implicit bias was lower in black women who had stronger ethnic ties (Hartt, Sbrocco & Carter, 2016). There are several reasons why these results might have failed to replicate. Firstly, the present study used a sampling procedure that did not filter based on demographic characteristics. There were fewer participants in this study than in the Hartt, Sbrocco and Carter (2016) study, 106 and 517, respectively. Additionally, the ratio between white and non-white participants was unequal. About 75% of participants identified as white while only 25% identified as non-white. Furthermore, eligibility was not limited to black and non-Hispanic white participants. Non-white participants identified as Asian, Pacific Islander and Black.

Secondly, the study was not limited to the United States and included people of different gender identities. The thin ideal is most pervasive in the United States and other high-income industrialized countries (Rakhkovskaya & Warren, 2014). Participants of other nationalities might not share the same implicit attitudes about body size. Standards of physical attractiveness differ from country to country and change over time. They are also heavily gendered. The implications of this are that men and non-binary people are likely to hold different attitudes about body size than women.

Finally, it is possible that the MEIM questionnaire did not accurately measure ethnic identity, especially because participants were not provided with a concrete definition. The MEIM is also far from thorough. The questions cover several domains of culture and ethnicity yet are deliberately vague. This is because the MEIM was originally designed for children and young adults, who might lack a nuanced understanding of ethnic identity. The Cross Ethnic-Racial Identity Scale (CERIS-A) is a more comprehensive instrument that measures ethnic identity much more in depth (Worrell, Mendoza-Denton & Wang, 2017). It is possible that the CERIS-A scale would yield more accurate measures of ethnic identity. This instrument should be considered in future research.

Ethnic Identity and Implicit Racial Bias

Though non-white participants scored significantly higher in ethnic identity, they did not differ from white participants in their levels of implicit racial bias. As mentioned above, it is possible that this result can be attributed to problems in how the MEIM was administered. Participants were not given a definition of ethnicity before completing the MEIM. Additionally, there is not much research on how ethnic identity affects implicit bias. More extensive research must be done before determining whether ethnic identity is even related to bias at all.

BMI and Implicit Weight Bias

The research on BMI and implicit weight bias is mixed. While some studies suggest that people in the overweight or obese BMI category score lower in implicit weight bias than people in the normal category (Schwartz, Vartanian, Nosek & Brownell, 2006; Sabin, Marini & Nosek, 2012), other studies suggest no difference at all (Teachman & Brownell, 2001). Due to the lack of consensus on BMI and implicit weight bias, the present study chose only to investigate this in an exploratory analysis. Yet BMI ended up being a significant predictor of implicit weight bias

in this study, such that white participants scored significantly lower in implicit weight bias than non-white participants when adjusting for their BMI.

There are several important things to consider when addressing this result. Firstly, the sample size was reduced for the purposes of statistical analysis. Nineteen participants were excluded from the BMI analysis for entering incorrect units of height and weight. They were specifically instructed to use inches and pounds, yet several answers used centimeters and kilograms instead and had to be excluded. Secondly, it is likely that the participants who followed directions had fundamentally different characteristics than those that did not. Perhaps the sample in the BMI analysis was not representative of the study population. Finally, the ratio of non-white to white participants was skewed, such that non-white participants were significantly outnumbered by white participants. This study would have benefited from more robust sampling techniques, so that the ratio between white and non-white participants was roughly equal.

Conclusion

To fight systems of oppression, we must first understand how they overlap. The theory of intersectionality (Crenshaw, 1989) provides a framework for addressing the complex struggles of marginalized groups. The theory of intersectionality acknowledges that people are affected differently based on their overlapping identities. Given that anti-fat prejudice is rooted in white supremacy, it only makes sense to study it in an intersectional framework. This study measured both implicit weight bias and implicit racial bias because they are bound by similar ideologies. This is evidenced by symbolic racism theories, which explain how hatred of black people is motivated in part by what black people represent. Symbolic racism also strips black people of their humanity, and pathologizes the black body for being excessive in size or in sexuality.

Fat bodies are pathologized, too. The BMI scale places a disease label on anyone who exceeds the threshold for a "normal" bodyweight. It is true that people at the uppermost and lowermost ends of the BMI scale are probably at risk for disease and increased mortality. But body weight alone does not directly cause disease and should not be considered a proxy for health. The war against obesity is insulting to people whose natural body size places them in a category deemed "unacceptable" by the medical community. It is also highly ineffective. Anti-obesity campaigns treat weight management as a personal responsibility yet fail to address how the food and healthcare systems neglect people who are most at risk.

The solution to America's obesity problem is not bariatric surgery, restrictive diets, or regimented exercise, all of which are unsustainable and do not work long term. The real solution goes beyond obesity itself. Obesity is a symptom of a much bigger problem that must be addressed systemically, rather than individually. Obese individuals are not "failed" thin people. If there is anyone who has failed, it is the US healthcare system, which treats healthcare and disease prevention as a commodity instead of as a basic human right. Abandoning the healthcare needs of the marginalized is a form of institutional genocide that cannot be separated from white supremacy.

This study provided preliminary insight into the relationship between anti-fat prejudice and racism. It expanded upon the findings of a previous study by including a sample size with greater diversity, and by administering a race IAT and a weight IAT. Because implicit bias does not always predict behavior, future research should examine weight and racial discrimination in context, perhaps in a controlled laboratory setting. Further research should be intervention-based, rather than theory-based. It is crucial to pinpoint strategies that support the physical and mental health of people in marginalized bodies and reduce the discrimination they face in everyday life.

Appendix A1

The stimuli pictured above come from Brian Nosek's online repository and were used in the Project Implicit "race attitudes IAT". The pictures can be found on https://www.projectimplicit.net/nosek/stimuli/.

Appendix A2

The stimuli pictured above come from the Millisecond online repository in the "Weight IAT – Bodies" Folder. These can be found at https://www.millisecond.com/download/library/IAT/.

Appendix B

Multi-Group Ethnic Identity Measure

MEIM1. I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs. (Choose one)

1 Strongly Disagree
2 Disagree
3 In the Middle
4 Agree
5 Strongly Agree
8 Refuse to Answer

MEIM2. I am active in organizations or social groups that include mostly members of my own ethnic group. (Choose one)

1 Strongly Disagree
2 Disagree
3 In the Middle
4 Agree
5 Strongly Agree
8 Refuse to Answer

MEIM3. I have a clear sense of my ethnic background and what it means for me. (Choose one)

1 Strongly Disagree
2 Disagree
3 In the Middle
4 Agree
5 Strongly Agree
8 Refuse to Answer

MEIM4. I think a lot about how my life will be affected by my ethnic group membership. (Choose one)

1 Strongly Disagree
2 Disagree
3 In the Middle
4 Agree
5 Strongly Agree
8 Refuse to Answer

MEIM5. I am happy that I am a member of the group I belong to. (Choose one)

1 Strongly Disagree
2 Disagree
3 In the Middle

4 Agree
5 Strongly Agree
8 Refuse to Answer

MEIM6. I have a strong sense of belonging to my own ethnic group. (Choose one)

1 Strongly Disagree
2 Disagree
3 In the Middle
4 Agree
5 Strongly Agree
8 Refuse to Answer

MEIM7. I understand pretty well what my ethnic group membership means to me. (Choose one)
1 Strongly Disagree
2 Disagree
3 In the Middle
4 Agree
5 Strongly Agree
8 Refuse to Answer

MEIM8. In order to learn more about my ethnic background, I have often talked to other people about my ethnic group. (Choose one)

1 Strongly Disagree
2 Disagree
3 In the Middle
4 Agree
5 Strongly Agree
8 Refuse to Answer

MEIM9. I have a lot of pride in my ethnic group. (Choose one)

1 Strongly Disagree
2 Disagree
3 In the Middle
4 Agree
5 Strongly Agree
8 Refuse to Answer

MEIM10. I participate in cultural practices of my own group, such as special food, music, or customs. (Choose one)
1 Strongly Disagree
2 Disagree
3 In the Middle
4 Agree

5 Strongly Agree
8 Refuse to Answer

MEIM11. I feel a strong attachment towards my own ethnic group. (Choose one)

1 Strongly Disagree
2 Disagree
3 In the Middle
4 Agree
5 Strongly Agree
8 Refuse to Answer

MEIM12. I feel good about my cultural or ethnic background. (Choose one)

1 Strongly Disagree
2 Disagree
3 In the Middle
4 Agree
5 Strongly Agree
8 Refuse to Answer

Appendix C

Demographic Questionnaire

1. *What is your age (in years)?*
2. *What is your gender identity?*

a. Female

b. Male

c. Non-binary or gender nonconforming

d. Other

3. *What is your race?*

a. American Indian or Alaska Native: a person who traces their origins to the indigeneous peoples of North, South and Central America, and who maintains tribal affiliation or community attachment.

b. Asian: a person who traces their origins to the Far East, Southeast Asia, or the Indian subcontinent including Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.

c. Black or African American: a person who traces their origins to any black racial groups of Africa. This includes terms such as "Haitian" or "Negro", which can be used in addition to "Black or African American".

d. Native Hawaiian or Other Pacific Islander: a person who traces their origins to the indigeneous people of Hawaii, Guam, Samoa or any other Pacficic Islands.

e. White: a person who traces their origins to Europe, the Middle East, or North Africa.

4. *What is your height (in inches)?*

5. *What is your weight (in lbs.)?*

Appendix D

INFORMED CONSENT AGREEMENT

Title: The Intersectionality of Anti-Fat Prejudice
Researcher: Lily Moerschel
Institution: Bard College

Background: I am interested in how racial bias relates to anti-fat bias and ethnic identity.

What you will do in the study: You will take two online tests that will measure your attitudes on race and weight. You will then complete a short demographic questionnaire, followed by the Multigroup Ethnic Identity Measure (MEIM). The MEIM is a 12 item questionnaire that measures the degree to which you identify with your ethnic group. After completing the two online tests, demographic questionnaire and MEIM, you will be guided through a short debriefing session, where you will receive more information about the study's hypothesis. The entire process should take approximately 25-30 minutes.

Risks and Benefits:
Risks: Because this study is administered online, you will not experience any physical harm. You will most likely not experience psychological harm, either. It is possible that you might feel mild discomfort answering some of the questions on the online tests, since these tests assess your racial and weight biases. You will also be asked to report your height and weight on the demographic questionnaire. This can make some people uncomfortable. Your online test scores, demographic questionnaire and MEIM data will be kept confidential, and will not be associated with any personal identifiers, such as your name or date of birth. All of your data will be stored in a password protected file on a computer.
Benefits: You will not receive any direct benefits from participating in this study. Your participation is an important contribution to our study of human behavior.

Compensation: You will be compensated $0.50 via MTurk.

Your rights as a participant: Your participation is completely voluntary. You may withdraw from the study at any point if you wish to do so, and you will not be penalized in any way. However, you will only receive monetary compensation if you complete the study in its entirety. Your demographic information and survey answers will be kept confidential. After completing the study, you will be led through a short debriefing session, in which you will be given additional information on the study.

Contact: If you have any questions or concerns related to the study, you can contact Lily Moerschel (lm3807@bard.edu). You may also contact Dr. Frank Scalzo (scalzo@bard.edu), who is overseeing the research, and/or the Bard College Institutional Review Board (irb@bard.edu).

By continuing, I agree to the following:
I understand what the study is about, and my questions so far have been answered.
I agree to take part in this study.
I confirm that I am at least 18 years of age

Appendix E

Debriefing Statement

Thank you for participating in this study. The goal of the study is to examine how anti-fat bias relates to racial bias and ethnic identity. The purpose of the study is twofold. First, the study assesses whether there is a correlation between anti-fat bias and racial bias. Secondly, if such a correlation exists, the study examines whether ethnic identity was a predictor variable. Ethnic identity, or the degree to which you identify with your ethnic group, was measured using the MEIM questionnaire.

Your participation in the study was an important contribution that will help myself and future researchers understand how anti-fat prejudice relates to other systems of oppression.

If you have any questions or concerns regarding your participation in the study, you can contact Lily Moerschel (lm3807@bard.edu) or Dr. Frank Scalzo (scalzo@bard.edu) . You can also reach out to the Bard Institutional Review Board (irb@bard.edu).\

Appendix F

Inquisit Syntax

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Demographic questionnaire
**************************************************************************************

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/ range = (18, 110)

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/ optionvalues = ("1", "2", "3", "4")

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/ options = ("American Indian or Alaska Native: a person who traces their origins to the indigeneous peoples of North, South and Central America, and who maintains tribal affiliation or community attachment.",

"Asian: a person who traces their origins to the Far East, Southeast Asia, or the Indian subcontinent including Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.",

"Black or African American: a person who traces their origins to any black racial groups of Africa. This includes terms such as 'Haitian' or 'Negro', which can be used in addition to 'Black or African American'.",

"Native Hawaiian or Other Pacific Islander: a person who traces their origins to the indigeneous people of Hawaii, Guam, Samoa or any other Pacficic Islands.",

"White: a person who traces their origins to Europe, the Middle East, or North Africa.")

/ optionvalues = ("Indigeneous", "Asian", "Black", "Pacific", "White")

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</textbox>

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/ caption = "What is your height (in inches)?"

/ mask = positiveinteger

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****MEIM**********

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/ range = (1,5)
/ increment = 1
/ labels = ("Strongly Disagree","Disagree","In the middle", "Agree", "Strongly Agree")
</slider>

<slider MEIM10>
/ caption = "I participate in cultural practices of my own group, such as special food,
music, or customs. (Choose one)"
/ range = (1,5)
/ increment = 1
/ labels = ("Strongly Disagree","Disagree","In the middle", "Agree", "Strongly Agree")
</slider>

<slider MEIM11>
/ caption = "I feel a strong attachment towards my own ethnic group. (Choose one)"
/ range = (1,5)
/ increment = 1
/ labels = ("Strongly Disagree","Disagree","In the middle", "Agree", "Strongly Agree")
</slider>

<slider MEIM12>
/ caption = "I feel good about my cultural or ethnic background. (Choose one)"
/ range = (1,5)
/ increment = 1
/ labels = ("Strongly Disagree","Disagree","In the middle", "Agree", "Strongly Agree")
</slider>

****COMMON IAT ELEMENTS****

Items

****

<item goodLabel> /1 = "Good" </item>

<item good> /1 = "Happy" /2 = "Wonderful" /3 = "Fantastic" /4 = "Pleasant" /5 = "Excellent"</item>

<text good> / items = good / fontstyle = ("Times New Roman", 5%) / txcolor = (black) </text>

<text goodLeft> / items = goodLabel / valign = top / halign = left / position = (5%, 19%) / txcolor = (black) / fontstyle = ("Times New Roman", 5%) </text>

<item badLabel> /1 = "Bad" </item>

<item bad> /1 = "Terrible" /2 = "Unacceptable" /3 = "Horrible" /4 = "Disgusting" /5 = "Awful" </item>

<text bad> / items = bad / fontstyle = ("Times New Roman", 5%) / txcolor = (black) </text>

<text badRight> / items = badLabel / valign = top / halign = right / position = (95%, 19%) / txcolor = (black) / fontstyle = ("Times New Roman", 5%) </text>

<text continue> / position = (50%,75%) /items = ("Press the Space Bar to Continue") / fontstyle = ("Times New Roman", 5%) </text>

<text error> / position = (50%, 25%) / items = ("X") / color = (255, 0, 0) / fontstyle = ("Times New Roman", 10%, true) </text>

<text orLeft> / items = ("or") / valign = top / halign = left / position = (5%, 12%) / txcolor = (83, 220, 63) / fontstyle = ("Times New Roman", 5%) </text>

<text orRight> / items = ("or") / valign = top / halign = right / position = (95%, 12%) / txcolor = (83, 220, 63) / fontstyle = ("Times New Roman", 5%) </text>

<text hite> / items = ("E key") / valign = top / halign = left/ position = (5%, 2%) / txcolor = (255, 0, 0) / fontstyle = ("Times New Roman", 3%) </text>

<text hiti> / items = ("I key") / valign = top / halign = right / position = (95%, 2%) / txcolor = (255, 0, 0) / fontstyle = ("Times New Roman", 3%) </text>

****

INSTRUCTIONS

****

<picture instructions1>

/ items = ("sproj instructions.jpg")

</picture>

****

Trials

****

<trial goodLeft> / validresponse = ("E", "I") / correctresponse = ("E") / stimulusframes = [1 = good] / posttrialpause = 250 </trial>

<trial badRight> / validresponse = ("E", "I") / correctresponse = ("I") / stimulusframes = [1 = bad] / posttrialpause = 250 </trial>

<trial continue> / validresponse = (" ") / correctresponse = (" ") / stimulusframes = [1 = continue] / posttrialpause = 250 </trial>

<trial instruct1> / validresponse = (" ") / correctresponse = (" ") / stimulusframes = [1 = instructions1] / posttrialpause = 250 </trial>

<item mturk> /1 = "Please enter your mturk ID" </item>

<text mturk> / items = mturk/ valign = top / halign = center / position = (50%, 30%) / txcolor =(black) </text>

<openended mturk> /required=true /size=(1000,30) /stimulusframes=[1=mturk] </openended>

****

Blocks

****

<block instructions> / response = correct / trials = [1=mturk; 2 = instruct1] </block>

<text end1>

/color = (0,64,0) /font = ("Times New Roman", -40, 400, 0, 18)

/numitems = 1 /items = end1 /select = noreplace / position = (50%, 20%) </text>

<text end2>

/color = (0,64,0) /font = ("Times New Roman", -40, 400, 0, 18)

/numitems = 1 /items = end2 /select = noreplace /position = (50%,50%) </text>

<item end1>

/1 = "Please return to Mechanical Turk and enter the code below."

</item>

<item end2>

/1 = "END 2."

</item>

<trial end1>

/stimulusframes = [1 = end1]

/ validresponse = (" ")

</trial>

<trial end2>

/stimulusframes = [1 = end2]

/ validresponse = (" ")

</trial>

<block end>

/ trials=[1=end2]

/bgstim = (end1)

</block>

**********CHANGE**********

<text change>

/color = (0,64,0) /font = ("Times New Roman", -40, 400, 0, 18)

/numitems = 1 /items = change /select = noreplace </text>

<item change>

/1 = "You will now complete a similar task, but some of categories have changed."

</item>

<trial change>

/ stimulusframes = [1 = change]

/ validresponse = (" ")

</trial>

<block change>

/trials = [1 =change]

</block>

****RACE IAT****

****

ITEMS

****

<item Whitelabel> /1 = "White" </item>

<item White> /1 = "wf2_nc.jpg" /2 = "wf3_nc.jpg" /3 = "wf6_nc.jpg" /4 = "wm1_nc.jpg" /5 = "wm4_nc.jpg" /6 = "wm6_nc.jpg" </item>

<picture White> / items = White / position = (50%,50%) </picture>

<text WhiteLeft> / items = WhiteLabel / valign = top / halign = left / position = (5%, 5%) / txcolor = (blue) / fontstyle = ("Times New Roman", 5%) </text>

<text WhiteRight> / items = WhiteLabel / valign = top / halign = right / position = (95%, 5%) / txcolor = (blue) / fontstyle = ("Times New Roman", 5%) </text>

<item BlackLabel> /1 = "Black" </item>

<item Black> /1 = "bf14_nc.jpg" /2 = "bf23_nc.jpg" /3 = "bf56_nc.jpg" /4 = "bm14_nc.jpg" /5 = "bm23_nc.jpg" /6 = "bm56_nc.jpg" </item>

<picture Black> / items = Black / position = (50%,50%) </picture>

<text BlackLeft> / items = BlackLabel / valign = top / halign = left / position = (5%, 5%) / txcolor = (blue) / fontstyle = ("Times New Roman", 5%) </text>

<text BlackRight> / items = BlackLabel / valign = top / halign = right / position = (95%, 5%) / txcolor = (blue) / fontstyle = ("Times New Roman", 5%) </text>

****

TRIALS

****

<trial BlackLeft> / validresponse = ("E", "I") / correctresponse = ("E") / stimulusframes = [1 = Black] / posttrialpause = 250 </trial>

<trial BlackRight> / validresponse = ("E", "I") / correctresponse = ("I") / stimulusframes = [1 = Black] / posttrialpause = 250 </trial>

<trial WhiteLeft> / validresponse = ("E", "I") / correctresponse = ("E") / stimulusframes = [1 = White] / posttrialpause = 250 </trial>

<trial WhiteRight> / validresponse = ("E", "I") / correctresponse = ("I") / stimulusframes = [1 = White] / posttrialpause = 250 </trial>

****

BLOCKS

****

White vs Black

<block White_Black_20> /bgstim = (WhiteLeft, BlackRight, hite, hiti) /response = correct / trials = [1 = continue; 2-21 = random (WhiteLeft, BlackRight)]

/ errormessage = true(error, 200) </block>

<block White_Black_40> /bgstim = (WhiteLeft, BlackRight, hite, hiti) /response = correct / trials = [1 = continue; 2-41 = random (WhiteLeft, BlackRight)]

/ errormessage = true(error, 200) </block>

<block Black_White_20> /bgstim = (WhiteRight, BlackLeft, hite, hiti) /response = correct / trials = [1 = continue; 2-21 = random (WhiteRight, BlackLeft)]

/ errormessage = true(error, 200) </block>

<block Black_White_40> /bgstim = (WhiteRight, BlackLeft, hite, hiti) /response = correct / trials = [1 = continue; 2-41 = random (WhiteRight, BlackLeft)]

/ errormessage = true(error, 200) </block>

<block Good_Bad> /bgstim = (goodLeft, badRight, hite, hiti) /response = correct / trials = [1 = continue; 2-21 = random (goodLeft,badRight)] / errormessage = true(error, 200) </block>

<block WhiteGood_BlackBad_Practice> /bgstim = (WhiteLeft, BlackRight, goodLeft, badRight, hite, hiti, orRight, orLeft)

/response = correct / trials = [1 = continue;

2,4,6,8,10,12,14,16,18,20 = random(goodLeft,BadRight);

3,5,7,9,11,13,15,17,19,21 = random(WhiteLeft, BlackRight)]

/ errormessage = true(error, 200) </block>

<block WhiteGood_BlackBad_Critical> /bgstim = (WhiteLeft, BlackRight, goodLeft, badRight, hite, hiti, orRight, orLeft)

/response = correct

/ trials = [1 = continue;

2,4,6,8,10,12,14,16,18,20,22,24,26,28,30,32,34,36,38,40 = random(goodLeft,BadRight);

3,5,7,9,11,13,15,17,19,21,23,25,27,29,31,33,35,37,39,41 = random(WhiteLeft,BlackRight)]

/ errormessage = true(error, 200)

/ ontrialend = [

```
if(block.WhiteGood_BlackBad_Critical.latency  <= 10000) {
        values.rsum1b += block.WhiteGood_BlackBad_Critical.latency;
        values.rn1b += 1;
```

```
		values.rss1b += (block.WhiteGood_BlackBad_Critical.latency *
block.WhiteGood_BlackBad_Critical.latency);

		values.rn_correct += block.WhiteGood_BlackBad_Critical.correct;

	};


	if(block.WhiteGood_BlackBad_Critical.latency  < 300) {

		list.RT300.appenditem(1);

	} else {

		list.RT300.appenditem(0);

	};

]

</block>


<block BlackGood_WhiteBad_Practice> /bgstim = (WhiteRight, BlackLeft, goodLeft, badRight, hite, hiti, orRight,
orLeft)

/response = correct

/ trials = [1 = continue;

2,4,6,8,10,12,14,16,18,20 = random(goodLeft,BadRight);

3,5,7,9,11,13,15,17,19,21 = random(WhiteRight, BlackLeft)]

/ errormessage = true(error, 200) </block>


<block BlackGood_WhiteBad_Critical> /bgstim = (WhiteRight, BlackLeft, goodLeft, badRight, hite, hiti, orRight,
orLeft)

/response = correct

/ trials = [1 = continue;

2,4,6,8,10,12,14,16,18,20,22,24,26,28,30,32,34,36,38,40 = random(goodLeft,BadRight);

3,5,7,9,11,13,15,17,19,21,23,25,27,29,31,33,35,37,39,41 = random(WhiteRight, BlackLeft)]

/ errormessage = true(error, 200)

/ ontrialend = [

	if(block.BlackGood_WhiteBad_Critical.latency  <= 10000) {

		values.rsum2b += block.BlackGood_WhiteBad_Critical.latency;

		values.rn2b += 1;

		values.rss2b += (block.BlackGood_WhiteBad_Critical.latency *
block.BlackGood_WhiteBad_Critical.latency);

		values.rn_correct += block.BlackGood_WhiteBad_Critical.correct;
```

```
	};

	if(block.BlackGood_WhiteBad_Critical.latency  < 300) {
		list.RT300.appenditem(1);
	} else {
		list.RT300.appenditem(0);
	};
]

 </block>
```

WEIGHT IAT

****

ITEMS

****

<item ThinLabel> /1 = "Thin" </item>

<item Thin> /1 = "thinwoman1.jpg" /2 = "thinman1.jpg" /3 = "thinwoman2.jpg" /4 = "thinman2.jpg" /5 = "thinwoman3.jpg" /6 = "thinman3.jpg" /7 = "thinwoman4.jpg" /8 = "thinman4.jpg" /9 = "thinwoman5.jpg" /10 = "thinman5.jpg" /11 = "thinwoman6.jpg" /12 = "thinman6.jpg" </item>

<picture Thin> / items = Thin / position = (50%,50%) </picture>

<text ThinLeft> / items = ThinLabel / valign = top / halign = left / position = (5%, 5%) / txcolor = (blue) / fontstyle = ("Times New Roman", 5%) </text>

<text ThinRight> / items = ThinLabel / valign = top / halign = right / position = (95%, 5%) / txcolor = (blue) / fontstyle = ("Times New Roman", 5%) </text>

<item FatLabel> /1 = "Fat" </item>

<item Fat> /1 = "fatwoman1.jpg" /2 = "fatman1.jpg" /3 = "fatwoman2.jpg" /4 = "fatman2.jpg" /5 = "fatwoman3.jpg" /6 = "fatman3.jpg" /7 = "fatwoman4.jpg" /8 = "fatman4.jpg" /9 = "fatwoman5.jpg" /10 = "fatman5.jpg" /11 = "fatwoman6.jpg" /12 = "fatman6.jpg" </item>

<picture Fat> / items = Fat / position = (50%,50%) </picture>

<text FatLeft> / items = FatLabel / valign = top / halign = left / position = (5%, 5%) / txcolor = (blue) / fontstyle = ("Times New Roman", 5%) </text>

<text FatRight> / items = FatLabel / valign = top / halign = right / position = (95%, 5%) / txcolor = (blue) / fontstyle = ("Times New Roman", 5%) </text>

****

TRIALS

****

<trial ThinLeft> / validresponse = ("E", "I") / correctresponse = ("E") / stimulusframes = [1 = Thin] / posttrialpause = 250 </trial>

<trial ThinRight> / validresponse = ("E", "I") / correctresponse = ("I") / stimulusframes = [1 = Thin] / posttrialpause = 250 </trial>

<trial FatLeft> / validresponse = ("E", "I") / correctresponse = ("E") / stimulusframes = [1 = Fat] / posttrialpause = 250 </trial>

<trial FatRight> / validresponse = ("E", "I") / correctresponse = ("I") / stimulusframes = [1 = Fat] / posttrialpause = 250 </trial>

****

BLOCKS

****

Fat vs Thin

<block Fat_Thin_20_2> /bgstim = (ThinRight, FatLeft, hite, hiti) /response = correct

/ trials = [1 = continue; 2-21 = random (ThinRight, Fatleft)]

/ errormessage = true(error, 200) </block>

<block Fat_Thin_40_2> /bgstim = (ThinRight, FatLeft, hite, hiti) /response = correct

/ trials = [1 = continue; 2-41 = random (ThinRight, Fatleft)]

/ errormessage = true(error, 200) </block>

<block Thin_Fat_20_2> /bgstim = (ThinLeft, FatRight, hite, hiti) /response = correct

/ trials = [1 = continue; 2-21 = random (ThinLeft, FatRight)]

/ errormessage = true(error, 200) </block>

<block Thin_Fat_40_2> /bgstim = (ThinLeft, FatRight, hite, hiti) /response = correct

/ trials = [1 = continue; 2-41 = random (ThinLeft, FatRight)]

/ errormessage = true(error, 200) </block>

<block Good_Bad_2> /bgstim = (goodLeft, badRight, hite, hiti) /response = correct

/ trials = [1 = continue; 2-21 = random (goodLeft,badRight)] / errormessage = true(error, 200) </block>

```
<block ThinGood_FatBad_Practice_2> /bgstim = (ThinLeft, FatRight, goodLeft, badRight, hite, hiti, orRight, orLeft)

/response = correct / trials = [1 = continue;

2,4,6,8,10,12,14,16,18,20 = random(goodLeft,BadRight);

3,5,7,9,11,13,15,17,19,21 = random(ThinLeft,FatRight)]

/ errormessage = true(error, 200) </block>


<block ThinGood_FatBad_Critical_2> /bgstim = (ThinLeft, FatRight, goodLeft, badRight, hite, hiti, orRight, orLeft)

/response = correct

/ trials = [1 = continue;

2,4,6,8,10,12,14,16,18,20,22,24,26,28,30,32,34,36,38,40 = random(goodLeft,BadRight);

3,5,7,9,11,13,15,17,19,21,23,25,27,29,31,33,35,37,39,41 = random(ThinLeft,FatRight)]

/ errormessage = true(error, 200)

/ ontrialend = [

        if(block.ThinGood_FatBad_Critical_2.latency  <= 10000) {

                values.wgtsum1b += block.ThinGood_FatBad_Critical_2.latency;

                values.wgtn1b += 1;

                values.wgtss1b += (block.ThinGood_FatBad_Critical_2.latency *
block.ThinGood_FatBad_Critical_2.latency);

                values.wgtn_correct += block.ThinGood_FatBad_Critical_2.correct;

        };


        if(block.ThinGood_FatBad_Critical_2.latency  < 300) {

                list.RT300.appenditem(1);

        } else {

                list.RT300.appenditem(0);

        };

]


</block>


<block FatGood_ThinBad_Practice_2> /bgstim = (ThinRight, FatLeft, goodLeft, badRight, hite, hiti, orRight, orLeft)

/response = correct
```

```
/ trials = [1 = continue;
2,4,6,8,10,12,14,16,18,20 = random(goodLeft,BadRight);
3,5,7,9,11,13,15,17,19,21 = random(ThinRight, FatLeft)]
/ errormessage = true(error, 200) </block>

<block FatGood_ThinBad_Critical_2> /bgstim = (ThinRight, FatLeft, goodLeft, badRight, hite, hiti, orRight, orLeft)
/response = correct
/ trials = [1 = continue;
2,4,6,8,10,12,14,16,18,20,22,24,26,28,30,32,34,36,38,40 = random(goodLeft,BadRight);
3,5,7,9,11,13,15,17,19,21,23,25,27,29,31,33,35,37,39,41 = random(ThinRight,FatLeft)]
/ errormessage = true(error, 200)
/ ontrialend = [
        if(block.FatGood_ThinBad_Critical_2.latency  <= 10000) {
                values.wgtsum2b += block.FatGood_ThinBad_Critical_2.latency;
                values.wgtn2b += 1;
                values.wgtss2b += (block.FatGood_ThinBad_Critical_2.latency *
block.FatGood_ThinBad_Critical_2.latency);
                values.wgtn_correct += block.FatGood_ThinBad_Critical_2.correct;
        };

        if(block.FatGood_ThinBad_Critical_2.latency  < 300) {
                list.RT300.appenditem(1);
        } else {
                list.RT300.appenditem(0);
        };
]

 </block>/
**********DATA**********
<data>
/ columns = (build, computer.platform, date, time, subject, group, script.sessionid, blockcode, blocknum,
trialcode, trialnum, values.conditionOrder,
response, correct, latency,
```

stimulusnumber, stimulusitem,

expressions.wgtd, expressions.wgtpercentcorrect, expressions.rd, expressions.rpercentcorrect,

expressions.propRT300, expressions.excludeCriteriaMet)

</data>

<summarydata>

/ columns = (computer.platform, script.startdate, script.starttime, script.subjectid, script.groupid, script.sessionid, script.elapsedtime,

script.completed, values.conditionOrder,

expressions.wgtd, expressions.wgtpercentcorrect, expressions.rd, expressions.rpercentcorrect, expressions.propRT300, expressions.excludeCriteriaMet,

expressions.MEIMscore, expressions.age, expressions.gender, expressions.race1, expressions.race2, expressions.race3, expressions.race4, expressions.race5, expressions.weight, expressions.height)

</summarydata>

****

summary data

****

SUMMARY DATA WGT IAT

****

Note: expressions used to assign the correct label to the left and right response keys

<expressions>

```
/ wgtleftTarget = if(values.conditionOrder == "c-ic"){
        item.Thinlabel.item(1);
} else {
        item.Fatlabel.item(1);
};
/ wgtrightTarget = if (values.conditionOrder == "c-ic"){
        item.Fatlabel.item(1);
} else {
        item.Thinlabel.item(1);
};
/ wgtm1b = values.wgtsum1b / values.wgtn1b
```

/ wgtm2b = values.wgtsum2b / values.wgtn2b

/ wgtsd1b = sqrt((values.wgtss1b - (values.wgtn1b * (expressions.wgtm1b * expressions.wgtm1b))) / (values.wgtn1b - 1))

/ wgtsd2b = sqrt((values.wgtss2b - (values.wgtn2b * (expressions.wgtm2b * expressions.wgtm2b))) / (values.wgtn2b - 1))

/ wgtsdb = sqrt((((values.wgtn1b - 1) * (expressions.wgtsd1b * expressions.wgtsd1b) + (values.wgtn2b - 1) * (expressions.wgtsd2b * expressions.wgtsd2b)) + ((values.wgtn1b + values.wgtn2b) * ((expressions.wgtm1b - expressions.wgtm2b) * (expressions.wgtm1b - expressions.wgtm2b)) / 4)) / (values.wgtn1b + values.wgtn2b - 1))

/ wgtd = (expressions.wgtm2b - expressions.wgtm1b) / expressions.wgtsdb

/ wgtpercentcorrect = (values.wgtn_correct/ (values.wgtn1b + values.wgtn2b)) * 100

/progress = 1% * values.progresswidth

/propRT300 = list.RT300.mean

/excludeCriteriaMet = if (expressions.propRT300 > 0.1){

1;

} else {

0;

}

</expressions>

<values>

/ wgtsum1b = 0

/ wgtsum2b = 0

/ wgtn1b = 0

/ wgtn2b = 0

/ wgtss1b = 0

/ wgtss2b = 0

/ wgtmagnitude = "unknown"

/ wgtpreferred = "unknown"

/ wgtnotpreferred = "unknown"

/ wgtn_correct = 0

/progresswidth = 0

/instructionIndex = 0

/conditionOrder = ""

</values>

Note: list stores 1 for latencies < 300ms (0 otherwise)

<list RT300>

</list>

<list MEIM>

</list>

<list age>

</list>

<list gender>

</list>

<list race>

</list>

<list weight>

</list>

<list height>

</list>

****

SUMMARY DATA RACE IAT

****

Note: expressions used to assign the correct label to the left and right response keys

<expressions>

```
/ rleftTarget = if(values.conditionOrder == "c-ic"){
        item.Whitelabel.item(1);
} else {
        item.Blacklabel.item(1);
};
```

/ rrightTarget = if (values.conditionOrder == "c-ic"){

item.Blacklabel.item(1);

} else {

item.Whitelabel.item(1);

};

/ rm1b = values.rsum1b / values.rn1b

/ rm2b = values.rsum2b / values.rn2b

/ rsd1b = sqrt((values.rss1b - (values.rn1b * (expressions.rm1b * expressions.rm1b))) / (values.rn1b - 1))

/ rsd2b = sqrt((values.rss2b - (values.rn2b * (expressions.rm2b * expressions.rm2b))) / (values.rn2b - 1))

/ rsdb = sqrt((((values.rn1b - 1) * (expressions.rsd1b * expressions.rsd1b) + (values.rn2b - 1) * (expressions.rsd2b * expressions.rsd2b)) + ((values.rn1b + values.rn2b) * ((expressions.rm1b - expressions.rm2b) * (expressions.rm1b - expressions.rm2b)) / 4)) / (values.rn1b + values.rn2b - 1))

/ rd = (expressions.rm2b - expressions.rm1b) / expressions.rsdb

/ rpercentcorrect = (values.rn_correct/ (values.rn1b + values.rn2b)) * 100

/ MEIMscore = list.MEIM.mean

/ age = list.age.items.1

/ gender = list.gender.items.1

/ race1 = list.race.items.1

/ race2 = list.race.items.2

/ race3 = list.race.items.3

/ race4 = list.race.items.4

/ race5 = list.race.items.5

/ weight = list.weight.items.1

/ height = list.height.items.1

</expressions>

<values>

/ rsum1b = 0

/ rsum2b = 0

/ rn1b = 0

/ rn2b = 0

/ rss1b = 0

/ rss2b = 0

/ rmagnitude = "unknown"

/ rpreferred = "unknown"

/ rnotpreferred = "unknown"

/ rn_correct = 0

/rconditionOrder = ""

</values>

Note: list stores 1 for latencies < 300ms (0 otherwise)

Incompatible, Wgt First

****

<expt>

/subjects = (1 of 4)

/blocks = [1 = instructions; 2 = Fat_Thin_20_2;

3 = Good_Bad_2;

4 = FatGood_ThinBad_Practice_2;

5 = FatGood_ThinBad_Critical_2;

6 = Thin_Fat_40_2;

7 = ThinGood_FatBad_Practice_2;

8 = ThinGood_FatBad_Critical_2;

9 = change;

10 = Black_White_20;

11 = BlackGood_WhiteBad_Practice;

12 = BlackGood_WhiteBad_Critical;

13 = White_Black_40;

14 = WhiteGood_BlackBad_Practice;

15 = WhiteGood_BlackBad_Critical;

16 = endquestions

]

</expt>

Incompatible, Race First********

<expt>

/subjects= (2 of 4)

/blocks = [1 = instructions;

2 = Black_White_20;

3 = Good_Bad;

4 = BlackGood_WhiteBad_Practice;

5 = BlackGood_WhiteBad_Critical;

6 = White_Black_40;

7 = WhiteGood_BlackBad_Practice;

8 = WhiteGood_BlackBad_Critical;

9 = change;

10 = Fat_Thin_20_2;

11 = FatGood_ThinBad_Practice_2;

12 = FatGood_ThinBad_Critical_2;

13 = Thin_Fat_40_2;

14 = ThinGood_FatBad_Practice_2;

15 = ThinGood_FatBad_Critical_2;

16 = endquestions

]

</expt>

Compatible, Wgt First********

<expt>

/subjects = (3 of 4)

/blocks= [1 = instructions; 2 = Thin_Fat_20_2;

3 = Good_Bad_2;

4 = ThinGood_FatBad_Practice_2;

5 = ThinGood_FatBad_Critical_2;

6 = Fat_Thin_40_2;

7 = FatGood_ThinBad_Practice_2;

8 = FatGood_ThinBad_Critical_2;

9 = change;

10 = White_Black_20;

11 = WhiteGood_BlackBad_Practice;

12 = WhiteGood_BlackBad_Critical;

13 = Black_White_40;

14 = BlackGood_WhiteBad_Practice;

15 = BlackGood_WhiteBad_Critical;

16 = endquestions

]

</expt>

Compatible, Race First********

<expt>

/subjects = (4 of 4)

/blocks = [1 = instructions; 2 = White_Black_20;

3 = Good_Bad;

4 = WhiteGood_BlackBad_Practice;

5 = WhiteGood_BlackBad_Critical;

6 = Black_White_40;

7 = BlackGood_WhiteBad_Practice;

8 = BlackGood_WhiteBad_Critical;

9 = change;

10 = Thin_Fat_20_2;

11 = ThinGood_FatBad_Practice_2;

12 = ThinGood_FatBad_Critical_2;

13 = Fat_Thin_40_2;

14 = FatGood_ThinBad_Practice_2;

15 = FatGood_ThinBad_Critical_2;

16 = endquestions]

</expt>

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