Effect of Language on Perceptions of People with Disabilities and People Experiencing Poverty

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Abstract

Background: Language is powerful. We must be intentional about how we label others, as language can either perpetuate or combat power dynamics. There is no current consensus on exactly what language best upholds the dignity of labelled communities, however. This study aims to explore how language differentially affects perceptions of labelled communities, specifically people with disabilities and people experiencing poverty. This is to promote an informed decision on language norms while labelling traditionally disenfranchised communities.

Methodology: Participants read vignettes about disability and poverty with either identity-first language (disabled people, poor people) or person-first language (people with disabilities, people experiencing poverty), administered on MTurk ($N = 127$). Then, they reported the extent to which these communities are warm and competent, both from their own perspective and the perspective of society. They also reported the extent to which society blames and pities each of these populations for their conditions.

Results: Results showed that language exposure and community type did not significantly interact to affect perceived warmth or competence of these communities. Exploratory analyses suggest that there are marginal effects of language on perceptions of people experiencing poverty, however, with identity-first language being more detrimental to their perception. Exploratory analyses also suggested further studies should investigate in-group and out-group differences, and the mechanism behind why the differentiated effects of language may occur.

Conclusion: Further exploration is needed to understand the complexities behind the language we use to refer to both people with disabilities and people experiencing poverty. Exploratory analyses suggest that language may be impactful for resulting perceptions, but more nuanced evidence and stronger manipulation is needed.

Effect of Language on Perceptions of People with Disabilities and People Experiencing Poverty

Around the world, people with disabilities experience inequalities in domains including education, health, employment (World Health Organization, 2011). In the US, specifically, people with disabilities tend to experience more barriers to healthcare access, are more commonly victims to violent crime, have less access to internet, and are typically equipped with less emotional and social support than people without disabilities (Krahn, Walker, & Correa-De-Araujuo, 2015). This discrimination persists despite the widespread prevalence of disabilities, with approximately 26% of the US adult population having a form of a disability (CDC, 2020a). Another group that experiences a great deal of discrimination in the US are those experiencing poverty. Similar to disability, many people in the United States are affected by poverty. In 2019, 1 out of 10 Americans were experiencing poverty, using a poverty threshold of $26,172 for a family of four members (United States Census Bureau, 2020). Children who grow up in poverty are discriminated against in the fact that they are disadvantaged in their ability to avoid teen births, attain higher education, and prosper economically, hence perpetuating poverty's cyclical nature (Ratcliffe & Kalish, 2017). Consequently, treatment toward these two communities needs to be intentionally refined to mitigate the marginalization that is still occurring.

One way to decrease discrimination may be to thoughtfully consider the language used to refer to these communities. According to Vojak (2009), language has the ability to harm individuals' self-esteem and to influence the perception of people with decision-making power to allocate resources for the population of interest. This effect holds true even if the language is not blatantly negative, but is subtly stigmatizing, nonetheless (Vojak, 2009). Hence, the following study seeks to further understand the effects of language used to refer to the community of people with disabilities and population of people experiencing poverty. More specifically, this

research uniquely aims to discover how alterations in person-first language and identity-first language for people experiencing poverty and people with disabilities influences perceptions by out-group members.

Identifying Language

Prior research suggests that even seemingly small differences in how we identify groups of people can alter resulting perceptions. Hall, Phillips, and Townsend (2015) demonstrated this by showing differentially affected perceptions based on whether an individual was referred to as "Black" or "African American." Participants associated "African American" people with traits that were more warm, competent, positive, and high status compared to "Black" people. Participants also predicted that an individual labeled as "African American" would have a significantly higher salary, company position, status, and education level compared to an individual labeled as "Black." Evidently, it appears that labels have the power to shape perceptions. Gelman and Heyman (1999) found similar effects in children as young as 5 and 7 years old with even subtler changes in language. These researchers told participants vignettes about individuals with a unique behavior that was framed as either a noun (i.e. "carrot eater") or an adjective (i.e. "eats carrots whenever she can"). Children were more likely to perceive behavior as more stable if they were presented with the behavior as a noun, showing how even the slightest alterations in the way we describe people has important implications.

Two different ways in which identifying language can be categorized is by person-first language (PFL) or identity-first language (IFL). Person-first language states a characteristic after the individual (ex: people experiencing poverty, people with a disability), whereas identity-first language places the characteristic in front of the individual (ex: poor person, disabled person). For people with disabilities, specifically, the Center for Disease Control and Prevention (2020)

deems that person-first language, “emphasizes the person first, not the disability.” PFL frames the attribute as a neutral characteristic that focuses attention on social factors contributing to the marginalization of a population as a result of their attribute. While person-first language may seem unnaturally slow, this is intended to slow the writer or speaker so that the attribute is intentionally thought about as a social construct (Dunn & Andrews, 2015). On the other hand, identity-first language more strongly establishes the attribute as a component of the individual. One’s inclination to be identified with IFL may also reflect the degree to which they consider the attribute as a part of their core identity (Dunn & Andrews, 2015). While Dunn and Andrews (2015) discussed IFL and PFL in the context of disability, their synthesis is relevant to the community of people experiencing poverty, as well.

A push for the use of person-first language arose with the disability-rights movement, with the philosophy that language, even syntax, is important for influencing the way people think about others (Ashcraft & Anthony, 2006). Howard Becker (2003) conceptualized this utilizing Labelling Theory, which states that deviance is created and exacerbated through social labels. When labelling an individual as disabled or poor, for example, Becker said that the deviant label starts to override all their other labels, and then society begins to treat these people differently. (Becker, 2003). Subsequently, people will begin to manifest and behave according to their prescribed labels (Becker, 2003; Asencio & Burke, 2011). As a result, society needs to be intentional about the language we use and the parts of language we emphasize when referring to others in order to protect the self-identify of traditionally marginalized groups and to moderate society’s resulting perceptions. In response to the theory behind language choices, organizations like the US Department of Justice universally adopted person-first language to refer to people with criminal backgrounds in recognition of how identity-first language can have harmful effects

for perceptions of this population (Denver, Pickett, & Bushway, 2017). Although theory supports this adoption and suggests that person-first language is the most dignifying way to refer to marginalized populations, there are more complexities to this argument.

Language in the Context of Disability

For people with disabilities, the research and opinions around person-first language verses identity-first language are quite varied. From a professional standpoint, person-first language is mandated by organizations like the Center for Disease Control and Prevention (CDC, 2020b) and the American Psychological Association for publications (APA Style, 2020). Among mental health nurses, there are many strong advocates for person-first language, stating that this language is vital for maintaining a positive and supportive environment in mental health recovery programs (Jensen et al., 2013). Even though Jensen et al. (2013) supported the use of person-first language, this recommendation was not empirically supported, relying more on professional experiences in the field. Other professionals, like Gernsbacher (2017), think that person-first language perpetuates stigma, as it is used more frequently to describe children with disabilities compared to children without disabilities. Gernsbacher (2017) found that only 11% of abstracts on Pub Med referring to children with and without disabilities used person-first language consistently to refer to both populations. This means that person-first language to describe people with disabilities may characterize them as different, hence, be more stigmatizing. Gernsbacher (2017) also noted that person-first language is used to describe more stigmatizing disabilities, like autism spectrum disorder. Consequently, it can be argued that person-first language can be used to describe only select individuals with disabilities in a way that seems unnatural, making them stand out in society in a negative way, solely through choice of identifying language.

People with disabilities themselves also report mixed opinions on preference for identifying language, which is further complicated by the broad spectrum of different types of disability. For example, Bury, Jellett, Spoor, and Hedley (2020) asked a sample of individuals on the autism spectrum to rank a series of identifying terms by their level of offensiveness and preference. Although no term was rated as highly offensive, the identity-first term "autistic" was particularly polarizing, as some participants rated it as their highest preference, while others rated it as the most offensive. The researchers observed that results tended to vary according to whether someone considered autism as a core part of their identity, in which case they tended to prefer identity-first language. If not, participants tended to prefer person-first language. Furthermore, Shakes and Cashin (2019) conducted a literature review on identifying language preferences for people on the autism spectrum. They saw a trend of people on the autism spectrum exhibiting a preference for identity first language (Autistic), but this was highly varied based on different contextual factors. Their literature review was small, however, summarizing only 16 articles, many of which had significant limitations, mostly related to sampling. This variation in results was also demonstrated in people with epilepsy, as over half of Croatian respondents with epilepsy preferred person-first language, but a quarter of participants did not exhibit a preference at all (Friedrich, Sruk, & Bielen, 2019). On the other hand, a strong stance in favor of identity-first language was taken by the National Federation for the Blind, and they still maintain this language today (Jernigan, 2009). Therefore, inconsistencies in language preferences in the field of disability are prevalent.

Researchers have not reached a consensus regarding the language that is best used to refer to people with disabilities based on empirical research that exists. Even the opinions of people with disabilities themselves are divided. To mitigate this divide, Dunn and Andrews

(2015) suggest that both language types should be adopted interchangeably. There is a gap in this decision-making process, however, as significantly less research exists about effects of disability language exposure on out-group perceptions, which is important for people with disabilities and professionals to know when deciding the best identifying language type to adopt. Shakes and Cashin (2020) conducted a discourse analysis of tweets during Autism Awareness month in 2018 and found that people on Twitter who used person-first language were more likely to portray autism as a disability and diagnosis. On the other hand, those who used identity-first language were more likely to portray those with autism as a marginalized group due to social structure, not as having a medical condition. This is telling as we should aim to construct an image of disabilities more consistent with the latter. Shakes and Cashin (2020) lack an experimental design, however, making it difficult to differentiate the nature of participants' relationship with autism. Consequently, there is a gap in the literature about identifying language effects for people with disabilities. The proposed research aims to explore this further.

Language in the Context of Poverty

Empirical literature on the effects of identity-first verses person- first language for individuals experiencing poverty is sparse compared to the literature about people with disabilities. Theoretically, however, the case is stronger for why person-first language is important for people experiencing poverty. Palmer (2018) explains that the most damaging labels are embedded in a negative social construct. For example, labels like "right-handed" are not harmful, because they do not hold a negative connotation at the structural level (Palmer, 2018). Being poor, however, does. People experiencing poverty have reported that others perceive them as having poor spending habits, as being a burden for taxpayers, and as undeserving of assistance (Reutter et al., 2009). Furthermore, McCormack (2004) explained the stigmatizing rhetoric

experienced by women receiving welfare assistance, especially women from mixed-income neighborhoods. Kidd (2007) found that even youth experiencing homelessness in Toronto and New York City often experience stigma and self-blame for their circumstances, which has detrimental effects on their mental health. While the disability literature shows that people with disabilities and others have mixed opinions on the extent to which a disability label should be embraced, the structural connotation for poverty seems to be overwhelmingly negative, supporting theories suggesting the importance of person-first language in this context. Rich (2017) adds that since many organizations in the effort to combat poverty and homelessness strive for a person-centered approach, person-first language (i.e. people experiencing homelessness, people experiencing poverty) would best align with these aims.

Putting theory into practice, the structural context for how society perceives people experiencing poverty led the American Salvation Army, for example, to adopt person-first language in their organization (Palmer, 2018). When the American Psychological Association released guidelines on how to refer to people experiencing poverty, they, too, encouraged the use of person-first language in the form of "persons from low-income and economically marginalized (LIEM) backgrounds," as opposed to "LIEM individuals" (American Psychological Association, 2019). Yet Palmer (2018) also notes that the people who manage labels in society tend to be prominent, high-class actors, not the people in the marginalized groups. So, again, more research is needed to garner the perspective of the labelled population themselves. We also need to understand the effects that manifest from changes in language norms, like by the American Salvation Army. More specifically, how are the perceptions and actions of out-group members affected by this subtle difference in language? For example, when Denver, Picket, and Bushway (2017) exposed out-group members to vignettes of people who conducted violent, non-

violent drug, and non-violent property crimes with either person- or crime-first language, identifying language only made a difference when predicting rates of recidivism for people who conducted violent crimes, and even then, the effect size was small. These results are more nuanced than theory suggests, so while it is important for language choice to be theoretically supported, its cascading effects should be empirically understood as well, which this research aims to further elucidate.

Warmth and Competence

One way to measure how identifying language affects out-group response is through their perceived warmth and competence of the identified population. Cuddy, Fiske and Glick (2007) described warmth and competence as "two universal dimensions of social cognition" (p. 77), making these two measures applicable when appraising communities of individuals. They posed that warmth is appraised first and is informational for the valence of an interpersonal judgement, whereas competence is important for the judgement's magnitude. Both judgements can be made in less than a second (Cuddy, Fiske, & Glick, 2007). Hall, Phillip, and Townsend (2015) applied these dimensions in their research and found differences in perceived warmth and competence based on whether a community was labelled as "Black" or "African American," suggesting that these measurements may be sensitive enough to pick up changes in perception just based on alteration of a label.

To validly measure warmth and competence, Fiske, Cuddy, Glick, and Xu (2002) devised a scale that derives measures of warmth based on characteristics like friendliness, helpfulness, and trustworthiness, and competence based on factors like intelligence and skill. Research in the past has suggested that "disabled people" are rated low in competence but high in warmth, whereas "poor black people," "poor white people," "welfare recipients," and "homeless people"

are rated low in both warmth and competence (Fiske et al., 2002). In a separate study, poor individuals were also found to have lower ratings of warmth and competence than people with cancer, even though people with cancer are traditionally classified as high in warmth but low in competence (Martinez, White, Shapiro, & Hebl, 2016).

These measures of warmth and competence culminate into the stereotype content model (SCM), which states that these dimensions of warmth and competence are fundamental to group stereotypes (Cuddy, Fiske, & Glick, 2008). Furthermore, this model posits that when groups, as opposed to individuals, are evaluated, it is common to be ranked low in one dimension but high in another, and the low-ranked dimension tends to perpetuate stigmatization (Cuddy, Fiske, & Glick, 2008). Populations traditionally ranked as incompetent and cold, like people receiving welfare, are expected to elicit contempt emotions, while communities traditionally ranked as incompetent and warm, like people with disabilities, are predicted to elicit pity from others (Cuddy, Fiske, & Glick, 2008).

While these measurements are helpful for gauging perceived characteristics for a population or person, it is important to not extrapolate behavioral or further cognitive implications from measures of warmth and competence, however. Although the SCM has been expanded into a "behavior from intergroup affect and stereotypes (BIAS) map," designed to theorize behavioral responses from ratings of warmth and competence, other research has raised doubts about measures of cognitive and behavioral implications (Cuddy, Fiske, & Glick, 2008). Boysen, Chicosky, and Delmore (2020), for example, demonstrated across five studies that perceived warmth and competence of people with mental illness partly explained increased reported dehumanization of this population, but it did not explain the full story. Plus, even though Martinez et al. (2016) found that people with cancer, who were rated in a separate study

as low in competence, faced more discrimination in the hiring process of a job, the causal link between perceived warmth and competence and discrimination was not drawn. Even if further behavioral and cognitive implications cannot be inferred from warmth and competence measures, these measures are still important to understanding out-group perception, which may eventually manifest as prejudice or unfair treatment toward the labelled groups.

The Proposed Study

While perceived warmth and competence have been explored for people with disabilities and people experiencing poverty before, this measure has yet to be used to look at the differential effects of person-first language (PFL) and identity-first language (IFL) within each community group. We do know, however, that the literature suggests that the valence surrounding identifying language type for people with disabilities, is more mixed than for people experiencing poverty. In order to further understand the differential effects of IFL and PFL on perceptions of these communities, the following study exposed participants to scenarios using either PFL or IFL for both people with disabilities and people experiencing poverty. Participants were asked to respond with the extent to which these communities as warm and competent, from both society's perspective and their own. For further exploratory analyses, they were also asked about the extent to which society blames and pities these populations for their situations.

It was hypothesized that the extent to which IFL, as opposed to PFL, decreases levels of perceived warmth and competence depends on the community type. For people experiencing poverty, IFL, as opposed to PFL, decreases perceived warmth and competence to a greater extent than people with disabilities. Furthermore, in a series of exploratory analyses, it was hypothesized that these results will differ according to whether someone is an in-group or out-group member of the labelled community. For each community type, identifying language was

not expected to be influential for in-group members, but for out-group members, IFL was expected to decrease perceived warmth and competence to a greater extent than PFL. Lastly, it was hypothesized that in exploratory analyses, the relationship between perceived warmth and competence and identifying language is mediated more strongly by pity for people with disabilities and blame for people experiencing poverty.

Method

Participants

A total of 127 participants were included in this study, according to a power analysis with 80% statistical power and small effect size ($d = 0.2$). Participants were recruited from MTurk, a crowdsourcing website ran by Amazon, which has been shown to be an effective tool to obtain diverse samples (Casler, Bickel, & Hackett, 2013). Two bot-detection check questions were included in the study to ensure participants were paying close attention to the study at hand. First, participants were asked to write 1-2 full sentences about what they did after they woke up in the morning. Then, they were shown four images of airplanes and one image of a bus and were asked to select which image was not an airplane. Participants who responded incoherently or inaccurately to either bot-detection question were removed from analyses. Demographic information including political ideology, gender, ethnicity, education level, primary language, and age were collected to ensure a diverse sample but will not be included in analyses. Upon completion, participants were compensated appropriately with $2.

Design/ Materials

This study utilized a 2 x 2 mixed factorial design. Exposure to language type (person-first language or identity-first language) was manipulated between subjects, while exposure to the

target population (disabled people or people experiencing poverty) was manipulated within subjects. The study was administered on MTurk, which has been shown to produce results comparable to in-person studies (Casler, Bickel, & Hackett, 2013).

Language type. Participants were randomly assigned to either view person-first language or identity-first language within a series of two vignettes (Refer to Appendix A). Participants received one neutral vignette about a community of people who are disabled, and one neutral vignette about a community that is poor, in a counterbalanced order. If they were in the identity-first language group, they read about "disabled people" and "poor people," whereas people in the person-first language group read about "people with disabilities" and "people experiencing poverty." The identifying language was the only part about the vignettes that changed within each community type. After reading a vignette, participants were asked, "What group of people was discussed in this text?" to reinforce participants' interactions with the manipulated identifying language (Refer to Appendix A).

Warmth and competence. After reading each community's respective vignettes, participants answered 9 questions about the extent to which they think society perceives each community as warm and competent (Refer to Appendix B). Questions were modified from the Warmth and Competence Scale by Fiske, Cuddy, Glick, and Xu (2002) to ask specifically about people with disabilities and people experiencing poverty, with language consistent with their identifying language condition. To determine perceived warmth, this scale includes subscales of tolerance, warmth, level of good nature, and sincerity. To determine perceived competence, this scale includes subscales of competence, confidence, independence, competitiveness, and intelligence. These measures of warmth and competence have been shown to be reliable with Cronbach alpha scores of $\alpha > .98$ for competence and $\alpha > .96$ for warmth (Kervyn, Fiske, &

Yzerbyt, 2013). Questions include “As viewed by society, how tolerant are people with disabilities,” and will be scored on a 5-point Likert scale from 1 (not at all) to 5 (extremely).

Attribution of blame and pity. In response to each vignette, participants were also asked to rate the extent to which society blames each community for their condition, and how much society pities each community (Refer to Appendix C). Questions were modified from the Blame and Pity subscales from the Attribution Questionnaire (AQ-27) by Corrigan et al. (2003) to ask about each community type from the perspective of society, not the individual. Each subscale has three questions, such as “How responsible does society think people with disabilities are for their present condition,” which will be rated on a scale of 1 (not at all) to 9 (very much). These subscales have been shown to have high reliability with Cronbach alpha scores of $\alpha = .79$ for pity and $\alpha = .70$ for blame (Corrigan et al., 2003).

Procedure

Participants completed this study via MTurk, an online crowdsourcing website. Participants who chose to complete this study first provided their informed consent (Refer to Appendix D). Participants received one vignette about the community of people with disabilities and one about the community of people experiencing poverty in a counterbalanced order. Each participant was also randomly assigned to either the identity-first language condition or person-first language condition. This corresponded with the identifying language they received within both vignettes (Refer to Appendix A). Once the first vignette appeared on the screen, participants were instructed to read the text, and had the opportunity to proceed whenever they were finished reading after 15 seconds.

After this vignette, participants completed a manipulation enforcement to further engage them with the identity language manipulation, meaning they were asked to recall the group of people discussed in the text (Refer to Appendix A). Next, they were asked 9 questions to measure the extent to which society perceives the warmth and competence of this group (Refer to Appendix B). Then they answered these same questions from their own perspective (Refer to Appendix B). Afterwards, they were also asked to rate the extent to which society would blame this community for their position, and the extent to which they would feel pity for each community (Refer to Appendix C). Participants then received a second vignette with the other community type, and the subsequent procedure was repeated.

After both vignettes, two bot-detection checks were included to ensure that the MTurk participants were carefully reading the study materials. This included a question asking the participants to write in complete sentences about what they did after waking up in the morning and a question asking them to identify which of five images did not show an airplane. They were also asked to report demographic information, including whether they have been diagnosed with a disability or identify with the disability community, their socioeconomic status, education level, political ideologies, gender, and ethnicity, age, and experience with the English language (Refer to Appendix E). At the end, participants were debriefed (Refer to Appendix F), thanked for their participation, and compensated appropriately with $2.

Results

The final sample consisted of 127 participants, 11 of whom reported to have a disability, and 95 of whom reported to have experienced poverty previously or currently. The sample consisted of 65.35% males (n = 83) and 34.65% females (n = 44). The majority of the sample was white (n = 102), and approximately half of the sample reported having a Bachelor's degree

(n = 64), while 23 participants had a High School Diploma or GED, 17 had a graduate degree, 15 had an Associate's degree, and 8 completed Vocational schooling. The mean age of the sample was 40.21 (SD = 12.43) years, and everyone in the sample reported English to be their first language. See Table 1 for further information on the distribution of sample characteristics depending on whether participants were exposed to the PFL (n = 62) or IFL (n = 65) condition throughout this study. There was not a significant difference in gender ($\chi2(1, N = 127) = 0.31$, p = .58), education level ($\chi2(1, N = 127) = 3.46$, p = .48), ethnicity ($\chi2(1, N = 127) = 2.93$, p = .57), disability community membership ($\chi2(1, N = 127) = 0.05$, p = .82), or impoverished community membership ($\chi2(1, N = 127) = 0.89$, p = .34) distribution across language conditions. There was also no significant different in age according to participants' language condition ($t(125) = 1.40$, p = .17, d = 0.24).

The main analyses investigated the hypothesis that exposure to IFL versus PFL would result in decreased levels of perceived warmth and competence of people experiencing poverty (poor people) or people with disabilities (disabled people). The magnitude of this decrease was expected to be greater for perception of people experiencing poverty versus people with disabilities. This relationship between community type and perceived warmth and competence according to language condition was visualized in Figure 1. Then, four 2 (Language: IFL, PFL) x 2 (Community Type: Disability, Poverty) Mixed Factorial ANOVAs were conducted to understand the effect of language and community type on perceived warmth and competence, both from participants' own perspectives and their perspective of society. See Table 2 for these results, which show that there was not a significant interaction effect between language and community type for perceived warmth from both the participant perspective ($F(1,249) = 3.75$, p = .05) and their belief about society's perspective ($F(1,251) = 1.44$, p = .23). There was also no

significant interaction effect between language and community type for perceived competence from both the participant perspective ($F(1,247) = .19$, $p = .66$) and society's perspective ($F(1,251) = .80$, $p = .40$). Figure 1 shows, however, that the difference between perceived warmth or competence when exposed to IFL versus PFL has a small to moderate effect size within select conditions, with participants exposed to IFL reporting lower perceived warmth and competence than participants exposed to PFL. This is particularly notable for perceived warmth and competence from participants' own perspectives for people experiencing poverty (poor people).

One factor that was hypothesized to be influential for these results was whether participants were in-group or out-group members for each community type. The hypothesized decrease in perceived warmth and competence of these populations while using IFL versus PFL was predicted to be greater for out-group member compared to in-group members. Although there were not enough in-group members for the disability community ($n = 11$) to support robust investigation, there was a relatively more even distribution of in-group and out-group members for the poverty condition, with 95 in-group members and 32 out-group members. Hence, an exploratory analysis of effect size for in-group and out-group differences for each outcome and poverty language conditions were first conducted to investigate whether there was statistical support for further research into in-group and out-group response differences. Effect sizes were calculated using Cohen's *d* (Refer to Figure 2). The wide 95% confidence intervals for each condition suggests that there is great ambiguity within each condition about the effect size for in-group versus out-group differences; suggesting that any in-group and out-group differences may be merely attributed to sampling error and this sample population is not robust enough to further

test in- and out-group differences. However, it was a noticeable trend that each of the point estimates were positive with a small to moderate effect size value.

For further exploratory analyses, mediation analyses were conducted to test the hypothesis that effects of language on perceived warmth and competence are most strongly mediated by pity for descriptions of people with disabilities and blame for people experiencing poverty. See Figure 3 for resulting multiple mediation models. None of the resulting models were strong predictors, as exemplified by the mean bootstrap indirect effect indicators included in Table 3. Figure 3 also suggests that blame was a stronger mediator for the relationship between language and perceived warmth and competence for the disability community, whereas pity was a stronger mediator for the community of people experiencing poverty.

Discussion

This study sought to understand how language shapes perception of two traditionally marginalized populations, people experiencing poverty/ poor people and people with disabilities/ disabled people. This aim stemmed from divisions in the current literature about what language should become normalized (Shakes & Cashin, 2019; Dunn & Andrews, 2015). Although there are current language guidelines established by higher level organizations (CDC, 2020b; APA style, 2020), it is important to maintain a critical lens, as Palmer (2018) asserts that people tend to accept this language without realizing the magnitude of their impact. Hence, this study contributes to the discourse pontificating how our words materialize into altered perception.

It was first hypothesized that when exposed to IFL, people would perceive each of these communities as less warm and competent compared to if they were exposed to PFL. The magnitude of this effect of language was predicted to be even stronger for people experiencing

poverty compared to people with disabilities. Contrary to this hypothesis, statistical analyses did not suggest that exposing participants to PFL versus IFL significantly influenced their perceived warmth or competence. This held true both when participants were asked to report their own perceptions and the perspective of society. Furthermore, this difference according to language was found to not significantly interact with the community type for neither perceived warmth nor competence. This is consistent with results by Martinelli et al. (2020), who did not find subtle language differences to affect healthcare professionals' stigmatization against people with alcohol addiction, drug addiction, depression, or schizophrenia. With limitations in their design, however, and other prior literature suggesting the potential power of language (Kelly & Westerhoff, 2010; Gelman & Heyes, 1999), it was worth diving further into the results with exploratory analyses to detect any existing marginal effects of language.

In these further exploratory analyses, it was found that the difference in perceived warmth and competence according to language exposure had a moderate effect size in the hypothesized direction for certain conditions. For example, there was a moderate effect size for the difference in perceived competence and warmth of people experiencing poverty from participants' own perspectives. For these same outcome conditions, there was a much smaller effect of language on perceptions of people with disabilities, albeit in the hypothesized direction. These differences in effect sizes according to community type were consistent for perceived warmth and competence from society's perspective. Hence, these exploratory results provide some support for the main hypothesis.

This suggests that there is a possibility that language could be influential for the way individuals and society view communities, particularly ones who are traditionally disenfranchised. This is consistent with prior literature suggesting that the mere manipulation of

syntax can have real effects on how we perceive others (Gelman & Heyes, 1999). Although this study only revealed a marginal impact of language, it is possible that the impact could be more pronounced in future studies with stronger language manipulation for longer durations.

One variable that could have influenced the results of the main analyses was participants' own identification with the disability and impoverished communities. There was concern that in-group individuals would be less affected by the language manipulation than out-group individuals. This hypothesis stemmed from social identity theory, when someone identifies with an in-group, they accentuate preferred group characteristics from their perspective (Giles & Giles, 2013). This may result in an in-group bias, where people tend to exhibit a preference for members of their own community in comparison to out-group members (Neto, 2015). For the purpose of this research, it is important to consider whether a preference could influence perceptions by in- and out-group members, and the extent to which this bias could have masked the influence of language. There are several factors that affect the extent of one's in-group bias, however, and it remains unknown whether this bias will carry over to affect evaluations of community warmth and competence (Schuhmacher & Kartner, 2019).

While there was not a sufficient sample of in-group members for the disability community, exploratory analyses were able to compare in-group and out-group responses for the community of people experiencing poverty. These results suggested that there is merit to further exploring these in- and out-group impacts on the effects of language with more a more robust dataset. Across each outcome measure and language condition, there was great uncertainty around the effect of group membership; however, the average effect size for in- and out- group differences was consistently positive. Hence, this is a trend that warrants further investigation with studies robustly designed to control for in- and out- group membership.

Defining in-group and out-group members can be nebulous, however, as both disability and socioeconomic status exist on a continuum. In this case, in-group members were defined by those who reported having a disability, and those who reported either currently identify or previously identified as someone in a low-income bracket. These are not necessarily dichotomous answers, however, and future studies should take into consideration the spectrum by which individuals identify with these labels. Socioeconomic status, in particular, can also be defined in different ways, so differences in measurement may lead to differences in results. So, in-group and out-group membership must be critically and intentionally designed. Future studies capturing in-group samples should be also careful to ensure they are representative, including those who may not typically have access or capability to complete online MTurk studies, as prior literature has cited exclusion by sampling methods as a frequent concern (Shakes & Cashin, 2019; Bury et al., 2020).

In addition to in-group and out-group membership, another level of complexity is one's relation to these groups. While someone may not have a disability or be experiencing poverty themselves, the membership of people within their social networks will likely influence their responses and the effect of language. For example, Shakes and Cashin (2020) found in their analysis of Twitter discourse that teachers, professionals, individuals with autism, and family members all had different experiences that informed their language preferences and their credibility in being able to make these language decisions. This may be because intergroup contact, or communication with out-group members, elicit more positive attitudes (Giles & Giles, 2013). Meaning, one's nuanced relation to people with disabilities or people experiencing poverty within their social network could have influenced their responses beyond the in-group out-group division.

No matter what demographic is being studies, it is essential to continue capturing the opinions of those who are labelled in language decisions (Botha et al., 2021). In addition to knowing the effects of language on perceptions of community members by both out-groups and in-group members, as explored by this research, it is also necessary to know what individuals in the labelled communities believes best maintains their dignity. As stated by Friedrich, Sruk, and Bielen (2019) and Bury, Spoor, and Hedley, (2020), there is merit to asking labelled individuals about their own opinions, given their observations of inconsistencies in language preferences in their own research. This also aligns with the motto of the global disability rights movement: "nothing about us without us" (Bartha & Smith, 2017). Yet still, there are policy documents, research articles, and media to be produced that require a consensus about the strategy of language. This research aims to fill in gaps about resulting perceptions to better inform that decision, but still acknowledges that those who are being labelled themselves ultimately should play the largest role in this discourse.

It was additionally predicted, subsequent to the main hypothesis, that the main effect of language on warmth and competence would be more strongly mediated by pity for people with disabilities and blame for people experiencing poverty. This analysis was merely exploratory, as the main hypothesis was not fully supported. Overall, the predicted multi-mediator models including pity and blame were not accurate representations of the relationship between language exposure and perceived warmth and competence. Interesting to note is that the strongest correlation of these mediation models is between language manipulation and blame for the disability scenarios, contrary to the initial hypothesis. This is inconsistent with current literature, which suggests that people described high in warmth and low in competence, like disabled

people, tend to elicit pity, while people low in both warmth and competence, like poor people, tend to prompt contempt (Cuddy, Fiske, & Glick, 2007; Fiske, Cuddy, Glick & Xu, 2002).

If pity and blame are not the supported mediators between language and perceived warmth and competence, then further research must be done to identify the accurate mechanism through which language was shown to marginally influence perception. Other attribution factors exist on the attribution scale employed in this study, such as anger, fear, helping, and coercion-segregation (Corrigan et al., 2003). By identifying fitting potential mechanisms in future research, then we can better understand the consequences of language that unintentionally engender bias toward people experiencing poverty and people with disabilities. Intervention measures and programs can then be designed to target the mediating factors that lead to biased perceptions as a result of unintentionally stigmatizing language.

Future studies may also consider variations in labels associated with each of these communities. For disability, this may include looking at different diagnoses (autistic or person on the autism spectrum; deaf person or person experiencing deafness) and for poverty, different socioeconomic indicators could be explored (homeless or person experiencing homelessness; welfare-recipient or person receiving welfare). Variations are expected to occur, as prior literature has shown great variation in preferred labels of people on the autism spectrum (Shakes & Cashin, 2019; Bury, Spoor, & Hedley, 2020), which may occur related to socioeconomic indicators, as well.

Beyond the outcome of perceived warmth and competence, we need to understand the extent to which this influences prejudice and discriminatory behavior. Though this field of language is sparse, the amount of research looking at language's effect on behavioral outcomes is even more rare (Martinez et al., 2016). Fiske, Cuddy, & Glick (2007) created the BIAS map to

depict how combinations of warmth and competence appraisals from their Stereotype Content Model tend to elicit certain behavioral responses. Warmth appraises are thought to predict active behavior, while competence behaviors are theorized to predict passive behavior (Cuddy et al., 2008). Palmer (2018) also asserts that perceptions and attitudes can be linked to behavior. Boysen, Chicosky, and Delmore (2020), on the other hand, exemplified that this Stereotype Content model cannot fully explain dehumanization processes of judged groups of people. Meaning, further research is needed to clarify the link between language, perception, and resulting behavior or discrimination to further gauge the severity of concern around language.

There are acknowledged limitations within this study. The exposure to language consisted of only one paragraph of text with five instances of language exposure, plus a write-in language manipulation reinforcement. Although this is the language that primed participants' thinking during their responses, the effect of the language manipulation on perceived warmth and competence was indubitably confounded by participants' preconceived notions of disability and poverty, affecting the internal validity of this study. While participants were required to reiterate the population they read about after each paragraph, it is also possible that participants did not read all five instances of language manipulation. Hence, results may have differed or been exacerbated if language exposure was manipulated over multiple occurrences or occurred more frequently within each occurrence. Furthermore, the emotional valence of the passages could have affected internal validity. Strong attempts were made to generate neutral passages containing the language manipulation. All text within each community type was kept the same aside from the language manipulation. It is likely that these passages were not completely neutral; however, and any stereotype enhancing language from the passages could have interacted with the language manipulation, affecting results. The self-report nature of this study

in response to questions about participants owns opinions could have also elicited dishonesty to mask explicit bias against either of these populations. Despite the anonymity of this study, people may have been discouraged to report their true perspective on the warmth and competence of either population. This study also asked about perceived warmth and competence from the perspective of society to mitigate this concern and detect implicit bias against these populations. While beliefs about society's perception are likely influenced by one's own implicit bias, this is not a definitively robust measure of implicit bias. It is also important to note in that the researcher herself is an out-group member for both communities investigated in this study. This positionality could potentially influence the study design or interpretation of the data analysis. Further commentary on the results of this study is welcome by in-group members to continue an understanding conversation about this important yet nebulous topic to reach the most optimal consensus about language.

This study was delivered on MTurk, which may raise concerns about the validity of the responses. Measures were taken to eliminate automated responses, however, and prior research has shown that results from MTurk often represent a diverse sample with results similar to those that would have been obtained through an in-person study (Casler, Bickel, & Hackett, 2013). The current sample, however, was disproportionately white, male and the majority received some form of higher education. The proportion of people currently or previously experiencing poverty were overrepresented in this sample (United States Census Bureau, 2020), while those with disabilities were underrepresented (CDC, 2020b), raising questions about the extent to which the results from this sample are generalizable. The mode of presentation of the language manipulation may have also impaired the external validity of these results. Participants read a block of text on a computer screen, which was an artificially controlled experience. In reality,

people are commonly exposed to language through television, conversation, radio, anecdotal articles, social media, and so on. Though effective at providing participants with a standardized exposure to the language manipulation in this study, this was not the most realistic or organic scenario to see if language exposure manifests into altered perceptions.

Despite these limitations, this study valuably contributes the fields of language, disability, and poverty, a nexus where current literature is sparse. With a single manipulation of language exposure, small effects were still seen on reported perceptions of warmth and competence. Imagine this exposure of language reinforced repeatedly through policy, media, and conversation. These results do not undermine the fact that language is powerful and can have materialized effects (Shattell, 2009; Vojak, 2009). Hence, we must be intentional and conscious of the impact our words have. Current literature is mixed on exactly what these intentional words are (Botha et al., 2021), which is only more reason for why further research should stem from this evidence. There may not be one overarching answer for the language used to refer to traditionally disenfranchised, as Shakes and Cashin (2019; 2020) advocate for context-driving language decisions. But this is more reason for further robust and nuanced research disaggregated by labelled communities. This study, though largely exploratory, prompts important questions about how we can communicate with and about others in a way that maintains their dignity to the utmost standard.

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Table 1

Demographic Characteristics According to Language Condition

Demographic Characteristics	**# Subjects Exposed to PFL language (*n* = 62)**	**# Subjects Exposed to IFL (*n* = 65)**
Gender		
Male	42	41
Female	20	24
Education		
High School/ GED	10	13
Associate's Degree	10	5
Vocational/ Trade School	4	4
Bachelor's Degree	32	32

Professional/ Grad Degree	6	11
Ethnicity		
White	51	59
Mixed	0	2
Black	6	9
Native American/ Alaskan Native	1	2
Asian American	4	1
Disability		
In Group	5	6
Out Group	57	59

Poverty		
In Group	44	41
Out Group	18	24

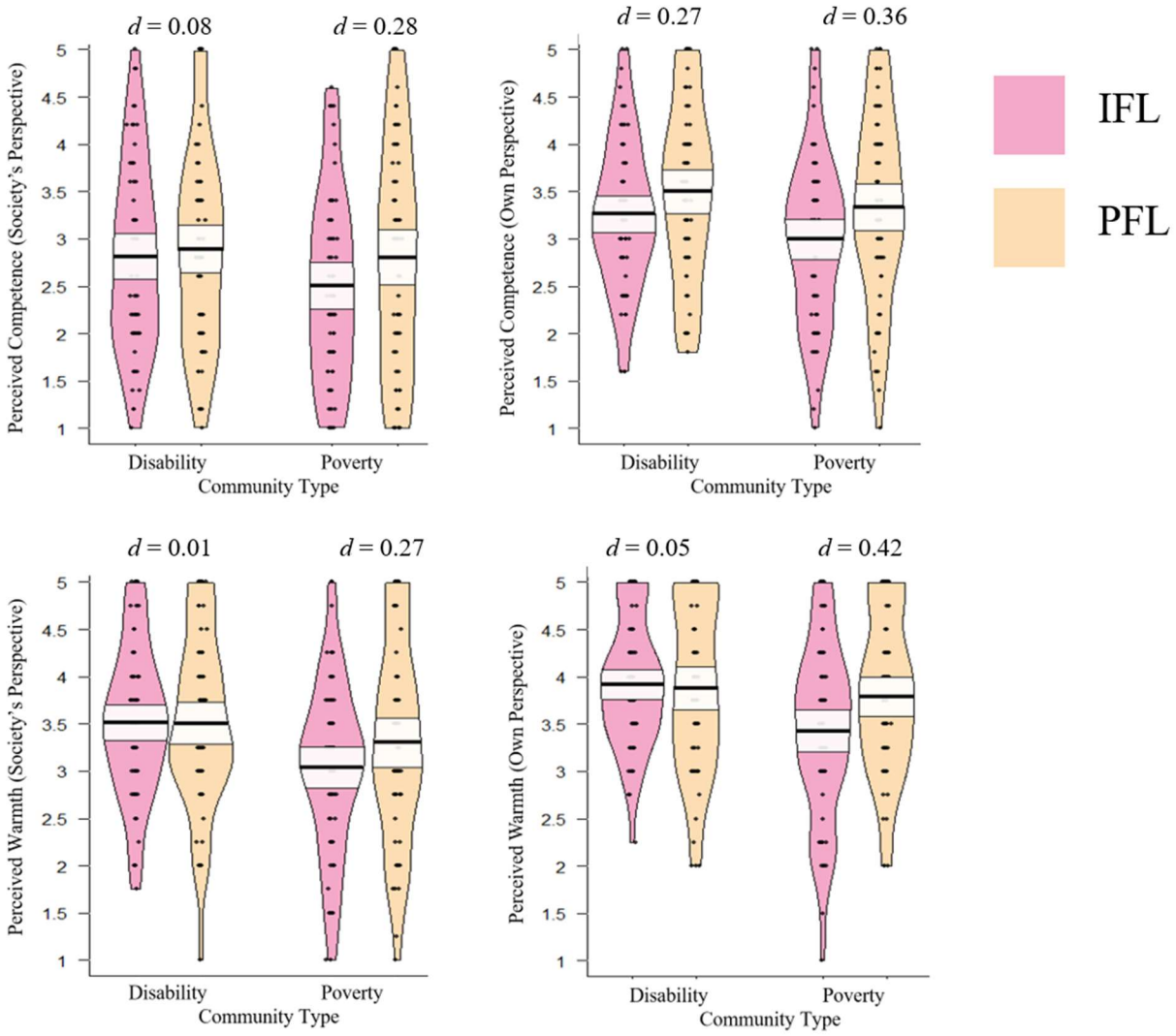

Figure 1. Perceived warmth and competence from the perspective of participants and society depending on the language condition (IFL or PFL) and community type (Disability or Poverty).

Table 2

2 x 2 Mixed Factorial ANOVA Analyzing Effect of Language and Community Group on Perceived Warmth and Competence

Measure	F	DF_1	DF_2	*p*
Warmth (Own Perspective)				
Language Condition	2.15	1	244	.14
Community Condition	2.66	1	244	.10
Language x Community Conditions	.16	1	244	.69
Warmth (Society's Perspective)				
Language Condition	2.15	1	244	.14
Community Condition	2.66	1	244	.10
Language x Community Conditions	0.16	1	244	.69
Competence (Own Perspective)				

Language Condition	2.15	1	244	.14
Community Condition	2.66	1	244	.10
Language x Community Conditions	.16	1	244	.69
Competence (Society's Perspective)				
Language Condition	.30	1	248	.58
Community Condition	2.60	1	248	.11
Language x Community Conditions	.59	1	248	.44

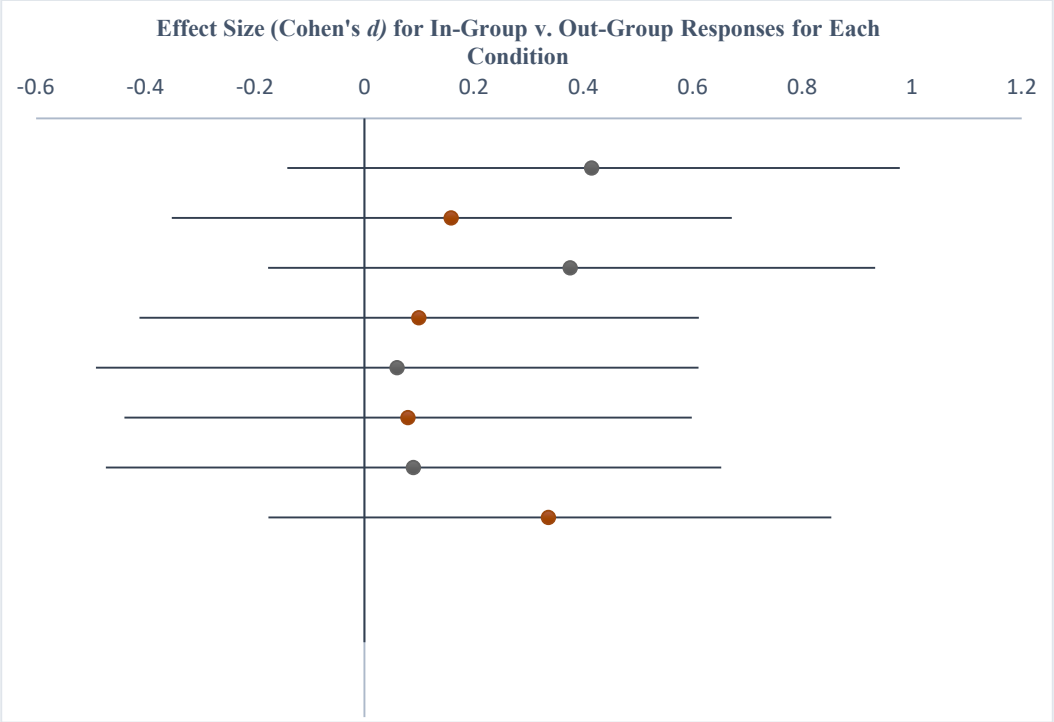

Figure 2. Effect size, measured by Cohen's *d,* for differences in responses between in-group and out-group members for each language condition and measured outcome. Bars represent 95% Confidence Intervals.

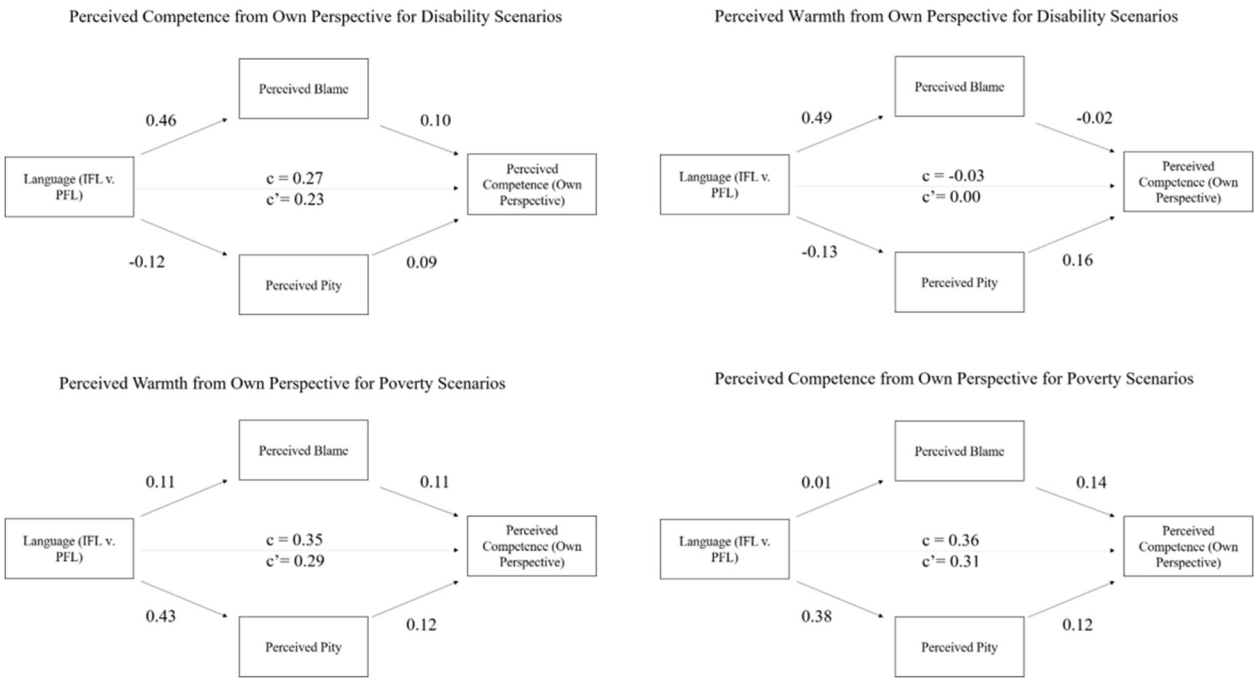

Figure 3. Multiple mediation models depicting the relationship between language exposure, perceived blame and pity, and perceived competence and warmth from participants' own perspective.

Table 3

Multiple Mediator Models Depicting Effect of Language on Participants' Perceived Warmth and Competence of People with Disabilities and People Experiencing Poverty Mediated by Perceived Blame and Pity

Models	Mean Bootstrapped Indirect Effect	Standard Error	CI
Poverty Language, Competence	.05	.06	-.06 - .19
Disability Language, Competence	.04	.05	-.06 - .15
Poverty Language, Warmth	-.03	.05	-.13 - .07
Disability Language, Warmth	.07	.06	-.04 - .20

Appendix A

Language Exposure

Please carefully read the following text. After 30 seconds, you will be shown an arrow. Click when you are ready to proceed.

Disability/ Identity-first language:
Disabled people often experience many differences compared to non-disabled people. Disabled people may experience physical, emotional, sensory, or neurological differences. Disabled people may have different experiences as they walk down the street, sit in a classroom, or work in a job. Disabled people live all over the world. There are several organizations and non-profits that work with disabled people to create an inclusive social network.

Disability/ Person-first language:
People with disabilities often experience many differences compared to people without disabilities. People with disabilities may experience physical, emotional, sensory, or neurological differences. People with disabilities may have different experiences as they walk down the street, sit in a classroom, or work in a job. People with disabilities live all over the world. There are several organizations and non-profits that work with people with disabilities to create an inclusive social network.

Poverty/ Identity-first language:
Poor people often experience many differences compared to non-poor people. Poor people have an income below a certain threshold or have less income than most people around them. Poor people may have different experiences as they walk through the grocery store, sit in a classroom, and plan their days. In cities, there tend to be more poor people compared to suburbs. There are several organizations and non-profits available to provide poor people with a place to sleep and give them the resources that they need.

Poverty/ Person-first language:
People experiencing poverty often experience many differences compared to people not experiencing poverty. People experiencing poverty have an income below a certain threshold or have less income than most people around them. People experiencing poverty may have different experiences as they walk through the grocery store, sit in a classroom, and plan their days. In cities, there tend to be more people experiencing poverty compared to suburbs. There are several organizations and non-profits available to provide people experiencing poverty with a place to sleep and give them the resources that they need.

[After the participant proceeds to the next screen] What group of people was discussed in this text?

Appendix B

Warmth and Competence Scale

Please answer the questions below on a scale of 1 (not at all) to 5 (extremely)

1. How competent are [community group with assigned identifying language] from the perspective of society?
2. How confident are [community group with assigned identifying language] from the perspective of society?
3. How independent are [community group with assigned identifying language] from the perspective of society?
4. How competitive are [community group with assigned identifying language] from the perspective of society?
5. How intelligent are [community group with assigned identifying language] from the perspective of society?
6. How tolerant are [community group with assigned identifying language] from the perspective of society?
7. How warm are [community group with assigned identifying language] from the perspective of society?
8. How good natured are [community group with assigned identifying language] from the perspective of society?
9. How sincere are [community group with assigned identifying language] from the perspective of society?

1. How competent are [community group with assigned identifying language] from your own perspective?
2. How confident are [community group with assigned identifying language] from your own perspective?
3. How independent are [community group with assigned identifying language] from your own perspective?
4. How competitive are [community group with assigned identifying language] from your own perspective?
5. How intelligent are [community group with assigned identifying language] from your own perspective?
6. How tolerant are [community group with assigned identifying language] from your own perspective?
7. How warm are [community group with assigned identifying language] from your own perspective?
8. How good natured are [community group with assigned identifying language] from your own perspective?
9. How sincere are [community group with assigned identifying language] from your own perspective?

Appendix C

Attribution Scale

Please respond to the prompts below on a scale of 1 (none at all) to 9 (very much).

1. Society would view [community group with assigned identifying language] at fault that they are in their present condition.
2. How controllable, would society think, is the cause of [community group with assigned identifying language]'s present condition?
3. How responsible, from society's perspective, are [community group with assigned identifying language] for their present condition?
4. Society would feel pity for [community group with assigned identifying language].
5. How much sympathy would society feel for [community group with assigned identifying language]?
6. How much concern would society feel for [community group with assigned identifying language]?

Appendix D

Informed Consent

Thank you for your interest in participating in this study, which has been approved by the Washington and Lee University Institutional Review Board for Research with Human Subjects. The purpose of this study is to examine how society perceives groups of people, and will last approximately 15 minutes.

During this study, you will read 2 short passages, and will be asked a series of questions about how society perceives groups of people. This study contains minimal risk; however, you may experience boredom during the task.

Participation in research is entirely voluntary. You may refuse to participate or may withdraw from participation at any time. Please keep in mind that there are questions embedded in this survey that will make sure you are reading and responding to questions carefully. You must pass the attention checks and complete the survey in order to receive your payment.

Any information derived from this research project which personally identifies you will not be voluntarily released or disclosed without your separate consent, except as specifically required by law.

If you have any questions about the study, please contact language.study.wlu@gmail.com. If you have any concerns about the conduct of the study, contact the institutional review board at irb@wlu.edu.

Please check the box below if you are at least 18 years old and wish to proceed.

- o I agree

Appendix E

Demographic Information

Language

- Is English your first language?

Disability:

- Have you ever been diagnosed with a disability?
    - If so, which one?
- *Please answer the following question on a 5-point scale from 1 (not at all) to 5 (a great extent):*
    - To what degree do you have a lot in common with people with disabilities

Socioeconomic Status:

- Highest level of education attained:
    - Some High School
    - High School/ GED
    - Associates Degree
    - Vocational/ Trade School
    - Bachelor's Degree
    - Professional/ Graduate Degree
- Do you currently identify as someone in a low-income bracket?
- Have you ever identified as someone in a low-income bracket?

Other:

- Please rate where your ideologies most closely fall on the political spectrum on a scale of 1 (completely conservative) to 7 (completely liberal)
- Gender
    - Male
    - Female
    - Transgender Male
    - Transgender Female
    - Non-binary
    - Describe gender identity: [ ]
    - Prefer not to say
- Ethnicity
    - White
    - Black
    - Native American and Alaska Native
    - Asian American
    - Native Hawaiian and Other Pacific Islander
- Age
    - Please type your age (in years)

Appendix F

Debrief Form

Thank you for participating in this study! This study investigated how the type of language we use affects perceptions of people with disabilities and people experiencing poverty. It is our hope that this study will contribute to the literature on how to best respect and maintain the dignity of these populations, as a small step to reduce the inequalities they face in society. If you have any questions regarding the research, please contact the researchers at language.study.wlu@gmail.com. If you have any questions regarding the conduct, contact the institutional review board at irb@wlu.edu.
Thank you again for your participation!