Journal of Education, Teaching and Social Studies
ISSN 2642-2336 (Print) ISSN 2642-2328 (Online)
Vol. 2, No. 4, 2020
www.scholink.org/ojs/index.php/jetss

Original Paper

Does Language Type Affect Perceptions of Disability Images?

An Experimental Study

Stuart B. Kamenetsky[1*] & Adam S. Sadowski[1]

[1] Department of Psychology, University of Toronto Mississauga, Mississauga, Ontario, Canada

[*] Correspondence, Stuart B. Kamenetsky, PhD, Department of Psychology, University of Toronto Mississauga, 3359 Mississauga Rd. Mississauga, Ontario L5L 1C6 Canada. E-mail: stuart.kamenetsky@utoronto.ca. Tel: +1 905 828-3958

Received: October 15, 2020 Accepted: October 17, 2020 Online Published: November 2, 2020

doi:10.22158/jetss.v2n4p75 URL: http://dx.doi.org/10.22158/jetss.v2n4p75

Abstract

The present experimental study examined the impact of language type on perception of disability images with text captions. 204 disability naïve undergraduate students viewed disability images containing one of six disability language captions: disability-first, defiant self-naming, impairment, negative, person-first, and apologetic naming. Participants completed measures of identification, emotion, willingness to help, willingness to include, and perceptions of capabilities and rights. Person-first and apologetic naming did not result in more positive perceptions of disability. Rather, defiant self-naming evoked the most positive emotions and identification, and greater perceived capabilities and willingness to include whereas negative language evoked the most negative perceptions of images. Results suggest that the elimination of negative language and the use of empowering defiant self-naming by people with disabilities, rather than a focus on using person-first and apologetic naming, may be more effective in reducing negative disability stereotypes.

Keywords

disability language, disability images, disability rights, charity, inclusion

1. Introduction

The goal of the present study was to determine whether different language captions that accompany charity images determine perceptions of persons with disabilities (PWDs) by the general public. This important question, which has both significant theoretical but also practical implications for language use by charities, has not been studied empirically. The following sections define important concepts and review the related literature before describing the study.

Stereotypes of PWDs are formed in many ways. While these may include direct interactions with members of this group, disability literacy is low because PWDs are still often isolated and segregated from society (Marks, 1999, p. 131; Barnes & Mercer, 2005; Reid & Knight, 2006). As such, knowledge of disability is derived in large part from the media (Elliott & Byrd, 1982; Rosli, Mahmud, & Mahbob, 2017). This includes both visual and linguistic depictions of disability in movies, television, social media and more. In some cases, disability is portrayed appropriately as one of the many demographic factors that make up diverse societies. In other cases, portrayal is deliberately positive or even heroic or triumphant (Ralston & Ho, 2009), raising unrealistic expectations of the "average" PWD. But in most cases across the lifespan and in different contexts individuals with disabilities are portrayed negatively - as tragic, childlike, and/or asexual (Marks, 1999, p. 163; Esmail, Darry, Walter, & Knupp, 2010). As a result, perceptions of PWDs tend to develop early and are negative. Studies report negative attitudes towards helping and friendship among school-aged children (Weiserbs & Gottlieb, 1995) as well as adolescents (Harper & Peterson, 2001; Darrow & Johnson, 1994; Weiserbs & Gottlieb, 1995).

Another medium where disability images are portrayed is in charity advertisements. In the past, charities supporting people with disabilities evoked pity through negative portrayal of disability in order to instil a sense of guilt in the viewer, who in turn would donate money to alleviate the personal discomfort associated with the evoked guilt (Huhmann & Brotherton, 1997). One of the best examples of such a portrayal is a photograph of the Artist Adam Reynolds by David Hevey (see Figure 1).

Figure 1. Disability Image Portraying Pity: Photograph of the Artist Adam Reynolds by David Hevey (see http://www.the-ndaca.org)

Visually, this image portrays a person with a physical disability in a very awkward physical position, lying on a red pillow on the ground, "camera" looking down at the person who is begging. There is also no eye contact between the viewer and the individual. The text caption is hand written on a piece of cardboard and placed just under the begging hand says "Andicapped, Adam says thank you". The word "Handicapped" is a negative term originating from "cap in hand" for beggar and is misspelled, suggesting that the depicted individual with disability is not smart or educated. The individual depicted presumably cannot speak and therefore a third party "wrote" this caption.

While in the past both the media and charities depicted negative images, the media did so merely to inform and/or entertain whereas charities did so to elicit a particular behaviour (usually, the donation of money, White 2010). The problem with eliciting pity is that it perpetuates negative disability stereotypes resulting in exclusion. This is certainly not the wish nor the intention of charities supporting disability causes. More recent depictions of disability by both charities and large commercial corporations provide positive messages showcasing what can be achieved if donations are provided instead of eliciting pity to yield donations. For example, the large and well-established UK charity, MENCAP, which supports people who have "learning disabilities" (UK term, further information to follow) uses very positive images and text captions to help reduce stigma and promote awareness and understanding. A quick look at their web site (https://www.mencap.org.uk/) shows active individuals with disabilities with big smiles on their faces. There are video captions whereby empowered individuals describe and humanize what their lives with a disability are like. When still images are provided, text captions include positive messages, such as "Here I am" - which is actually part of a major fund-raising campaign, or positive statements such as "A world where people with a learning disability are valued equally, listened to and included". Indeed, research by Kamenetsky, Dimakos, Aslemand, Saleh and Ali-Mohammed (2016) showed that it is not necessary for charities to elicit pity in order to garner support. In their experiment, newer and more positive images did not decrease (nor increase) viewers' willingness to help or include. They did however improve attitudes towards PWDs and elicited more positive emotions. This result provided empirical validation for what many charities already know and have already been practising.

Many of today's institutions elicit donations and other forms of support as well as reduce stigma without perpetuating negative media stereotypes that depict disability as tragic and pitiful but rather use empowering images of PWDs. While the majority of such ads include both visual images and text captions, as a first experimental study of this issue, Kamenetsky et al. (2016) included only visual images in their stimuli. It is quite likely, however, that text captions play an important role in perceptions of disability images as many explicitly state the desired message the organization is interested in communicating while images merely imply this message.

1.1 Language Type

"Language itself shapes a man's basic ideas", according to Benjamin Lee Whorf (Whorf, 1956). Since then, scholars have shown experimentally that language influences perception on both an individual

and cultural level (Hall, 1997). Bilingual individuals report thinking differently and having a different sense of self when using separate languages (Pavlenko, 2006) and neuroimaging suggests language plays a role in decision-making (Tan et al., 2008). Since language influences behaviour, it is likely that certain types of language may result in greater willingness to donate money, hire, and befriend others, including PWDs.

Indeed, disability is one area where there is current and considerable effort towards changing both spoken and written discourse to more positive language, though English speaking countries do not necessarily agree on what type of language should be used. For example, in Canada, the term "Mental Retardation", which is still used by the World Health Organization, has been replaced with "Developmental Delay" or "Intellectual Disability". In the UK, the term "Learning Disability" is used in reference to the above group but also to individuals who have non-intellectual learning disabilities, such as dyslexia. In both the US and Canada, the term "Learning Disability" only applies to non-intellectual disabilities. It is unclear, however, whether practices such as these actually reduce disability stereotypes and result in greater inclusion of PWDs into broader society.

It is also unclear whether within a specific culture more positive terms successfully abate negative perceptions of people with disabilities (Dunn & Andrews, 2015). Proponents of positive terms contend that this effort represents an application of the Sapir-Whorf hypothesis where supposedly changing language may change one's world-view, resulting in reduced negative disability stereotypes and greater inclusion. Consequently, influential organizations such as the American Psychological Association (APA) advocate the use of person-first language when referring to individuals with disabilities - allegedly to reduce bias in psychological discourse. The positive disability language used more recently has indeed been instrumental in providing a clear and unified message by broad disability rights movements. Terms such as "inclusion" in special education have become very powerful even though their meaning and application are often inconsistent (Norwich, 2002). Others, including disability groups, argue that changing language in itself is not substantial enough to change disability perceptions and rather more action, such as education, legislation, and enforcement is needed to advance full citizenship rights of PWDs. As a result, there is considerable debate as to whether international organizations should use the language of the United Nations Convention on the Rights of Persons with Disabilities (CRPD) to ensure that they use consistent disability language (Obosi 2010).

There are various types of disability language and these do not all belong to well defined linguistic categories (see Marx, 1999, p. 137). The only naming type not well defined is what we have coined "apologetic naming". This refers to a positive naming strategy that uses terms with positive connotations or terms that confine negativity to a difference or a challenge, such as "physically challenged". It may even suggest a denial of any inherently negative differences between PWDs and non-disabled persons, as it is based on the idea that everyone is different and everyone has strengths and challenges. A second positive naming strategy is "person-first naming", such as "individual with a physical disability". This language attempts to overcome the possibility that a person's disability

receives more attention than his or her personhood. Apologetic and person-first terms have come to replace terms falling under both "disability-first naming", which categorises people based upon their disability identity (e.g., "the blind boy"); and impairment naming, which identifies the type of impairment, such as "physically impaired". Impairment naming assumes a negative medical model approach which focuses on an individual's deficits and how he or she can be "fixed" to overcome them. Arguably, and non-controversially, "negative naming", which uses offensive terms (e.g., "mad", "crippled" or "deaf and dumb"), should be removed from discourse as such language can only result in negative stereotypes leading to exclusion. A final form of naming is "defiant self-naming", which makes ironic but empowering use of offensive terminology (e.g., "super-crip") by people with disabilities about themselves, whereas the general public may not use these terms lest they be considered ableist.

There is some research exploring public opinion on disability language type. Lynch and Groombridge (1994) found that a third of 300 US state government employees considered person-first and disability-first language equivalent and were uninfluenced by language type when choosing descriptors of hypothetical job applicants. Nevertheless, the majority of the sample preferred person-first naming. Rottenstein (2014) found that 70% of 3000 persons with disabilities preferred to describe themselves as a "person with a disability" compared with only 8% who chose "disabled person". Clearly there are differences in society, often based on political orientation, as well as differences within the disability community as to the benefits of politically correct disability language. A first goal of the present study was to determine whether indeed different language captions that accompany charity images determine perceptions of PWDs by the general public.

1.2 Type of Disability and Language Type

Research has shown that people view disability type hierarchically and that the order of disability types, from most to least "acceptable", has remained the same since the 1960's: from limited physical, to auditory, visual, paraplegic, mental, and quadriplegic (Olkin & Howson, 1994; Westbrook et al., 1993; Horne & Ricciardo, 1988; Abroms & Kodera, 1978; Goodman, Hastorf, & Richardson, 1967). Studies also show that when imagining themselves as employers, university students are more willing to hire persons with physical rather than mental disabilities (Gouvier, Systsma-Jordan, & Mayville, 2003; Drehmer & Bordieri, 1985; Stone & Sawatzki, 1980). Another study has shown that the more visible a person's disability, the less likely he or she will be chosen for a job requiring more contact with customers (Gouvier et al., 1991).

This hierarchy is likely determined by perceptions and stereotypes about different disabilities created by the media and charity advertisements as discussed above. Complicating this issue is the fact that not all disability groups have embraced more recent attempts to use more positive language in a manner consistent with the unified message provided by disability rights groups: Members of the Deaf community refer to themselves with a capital "D" as Deaf individuals, and do not endorse person-first language to identify themselves (Tyler, 1993). The National Federation of the Blind rejected

person-first language in 1993 because they thought it presumed an apology should be made for being blind (Bickford, 2004). The Autism community consider Autism to be part of their personhood, rather than a separate disability and therefore are not opposed to being defined by their disability (What to say 2004). It is possible that the use of different types of language by different disability communities, whether due to differences in historical terms or endorsement of more positive person-first language, may result in less favourable perceptions of particular disability groups.

A second goal of this study was to determine whether disability type and language type interact with one another to produce especially positive and/or negative perceptions for particular combinations of disability and language types when used in charity advertisements.

1.3 Gender and Language Type

Men and women use language differently though a clear pattern has yet to emerge (Newman, Groom, Handelman, & Pennebaker, 2008). As such, it is of great interest whether men and women perceive disability language captions differently and if so whether they are similarly affected by differences in language types. It is also of great interest whether the gender depicted in a disability image interacts with type of language caption used to produce different perceptions of people with disabilities. Before reviewing the literature on gender differences in language use a few words about gender differences are noteworthy.

A key relevant area to the present study where gender differences are found is in prosocial behaviour. In one review, Eagly (2009) concluded that while both sexes are similar in their extensive engagement in prosocial behaviour, female emphasis is more communal and relational whereas male emphasis is more power- oriented. Eagly argues that this difference may be routed in the division of labour between the sexes. While modern families are often egalitarian and both parents work outside of the house, women still do the majority of housework (Lachance-Grzela & Bouchard, 2010).

With respect to the perceived, the literature is less conclusive. Within the context of disability images, women with disabilities may be viewed more negatively (Fine & Asch, 1981) as a result of the compounding of negative stereotypes of both sex and disability. Women are often seen as passive and in need of protection, as are PWDs (Marks, 1999). However, since men are expected to be strong and self-sufficient, if they are not seen as able to fulfil masculine sex-roles prevalent in most cultures, it is possible that they may be subject to more negative evaluations than women. Indeed, Kamenetsky et al. (2016) found that images (without text captions) of men with disabilities elicited greater sadness, anger, disgust, guilt and lower perceptions of capabilities and rights but also, and perhaps consequently, a greater willingness to help.

Numerous studies documented that men and women use language differently. While there are no gender differences in verbal ability (Hyde & Linn, 1988) a seminal text on gender difference in language (see Coates, 2015) discusses the idea of gender as a social construct, and addresses gender differences in conversational practice, same-sex talk, conversational dominance, and children's acquisition of gender-specific language among other topics. Early studies have shown that women tend

to be more expressive, supportive, polite, talk more about their families, and use more affective words and tend to discuss psychological states more frequently compared with men (Haas, 1979). Males' language tends to be more direct, succinct, personal, and instrumental, whereas women's language tends to be more indirect, elaborate and affective (Mulac, Bradac, & Gibbons, 2001). Newman et al. (2008), however, argue that at least some scholars contend that there are no meaningful gender differences in language. They cite Bradley (1981) and Weatherall (2002) and suggest that the lack of agreed upon measures and too broad generalizations based on small text samples may be responsible for some of the gender differences obtained. Furthermore, if indeed gender is a social construct that fosters gender differences in language one might expect that a reduction in gender role differences seen in Western, secular and egalitarian millennials (Ng & McGinnis Johnson, 2015) would bring with it reduced gender differences in language.

A third goal of this study was to determine whether sex and language type interact with one another to produce especially positive and/or negative perceptions when used in disability charity advertisements.

1.4 Measuring Perceptions of Persons with Disabilities

There are many ways to assess how individuals respond to images of PWDs. Broadly speaking, these may include identification with individuals depicted, emotional reactions to the images, willingness to help and include such individuals, perceptions of their capabilities, as well as whether they are entitled to the same rights accorded to the rest of society. The literature on these constructs has recently been reviewed by Kamenetsky et al. (2016). The following section presents a brief summary.

Identification is a social phenomenon whereby one self-categorizes oneself by affiliation with others (Tajfel, 1982). Social ties and identification are highly related to the possession of similar physical, demographic, and behavioural traits (Kossinets & Watts, 2009; Hoffner & Buchanan, 2005). Identifying with groups can create an in-group bias where members tend to view their group more favourably than out-groups (Tajfel & Turner, 2004); similarly identifying with persons is associated with a higher likelihood of directing helping behaviour toward them (Fisher & Wakefield, 1998). *Emotions* are highly influenced by subjective appraisal and cognition (Bennett & Lowe, 2008; Lazarus, 1991). When the stimulus is a person or an animal, perspective-taking can result in strong emotions (Neumann & Strack, 2000). Images of sadness can thus result in viewer sadness. *Helping behaviour* can take the form of donation and volunteerism. Familiarity with a charity as well as media depictions of an issue and of the beneficiaries influence the decision to donate (Bendapudi, Singh, & Bendapudi, 1996). Positive attitudes toward disability have been shown to correlate with helping behaviour directed toward them (Carter, Hughes, Copeland, & Breen, 2001; Lauber, Nordt, Falcato, & Rössler, 2002). Negative attitudes, however, caused by images of sadness and need, may mediate helping behaviour that decreases the negative attitudes of the viewer (Schmidt & Weiner, 1988). *Social inclusion*, defined by Lemay (2006) as societal involvement and acknowledgement of marginalized groups as valued members, can be indicated by the willingness to live near, recognize, befriend and employ persons from said groups (Harth, 1971). In fact, PWDs have rated "being employed" as one of

the most important factors of social inclusion (Hall & Kramer, 2009). Nevertheless studies show they are disproportionately under- or unemployed (Burkhauser & Stapleton, 2004; Dyda, 2008; Levy & Hernandez, 2009; Verdonschot, de Witte, Reichrath, Buntinx, & Curfs, 2009); and that employers tend to hold negative stereotypes about them (Fraser et al., 2010). Less favourable *perceptions of capabilities* are held not only by employers in relation to worker potential, but are also held by the public in relation to success, fortune, partnering, parenthood and friendship (Buljevac, Majdak, & Leutar, 2012). Even clinicians tend to make wrong assumptions of disabled patients' abilities as well as devalue their intelligence and motivation (Iezzoni, 2006). *Human or equal rights* in its most basic definition tends to include the right to equality and dignity, and to live free from all forms of discrimination (Canadian Human Rights Commission). Research has documented that less favourable *perceptions of equal rights* prevailed when persons with disabilities received inequitable treatment in education and public services (O'Keeffe, 1993). However, Kamenetsky et al. (2016) provided clear evidence that this may be changing as Canadian first year university students provided very high ratings of equal rights for a broad range of images of PWDs.

1.5 Purpose

The purpose of the present study was to experimentally determine whether type of language caption included in charity images determines identification with, emotional responses towards, willingness to help and include, perceived capabilities, and perception of equal rights of the PWD depicted in an image. We were also interested in determining whether sex of the observer and both sex and disability type of the observed interact with language type in determining the above perceptions.

2. Method

A mixed design was used with viewer sex (male, female) as the between-subjects factor and language (disability-first, defiant self-naming, impairment, negative, person-first, apologetic), disability (physical, vision, hearing) and sex of depicted individuals (male, female) as within-subject factors.

Table 1 displays the experimental design. Order represents the order in which images 1-18 were coupled with the six language types. Each participant was presented with one order only.

Table 1. Experimental Design

Image	Disability	Sex	Order 1	Order 2	Order 3	Order 4	Order 5	Order 6
1	Physical	M	Disability-First	DSN	Apologetic	Negative	Person-First	Impairment
2	Physical	M	Impairment	Disability-First	DSN	Apologetic	Negative	Person-First
3	Physical	M	Person-First	Impairment	Disability-First	DSN	Apologetic	Negative
4	Physical	F	Negative	Person-First	Impairment	Disability-First	DSN	Apologetic
5	Physical	F	Apologetic	Negative	Person-First	Impairment	Disability-First	DSN
6	Physical	F	DSN	Apologetic	Negative	Person-First	Impairment	Disability-First
7	Vision	F	Disability-First	DSN	Apologetic	Negative	Person-First	Impairment

8	Vision	F	Impairment	Disability-First	DSN	Apologetic	Negative	Person-First
9	Vision	F	Person-First	Impairment	Disability-First	DSN	Apologetic	Negative
10	Vision	M	Negative	Person-First	Impairment	Disability-First	DSN	Apologetic
11	Vision	M	Apologetic	Negative	Person-First	Impairment	Disability-First	DSN
12	Vision	M	DSN	Apologetic	Negative	Person-First	Impairment	Disability-First
13	Hearing	M	Disability-First	DSN	Apologetic	Negative	Person-First	Impairment
14	Hearing	M	Impairment	Disability-First	DSN	Apologetic	Negative	Person-First
15	Hearing	M	Person-First	Impairment	Disability-First	DSN	Apologetic	Negative
16	Hearing	F	Negative	Person-First	Impairment	Disability-First	DSN	Apologetic
17	Hearing	F	Apologetic	Negative	Person-First	Impairment	Disability-First	DSN
18	Hearing	F	DSN	Apologetic	Negative	Person-First	Impairment	Disability-First

2.1 Participants

Participants were 218 first-year undergraduate students enrolled in a first-year psychology course. Eleven who had a disability diagnosis were excluded to ensure the sample was naïve to the study. This was important to ensure that participants' disability perceptions came primarily from the media and not through their own personal experiences. Three for whom either survey or questionnaire data was missing were also excluded. This resulted in a final sample of 204 participants (160 female, 44 male), ranging in age from 16 to 24 (M = 18.5, SD = 1.1). Low male participant numbers are prevalent in this line of research (Clay, 2017). The number of male participants, however, exceeded the general rule of thumb (n>30) regarding the central limit theorem, which implies that a representative sample mean is close to the true mean (Hogg & Tanis, 2009). Our sample was diverse. The region of Peel, where the University of Toronto Mississauga is located is likewise diverse (Statistics Canada, 2016 Census of Population). It is adjacent to the City of Toronto, which the British Broadcasting Corporation radio named "the most diverse city in the world" (Toronto Named The Most Diverse City In The World By BBC Radio, 2017) with over 230 different nationalities. While we did not ask participants to indicate ethnicity or culture, a recent study that used the same sample a couple of years later showed that students enrolled in first year psychology define themselves as South Asian (27%), White (21%), Mixed race (13%), East Asian (11%), South-East Asian (8%), Black (8%), and other groups (12%). Roughly 17% of full-time undergraduate students on this campus are international (Common University Data Ontario 2018). Furthermore, at least two thirds of the students are humanities and social science majors who take a first year psychology course to fulfil their science distribution requirement.

A modified version of Doddington and colleagues' (1994) 7-item demographics survey was used to collect demographic information (sex, age, and previous disability diagnosis). A 7-point Likert scale ranging from 1 (*no*) to 7 (*yes*) assessed the extent to which participants considered themselves as PWDs. The majority (95%) did not consider themselves as PWDs. Participants were also asked

whether any of their siblings, friends' siblings, friends, and neighbours has a disability, and if so, how many. Total disability experience was calculated by summing these four categories and ranged from 0 to 19 (M = 1.67, SD = 2.45). The majority of participants had minimal disability experience. We were especially interested in recruiting participants who were naïve to disability language issues so that we could determine whether differences in disability language use have any impact on the "average" young adult.

2.2 Materials

Test stimuli included 18 images depicting three males and three females for each of the three disability types (see Figure 2 for example, actual images are withheld for confidentiality). They were picked using the world-wide-web in terms of sex, disability, size, eye direction and age. Demographic characteristics (sex and age) of the depicted persons varied. Eye contact differed between hearing and other disability types: persons with hearing disabilities did not show eye contact - images depicted the side of their heads to clearly portray a hearing aid; images of other disability types depicted front-facing individuals in which people with physical disabilities maintained eye contact and those who have visual impairments wore sunglasses. Images of individuals with physical disabilities all included wheelchair seating.

Figure 2. Typical Study Image: Photograph of Canadian Disability Studies Scholar, Susan Mahipaul in Dark Slacks and Pink Long Sleeve Shirt Sitting Outdoors in a Modern Wheelchair, Moderately Smiling, Frontal Image

2.3 Captions

Table 2 displays the disability naming captions, which included 18 descriptive phrases (six language types and within these one for each of the three disabilities). These were presented concurrently below the images. Phrases were written based on the terms used by each language type (defiant self-naming, impairment, apologetic, disability-first, person-first, and negative). Defiant self-naming used prideful and ironic sentences; impairment language used adjective-noun combinations; apologetic naming referred to the disability as a challenge; disability-first presented the descriptor before personhood; person-first language presented personhood before the descriptor (once in a simple phrase, and a second time in a following phrase that was more specific in relation to sex and degree of disability); and negative language type used phrases or terms with negative connotations.

Table 2. Language Type and Captions Used

Defiant Self-Naming	Impairment	Apologetic	Disability-First	Person-First	Negative
"I am a supercrip (super-cripple), a Paralympic superhero"	Physical Impairment	Physically Challenged	The Handicapped	Individual with a physical impairment; man/woman who is paralyzed.	Crippled
"Because I can't see you, I don't judge you superficially, I judge based on what I see inside you"	Visual Impairment	Visually Challenged	The Blind	Individual with a visual impairment; man/woman who is blind.	Blind as a bat
"I'm Deaf and proud of it, American Sign Language is my language".	Hearing Impairment	Auditory Challenged	The Deaf	Individual with a hearing impairment; man/woman who is deaf.	Dumb-Mute

2.4 Questionnaire

The 19-item test stimuli questionnaire by Kamenetsky et al. (2016) was used. Viewers rated their responses on a scale from 1 (*not at all*) to 7 (*great extent*) toward questions relating to six constructs. Table 3 displays the response variables and questions within each construct.

Table 3. Constructs of Perception and Attitudes with Related Measures and Questions

Construct	Variable	Question
Identification	Identify	"To what extent do you identify or relate to this person?"
	Remind	"To what extent are you reminded of yourself?"
Emotions	Happiness	"To what extent do you feel happiness when looking at this person?"
	Anger	"To what extent do you feel anger when looking at this person?"
	Sadness	"To what extent do you feel sadness when looking at this person?"
	Disgust	"To what extent do you feel disgust when looking at this person?"

	Fear	"To what extent do you feel fear when looking at this person?"
	Contempt	"To what extent do you feel contempt when looking at this person?"
	Guilt	"To what extent do you feel guilt when looking at this person?"
	Surprise	"To what extent do you feel surprise when looking at this person?"
Willingness to help	Donate	"To what extent would you be willing to donate money to a charity this person will benefit from?"
	Volunteer	"To what extent would you be willing to volunteer to help this person?"
Willingness to include	Befriend	"To what extent would you be willing to become this person's friend?"
	Hire	"To what extent would you be willing to hire this person to work for you?"
Perceptions of capabilities	Make friends	"Do you think this person has the capability of making friends?"
	Self-care	"Do you think this person has the capability to take care of him/herself?"
	Get married/child care	"Do you think this person has the capability to look after children and/or get married?"
	Get hired	"Do you think this person can get hired to work?"
Perceptions of rights	Equal rights	"Do you think this person has the same right as everyone else?"

2.5 Procedure

Viewers individually entered a research room on campus to participate in the study, which they were told was about attitudes towards people with disabilities. Viewers were seated, and upon providing informed consent, completed a demographics survey displayed on a 23-inch high-resolution computer screen. They then viewed and responded to the images presented in one of the six experimental orders in a single 1-hour session. Disability images accompanied by captions were presented on the screen in random order, with each image and its caption being followed by the 19-item questionnaire. The questionnaire was presented one question at a time in the same order and in clear font below each image and its caption. A response using the numerical keypad of a standard keyboard was required before continuing onto the next question. Once viewers completed the entire questionnaire for each of the 18 images, they were debriefed and thanked for participating.

3. Results

Statistical computing software SAS was used to import and combine individual files of each participant into a master file which included all demographic information, experimental order (1-6), and 18 responses to each of 18 images. Overall means are presented first, followed by main effects and interactions between language and disability type. The latter were obtained from a series of ANOVAs for each of the 19 responses. Effects of sex and its interactions with other factors were also explored using all possible 2-factor ANOVAs (5 series). Post hoc comparisons were done using Tukey's Honest Significant Difference (HSD) tests (Tukey 1949) with a p value of .00044. Given the large number of global tests conducted, a Bonferroni correction was used to get the p value or $alpha = 0.05/114$ ($k = 114$

tests from 19 response variables x 6 series of ANOVAs). We found no significant main effects for sex or interactions between sex of person depicted and language type, as well as between sex of viewer and language type. Only statistically significant results are reported.

Table 4 shows the overall means and standard deviations for the response variables. Emotions among viewers were low except for happiness and sadness, which were moderate. Identification was also low. Willingness to help and include, as well as perceptions of capabilities and rights, were all high with perception of rights being the highest. This pattern replicates previous findings by Kamenetsky et al. (2016) using different participants and different images - this time accompanied by text captions.

Table 4. Overall Means for Viewer Response Variables

Response variable	*M*	*SD*
Emotions		
Happiness	2.53	1.83
Anger	1.31	0.92
Sadness	3.51	2.04
Disgust	1.14	0.61
Fear	1.31	0.96
Contempt	1.63	1.31
Guilt	1.84	1.45
Surprise	1.83	1.45
Identification and willingness to help and include		
Identify	1.85	1.39
Remind	1.63	1.30
Donate	5.17	1.52
Volunteer	5.86	1.29
Befriend	5.79	1.41
Hire	4.69	1.61
Perceptions of capabilities and rights		
Make friends	6.00	1.23
Self-care	5.39	1.50
Get married/child care	5.32	1.57
Get hired	5.07	1.61
Equal rights	6.41	1.20

A series of 6 (language: disability-first vs. defiant-self naming vs. impairment vs. negative vs. person-first vs. apologetic) x 3 (disability: hearing impairment vs. physical impairment vs. visual impairment) ANOVAs were conducted. For each category of response variables (emotions, identification and willingness, and perceptions), we address the main effects of language type, followed by disability type, and the interactions between them.

A language main effect was observed for all emotions but fear and contempt. Table 5 shows significant F ratios at $p < 0.0001$, the means of each language type and Tukey's honestly significant (mean) difference in respect to each emotion. Post hoc comparisons revealed the following (means are shown in brackets): defiant self-naming (DSN) compared to other language types elicited more happiness (M = 4.00 vs. M = 2.29 and below) and surprise (2.31 vs. 1.86 and below), and less sadness (2.88 vs. 3.34 and higher). Person-first language elicited more sadness than impairment naming (3.75 vs. 3.34). Negative naming compared to all language types but person-first elicited greater sadness (4.03 vs. 3.75 and below); and, when specifically compared to DSN, more anger (1.47 vs. 1.21), disgust (1.21 vs. 1.07), and guilt (2.02 vs. 1.70); and compared to impairment, more guilt (2.02 vs. 1.78).

Table 5. Main Effects of Language Type for Emotions

		Emotions					
		Happiness	Anger	Sadness	Disgust	Guilt	Surprise
Language	*F(5,203)*	215.70	7.04	51.25	4.63	9.72	37.15
DSN	*M*	**4.00**	1.21	**2.88**	1.07	1.70	**2.31**
Impairment	*M*	2.29	1.28	3.34	1.14	1.78	1.63
Apologetic	*M*	2.26	1.31	3.50	1.16	1.82	1.70
Disability-First	*M*	2.26	1.32	3.56	1.15	1.88	1.74
Person-First	*M*	2.22	1.31	3.75	1.11	1.84	1.73
Negative	*M*	2.16	1.47	4.03	1.21	2.02	1.86
Tukey's HSD		0.2907	0.1913	0.3224	0.1306	0.2043	0.2419

Note. Boldfaced means are significantly different than all means in the same column.

A language main effect was also observed with respect to identification and willingness to help and include (see Table 6). DSN compared to other language types elicited higher identification (2.13 vs. 1.82 and below) and reminding (1.86 vs. 1.61 and below); more willingness to befriend (5.97) than disability-first (5.72) and negative naming (5.68); and more willingness to hire (4.94) than person-first (4.58) and negative language (4.38). Negative language compared to all language types but person-first elicited a lower willingness to hire (4.38 vs. 4.70 and higher).

Table 6. Main Effects of Language Type for Identification and Willingness to Help and Include

		Identification and Willingness to Help and Include			
		Identify	Remind	Befriend	Hire
Language	*F(5,203)*	15.11	11.18	7.62	19.01
DSN	*M*	**2.13**	**1.86**	5.97	4.94
Impairment	*M*	1.77	1.56	5.76	4.82
Apologetic	*M*	1.82	1.61	5.83	4.73
Disability-First	*M*	1.80	1.60	5.72	4.70
Person-First	*M*	1.79	1.59	5.77	4.58
Negative	*M*	1.77	1.58	5.68	4.38
Tukey's HSD		0.2155	0.2007	0.2191	0.2653

Note. Boldfaced means are significantly different than all means in the same column.

A language main effect was also observed with respect to perceptions of capabilities and equal rights (see Table 7). DSN elicited higher perceived capability for self-care (5.66) than disability-first (5.41) and person-first (5.21); get married/child care (5.55) than disability-first (5.29) and person-first (5.17); and get hired (5.26) than person-first (4.96). Person-first compared to impairment naming elicited lower perceived capabilities for self-care (5.21 vs. 5.50), get married/child care (5.17 vs. 5.43), and get hired (4.96 vs. 5.23); and when compared to apologetic naming, lower perceived capability to get married/child care (5.17 vs. 5.42). Negative naming compared to almost all language types elicited the lowest perceived capabilities (e.g., make friends with 5.79 vs. 5.99 and higher).

Table 7. Main Effects of Language Type for Perceptions of Capabilities

		Perceptions of Capabilities			
		Make friends	Self-care	Get married/child care	Get hired
Language	*F(5,203)*	13.72	21.26	21.48	21.38
DSN	*M*	6.17	5.66	5.55	5.26
Impairment	*M*	6.04	5.50	5.43	5.23
Apologetic	*M*	6.03	5.43	5.42	5.17
Disability-First	*M*	5.99	5.41	5.29	5.04
Person-First	*M*	6.00	5.21	5.17	4.96
Negative	*M*	**5.79**	5.15	5.04	4.75
Tukey's HSD		0.1960	0.2408	0.2382	0.2467

Note. Boldfaced means are significantly different than all means in the same column.

There was no disability type main effect for emotion or identification. There was, however, for willingness to help and include. Hearing impairment elicited lower willingness to volunteer (M = 5.76, $F(5,203)$ = 15.9, *Tukey's HSD* = 0.13) than both physical (5.90) and visual impairment (5.93). Vision impairment elicited lower willingness to hire (M = 4.39, $F(5,203)$ = 69.6, *Tukey's HSD* = 0.17) than both physical (4.77) and hearing impairment (4.91).

There was a disability type main effect for perceptions of capabilities and equal rights. Hearing impairment elicited greater perceived capabilities (for self-care, get married/child care, get hired) and equal rights than both physical and visual impairment (see Table 8 for bolded means); and lower perceived capability to make friends (5.93) compared with physical impairment (6.10). Visual impairment elicited lower perceived capabilities for get married/child care (4.98) than physical (5.19) and hearing impairment (5.78); and for get hired (4.73) than physical (5.05) and hearing impairment (5.44).

Table 8. Main Effects of Disability Type on Perceptions of Capabilities and Equal Rights

		Perceptions of Capabilities and Equal Rights				
		Make friends	Self-care	Get married/child care	Get hired	Equal rights
Disability	$F(5,203)$	15.43	219.63	211.67	144.07	29.41
Hearing	M	5.93	**5.88**	**5.78**	**5.44**	**6.52**
Physical	M	6.10	5.20	5.19	5.05	6.41
Vision	M	5.98	5.09	4.98	4.73	6.31
Tukey's HSD		0.1260	0.1548	0.1532	0.1586	0.1017

Note. Boldfaced means are significantly different than all means in the same column.

Significant interactions between language and disability type were found for sadness (p = 0.0005, F = 3.13, df = 10), identify (p < 0.0001, F = 4.20, df = 10), hire (p < 0.0001, F = 3.57, df = 10), get hired (p < 0.0001, F = 8.03, df = 10), make friends (p = 0.0003, F = 3.32, df = 10), and get married/child care (p < 0.0001, F = 5.84, df = 10). All means are shown in Figures 3-8. A negative language caption with a hearing impairment image elicited greater sadness (4.27 vs. 3.61 and below) when compared with other language type-hearing impairment combinations; as well as lower willingness to hire (4.33 vs. 4.82 and higher) and lower perceived capability to make friends (5.50 vs. 5.91 and higher), get married/child care (5.25 vs. 5.67 and higher) and get hired (4.75 vs. 5.35 and higher). Defiant self-naming caption with a visual impairment image elicited the highest identify ratings (2.45 vs. 1.82 and below).

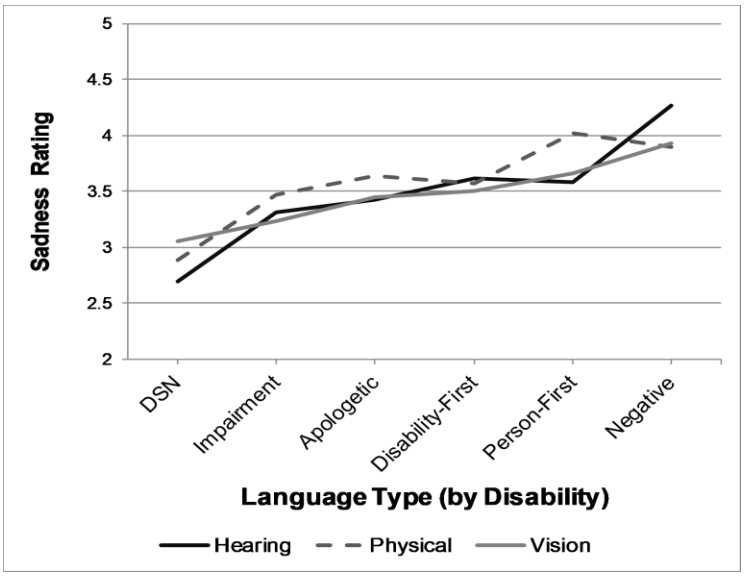

Figure 3. Sadness Rating by Language Type by Disability. Sadness Ratings, for the Most Part, are Highest when Negative Language is Used Followed by Person-First, Disability-First, Apologetic, Impairment, and DSN Language. This Pattern is not Exactly the Same though very Similar for Images Depicting People with Hearing, Physical and Visual Impairments.

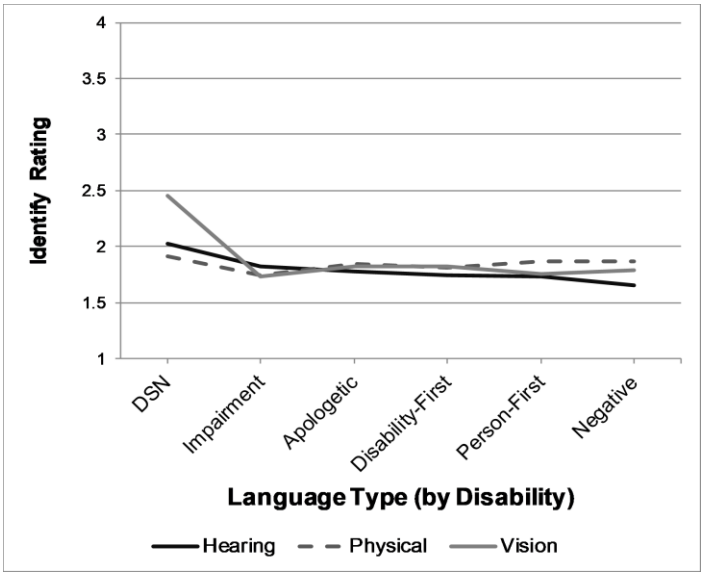

Figure 4. Identity Rating by Language Type by Disability. Identity Ratings, for the Most Part, are Quite Low (under 2) and Uniform for All Language Types (Negative, Person-First, Disability-First, Apologetic, and Impairment). It is Higher for DSN Language. This Pattern is not Exactly the Same though very Similar for Images Depicting People with Hearing, Physical and Visual Impairments. The Combination of DSN and Visual Impairment Produces the Highest Identity Rating.

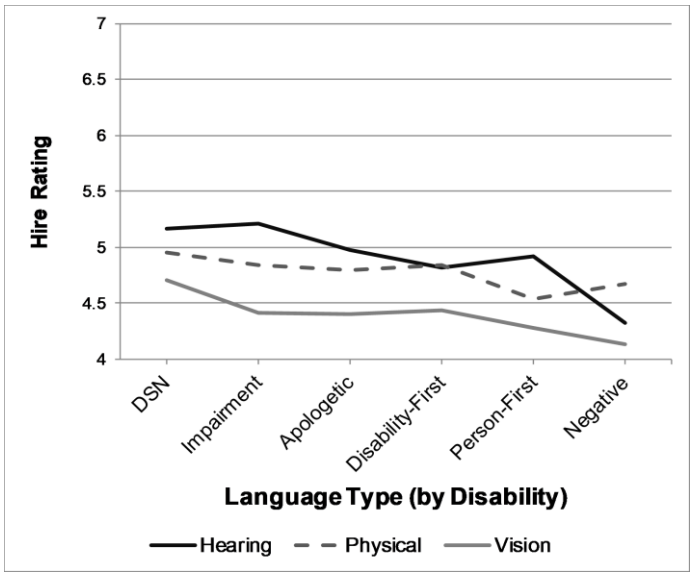

Figure 5. Hire Rating by Language Type by Disability. Hire Ratings, for the Most Part, are Lowest when Negative Language is Used Followed by Person-First, Disability-First, Apologetic, Impairment, and DSN Language. This Pattern is not Exactly the Same though very Similar for Images Depicting People with Hearing, Physical and Visual Impairments. Highest Ratings are for Images of People with Hearing, Followed by Physical and Visual Impairments.

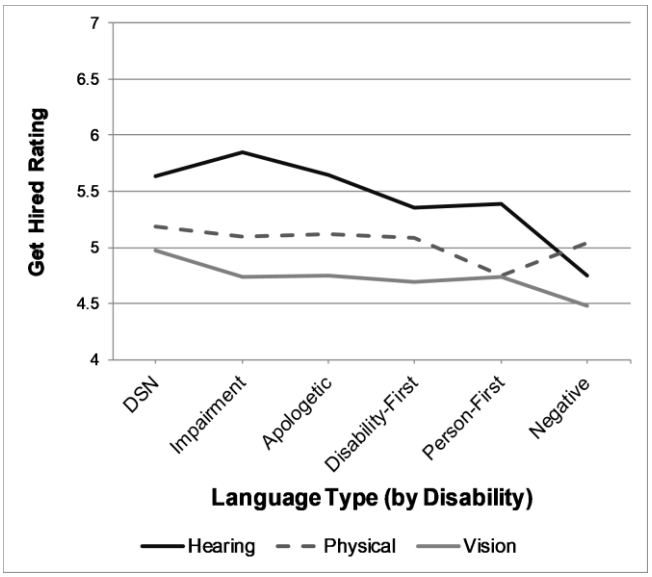

Figure 6. Get Hired Rating by Language Type by Disability. Get Hired Ratings, for the Most Part, are Lowest When Negative Language is Used Followed by Person-First, Disability-First, Apologetic, Impairment, and DSN Language. This Pattern is not Exactly the Same for Images Depicting People with Hearing, Physical and Visual Impairments. Highest Ratings are for Images of People with Hearing, Followed by Physical and Visual Impairments.

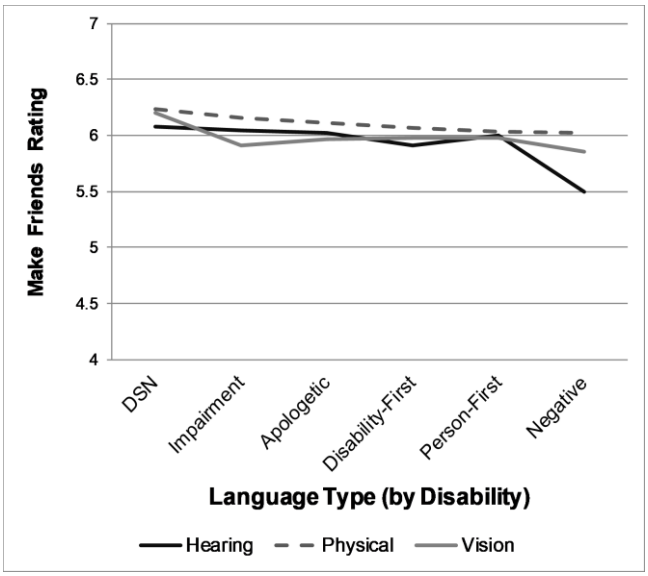

Figure 7. Make Friends Rating by Language Type by Disability. Make Friends Ratings, for the Most Part, are Lowest When Negative Language is Used Followed by Person-First, Disability-First, Apologetic, Impairment, and DSN Language. This Pattern is not Exactly the Same but is Quite Similar for Images of People with Hearing, Followed by Physical and Visual Impairments. The Combination of Negative Language and Hearing Impairment Produces the Lowest Make Friends Ratings.

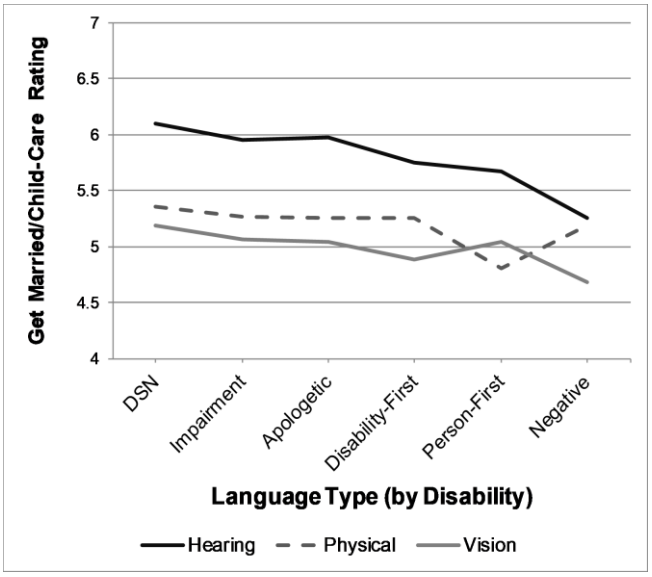

Figure 8. Get Married/ Child Care Rating by Language Type by Disability. Get Married / Child Care Ratings, for the Most Part, are Lowest When Negative Language is Used Followed by Person-First, Disability-First, Apologetic, Impairment, and DSN Language. This Pattern is not Exactly the Same but is Quite Similar for Images of People with Hearing, Followed by Physical and Visual Impairments. The Combination of Negative Language and Hearing Impairment Produces the Lowest Make Friends Ratings.

4. Discussion

4.1 Language Types

It is clear that when people are referred to in negative terms others will perceive them more negatively. Indeed terms such as “mad” and “dumb” have been removed from discourse about PWDs and this study confirms that such removal reduces negative perceptions of PWDs. We show that other language types as compared to negative language elicit greater perceived capabilities of PWDs, greater willingness to hire them and less negative emotions in those who perceive PWDs. What is even more interesting is the fact that more positive language, such as person-first naming, designed to replace negative terms, has not emerged as a superior way to communicate about PWDs since, for the most part, it is not associated with more positive perceptions of PWDs. What is most fascinating is that at least some disability groups never really believed that positive language would be useful in reducing stereotypes and promoting inclusion and in some cases even felt that it may be detrimental to their cause (Deafness, Tyler, 1993; Visual Impairment, Bickford, 2004; and Autism, What to say 2004). It is often broader groups, such as the American Psychological Association and progressive political organizations that promote the use of such language.

Especially important is the finding that defiant self-naming (DSN) captioning produces the most positive perceptions of people with disabilities, including the greatest identification and greatest willingness to include (befriend and hire). This result is actually not surprising. DSN implies that PWDs feel empowered, confident and have self-determination. In a large meta-analysis Algozzine, Browder, Karvonen, Test, and Wood (2001) found that self-determination can be taught and learned, and can make a difference in the lives of individuals with disabilities. Further, people who experience positive emotions are more likely to flourish (Fredrickson, 2001) and subjective well-being and empowerment are highly correlated (Diener & Biswas-Diener, 2005). It is quite clear, therefore, that empowering PWDs, encouraging them to use DSN and having others refer to PWDs unapologetically and with no pity is a more promising strategy for inclusion and reducing negative stereotypes compared with other language types. It appears, therefore, that it is society’s duty to remove negative language and to empower PWDs so that they feel proud of who they are and as a result communicate this confidently. Other attempts, such as using person-first naming, appear to be less likely to make a difference in how PWDs are perceived.

But it’s quite clear from the results of the present study that differences between language types in all perceptions of PWD are relatively small. As it turns out, perceptions are difficult to change despite the use of positive naming strategies; and identification with PWDs remains very low regardless of language type. Indeed, Kamenetsky et al. (2016) found the same general pattern of responses including low ratings of identification in a similarly multicultural sample when no language captions were provided at all. It is possible that as Peters (2010) and others have proposed - there is a “disability culture” and the mainstream tends to consider its “members” as “the other” in the same way they may consider individuals from another racial or religious group as very different from themselves -

regardless of what images are shown and what type of language is used.

4.2 Interactions between Disability Types and Language Types

It appears that people with hearing impairments, in general, are perceived as more capable and thus in less need of support and that those with visual impairments are perceived as least capable. It is well known that stereotyped perceptions are related to the type of disability someone has (Yuker, 1994). These stereotypes are problematic and do not necessarily align with reality. They likely represent the general public's perception that not seeing is "worse than" not hearing (Owoeye, Ologe, & Akande, 2007). Indeed, previous research has shown that people believe that individuals with visual impairments are less capable for work than those who have physical amputations (Strohmer, Grand, & Purcell, 1984); that employers believe that it is harder for a person with a visual impairment to gain employment than someone who has diabetes, thalassemia or renal insufficiency (Zissi, Rontos, Papageorgiou, Pierrakou & Chtouris 2007); and that 53% of respondents thought that individuals who are visually impaired could do as well a job as people without disabilities, compared with 58% in reference to individuals who have hearing impairments and 68% for people who have paralyzed legs (Bowman, 1987). It appears that such perceptions are resistant to change despite progressive legislation, language, and education policy designed to eradicate such stereotypes. In reality, of course, whether people with certain types of disabilities compared to others are more needy or less able to work is much more complex and depends on the etiology, the nature and severity of the disability, the type of job in question, and the extent to which assistive technological devices are provided by employers to enable individuals with various types of disabilities to do their jobs.

The interactions between language and disability types should not draw any particular conclusions other than the fact that they exist. Notable findings were that the use of DSN (i.e., Because I can't see you, I don't judge you superficially, I judge based on what I see inside you) for individuals who have visual impairments resulted in a large spike in identification. The use of negative language (i.e., Dumb/Mute) for individuals who have hearing impairments resulted in a sharp decrease in perceptions of ability to make friends, get hired, get married and willingness of the perceived to hire such individuals. We propose that the particular sentence for DSN (equivalent to "I don't judge a book by its cover") may have resonated with our viewers and resulted in high identification; and that the combination of negative language with hearing impairment yielded more negative perceptions due to the double-meaning and offensiveness of the word "Dumb" (as compared with "Blind as a bat" and "Crippled" for visual and physical impairments, respectively). The difference in words used is strikingly apparent for negative hearing language compared with, for example, disability-first (Hearing: "The Deaf"; Vision: "The Blind"; and Physical: "The Handicapped"). While this interaction could be the result of the specific words used, type of language used to describe different disabilities varies and is inconsistent. Clearly, however, this finding demonstrates the degree to which mere words can negatively affect our perceptions of specific disability types and with this the need to focus on the consequences of negative language separately for different disabilities.

4.3 Interactions between Sex of Viewer/Depicted and Language Types

The fact that such interactions were not obtained suggests that both males and females are similarly affected (or unaffected) by language type used in captions of charity advertisements. The effect of language type used is also similar regardless of whether males or females are depicted in charity images. The lack of findings in this area is consistent with reduced gender role differences (Ng & McGinnis Johnson, 2015) among the current egalitarian cohort of millennials (most participants were 18-year-old first-year university students) and supports the notion that gender differences in language are socially constructed within the context of disability charity advertisements.

5. Limitations

One limitation of this study is that linguistically, the six types of captions used are different from one another - especially in length, where DSN and person-first captions are longer than the others. If the results were primarily based upon length of caption, both DSN and person-first captions would have elicited more positive responses. Our findings clearly demonstrate the superiority of DSN language only, suggesting that the empowerment and pride contained in one's own statements about their disability is likely the primary reason for the more positive responses to DSN. Another limitation is that the six linguistic categories do not represent accepted theoretically based groups. This, however, was a real-life study that showed that for the most part, linguistic differences have little impact on the way people with disabilities are perceived. Almost all significant mean differences in responses were less than 0.5 on a 7-point Likert scale. Perhaps the most important finding is that regardless of what disability language we use, PWDs are still seen as "the other". A third limitation is the manner in which disabilities were represented: Each disability image showed an aid being used (i.e., hearing impairment: hearing aid; physical disability: wheelchair; visual impairment: white cane). Because the aids needed to clearly be visible, images of people with hearing impairments showed the side of an individual's face, negating the possibility of eye contact between the depicted individuals and the viewers. Images of people with visual disabilities depicted individuals with dark glasses such that the eyes were not visible. Images of people with physical disabilities depicted individuals looking directly at the camera. As such, the images of people with physical disabilities were the only images in which direct eye contact with the viewer was possible. Because attitudes toward PWDs seem to be influenced to a great extent by appearance and social skills (Yuker, 1994), it is possible that the lack of direct eye contact for people who have hearing or visual impairments may have influenced our results. Indeed, eye contact has been shown to be a positive determinant in the decision to hire (Amalfitano & Kalt, 1977), and yet the hearing disability images in this study elicited a greater willingness to hire and perception of capabilities. A possible explanation exists: one study has shown that eye contact with negative verbal content produces negative evaluation (Ellsworth & Carlsmith, 1968); our disability captions could be considered to be verbal content (especially in the case of DSN, the captions of which are actual quotes); and were likely viewed by our participants as negative due to the negative connotations of and stereotypes toward

disability. Thus the lack of eye contact in images of people with hearing impairments may have resulted in less negative evaluations than those for images of people with physical or visual impairments. Perhaps as such, images of people with hearing impairments did not elicit significantly more negative perceptions.

6. Implications

The important implications for constituents of society with theoretical and/or practical interest in disability language use (sociolinguists, professionals, disability advocates, charitable organizations and the media) are the following:

1. The use of positive language (i.e., person-first and apologetic naming) is not likely to produce the utopian barrier-free and inclusive society we all desire. Rather, the elimination of negative language coupled with the empowerment of PWDs to communicate in a confident manner displaying high self-esteem and pride in one's identity (i.e., by using DSN) are more likely to create a more inclusive society.
2. Most of the differences in perception and attitudes due to language use, albeit statistically significant, are of small magnitude. That being said, such small differences may have practical consequences over many interactions with PWDs. It is ironic that person-first language, a type of language designed to have practical consequences and adopted by influential organizations like the American Psychological Association, in fact lowers perceived capabilities compared to the language types it was intended to replace (impairment and disability-first).
3. Changing public opinion on disability and other important societal issues is a slow process. Setting long-term goals and devising methods, including language use plans, based on sound empirical science are more likely to produce the desired changes compared with idealistic approaches that have not been tested.

In conclusion, our results suggest that positive disability language may not deserve the "positive" appellation as neither person-first nor apologetic naming result in any substantial increase in perceptions or attitudes toward PWDs when compared with other forms of naming. Negative language, however, evokes comparably more negative emotions, less willingness to hire, and lower perceptions of capabilities and should be removed. DSN is best at evoking positive emotions and identification, while producing greater perceptions of capabilities and willingness to help and include. But overall, type of language used has little impact on the perception of PWDs by the general public. Further studies could incorporate one or more of many variables (e.g., ethnicity, skin colour, and sexual orientation) to determine if and how they may interact with language type in determining perceptions of charity images depicting people with disabilities. Such knowledge may contribute to the development of more effective methods of communication about disability issues - methods that promote support and inclusion rather than pity.

References

Abroms, K., & Kodera, T. L. (1978). Expectancies Underlying the Acceptability of Handicaps: The Pervasiveness of the Medical Model. *Southern Journal of Educational Research, 12*(1), 7-20, Win 78. https://doi.org/10.1177/002221947901200104

Algozzine, B., Browder, D., Karvonen, M., Test, D. W., & Wood, W. M. (2001). Effects of interventions to promote self-determination for individuals with disabilities. *Review of Educational Research, 71*(2), 219-277. https://doi.org/10.3102/00346543071002219

Amalfitano, J. G., & Kalt, N. C. (1977). Effects of eye contact on the evaluation of job applicants. *Journal of Employment Counseling*, *14*(1), 46-48. https://doi.org/10.1002/j.2161-1920.1977.tb00637.x

Barnes, C., & Mercer, G. (2005). Disability, work, and welfare: Challenging the social exclusion of disabled people. *Work, Employment & Society*, *19*(3), 527-545. https://doi.org/10.1177/0950017005055669

Bendapudi, N., Singh, S. N., & Bendapudi, V. (1996). Enhancing helping behavior: An integrative framework for promotion planning. *Journal Of Marketing*, *60*(3), 33. https://doi.org/10.2307/1251840

Bennett, P., & Lowe, R. (2008). Emotions and their cognitive precursors. *Journal of Health Psychology, 13*(4), 537-546. https://doi.org/10.1177/1359105308088526

Bickford, J. O. (2004). Preferences of individuals with visual impairments for the use of person-first language. *Re: view*, *36*(3), 120-127. https://doi.org/10.3200/REVU.36.3.120-126

Bowman, J. T. (1987). Attitudes toward disabled persons: Social distance and work competence. *Journal of Rehabilitation*, *53*(1), 41.

Bradley, P. H. (1981). The folk linguistics of women's speech: An empirical examination. *Communication Monographs, 48*, 73-90. https://doi.org/10.1080/03637758109376048

Buljevac, M., Majdak, M., & Leutar, Z. (2012). The stigma of disability: Croatian experiences. *Disability and Rehabilitation*, *34*(9), 725-732. https://doi.org/10.3109/09638288.2011.616570

Burkhauser, R. V., & Stapleton, D. C. (2004). The decline in the employment rate for people with disabilities: Bad data, bad health, or bad policy? *Journal of Vocational Rehabilitation, 20*, 185-201.

Carter, E. W., Hughes, C., Copeland, S. R., & Breen, C. (2001). Differences between high school students who do and do not volunteer to participate in a peer interaction program. *Journal of the Association for Persons with Severe Handicaps, 26*(4), 229-239. https://doi.org/10.2511/rpsd.26.4.229

Clay, R. A. (2017, July 8). Women outnumber men in psychology, but not in the field's top echelons. *Monitor on Psychology*, *48*(7), 18-21. https://doi.org/10.1037/e509952018-001

Coates, J. (2015). *Women, Men and Language: A Sociolinguistic Account of Gender Differences in Language* (3rd ed.). Routledge.

Common University Data Ontario 2018. (2018). Retrieved May 17, 2019, from https://www.data.utoronto.ca/reports/cou/cudo2018/

Darrow, A. A., & Johnson, C. M. (1994). Junior and senior high school music students' attitudes toward individuals with a disability. *Journal of Music Therapy*, *31*(4), 266-279. https://doi.org/10.1093/jmt/31.4.266

Diener, E., & Biswas-Diener, R. (2005). Psychological Empowerment and Subjective Well-Being. In Deepa Narayan-Parker (Ed), *Measuring Empowerment: Cross-Disciplinary Perspectives* (pp. 125-140). Washington, DC: World Bank Publications.

Doddington, K., Jones, R. S. P., & Miller, B. Y. (1994). Are attitudes to people with learning disabilities negatively influenced by charity advertising? *Disability & Society*, *9*(2), 207-222. https://doi.org/10.1080/09687599466780221

Drehmer, D. E., & Bordieri, J. E. (1985). Hiring decisions for disabled workers: The hidden bias. *Rehabilitation Psychology*, *30*(3), 157-164. https://doi.org/10.1037/h0091030

Dunn, D. S., Andrews, E. E., Dunn, D. S., & Andrews, E. E. (2015). Person-first and identity-first language. *American Psychologist*, *70*(3), 255-264. https://doi.org/10.1037/a0038636

Dyda, D. (2008). Jobs change lives: Social capital and shared value exchange. *Journal of Vocational Rehabilitation*, *29*(3), 147-156.

Eagly, A. H. (2009) The his and hers of prosocial behavior: An examination of the social psychology of gender. *The American Psychologist*, *64*(8), 644-658. https://doi.org/10.1037/0003-066X.64.8.644

Elliott, T. R., & Byrd, E. K. (1982). Media and disability. *Rehabilitation Literature*, *43*(11-12), 348-355.

Ellsworth, P. C., Carlsmith, J. M., Ellsworth, P. C., & Carlsmith, J. M. (1968). Effects of eye contact and verbal content on affective response to a dyadic interaction. *Journal of Personality and Social Psychology*, *10*(1), 15-20. https://doi.org/10.1037/h0026385

Esmail, S., Darry, K., Walter, A., & Knupp, H. (2010). Attitudes and perceptions towards disability and sexuality. *Disability & Rehabilitation*, *32*(14), 1148-1155. https://doi.org/10.3109/09638280903419277

Fine, M., & Asch, A. (1981). Disabled women: Sexism without the pedestal. *Journal of Sociology & Social Welfare*, *8*, 233.

Fisher, R. J., & Wakefield, K. (1998). Factors leading to group identification: A field study of winners and losers. *Psychology and Marketing*, *15*(1), 23-40. https://doi.org/10.1002/(SICI)1520-6793(199801)15:1<23::AID-MAR3>3.0.CO;2-P

Fraser, R., Johnson, K., Hebert, J., Ajzen, I., Copeland, J., Brown, P., & Chan, F. (2010). Understanding employers' hiring intentions in relation to qualified workers with disabilities: Preliminary findings. *Journal of Occupational Rehabilitation*, *20*(4), 420-426. https://doi.org/10.1007/s10926-009-9220-1

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, *56*(3), 218-226. https://doi.org/10.1037/0003-066X.56.3.218

Goodman, N., Hastorf, A. H., & Richardson, S. A. (1967). On rank preferences. *American Sociological Review*, *32*(5), 815-816.

Gouvier, W. D., Steiner, D. D., Jackson, W. T., Schlater, D., & Rain, J. S. (1991). Employment discrimination against handicapped job candidates: An analog study of the effects of neurological causation, visibility of handicap, and public contact. *Rehabilitation Psychology*, *36*(2), 121-129. https://doi.org/10.1037/h0079077

Gouvier, W. D., Sytsma-Jordan, S., & Mayville, S. (2003). Patterns of discrimination in hiring job applicants with disabilities: The role of disability type, job complexity, and public contact. *Rehabilitation Psychology*, *48*(3), 175-181. https://doi.org/10.1037/0090-5550.48.3.17

Haas, A. (1979). Male and female spoken language differences: Stereotypes and evidence. *Psychological Bulletin*, *86*(3), 616-626. http://dx.doi.org/10.1037/0033-2909.86.3.616

Hall, A. C., & Kramer, J. (2009). Social capital through workplace connections: Opportunities for workers with intellectual disabilities. *Journal of Social Work in Disability & Rehabilitation*, *8*(3-4), 146-170. https://doi.org/10.1080/15367100903200452

Hall, S. (1997). *Representation: Cultural representations and signifying practices* (Vol. 2). Sage.

Harper, D. C., & Peterson, D. B. (2001). Children of the Philippines: Attitudes toward visible physical impairment. *The Cleft palate-craniofacial journal*, *38*(6), 566-576. https://doi.org/10.1597/1545-1569(2001)038<0566:COTPAT>2.0.CO;2

Harth, R. (1971). Attitudes towards minority groups as a construct in assessing attitudes towards the mentally retarded. *Education and Training of the Mentally Retarded*, *6*(4), 142-147.

Hoffner, C., & Buchanan, M. (2005). Young adults' wishful identification with television characters: The role of perceived similarity and character attributes. *Media Psychology*, *7*(4), 325-351. https://doi.org/10.1207/S1532785XMEP0704_2

Hogg, R. V., & Tanis, E. A. (2009). *Probability and statistical inference*. Pearson Educational International.

Horne, M. D., & Ricciardo, J. L. (1988). Hierarchy of response to handicaps. *Psychological Reports*, *62*(1), 83-86. https://doi.org/10.2466/pr0.1988.62.1.83

Huhmann, B. A., & Brotherton, T. P. (1997). A content analysis of guilt appeals in popular magazine advertisements. *Journal of Advertising*, *26*(2), 35-45. https://doi.org/10.1080/00913367.1997.10673521

Hyde, J. S. & Linn, M. C. (1988). Gender differences in verbal ability: A meta-analysis. *Psychological Bulletin*, *104*(1), 53-69. https://doi.org/10.1037/0033-2909.104.1.53

Iezzoni, L. I. (2006). Make no assumptions: Communication between persons with disabilities and clinicians. *Assistive Technology*, *18*(2), 212-219. https://doi.org/10.1080/10400435.2006.10131920

Kamenetsky, S. B., Dimakos, C., Aslemand, A., Saleh, A., & Ali-Mohammed, S. (2016). Eliciting help without pity: The effect of changing media images on perceptions of disability. *Journal of Social Work in Disability & Rehabilitation*, *15*(1), 1-21. https://doi.org/10.1080/1536710X.2016.1124251

Kossinets, G., & Watts, D. J. (2009). Origins of homophily in an evolving social network. *The American Journal of Sociology*, *115*(2), 405-450. https://doi.org/10.2307/20616117.

Lachance-Grzela, M. & Bouchard, G. Sex Roles (2010). Why Do Women Do the Lion's Share of Housework? *A Decade of Research*, *63*, 767. https://doi.org/10.1007/s11199-010-9797-z

Lauber, C., Nordt, C., Falcato, L., & Rössler, W. (2002). Determinants of attitude to volunteering in psychiatry: Results of a public opinion survey in Switzerland. *International Journal of Social Psychiatry*, *48*(3), 209-219. https://doi.org/10.1177/002076402128783253

Lazarus, R. S. (1991). Cognition and motivation in emotion. *American Psychologist*, *46*(4), 352-367. https://doi.org/10.1037/0003-066X.46.4.352

Lemay, R. (2006). Social role valorization insights into the social integration conundrum. *Mental Retardation*, *44*(1), 1-12. https://doi.org/10.1352/0047-6765(2006)44[1:SRVIIT]2.0.CO;2

Levy, J. M., & Hernandez, B. (2009). Employment and people with disabilities. *Journal of Social Work in Disability & Rehabilitation*, *8*(3-4), 99-101. https://doi.org/10.1080/15367100903200353

Lynch, R. T., & Groombridge, L. (1994). Person-first disability language: A pilot analysis of public perceptions. *Journal of Rehabilitation*, *60*(2), 18.

Marks, D. (1999). *Disability: Controversial debates and psychosocial perspectives*. New York, NY: Taylor & Francis/Routledge.

Mulac, A., Bradac, J.J., & Gibbons, P. (2001). Empirical Support for the Gender-as-Culture Hypothesis: An Intercultural Analysis of Male/Female Language Differences, *Human Communication Research*, *27*(1), 121-152. https://doi.org/10.1111/j.1468-2958.2001.tb00778.x

Ng, E.S.W. & J. McGinnis Johnson (2015). Millennials: Who are they, how are they different, and why should we care? In R. J. Burke, C. L. Cooper, & A. G. Antoniou (Eds.), *The Multi-generational and Aging Workforce: Challenges and Opportunities* (pp. 121-137). Cheltenham UK, Northampton, MA, USA: Edward Elgar Publishing.

"What to say (and not to say) about autism". National Autistic Society. (2004). Retrieved from http://www.autism.org.uk/

Neumann, R., Strack, F., Neumann, R., & Strack, F. (2000). "Mood contagion": The automatic transfer of mood between persons. *Journal of Personality and Social Psychology*, *79*(2), 211-223. https://doi.org/10.1037/0022-3514.79.2.211

Newman, M. L., Groom, C. J., Handelman, L. D., & Pennebaker, J. W. (2008). Gender Differences in Language Use: An Analysis of 14,000 Text Samples, *Discourse Processes*, *45*(3), 211-236. https://doi.org/10.1080/01638530802073712.

Norwich, B. (2002). Education, Inclusion and Individual Differences: Recognising and Resolving Dilemmas. *British Journal of Educational Studies*, *50*(4), 482-502, https://doi.org/10.1111/1467-8527.t01-1-00215

O'Keeffe, J. (1993). Disability, discrimination & the Americans with Disabilities Act. *Consulting Psychology Journal: Practice and Research*, *45*(2), 3-9. https://doi.org/10.1037/1061-4087.45.2.3

Obosi, S. (2010). *Disability-friendly language: Human rights imperative or game of linguistic leapfrog*? United Kingdom.

Olkin, R., & Howson, L. J. (1994). Attitudes toward and images of physical disability. *Journal of Social Behavior and Personality*, *9*(5), 81.

Owoeye, J. F. A., Ologe, F. E., & Akande, T. M. (2007). Medical students' perspectives of blindness, deafness, and deafblindness. *Disability & Rehabilitation*, *29*(11-12), 929-933. https://doi.org/10.1080/09638280701240565

Pavlenko, A. (Ed.). (2006). *Bilingual minds: Emotional experience, expression, and representation*. Multilingual Matters.

Peters, S. (2000). Is there a disability culture? A syncretisation of three possible world views. *Disability & Society*, *15*(4), 583-601. https://doi.org/10.1080/09687590050058198

Ralston, D. Christopher, & Ho, Justin. (2009, September 19). *Philosophical Reflections on Disability. Springer Science & Business Media*.

Reid, D. K., & Knight, M. G. (2006). Disability justifies exclusion of minority students: A critical history grounded in disability studies. *Educational Researcher*, *35*(6), 18-23. https://doi.org/10.3102/0013189X035006018

Rosli, H. F., Mahmud, W. A. W. & Mahbob, M. H. (2017). The role of media in community awareness towards the right of persons with disabilities (PWD). *Journal of Education and Social Sciences*, *7*(1), 67-73.

Rottenstein, A. (2014). *Survey on disability* (Unpublished raw data). University of Michigan, Ann Arbor.

Schmidt, G., & Weiner, B. (1988). An attribution-affect-action theory of behavior. *Personality and Social Psychology Bulletin*, *14*(3), 610-621. https://doi.org/10.1177/0146167288143021

Statistics Canada (2017). *Peel, RM [Census division], Ontario and Ontario [Province] (table). Census Profile. 2016 Census*. Statistics Canada Catalogue no. 98-316-X2016001. Ottawa. Released November 29, 2017. Retrieved May 3, 2019, from https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E

Stone, C. I., & Sawatzki, B. (1980). Hiring bias and the disabled interviewee: Effects of manipulating work history and disability information of the disabled job applicant. *Journal of Vocational Behavior*, *16*(1), 96-104. https://doi.org/10.1016/0001-8791(80)90041-X

Strohmer, D. C., Grand, S. A., Purcell, M. J., Strohmer, D. C., Grand, S. A., & Purcell, M. J. (1984). Attitudes toward persons with a disability: An examination of demographic factors, social context, and specific disability. *Rehabilitation Psychology*, *29*(3), 131-145. https://doi.org/10.1037/h0090983

Tajfel, H. (1982). Social psychology of intergroup relations. *Annual Review of Psychology*, *33*, 1-39. https://doi.org/10.1146/annurev.ps.33.020182.000245

Tajfel, H., & Turner, J. C. (2004). The Social Identity Theory of Intergroup Behavior. In J. T. Jost, & J. Sidanius (Eds.), *Key readings in social psychology. Political psychology: Key readings* (pp.

276-293). New York, NY, US: Psychology Press.

Tan, L. H., Chan, A. H. D., Kay, P., Khong, P., Yip, L. K. C., & Luke, K. (2008). Language affects patterns of brain activation associated with perceptual decision. *Proceedings of the National Academy of Sciences of the United States of America*, *105*(10), 4004-4009. https://doi.org/10.2307/25461356

Toronto Named The Most Diverse City In The World By BBC Radio. (2017, February 9). Retrieved from https://www.theculturetrip.com/north-america/canada/articles/toronto-named-most-diverse-city-in-the-world-by-bbc-radio/

Tukey, J. W. (1949). Comparing individual means in the analysis of variance. *Biometrics*, 99-114. https://doi.org/10.2307/3001913

Tyler, R. S. (1993). Cochlear implants and the deaf culture. *American Journal of Audiology*, *2*, 26-32. https://doi.org/10.1044/1059-0889.0201.26

Verdonschot, M. M. L., de Witte, L. P., Reichrath, E., Buntinx, W. H. E., & Curfs, L. M. G. (2009). Community participation of people with an intellectual disability: A review of empirical findings. *Journal of Intellectual Disability Research*, *53*, 303-318. https://doi.org/10.1111/j.1365-2788.2008.01144.x

Weatherall, A. (2002). *Gender, language, and discourse*. London: Routledge.

Weiserbs, B., & Gottlieb, J. (1995). The perception of risk over time as a factor influencing attitudes toward children with physical disabilities. *The Journal of Psychology*, *129*(6), 689-699. https://doi.org/10.1080/00223980.1995.9914939

Westbrook, M. T., Legge, V., & Pennay, M. (1993). Attitudes towards disabilities in a multicultural society. *Social Science and Medicine*, *36*(5), 615-623. https://doi.org/10.1016/0277-9536(93)90058-C

White, D. (2010). *The Nonprofit Challenge: Integrating Ethics into the Purpose and Promise of Our Nation's Charities*. Palgrave Macmillan US.

Whorf, B. L. (1956). *Language, thought, and reality: Selected writings of Benjamin Lee Whorf* (Edited by John B. Carroll.). Oxford, England: Technology Press of MIT.

Yuker, H. E. (1994). Variables that influence attitudes toward persons with disabilities: Conclusions from the data. *Journal of Social Behavior and Personality*, *9*(5), 3.

Zissi, A., Rontos, C., Papageorgiou, D., Pierrakou, C., & Chtouris, S. (2007). Greek employers' attitudes to employing people with disabilities: Effects of the type of disability. *Scandinavian Journal of Disability Research*, *9*(1), 14-25. https://doi.org/10.1080/15017410600973234