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The impact of supercrip representations on attitudes towards people with physical disabilities

by

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Honors Thesis

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### Abstract

The present study tested the idea that media representations depicting people with physical disabilities (PWPDs) as overcoming their disability to fit into society may improve explicit attitudes towards people with physical disabilities while undermining support for accessibility, sometimes coined “supercrip representations” (Shapiro, 1994). This might occur by evoking a sense of common identity among people without disabilities. It was hypothesized that supercrip representations of PWPDs would forge a sense of common in-group identity between participants and PWPDs and that this common identity salience would lead to more positive overt attitudes towards PWPDs, but less positive attitudes towards helping PWPDs and towards accessibility. Participants were exposed to one of three short video clips to manipulate identity salience (common, dual, or a control) between the participant and PWPDs. Participants then completed a series of questionnaires measuring attitudes towards PWPDs, towards accessibility, and towards helping PWPDs. Results showed no main effects of identity salience on participants' attitudes, however, gender effects and an interaction between gender and identity salience were found. These results indicated that women's attitudes towards PWPDs, and towards helping PWPDs, were more positive than were men's, and that men's attitudes towards accessibility may be more affected by a dual identity salience than are women's. Further research should be pursued regarding disability representations and attitudes towards PWPDs as this population is increasing in both social and political presence.

*To my father,  
who inspired, supported, and carried me through these last four years,  
and who will continue to do so for the rest of my life.*

### The Impact of Supercrip Representations on Attitudes Towards People with Physical Disabilities

Like any sociopolitical issue, societal attitudes towards people with physical disabilities influence peoples' support for policies and programs that are put in place for them. The World Health Organization (WHO; 2011) established that approximately 15% of people live with some form of disability. Despite being such a substantial proportion of the global population, it is normal for people with physical disabilities to remain marginalized in society. This marginalization exists most profoundly in the form systemic discrimination. For people with physical disabilities, systemic marginalization manifests as inaccessibility. As accessibility is a basic human right (*Canadian Charter*, 1982, s 15(1)), it is important to understand what variables influence peoples' support for it. To contribute to the understanding of these influences, the present study looks at the impact of supercrip imagery on attitudes towards people with physical disabilities and beliefs about the necessity of action regarding accessibility using an attitude change model based in social identity theory.

Past research shows that people with physical disabilities exist within a precarious attitudinal landscape. For example, explicit attitudes (Ferrara, Burns, & Mills, 2015) towards people with physical disabilities tend to be more favourable than implicit attitudes (Kallman, 2017). In addition, differences in gender, age, and education can influence one's attitude towards people with disabilities. It has been shown that women hold more positive attitudes towards people with disabilities across many settings, such as healthcare (e.g. Symons, Morley, McGuigan, & Akl, 2014), social inclusion (e.g. Li & Wang, 2013), and sexuality and sexual rights (e.g. Parsons, Reichl, & Pedersen, 2017) than men. Women also tend to show higher general comfort levels regarding people with disabilities than men (Morin, Rivard, Crocker, Boursier, & Caron, 2013). Research has also shown that younger and better educated individuals

display more positive attitudes towards people with disabilities than do older and less educated individuals (Morin et al., 2013).

Additionally, media representations of people with physical disabilities contribute to society's attitudes towards people with physical disabilities (Haller, 2010). This is because media representations are often the easiest, most frequent, or only source of exposure to people with physical disabilities that people may receive. Most troublingly, these sources often misrepresent people with disabilities. For example, Haller (2010) conducted a quantitative analysis on news media. In particular, she was investigating whose voice was being privileged, and how people with disabilities were being portrayed, when newspapers reported on the topic of people with disabilities. After reviewing 256 news stories, Haller found that most representations either bore a patronizing or inspirational tone, and that people with disabilities were only used as sources in positive highlights, but not in serious issues, such as disability policy and rights. This situation is similar in television media. Considering the changing landscape for people with physical disabilities with the upcoming establishment of universal accessibility as per the *Accessibility for Ontarians with Disabilities Act* (AODA; 2005), it is important to understand the impact that common representations of disability may have on attitudes, and people's willingness to implement the AODA.

While there has been extensive research completed regarding intergroup attitudes and how these attitudes predict support for policies benefitting certain groups, these social groups are often operationalized as immigrants (Esses, Dovidio, Jackson, & Armstrong, 2001; Jackson & Esses, 2000; Verkuyten & Martinovic, 2015), African-Americans (Banfield & Dovidio, 2013; Kauff, Green, Schmid, Hewstone, & Christ, 2016) or religious denominations (Saguy & Chernyak-Hai, 2012; Saguy, Tausch, Dovidio, & Pratto, 2009). Rarely have people with physical

disabilities been considered when researching intergroup attitudes, particularly when considering attitudinal implications for policies and intergroup helping.

### **Disability Studies and Supercrip Theory**

Originally coined by Shapiro (1994), supercrip representations of people with physical disabilities are representations that focus on people with disabilities' ability to overcome their disability and blend in successfully with their non-disabled counterparts in a hegemonic society. What becomes 'super' about these representations is that the people with physical disabilities are engaging in activities that they are stereotypically thought to be incapable of. A form of inspiration porn, which is a situation in which people with disabilities are disproportionately celebrated for doing mundane tasks, these kinds of representations are often frowned upon within the discipline of Disability Studies and among people with disabilities for their possible negative implications for attitudes towards people with physical disabilities and patronizing nature (Grue, 2016). These representations are thought to have three types of negative implications for people with disabilities. First, supercrip representations serve to marginalize people with physical disabilities, as they suggest that any person with a disability who can manage to live a normal or extraordinary life is overachieving—surpassing what is expected of someone with a disability. Silva and Howe (2012) note that this view is harmful to people with physical disabilities, and people with disabilities in general, as it reinforces the notion that expectations should be low with respect to what people with disabilities are or should be capable of. Second, Silva and Howe (2012) additionally note that reinforcing this supercrip stereotype could lead to an expectancy bias for people without disabilities. This is the idea that all people with physical disabilities can and should overcome their disability and function 'normally' or extraordinarily like a supercrip: They just have to try harder (Berger, 2008; Silva & Howe, 2012).

As media representations of supercrips are largely sourced from Paralympic ad campaigns, these supercrip narratives are prevalent, but not everything about them is negative. Representations of athletes such as Aimee Mullins have been brought to the forefront both as detrimental for attitudes towards people with physical disabilities (Silva & Howe, 2012), but also as providing necessary role models for people with physical disabilities aspiring to have a career in sports (Berger, 2008). While having positive role models is important, it is not people with physical disabilities that create the political landscape for themselves. Supercrip representations clearly have the potential to have effects on mainstream society's perceptions of people with physical disabilities, making them an important topic to discuss. Supercrip imagery, therefore, has the potential to both harm and help people with physical disabilities. Using psychological theory, the present study will further examine the mixed nature of the possible effects of supercrip imagery on people with physical disabilities.

### **Social Identity Theory**

Social identity theory can help interpret the implications of media representations of people with physical disabilities. Social identity theory (Tajfel & Turner, 1979, 1986) notes that people tend to develop preferences for social groups to which they belong. This has to do with the intrinsic human need to feel good about oneself and one's own group affiliation (Jackson, 2011). These positive in-group biases take many forms. In-group members are often perceived more positively (Ratner, Dotsch, Wigboldus, van Knippenberg, & Amodio, 2014), and specifically as more human and therefore more intelligent (Leyens et al., 2001) than are outgroup members. Although this in-group bias does not always generate negativity toward members of other groups, social identity theory notes that this may be more of an exception than a rule. For example, outgroup members are often perceived more negatively (Ratner et al., 2014), and as

less human and therefore less intelligent (Leyens et al., 2001) than are in-group members. The psychological effects of self-categorization are so marked that arbitrary labels are enough to yield a positive in-group and negative outgroup bias (Allport, 1979; Dovidio, Gaertner, Shnabel, Saguy, & Johnson, 2009).

Further exacerbating this situation are the phenomena of in-group and outgroup homogeneity. Due to the essentialist tendencies of humans, when one belongs to a certain social group, they are more likely to ascribe a general essence to the group (Haslam, Rothschild, & Ernst, 2000). Essentialism is especially highlighted in disability theory, as it is often the mechanism by which people with physical disabilities become categorized and marginalized (Linton, 1998). In-group homogeneity, or the perception of all members of one's group as sharing similarities, often emphasizes positive qualities and therefore has positive attitudinal implications. In contrast, outgroup homogeneity, or the perception that all members of another group are similar, tends to emphasize negative characteristics and so leads to further dissociation with the outgroup (Brown, 2000). These negative consequences of creating a divide between social groups have led to the widespread belief that forging a common in-group identity among majority and minority groups will lead to positive affect and inclusion.

As people form an in-group and consequent outgroup, social identity theory describes how it is possible for people to form a common in-group identity, or a shared group membership between two or more individuals (Gaertner & Dovidio, 2000). This is because in-group formation leads to individuals identifying more closely with in-group members (Gaertner, Dovidio, & Bachman, 1996). Following from this, the Common In-group Identity Model (Gaertner & Dovidio, 2000) posits that when a common identity between two groups is forged, more positive cognitive, affective, and behavioural processes that are normally extended to in-

group members alone are then extended to former outgroup members (Gaertner et al., 1996). For example, Dovidio et al. (2009) found that White participants were significantly more likely to extend empathic concern towards a Black confederate when a common identity between Black and White individuals was made salient than when a dual identity between Black and White individuals was made salient.

On the surface, forging a common in-group identity between two otherwise separate groups has generally been construed as positive within society. This is likely because it logically follows that if a previous outgroup member is considered part of one's in-group, one is more likely to ascribe a positive valence to that individual due to the beliefs that one holds about members of their in-group. Some research has shown that forging a common in-group identity can lead to more positive overt perceptions of a previously marginalized group (Ferrara et al., 2015; Kunst, Thomsen, Sam, & Berry, 2015). For example, Kunst et al. (2015) showed that when modern racism is considered as a mediator between identity salience and integration efforts, the establishment of a common in-group identity positively predicted support for integration efforts. Additionally, Shnabel, Dovidio, and Levin (2016) showed that forging a common in-group identity between majority and minority groups can prevent an intergroup threat from affecting the majority group's support for policy change that benefitted the minority group.

However, research showing the negative effects of forging a common in-group identity between two groups cannot be ignored. When studying common in-group identity and its implications for social change, the attitudes of the majority group are most often focused on. This is because it is the attitudes of the majority group—the group in power—that shape the social and political landscape for minority groups (Dovidio et al., 2009). However, research has

shown a disconnect between majority group attitudes towards helping minority groups and the manifestation of these attitudes as actions that actually help them. For example, though Dovidio et al. (2009) found that White majority group members had more positive attitudes towards, and spent more hours volunteering to help Black minority group members when they felt a sense of common in-group identity with Black minority members, identity salience and likelihood of helping were not strongly related.

Furthermore, common in-group identity has been shown to reduce perceptions of existing inequality from the viewpoint of both the minority group (Ufkes, Calcagno, Glasford, & Dovidio, 2016) and majority group (Banfield & Dovidio, 2013) within a society. Regarding minority group perspectives, Ufkes et al. (2016) found that forging a common American identity among racial minorities in the United States led to a decrease in perceptions of bias towards members' own minority group, as well as a decrease in willingness to engage in collective action to benefit one's own minority group. Regarding the perspective of the majority group, Banfield and Dovidio (2013) showed in a series of experiments that forging a common in-group identity between racial majority and minority members in the United States led to less perception of discrimination and less willingness to protest discrimination in majority group members. In the context of people with physical disabilities, this would mean that both people with and without physical disabilities would see people with physical disabilities as less discriminated against than they actually are. This is particularly problematic, as it results in a lack of incentive to agitate for social change and equality among both groups (Banfield & Dovidio, 2013; Saguy et al., 2009; Ufkes et al., 2016). Extending these ideas further, Saguy et al. (2009) found that while the majority group's overt attitudes towards minority groups can be improved by forging a common in-group identity, this identity salience did not affect the majority's willingness to reallocate

resources to benefit the minority group. Not only did forging a common in-group identity provide a disincentive for minority group members to agitate for change for themselves, but it also led to minority group members believing that the majority would promote equality on their behalf, even though this did not occur.

While forging a common in-group identity has often been seen as an ideal for which we might strive due to the positive outcomes that this identity salience has for in-group members, it clearly does not always yield positive results. This does not mean that all hope is lost, though. The literature has shown that emphasizing a dual identity is more efficacious at leading to equality. Dual identity is the emphasis of both a shared group identity and a group identity unique to the identity target (e.g. Japanese-Canadians in Canadian society). Dual identity is thought to be more beneficial for minority group members, as it highlights both the social similarities and the systemic differences between majority and minority group members (Dovidio et al., 2009). For example, Verkuyten and Thijs (2010) showed the positive effect of dual identity salience on the attitudes of an ethnic majority group in their study regarding ethnic minority labeling. Taking their sample from the Netherlands, these researchers studied the negative perceptions of ethnic minority groups within the majority Dutch population. They found that dual labeling (e.g. Turkish-Dutch) led to more positive attitudes in Dutch participants towards out-group members than single-labeling (e.g. Turks).

The final piece of the logical puzzle is that between identity salience and attitudes towards helping marginalized outgroups. Banfield and Dovidio (2013) conducted a series of experiments exploring the relationship between identity salience and helping attitudes in White participants with respect to Black members of society. In their first experiment, the researchers manipulated the presence of intergroup threat and measured the perception of bias in a Human

Resources (HR) hiring task in which a Black applicant was being discriminated against. They found that when there was no presence of an intergroup threat, participants who were high in common identity salience perceived less bias towards outgroup members than did those who were high in dual identity salience.

Banfield's and Dovidio's (2013) second experiment used the same HR paradigm but this time manipulated the discrimination to be either blatant or subtle and measured participants' willingness to protest the discrimination. They found that when the Black applicant was blatantly discriminated against, there was no significant difference between identity salience conditions with respect to participants' perception of bias and willingness to protest. However, when subtle discrimination was present, individuals in the common identity salience condition were significantly less likely to perceive discrimination and were also significantly less willing to protest the discriminative decision. This lack of willingness to protest could have been due to the lack of perception of discrimination.

Their third and arguably most important experiment involved only blatant discrimination. In this experiment, the researchers found that regardless of identity salience, discrimination was perceived by participants, yet only participants to whom a dual identity was salient were highly willing to protest this discrimination. Both participants to whom a common identity was salience, or to whom no identity was salient, were significantly less willing to protest this decision (Banfield & Dovidio, 2013).

Banfield's and Dovidio's (2013) series of experiments show the implications for social action when either a dual identity or common identity is salient. This finding is suggested to be due to the idea that forging a common identity between minority and majority group members can forge more positive overt attitudes while undermining attitudes towards effecting social

change to benefit minority groups (Dixon, Durrheim, & Tredoux, 2007). The results from Study 3, that when a common identity is made salient, majority group members are less likely to agitate for equality, provide the logical framework upon which the present study will be based.

### **The Present Research**

Since people with disabilities, and particularly people with physical disabilities, as a minority population have not been extensively explored in psychological research, and as the sociopolitical landscape for people with physical disabilities continues to change, it becomes increasingly important for attitudes towards people with physical disabilities to be understood. The motivation behind supercrip representations of people with physical disabilities in the media (e.g. Paralympic advertisements) is to yield more positive overt attitudes towards people with physical disabilities. These feel-good, inspiring campaigns have to be doing some sort of good considering the longevity of this narrative. However, empirical psychological research suggests that, assuming these media representations alter identity salience, they might be yielding more negative, rather than more positive attitudes towards people with physical disabilities. Supercrip representations are predicated on the notion that a person with a physical disability is achieving in spite of their disability—they are achieving something that is only expected of able-bodied people (Silva & Howe, 2012). As the hegemonic perception of people with physical disabilities is that they are unable to do much of what able-bodied people are able to do, supercrip representations that present people with physical disabilities doing what are perceived to be able-bodied things (e.g. Olympic feats) display a similarity between people with physical disabilities and able-bodied individuals. This similarity may then lead to a common identity salience between people with physical disabilities and people without physical disabilities, as the person with a physical disability who is a supercrip is perceived to be “just like” people without physical

disabilities. As such, yielding a common in-group identity between people with and without physical disabilities may then lead to lessened sensitivity to and social action regarding disability issues on the parts of both the minority group of people with physical disabilities (Ufkes et al., 2016) and the majority group of people without disabilities (Banfield & Dovidio, 2013).

Disability Studies scholars posit that these representations are, in some ways, harming people with physical disabilities (Howe, 2011; Silva & Howe, 2012), but rarely has this idea been empirically studied. This is ironic, as the organizations who create these supercrip representations are often those that are dedicated to improving the lives of people with physical disabilities. The present research aims to reconcile the seemingly contradictory nature of supercrip representations—that they simultaneously serve to help people with physical disabilities but potentially harm them. Perhaps supercrip representations increase the favourability of overt attitudes towards people with physical disabilities, but because they forge a sense of common in-group identity between people with and without physical disabilities, they may undermine attitudes towards helping people with physical disabilities. While this research could help direct the development of media representations of people with physical disabilities, it is a novel cross between Disability theory and psychology.

Given the above research, the present research hypothesizes that a) supercrip representations, above and beyond other forms of representations of disability, will forge a common in-group identity. Furthermore, it is hypothesized that it is through this forging of common in-group identity that supercrip representations lead to b) more positive overt attitudes towards people with physical disabilities, while also forging c) more negative attitudes towards helping people with physical disabilities, specifically d) in the form of accessibility.

## **Methods**

## Participants

The present study enlisted 157 first-year Psychology 1000 students at King's University College, an affiliate of Western University. All participants were selected based on a volunteer convenience sample via the King's SONA website. Of the participants who began the study, 111 reported their age and gender (78 females, 33 males,  $M_{age} = 19.14$ ). Of the 111 participants who reported their age and gender, five participants did not complete the study in entirety and were consequently excluded from the data analyses, leaving a total of 106 participants (75 females, 31 males,  $M_{age} = 19.02$ ). Upon completion of the study, participants were given the option to complete a short assignment regarding the details of the study for 2.5% in bonus marks for their Psychology 1000 class. Due to the nature of a convenience sample from a post-secondary institution, there is the possibility of overrepresentation of middle and upper socio-economic statuses.

## Materials

**Common in-group identity manipulation video.** It was required that the video selected for this manipulation was a previously televised advertisement that depicted people with physical disabilities and people without disabilities engaging in similar physical activities. The *All Sweat Is Equal Manifesto (Full Version – Sport Chek)* (Sport Chek, 2015) is a promotional video for Sport Chek. This video shows supercrips, or people with physical disabilities overcoming their disabilities, to the point where they are performing alongside people without disabilities effectively. People with physical disabilities are represented as similar to, equal to, or even surpassing people without disabilities. This video was meant to evoke a sense of common in-group identity between the participant and people with physical disabilities. This video is 1

minute and 2 seconds long and can be located online at

<https://www.youtube.com/watch?v=Rdz3fUiK4XY>

**Dual identity manipulation video.** It was required that the video selected for this manipulation was a previously televised advertisement that depicted a clear difference between people with physical disabilities and people without disabilities engaged in equivalent sporting activities. The *Guinness basketball commercial*. (GuinnessCommercials, 2013) is a promotional video for Guinness, a popular beer manufacturer. This video shows a group of men playing wheelchair basketball. At the end of their game, one man with a physical disability remains in his wheelchair while his friends get up from their wheelchairs and depart the basketball court, showing the marked difference between the person with a physical disability and the people without a physical disability. This video was meant to evoke a sense of dual identity between the participant and people with physical disabilities, such that people with physical disabilities are seen as similar to, but still different from, people without disabilities. This video is 1 minute and 1 second long and can be located online at

[https://www.youtube.com/watch?time\\_continue=2&v=xwndLOKQTDs](https://www.youtube.com/watch?time_continue=2&v=xwndLOKQTDs).

**Control video.** It was required that the video selected for this manipulation was a previously televised advertisement that depicted only people without disabilities engaged in sporting activities. The *Rio 2016 Summer Olympics Commercial* (Rio Summer Olympics 2016, 2016) is a promotional video for the Rio 2016 Summer Olympics. This video has no explicit representations of people with disabilities, and as such, should evoke no identity salience in the participants with respect to people with physical disabilities. Participants viewing this video were in our control condition within this study. This video is 1 minute and 45 seconds long and can be located online at [https://www.youtube.com/watch?v=WzfeF\\_S0dzU](https://www.youtube.com/watch?v=WzfeF_S0dzU)

**Demographic Questionnaire.** This questionnaire collected the demographic information of gender and age from participants using an open-ended format.

**Common In-group Identity Manipulation Check (Appendix A).** Created for this specific study, this 5-item scale was designed to measure whether the independent variable manipulation was effective in evoking a stronger sense of common in-group identity in the common identity condition. Participants responded on a 7-point Likert-type scale with anchors ranging from 1 (Strongly disagree) to 7 (Strongly agree). Items included questions suggesting that common in-group identity was achieved (e.g. “I feel similar to people with physical disabilities”), and reverse-coded items suggesting that common in-group identity was not achieved (e.g. “People with physical disabilities are inherently different from people without disabilities”).

**Overt Attitudes Toward People with Physical Disabilities Thermometer Measure (Appendix C).** Adapted from Esses, Haddock, and Zanna (1993), this measure was altered to collect a self-report of participants’ overt attitudes towards people with physical disabilities. Participants ranked their attitudes towards people with physical disabilities on this single-item scale, based on a thermometer scale as a visual aid, from 0 (Extremely Unfavourable) to 100 (Extremely Favourable).

**Scale of Modern Prejudice Towards People with Physical Disabilities (Appendix D).** This scale was adapted from Akrami's, Ekehammar's, Claesson's, and Sonnander's, (2006) Modern and Classical attitudes scale towards people with intellectual disabilities to reflect the attitude that people with physical disabilities are no longer in need of social assistance as equality has already been achieved, or modern prejudice. It consisted of ten items rated on a 7-

point Likert scale ranging from 1(Strongly disagree) to 7(Strongly agree). This scale was calculated by averaging participants' scores across all items.

**Applied Accessibility Questionnaire (Appendix E).** Created for this specific study, this scale consisted of six items designed to measure participants' attitudes towards particular accessibility scenarios. Participants responded on a 7-point Likert scale ranging from 1(Strongly disagree) to 7(Strongly agree). Questions 1, 2, and 6 were targeted towards general accessibility beliefs (e.g. "People in society should make things as accessible as possible for people with physical disabilities, even if this means going above and beyond what they are required to do by law."), while questions 3, 4, and 5 were specific accessibility scenario questions (e.g. "As long as accessible parking spaces are close to the entrance of a building, a business has done its due diligence."). This scale was calculated by averaging participants' scores across all items.

**Helping People with Physical Disabilities Scale (Appendix F).** This 9-item questionnaire was adapted from Jackson's & Esses' (2000) Immigrant Helping Scale to reflect attitudes towards people with physical disabilities. Participants responded on a 7-point Likert scale ranging from 1(Strongly disagree) to 7(Strongly agree). Items 1 through 3 referred to group empowerment (e.g. "People with disabilities need the cooperation of others to compensate for the obstacles imposed upon them in adjusting to life in society."). Items 4 through 6 referred to group change (e.g. "People with physical disabilities simply need to be more motivated to solve their problem of adjusting to society."). Items 7 through 9 referred to direct assistance (e.g. "People with disabilities face problems of adjustment that aren't their fault, so the government should provide programs to help them adjust.").

## Procedure

Ethics approval was granted by King's University College's Research Ethics Review Board. At the beginning of their school year, introductory psychology students were made aware of the availability of King's University College's SONA Website, through which they were able to participate in psychology studies to earn up to 5% in bonus marks for their introductory psychology course grade. Interested participants who attended the King's University College's SONA Website were then given a small amount of information regarding the present study. Those who were interested in participating were then redirected to Western University's Qualtrics website. Participants read the letter of information and consent and were asked to type "I agree" into a text box to confirm that they agreed to participate in the study. Participants then began the study by being randomly assigned to view one of the three manipulation videos. Participants were not able to continue with the study unless they completed this task. Following this, participants completed the measures found in Appendices A through F in their respective order ( $M_{time} = 52468.08$  s). Once participants completed the study, they were then provided with the debriefing form and instructions on how to receive their 2.5% bonus marks for their Psychology 1000 class. All data was recorded via Western University's Qualtrics website.

## Design

The present study was an experiment with one independent variable and three dependent variables. The independent variable was identity salience (common identity, dual identity, control). The dependent variables were attitudes towards people with physical disabilities (overt and modern), attitudes towards helping people with physical disabilities, and attitudes towards accessibility. Attitudes towards people with physical disabilities were operationally defined as participants' scores on the Overt Attitudes Toward People with Physical Disabilities

Thermometer Measure and the Scale of Modern Prejudice Towards People with Physical Disabilities. Attitudes towards helping people with disabilities were operationally defined as participants' score on the Helping People with Physical Disabilities Scale. Attitudes towards accessibility were operationally defined as participants' score on the Applied Accessibility Questionnaire.

## Results

### Preliminary Analyses

**Factor analyses.** A Principal Components analysis was conducted on the Attitudes Towards Helping People with Physical Disabilities Scale to determine if the original subscales of Empowerment, Direct Assistance, and Group Change established by Jackson and Esses (2000) persisted in the present study. This was done using a varimax rotation and a pairwise exclusion of cases. Two factors with eigenvalues over 1 emerged. Based on a factor loading cut off of .40, it was determined that while the original factor of Group Change was still independent, the factors of Empowerment and Direct Assistance became one construct in the present study. Two separate scales were calculated for these factors. Items loading onto the former Empowerment and Direct Assistance subscales became the subscale of "Social Model Helping". Social model forms of helping are those in which society changes through things like policy change and barrier removal to include people with disabilities as equal citizens (Linton, 1998). Items loading onto the former subscale of Group Change became the subscale of "Individual Model Helping". Individual model forms of helping are those in which people with disabilities are expected to conform to current societal norms in order to be equal citizens. This type of helping is generally construed as negative and unsupportive of people with disabilities (Linton, 1998).

**Reliability analyses.** Reliability analyses were conducted on all scales, including the two new subscales of the Attitudes Towards Helping People with Physical Disabilities Scale, except for the single-item Overt Attitudes towards People with Physical Disabilities Thermometer Measure. Scales were assessed for reliability with coefficient Alpha, for which a criterion of  $\alpha > .80$  was considered highly reliable.

***Common In-group Identity Manipulation Check (Appendix A).*** A reliability analysis showed that the Common In-group Identity Manipulation Check was not very reliable ( $\alpha = .48$ ). Analyses showing Chronbach's Alpha if an item was deleted showed that eliminating item 2 ("Even though people with physical disabilities have a disability, they are still very similar to everyone else.") would increase the scale's reliability to  $\alpha = .61$ , which was still not very reliable. This scale was computed by averaging participants' scores over all items, excluding item 2.

***Scale of Modern Prejudice Towards People with Physical Disabilities (Appendix C).*** A reliability analysis showed that the Scale of Modern Prejudice Towards People with Physical Disabilities was reliable ( $\alpha = .79$ ). This scale was computed by averaging participants' scores over all items.

***Applied Accessibility Questionnaire (Appendix D).*** A reliability analysis showed that the Applied Accessibility Questionnaire was somewhat reliable ( $\alpha = .71$ ). This scale was computed by averaging participants' scores over all items.

***Helping People with Physical Disabilities Scale (Appendix E).*** After dividing this scale into two subscales, reliability analyses were conducted separately on the Social Model Helping Subscale (Items 1, 2, 3, 7, 8, 9) and the Individual Model Helping Subscale (Items 4, 5, 6).

*Social Model Helping Subscale.* A reliability analysis showed that the Social Model Helping Subscale was reliable ( $\alpha = .78$ ). This subscale was computed by averaging participants' scores over all items.

*Individual Model Helping Subscale.* A reliability analysis showed that the Individual Model Helping Subscale was not very reliable ( $\alpha = .61$ ). This subscale was computed by averaging participants' scores over all items.

### **Tests of Hypotheses**

**Manipulation check.** To test the effectiveness of the video manipulation, and to examine whether any of this effectiveness was moderated by gender, a 3 (experimental condition) by 2 (participant gender) mixed factorial ANOVA was conducted on the manipulation check variable (perceptions of similarity to people with physical disabilities). The main effects of condition and gender, and the interaction between them were nonsignificant (all  $F$ s < 1.6, *ns*).

**Tests of hypotheses.** Though the manipulation was not successful in affecting perceptions of similarity between participants and people with physical disabilities, it was possible that exposure to the manipulation could still shape attitudes towards people with disabilities, accessibility, or attitudes towards helping people with disabilities. Therefore, the hypotheses were tested using a 3 (experimental condition) by 2 (participant gender) multivariate ANOVA on attitudes towards people with disabilities, modern prejudice, attitudes towards accessibility, and attitudes towards the social and individual models of helping. A multivariate effect of participant gender emerged (Wilks' Lambda  $F(5, 96) = 3.57, p = .005$ ). The main effect of experimental condition was not significant, all  $F$ s < 1.1, *ns*. For the interaction between experimental condition and participant gender, 3 of 4 multivariate tests were non-significant, but Roy's Largest Root was significant,  $F(5, 97) = 2.40, p = .042$ .

Given the significance of the multivariate effects, the univariate effects were examined. Main effects of gender emerged on overt attitudes towards people with disabilities,  $F(1, 100) = 7.64, p = .007$ , attitudes towards accessibility,  $F(1, 100) = 6.25, p = .014$ , individual model forms of helping,  $F(1, 100) = 9.88, p = .002$ , and social model forms of helping,  $F(1, 100) = 6.86, p = .010$ . As shown in Table 1, women had more positive overt attitudes towards people with disabilities, more positive attitudes towards accessibility, and more positive attitudes towards social model forms of helping than did men. Men had more positive attitudes towards individual model forms of helping than did women.

In addition, an experimental condition by participant gender interaction emerged on attitudes towards accessibility,  $F(2, 100) = 3.25, p = .043$ . In order to interpret this interaction, men's and women's attitudes towards applied accessibility were compared in each of the experimental conditions.

As shown in Table 2, in the dual identity condition, men's attitudes towards accessibility ( $M = 4.43, SD = .56$ ) were significantly less positive than were women's ( $M = 5.58, SD = .76$ ),  $t(28) = -4.2, p < .001$ . Inspection of means indicated that men's attitudes towards accessibility were more negative in comparison to the other conditions ( $M_{\text{common identity}} = 5.01, M_{\text{control}} = 5.17$ ), however this contrast was not significant,  $F(2, 28) = 1.96, ns$ . This is possibly due to a lack of statistical power, as there were very few male participants.

### **Additional Analyses**

As the manipulation of perceived similarity (common identity) was not successful, the relation between similarity and attitudes were analysed with correlations. As follows from the idea that enhanced perceptions of similarity may predict positive attitudes towards people with physical disabilities, but not necessarily towards accessibility, results of the Pearson correlation

Table 1  
*Means and Standard Deviations of Men's and Women's Attitude Ratings Towards Dependent*

*Variables*

	Overt Attitudes (SD)	Attitudes towards Accessibility (SD)	Individual Model Helping (SD)	Social Model Helping (SD)
Women	83.09 (16.67)	5.33 (.89)	3.90 (1.05)	5.40 (.74)
Men	73.87 (16.26)	4.83 (.87)	4.49 (1.06)	4.88 (.89)

Table 2

*Men's and Women's Average Attitudes Towards Accessibility Across Experimental Conditions*

	Dual Identity* (SD)	Common Identity (SD)	Control (SD)
Women	5.58 (.76)	5.42 (1.07)	5.06 (.72)
Men	4.43 (.56)	5.01 (.89)	5.17 (1.07)

*Note.* \*  $p < .001$

indicated that self-reported perceived similarity to people with disabilities was correlated significantly and positively with overt attitudes towards people with disabilities  $r(104) = .37, p < .01$ . Correlations between self-reported perceived similarity to people with disabilities and attitudes towards accessibility and helping (social model and individual model) were near zero and non-significant,  $r_s < .09, ns$ .

### Discussion

The present study's main hypotheses were that a) supercrip representations would uniquely forge a sense of common identity salience between the viewer and people with physical disabilities, and those media representations of disability that forge common identity salience would lead to b) more positive overt attitudes towards people with physical disabilities, c) more negative attitudes towards helping people with disabilities, and d) more negative attitudes towards accessibility. There was no main effect of the experimental condition on the manipulation check variable, and so hypothesis A, that supercrip representations would uniquely forge a sense of common identity salience between the viewer and people with physical disabilities, was not supported. There were also no main effects of the experimental condition on overt attitudes towards people with disabilities (Hypothesis B), modern prejudice (Hypothesis B), attitudes towards accessibility (Hypothesis D), nor attitudes towards the social and individual models of helping (Hypothesis C), and so hypotheses B, C, and D were not supported.

This could mean that differential representations of people with disabilities do not have a concrete effect on attitudes towards people with disabilities. Previous research has found mixed results regarding the effects of media representations on attitudes towards people with disabilities. Some research shows that different types of representations do not yield different attitudes towards people with disabilities (Ferrara et al., 2015), while other research shows that

representations that forge a sense of common identity yield more positive attitudes towards people with disabilities (Bruce, 2014).

Another explanation for the non-support of the experimental hypotheses or that the manipulation used was not strong enough. It is possible that replicating the present study using different stimuli to manipulate identity salience would yield different results. While this study's goal was to look at the influence of supercrip media representations on attitudes towards people with disabilities, it is possible that multiple or sustained exposures to representations of people with disabilities are what influence peoples' attitudes towards them.

Though the present study's hypotheses were not supported, data analyses yielded unexpected gender effects and an interaction effect between gender and experimental condition. Analyses showed that women had more positive overt attitudes towards people with physical disabilities, more positive attitudes towards accessibility, and more positive attitudes towards social model forms of help for people with physical disabilities than did men, while men had more positive attitudes towards individual model forms of help for people with physical disabilities than did women. Further analyses showed an interaction effect between condition and gender with respect to attitudes towards accessibility. More specifically, it was found that while men and women did not differ significantly on their attitudes towards accessibility when a common identity or no identity with people with physical disabilities was made salient, men held significantly less positive attitudes towards accessibility than did women when the dual identity of people with physical disabilities was made salient.

Prior research has shown that women tend to hold more positive attitudes towards people with disabilities across many contexts. This is assumed to be a result of women's tendency to be higher in empathy than men's (Vilchinsky, Werner, & Findler, 2010), however little direct

research has been conducted to confirm this. This may help explain why, in the present study, women rated their attitudes towards people with physical disabilities more positively on multiple dimensions, while men showed more support towards individual model forms of helping, which are less supportive of people with physical disabilities than are social model forms of helping.

Additionally, individual model ideology posits that the person with a disability must be “fixed” in order to be considered equal in society (Linton, 1998). The individual model ideology, defined in Disability Studies as the belief that group members must alter something about themselves in order to fix their own problems, and that groups themselves are responsible for the problems with which they live, is known in psychology as group change ideology (Jackson & Esses, 2000). Jackson and Esses (2000) showed that individuals who are high in social dominance orientation are more likely to support methods of helping outgroup members that stem from group change, rather than forms of direct assistance that provide resources or empowerment that yields social change. Social dominance orientation is the tendency for one to support both group-based dominance and group inequality within society (Pratto, Sidanius, Stallworth, & Malle, 1994). Men are shown to be higher in social dominance orientation across many contexts (Foels & Reid, 2010; Fraser, Osborne, & Sibley, 2015; Zakrisson, 2008). Thus, it is possible that men’s tendency to be high in social dominance orientation led to their more supportive attitudes of individual model based helping for people with physical disabilities.

Though women and men did not differ significantly in their attitudes towards accessibility in the common identity salience or control conditions, in the dual identity condition, men’s and women’s attitudes towards accessibility differed significantly. The nonsignificant trend was due to a decrease in men’s attitudes towards accessibility in this condition in comparison to the other conditions.

While the present results were unexpected, this type of finding is not unprecedented. Dual identity salience requires that individuals define who constitutes an in-group versus an outgroup member. In addition, people tend to hold more negative attitudes towards outgroups that hold competing ideologies to one's own. For example, McDaniel, Nooruddin, and Shortle (2011) found that Evangelical Protestants' beliefs that immigrants would harm the pre-existing culture in the United States largely contributed to their negative attitudes towards immigrants. Competing ideologies leading to negative intergroup attitudes is the phenomenon of symbolic threat (Stephan & Stephan, 2000). Items in the Applied Accessibility Questionnaire had the potential to make salient a belief system that challenged participants' own belief systems, introducing an element of symbolic threat. In conjunction with the differences in identities made salient by the dual identity condition, the possibility of symbolic threat could explain the difference in participants' attitudes in this specific identity salience condition.

Though the salience of intergroup threat in conjunction with dual identity salience might explain the differences in attitudes towards accessibility between experimental conditions, the specific difference in attitudes towards accessibility in men might be explained gender differences in social dominance orientation. Men have been shown to be generally higher in social dominance orientation than women (Foels & Reid, 2010). Individuals high in social dominance orientation often respond negatively if they perceive intergroup competition for resources (e.g. Jackson & Esses, 2000; Shnabel et al., 2016). Noting the need for accessibility implementations, salient situations known to participants may have brought to mind the resources necessary in order to respond to these needs. One item in particular ("Small businesses should not be required to fully implement accessibility adaptations because these adaptations can cause a large financial strain on a business of this magnitude") had the potential to bring to

salience a situation in which people with disabilities might take resources from a middle-class business owner, who would stereotypically be male. This, combined with the fact that the differences in group membership between participants and people with physical disabilities had just been made salient had the potential to foster negative attitudes towards allocating resources towards helping people with physical disabilities. In general, these findings could help explain why men's attitudes towards accessibility may be influenced more strongly by dual identity salience than are women's attitudes.

### **Limitations**

Considering the non-significance of the hypothesized findings, limitations of this study must be discussed. It cannot be definitely determined whether the experimental manipulation was not strong enough, or whether the manipulation check itself was insufficient. However, as there were no main effects of the identity salience manipulation on the dependent variables in the present study, it is possible that the manipulation was not strong or focussed enough. Another limitation of this study is the homogeneity of the sample. Participants were recruited using a convenience sample of undergraduate students at a liberal arts post-secondary institution. This has the potential to lead to sample bias, as the student body is predominantly female, and as students at this institution may be more liberal in their belief systems. Also, the online administration of this study may not have been effective at collecting participants' true attitudes. Though this study should have taken an average of 25 minutes to complete, the average time that participants took to complete the study was 52 486.08 seconds, or 14 hours and 35 minutes. It is possible that administering this study in-person would have led to a more reliable data set. Another issue arises within the methods used in the present study regarding the balance between internal and external validity. The present study opted to maximize its external validity, and so

previously aired, professionally created advertisements were used as manipulation materials. In doing so, the present study's internal validity was lessened due to possible confounds that existed within the previously made advertisements. For example, the video depicting a dual identity between people with and without disabilities only had representations of men with and without disabilities. This introduces a confound as the common identity and control video contained representations of both men and women, compromising the internal validity of this study. Finally, having scales validated for the target population of people with physical disabilities, or people with disabilities in general, might have helped improve the quality of the data. All of the scales used had to be modified or created. These modifications ranged from simply substituting "people with physical disabilities" for "people with intellectual disabilities" in Akrami et al.'s (2006) Modern Scale of Attitudes towards People with Intellectual Disabilities, to rewriting items in Jackson's and Esses' (2000) Attitudes Towards Helping Immigrants scale.

### **Practical Implications**

Though the present study has its flaws, its significant findings are useful. The present research reinforces the idea that gender differences in attitudes towards people with physical disabilities exist within society and suggests that those of different genders might hold different attitudes towards accessibility depending on the type of representation of people with physical disabilities to which they are exposed.

Knowing that gender differences exist in different attitude elements towards people with physical disabilities has the potential to help alter media messages for targeted advertisements. For example, disability organizations trying to foster more positive attitudes towards people with disabilities, or trying to raise funds for people with disabilities, might want to create a different marketing strategy depending on their target audiences.

**Future Directions**

While the present study's hypotheses were not confirmed, attitudes towards people with physical disabilities, and attitudes towards people with disabilities in general, should be further researched. While normally researched in the context of medical or intergroup relations, there is little research on the intersection between attitudes and policy. With the implementation of the Accessibility for Ontarians with Disabilities Act, the aging population, and therefore the inevitable need for more accessibility implementations, attitudes towards accessibility and towards implementing accessibility policy are increasing in importance. In addition, technological advances have contributed to people with disabilities' ability to coalesce and self-advocate, which is helping disability issues to become more politically and socially prominent than ever before. In order for psychological research to keep up with this changing socio-political landscape, scales evaluating attitudes towards people with disabilities should be created and validated. In addition, looking closely at the psychological variables that lead to the implementation and respect of the rights of people with disabilities, or lack thereof, would indicate the issues that need to be addressed by disability advocates and policy alike in order to ensure an equitable world for people with disabilities.

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## Appendix A

Common In-group Identity Manipulation Check

---

1. People with physical disabilities are very different from me.
  - Strongly disagree
  - Disagree
  - Somewhat disagree
  - Neither agree nor disagree
  - Somewhat Agree
  - Agree
  - Strongly agree
  
2. Even though people with physical disabilities have a disability, they are still very similar to everyone else.
  - Strongly disagree
  - Disagree
  - Somewhat disagree
  - Neither agree nor disagree
  - Somewhat Agree
  - Agree
  - Strongly agree
  
3. People with physical disabilities are inherently different from people without disabilities.
  - Strongly disagree
  - Disagree
  - Somewhat disagree
  - Neither agree nor disagree
  - Somewhat Agree
  - Agree
  - Strongly agree
  
4. I feel similar to people with physical disabilities.
  - Strongly disagree
  - Disagree
  - Somewhat disagree
  - Neither agree nor disagree
  - Somewhat Agree
  - Agree
  - Strongly agree
  -
  
5. There are important differences between people with and without disabilities that need to be recognized.
  - Strongly disagree
  - Disagree
  - Somewhat disagree

- Neither agree nor disagree
- Somewhat Agree
- Agree
- Strongly agree

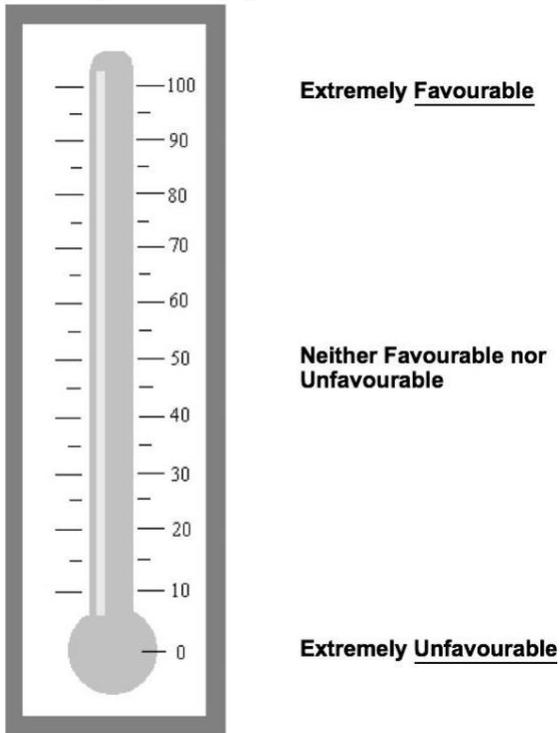
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*Questions will be randomized upon administration of study.*

Appendix B

Overt Attitudes Toward People with Physical Disabilities Thermometer Measure

Below you will see a picture of a thermometer. Use it to report your attitude toward people with physical disabilities. On the thermometer, 100° represents extremely favourable attitudes, while zero degrees reflects extremely unfavourable attitudes, and the numbers in between reflect various degrees of favourability. Using this rating scale, write a number between zero and 100° (you may use any number) to reflect your attitude. Please be honest. Please remember that there are no right or wrong answers, and this survey is completely anonymous.



My attitude towards people with physical disabilities is: \_\_\_\_\_

*Adapted from Esses', Haddock's, and Zanna's (1993) thermometer measure.*

## Appendix C

## Scale of Modern Prejudice Towards People with Physical Disabilities

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1. Most people with physical disabilities are no longer victims of discrimination in Canada.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat Agree
- Agree
- Strongly agree

2. People with physical disabilities are in general treated in the same way as people without physical disabilities within society.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat Agree
- Agree
- Strongly agree

3. Negative attitudes in society make the lives of people with physical disabilities difficult.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat Agree
- Agree
- Strongly agree

4. People with physical disabilities and their relatives still struggle against the injustice they suffer in society.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat Agree
- Agree
- Strongly agree

5. People with physical disabilities are getting too demanding in their push for equal rights.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat Agree
- Agree
- Strongly agree

6. People with physical disabilities have more to offer society than they have been given the opportunity to.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat Agree
- Agree
- Strongly agree

7. The situation for people with physical disabilities is good as it is.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat Agree
- Agree
- Strongly agree

8. There have been enough social efforts in favour of people with physical disabilities.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat Agree
- Agree
- Strongly agree

9. Society takes more care of people with physical disabilities than is fair to other groups.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat Agree
- Agree
- Strongly agree

10. It is right that people with physical disabilities sometimes get special support from society to find appropriate jobs.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat Agree
- Agree
- Strongly agree

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*Questions will be randomized upon administration of study. This measure was adapted from Akrami et al.'s (2005) Modern and Classical attitudes scales toward people with intellectual disabilities.*

## Appendix D

## Applied Accessibility Questionnaire

- 
1. Small businesses should not be required to fully implement accessibility adaptations because these adaptations can cause a large financial strain on a business of this magnitude.
- Strongly disagree
  - Disagree
  - Somewhat disagree
  - Neither agree nor disagree
  - Somewhat Agree
  - Agree
  - Strongly agree
2. People in society should make things as accessible as possible for people with physical disabilities, even if this means going above and beyond what they are required to do by law.
- Strongly disagree
  - Disagree
  - Somewhat disagree
  - Neither agree nor disagree
  - Somewhat Agree
  - Agree
  - Strongly agree
3. It not a big deal that some people with physical disabilities cannot access the third floor of Dante Lenardon building at King's University College because meetings that would otherwise be held there can easily be held elsewhere.
- Strongly disagree
  - Disagree
  - Somewhat disagree
  - Neither agree nor disagree
  - Somewhat Agree
  - Agree
  - Strongly agree
4. As long as accessible parking spaces are close to the entrance of a building, a business has done its due diligence.
- Strongly disagree
  - Disagree
  - Somewhat disagree
  - Neither agree nor disagree
  - Somewhat Agree
  - Agree
  - Strongly agree

5. Car manufacturers should not have to make special cars for people with physical disabilities because people with physical disabilities themselves are responsible for altering these vehicles for their specific needs.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat Agree
- Agree
- Strongly agree

6. As long as a building is deemed accessible by local building codes, people with physical disabilities should not be upset if they cannot access certain parts of that building.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat Agree
- Agree
- Strongly agree

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*Questions will be randomized upon administration of study.*

## Appendix E

## Helping People with Physical Disabilities Scale

- 
1. People with disabilities need the cooperation of others to compensate for the obstacles imposed upon them in adjusting to life in society.
    - Strongly disagree
    - Disagree
    - Somewhat disagree
    - Neither agree nor disagree
    - Somewhat Agree
    - Agree
    - Strongly agree
  
  2. People should help people with physical disabilities overcome the limitations imposed on them by society so that they can better adjust to life in society.
    - Strongly disagree
    - Disagree
    - Somewhat disagree
    - Neither agree nor disagree
    - Somewhat Agree
    - Agree
    - Strongly agree
  
  3. People should educate the public about the difficulties of adjusting to society faced by people with physical disabilities in order to help improve their situation.
    - Strongly disagree
    - Disagree
    - Somewhat disagree
    - Neither agree nor disagree
    - Somewhat Agree
    - Agree
    - Strongly agree
  
  4. People with physical disabilities simply need to be more motivated to solve their problem of adjusting to society.
    - Strongly disagree
    - Disagree
    - Somewhat disagree
    - Neither agree nor disagree
    - Somewhat Agree
    - Agree
    - Strongly agree
  
  5. People with physical disabilities can adjust to society. They just have to be willing to work at it.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat Agree
- Agree
- Strongly agree

6. People with physical disabilities are responsible for their adjustment problem, but they need other people to help them.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat Agree
- Agree
- Strongly agree

7. People with disabilities face problems of adjustment that aren't their fault, so the government should provide programs to help them adjust.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat Agree
- Agree
- Strongly agree

8. It should be made easier for people with physical disabilities to adjust to society, because their adjustment problems are the responsibility of society itself.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat Agree
- Agree
- Strongly agree

9. The adjustment problems faced by people with physical disabilities are the fault of society, so society should help to solve the problems.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat Agree
- Agree

- Strongly agree

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*Questions will be randomized upon administration of study.*