January 2020

# Affective Reactions Towards Physically Disabled Individuals in Private and Public Conditions

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## Recommended Citation

Abstract

This research examined people's emotional reactions to being assigned to work with an individual with a physical disability.  Forty-seven undergraduate students were randomly assigned to a disability versus non-disability condition and a public versus private condition.  All participants were asked to report their current moods before a supposed upcoming interaction related to teamwork. We predicted participants would report more negative emotions in the disability condition and privately in comparison to publicly. Participants reported more irritability when they believed the person they would be working with was disabled.  Participants concealed feelings of irritability, nervousness, and discomfort regardless of disability. These findings provide evidence of distinct impression management related to public displays of emotion towards individuals both with and without physical disabilities.

*Keywords:* disability, stigma, emotion, impression management, display rules, emotional regulation

Affective Reactions Toward Physically Disabled

Individuals in Private and Public Conditions

This research examined affective reactions toward individuals with a physical disability in public versus in private to determine the extent to which non-disabled individuals engage in impression management to conceal negative reactions toward someone who is physically disabled.  In doing so, this research highlights one way in which social interactions may be more difficult, and therefore potentially avoided, with individuals who have a visible physical disability.  Physical impairments are one of the most frequent and visible types of disabilities. In 2015, approximately 16.3% of the population in the United States reported some type of physical functioning difficulty (Centers for Disease Control and Prevention, 2015).  The International Classification of Impairment, Disability, and Handicapped model proposed by the World Health Organization (WHO) created three distinct categories to describe those with disabilities (Terzi, 2004). According to WHO definitions, "impairment is the abnormality in structure or function of the body and disability is the restriction of the ability to perform, and handicap is the social disadvantage associated with impairment or disability" (Terzi, 2004, p.142). The language used to describe those with a disability may also distinguish the physical component of disability from the social stigma associated with it (McCaughey et al., 2010).  A social model of disability defines physical impairment as what physically affects the person, whereas the term disability refers to the social construction of that impairment (Terzi, 2004; Metzler, 2011). For the purposes of this study, our use of the term "disability" was consistent with the definition proposed by WHO and referred to the restriction of the ability to perform tasks.

During social interactions in which one person is visibly disabled, negative emotional reactions may arise among those who are unfamiliar with the disability due to negative

stereotypes and personal discomfort, as well as the desire to appear unbiased and unaffected by

the other's physical limitations or appearance. Although significant efforts have been made

through education and inclusive policies to reduce negative attitudes toward individuals with

disabilities, misunderstandings and negative perceptions of this population persist. We believe

understanding people's emotional reactions toward individuals with disabilities, as well as their

desire to manage the impression they make, may help to explain why individuals tend to socially

distance themselves from those who are visibly disabled.

Individuals with physical disabilities are often stigmatized because of the negative

stereotypes associated with physical impairment.  Stereotypes are culturally shared beliefs

associated with individuals based on their membership in a particular group or category such as

the "disabled."  When the stereotypes associated with a particular group membership are

primarily negative, individuals who belong to that group are stigmatized because they are

perceived to be a member of a culturally devalued group.  Whereas some conditions associated

with negative stereotypes (e.g. those related to mental health) may be easy to conceal during

initial interactions, physical disabilities are often readily apparent and may be particularly likely

to impact the reactions of others meeting someone with a physical disability for the first time.  In

these situations, non-disabled individuals are likely to know they should not judge another

person based on their physical limitations or appearance; however, a concern over appearing

unbiased and open to the interaction may ultimately create additional discomfort.  In addition to

making interactions more difficult, this discomfort may motivate individuals to avoid working

with or seeking out opportunities to form relationships with those who are disabled.  In this

study, we examined the emotional reactions of individuals asked to work with someone with a

physical disability to determine whether or not the disability heightened their negative emotional

response to the interaction, and if so, whether individuals would attempt to conceal this reaction in public.

**Attitudes toward disability**

Overall, research conducted among young adults and older populations suggests more negative attitudes toward the disabled (Barg, Armstrong, Hetz, & Latimer, 2010; Fichten Robillard, & Sabourin, 1994; Pruett & Chan, 2006; Thomas, Curtis, & Shippen, 2011). Although demographic characteristics such as age and race do not appear to predict attitudes, there is some evidence women tend to have less negative attitudes than men (McCaughey et al., 2010). According to Fichten et al. (1994), people have a tendency to associate less desirable characteristics with physically disabled individuals. Research has indicated children begin to acknowledge these differences and exhibit negative attitudes toward physically disabled individuals as early as the preschool and kindergarten years (Dyson, 2005; Nabors & Keyes, 1997; Westervelt & Turnbull, 1980). In an early study, Richardson, Goodman, Hastorf, and Dornbusch (1961) examined both non-disabled and disabled children's reactions to other children with physical impairments. From a group of photos, participants ranked the likeability of children. Some of the pictured children had physical disabilities while others had no visible impairment. Interestingly, both the disabled and non-disabled participants ranked non-impaired children as the ones they liked best (Richardson et al., 1961). This finding indicated negative attitudes toward disabled groups may be shared throughout society, and children may follow these patterns regardless of their status in either group.

More recently, Nabors and Keyes (1997) expanded upon this research and investigated the willingness of preschool children to interact with physically impaired peers. Consistent with the Richardson et al. (1961) study, the participating children were shown pictures of children

with physical impairments of varying levels of severity. The social preference of the

preschoolers was measured using line drawings (Nabors & Keyes, 1997). Results of this study

supported previous findings that children preferred to interact with non-disabled children rather

than with children with physical impairments (Nabors & Keyes, 1997; Crystal, Watandbe, &

Chen, 1999).

Numerous studies have explored the behaviors of non-disabled children with their

disabled peers. Many supported previous findings that non-disabled children choose to interact

with their non-disabled peers more frequently than with their physically disabled peers (Diamond

& Tu, 2009; Westervelt & Turnbull, 1980), however some found no preference based on

disability. For example, Dyson (2005) found children did not show negative attitudes or

decreased interactions with their disabled peers. A possible explanation for this finding may be

the implementation of inclusion policies in schools that encourage classrooms to have both non-

disabled and disabled students in the same classroom. Research suggests increased interaction

with disabled individuals elicits more positive and accepting attitudes toward them (Dyson,

2005; Diamond & Tu, 2009). Consequently, children who are educated in inclusive classrooms

may be more comfortable interacting with their disabled peers, and therefore less likely to show

a preference for non-disabled peers.

**Interpersonal Interactions and Disability**

McCaughey et al. (2010) suggest non-disabled individuals often experience feelings of

discomfort and anxiety when interacting with physically disabled individuals.  Their research

indicates individuals may feel a degree of uncertainty when they encounter someone who has a

disability. This experience of uncertainty may cause an increase in negative emotions,

discomfort, and embarrassment, and individuals may associate these negative feelings with the

disabled individual rather than their own lack of familiarity (McCaughey et al., 2010). Fichten et al. (1994) found college students reported feelings of discomfort around disabled peers and purposefully distanced themselves from these "dissimilar" classmates.  Social distancing behaviors may be used to keep others at a comfortable physical and emotional distance (McCaughey et al., 2010), and may be an observable manifestation of the discomfort individuals feel regarding these interactions.

Although there may be significant individual variability regarding how people interact with disabled individuals, research consistently indicates non-disabled individuals tend to find these interactions difficult and uncomfortable (Barg et al., 2010: Fichten et al., 1994). Fichten et al. (1994) explains that "discomfort, anxiety, lack of ease, low self-efficacy expectations concerning social interaction…and stereotyped evaluations of the individual with the disability" are all factors that may cause these interactions to be difficult (p. 241). Experiencing this interaction strain is another reason why individuals may intentionally decrease interactions with a particular social group (Thomas et al., 2011). Identifiable characteristics of interaction strain include reduced conversations and less physical and eye contact between individuals (Thomas et al., 2011), none of which are likely to promote positive interpersonal interactions.

Interaction strain appears to be common among interactions with the physically disabled and may inhibit non-disabled and disabled individuals from forming long term positive relationships (Fichten et al., 1994).  This experience may help to account for why some people have greater difficulty forming friendships with disabled individuals (Barg et al., 2010). McCaughey et al. (2010) found non-disabled individuals have a tendency to decrease eye contact, use child-directed speech, and have more inhibited and controlled behaviors when interacting with disabled individuals.  Non-disabled individuals also have a tendency to focus

their attention on visible impairments which may increase their negative emotions (McCaughey et al., 2010). Overall, this research indicates people may have greater difficultly forming interpersonal relationships with physically disabled individuals due to the likelihood of more strained social interactions.

On the other side of the interaction, the disabled community may be well aware of others' discomfort and negative perceptions, as well as the potential for awkward and uncomfortable interactions. Many wheelchair users report they commonly experience inappropriate treatment, questions, and conversations in public, and describe feeling as though they are "noticed by everyone and acknowledged by nobody" (Cahill & Eggleston, 1995). Fichten (1994) suggests these uncomfortable interactions are not due to the behavior of disabled individuals, nor are they due to other people not knowing what is considered "proper behavior." Rather, individuals may be nervous about how disabled peers will respond and react to the interaction, and how they will be perceived (Fichten, 1994). Feeling self-conscious about not being seen as "prejudiced" or biased may also cause interaction strain and lead individuals to socially distance themselves from the disabled.

**Experience with Disability**

Ample research supports the idea that increased knowledge or experience with physically disabled individuals may reduce negative attitudes toward them (Brown, Oullette-Kuntz, Lysaght, & Burge, 2011; Diamond & Tu, 2009; Dyson, 2005; Westervelt & Turnbull, 1980). Contact theory is consistent with these findings suggesting increased contact with a negatively stereotyped group can improve a person's attitude toward this group under the right circumstances (Barr & Bracchitta, 2015; Fichten et al., 1994). Specifically, for contact to have a positive effect, research suggests individuals must spend meaningful time together and it is

critical these encounters are positive (Brown et al., 2011; Thomas 2011; Dyson, 2005). Based on contact theory, inclusive classrooms (those that contain both disabled and non-disabled children) may help promote positive attitudes and reduce interaction strain with disabled peers. In these classroom environments, disabled and non-disabled children may spend significant time together in a structured and positive way. Ultimately, this sustained, positive interaction may encourage children to develop positive attitudes toward each other and greater comfort levels in their interactions (Dyson, 2009). Ideally, this comfort level and increased familiarity would generalize to interactions with other disabled individuals as well.

**Physical Disability and Stigma**

Physical impairments may be considered a stigma because of the prevalence of negative stereotypes and feelings associated with disability. According to Werner (2015), public stigma consists of the general negative feelings and stereotypes toward a specific group of people who possess a culturally devalued trait or characteristic, whereas self-stigma is defined as an individual's perception of these cultural attitudes. Feeling stigmatized is often reported among those in the disabled community and may have harmful short and long-term effects on an individual. High levels of perceived stigma can increase the risk of developing serious health issues such as depression or anxiety, high blood pressure, cardiovascular diseases, and other chronic health conditions (Bahm & Forchuk, 2010). Additionally, Silverman and Cohen (2014) found being part of a stigmatized social group put individuals at risk for lowered self-integrity, motivation, and sense of well-being.

The Stereotype Content Model (SCM) seeks to explain why people may have negative attitudes toward deviant groups by examining two central characteristics of stereotypical beliefs based on perceptions of competence and warmth (Barg et al., 2010). According to Barg et al., the

way in which people perceive others based on these two dimensions is the foundation of stereotyping. Competence focuses on a person's social status and the evaluation of characteristics such as ability, independence, confidence, and intelligence. Warmth focuses on pro-social traits and the evaluation of friendliness, trustworthiness, and sincerity. The SCM model suggests it is the negative perception of these qualities that characterize the perception of stigma toward particular social groups (Barg et al., 2010).

In relation to the SCM model, people tend to perceive the disabled community as having low social competence and low status, yet high warmth (Kittson, Gainforth, Edwards, Bolkowy, & Latimer, 2013). These perceptions might explain some of the negative stereotypes toward physically disabled individuals, particularly in relation to ability and status, as well as the desire to express acceptance and support. Interestingly, consistent with this model, people may have more positive attitudes toward individuals with physical disabilities who are physically active than those who are not physically active due to perceiving them as more competent, and therefore more desirable.

**Emotional Regulation**

The ability to regulate emotion appropriately is an integral part of social interaction and can lead to more positive interpersonal experiences (Lopes et al., 2005). Interactions with disabled individuals may heighten the need to suppress the display of negative emotions to appear positively to the other.  Emotional regulation includes the ability to mask both the expression of emotion as well as specific behaviors that might reflect that emotional state (Lopes, Salovey, Cote, & Beers, 2005). Emotional suppression is one strategy used to regulate emotion and is defined as, "the inhibition of emotional expression because it has been linked to clear social consequences," (Butler, Lee, & Gross, 2007, p. 30). In order to appropriately

suppress emotions in a social interaction, people must actively suppress any type of visible emotional expression (Butler et al., 2007).

In relation to the public expression of emotion, Greenway and Kalokerinos (2017) explain "display rules" have developed naturally in society to ease social interactions. These display rules are standards that developed throughout history to control what emotions are seen as appropriate to express in social situations (Greenway & Kalokerinos, 2017). For example, expressing sadness at a funeral is considered appropriate and expected, but expressing the same emotion at a business meeting may be considered inappropriate and therefore discouraged. These display rules are taught to children at a young age so they learn what emotions they are expected to express in a given situation (Greenway & Kalokerinos, 2017). Beginning in childhood, people are conditioned to express proper emotions based on the contextual elements of what the situation is, who the target person is, and how they should deliver the emotion (Greenway & Kalokerinos, 2017).

Although it may be more common to suppress negative emotions for impression management (e.g. sadness or irritation), people may also suppress positive emotions such as happiness during a downward social comparison. A downward social comparison occurs when individuals feel more positively in terms of a desired personal outcome by comparing themselves to another person who did not do as well (Greenway & Kalokerinos, 2017). Individuals who compare favorably and therefore feel more positively during these interactions may suppress their expression of positive emotions to help protect the feelings of the other individual (Greenway & Kalokerinos, 2017). For example, when one student outperforms a friend on an exam, this student may suppress their positive reaction from the friend who did not do as well to

avoid hurting the friend. This behavior may promote social relationships by indicating concern for the other's feelings.

Another reason individuals may regulate their emotions is to help them achieve a particular goal or outcome (Greenway & Kalokerinos, 2017). According to Greenway and Kalokerinos (2017), mirroring emotions may aid in the formation and maintenance of positive relationships.  For example, to work effectively with a partner, matching the emotions of your teammate may be beneficial.  Other research suggests people may also regulate their emotions based on who they are interacting with and the impression they wish to convey.  Pataki and Clark (2004) found people may suppress their positive emotions as a way to protect their own feelings when they are particularly pleased by a social interaction, or alternatively, suppress their negative emotions as a way to protect others' feelings when they are disappointed by a social interaction.  Similarly, although people may experience negative emotions when interacting with a disabled individual, we believe they may suppress those negative emotions to avoid hurting the other's feelings and to appear non-biased (McCaughey et al., 2010).

**Hypothesis**

Based on this past research, our study explored the emotional reactions individuals have after being partnered with a physically disabled individual. Specifically, we examined the difference between people's public and private emotional reactions when being paired with an individual with a physical disability in comparison to being paired with an individual without an apparent disability. It was hypothesized people would report more negative emotions when being led to believe they would be working with a physically disabled individual compared to a non-disabled individual. Additionally, it was hypothesized individuals would report more negative emotions privately compared to publicly due to impression management. Overall, we expected

participants led to believe they would be working with a disabled partner to report more negative

emotions in the private versus the public condition, whereas participants in the non-disabled

condition would report less negative emotion in both the private and public conditions.

## Method

### Participants

Participants were recruited from a participant pool of students taking introductory

psychology courses at an undergraduate college. A total of 47 students were included in this

study: 42 females and 5 males. Participants ranged in age from 18-21 years old ($M = 18.72$, $SD =$

0.93). Some students were given class credit for participating in this study; there were no other

incentives given for participation. Prior to participating in this study, each participant was

required to read and sign an informed consent.

### Materials and Methods

**Teamwork Survey.** For this study, it was essential for participants to believe they were

going to be working on an assignment with another individual as a partner. The first form

participants completed was a 10-question teamwork survey used to reinforce the expectation they

would be working with another student in a study on teamwork; none of the responses on this

survey were analyzed. The purpose of this questionnaire was simply to ensure individuals

believed the research was on group productivity and teamwork, and they were not suspicious

about the manipulation of disability.

**Demographic Information.** The second survey asked for demographic information

including sex and age. Other questions assessed the individual's involvement in campus

activities as another way to reinforce the cover story of investigating teamwork among students.

**Measure of Emotion.** To measure the experience of emotion, we used the Brief Mood Introspection Scale (BMIS; Mayer & Gaschke, 2013) as an example, and developed a measure of emotion that included 17 emotions. This survey asked participants to indicate how intensely they were currently feeling each of the following emotions: gloomy, stressed, relaxed, jittery, enthusiastic, optimistic, content, irritable, indifferent, happy, distressed, nervous, confident, excited, anxious, calm, and uncomfortable on a scale of 1 (not at all) to 5 (extremely).

**Procedure**

Pataki and Clark's (2004) experimental design was adapted to examine the difference between people's public emotional reactions compared to people's private emotional reactions toward meeting an individual with a physical disability. Each participant was randomly assigned via random number generator to a disability or non-disability condition and a public or private condition.

Upon arrival to the study, all participants were greeted and thanked for their contribution to the research and taken into a small office space to complete the study. Regardless of what conditions the participant had been randomly assigned to, the experimenter explained that the study was about the formation of teams and team efficiency and examined whether first impressions impacted the ability of individuals to work together. Each participant was asked to complete paperwork before they met their partner.

In the disability condition, the participants were given a packet of paperwork consisting of the teamwork and demographic surveys as well as the scales measuring emotion. The experimenter explained that after the participants completed these forms, they would relocate to a different room to meet their partner for a team building activity. These participants were explicitly told that their partner had a physical disability and was in a wheelchair. The

experimenter explained that because there was a lack of handicapped accessible rooms on the first floor of the testing location, the participants would need to relocate to a conference room upstairs after their paperwork was completed in order to meet their partner for the team building exercise.

In the non-disability condition, the participants were given the same packet of paperwork consisting of the teamwork and demographic surveys as well as the scales measuring emotion. The experimenter explained that the participants must complete these forms and then they would relocate to a different room to meet their partner for a team building activity. The participants were not given any information about the disability status of their partner. The participants were simply told they would be taken to another room to meet their partner for the team building exercise once they completed their background information.

Depending on whether the participant was in the public or the private condition, the experimenter also explained that the background information they provided would either remain confidential, and only be seen by the experimenter (private condition), or that the participants would exchange all background information with their partners before they met (public condition). To strengthen this manipulation, it was explicitly labeled on the top of each form whether the information would remain confidential or be shared with their partner.

Each participant was left in the office for approximately 10 minutes to complete the forms alone. After this background information was completed, all participants were expecting to meet their partner for a team building activity. Although the participants believed after they completed their background information, they would meet their partner and participate in the team-building activity, after the participants completed their paperwork, the study was complete. The experimenter debriefed each of the participants and explained that all participants were led

to believe they would be meeting with another person to assess their real emotional responses

rather than asking them to answer hypothetically about how they thought they would feel about

an imagined interaction.

## Results

Our analyses focused on participants' expression of emotion in each of the four randomly

assigned conditions.  All means and standard deviations for the positive emotions are reported in

Table 1; all means and standard deviations for the negative emotions are reported in Table 2.  To

test the hypothesis that the expression of emotion would vary based on whether the interaction

partner was described as disabled or not or whether the response was public versus private, we

conducted two-way between-groups multivariate analyses of variance for all negative and

positive emotions.

### Effect of Disability Status and Public versus Private Expression

Our primary hypothesis was that people would report more negative emotions when

being led to believe they would be working with a physically disabled individual. We conducted

a two-way between-groups multivariate analysis of variance to explore the impact disability

status had on ratings of the negative emotions (gloomy, stressed, jittery, irritable, indifferent,

distressed, anxious, and uncomfortable). Means were in the predicted direction, and there was a

marginally significant main effect for disability status on the reported level of irritability $F(1, 46)$

$= 3.55$, $p = 0.07$, partial eta squared$= 0.08$. Participants reported being more irritable when their

partner was reported to have a physical disability. We conducted a second two-way between-

groups multivariate analysis of variance to explore the impact disability status had on ratings of

the positive emotions (relaxed, enthusiastic, optimistic, content, happy, confident, excited, and

calm). There was a marginally significant main effect for disability status and reported levels of

calmness, $F(1, 46) = 3.52$, $p = 0.07$, partial eta squared= 0.08, such that participants reported being less calm when their partner had a physical disability.

Our second hypothesis was that participants who believed they would be working with someone with a disability would express more negative emotions privately than publicly. In the MANOVA for negative emotions, there was a statistically significant main effect of public/private on the reported level of irritability, $F(1, 46) = 4.49$, $p = 0.04$, partial eta squared = 0.10. An inspection of the mean scores indicated participants reported being less irritable publicly compared to privately regardless of the disability status of their partner. The means were in the expected direction and there were marginally significant main effects of public/private on the reported levels of nervousness $F(1, 46) = 3.82$, $p = .06$, partial eta squared = 0.09, and being uncomfortable $F(1, 46) = 3.53$, $p = 0.07$, partial eta squared= 0.08.

For positive emotions, there was a statistically significant main effect of public/private on the reported level of calmness, $F(1,46) = 5.78$, $p = 0.02$, partial eta squared = 0.12, such that participants reported being calmer in public regardless of the disability status of their supposed partners. The means were also in the expected direction and there was a marginally significant main effect of public/private on the reported levels of optimism $F(1, 46) = 3.69$, $p = .06$, partial eta squared = 0.08 such that people reported being more optimistic.

**Interaction between Public/Private and Disability/Non-Disability**

Interestingly, there was a marginally significant interaction found between the public and private conditions and disability conditions on the reported level of sadness as measured by responses to the emotion "gloomy" $F(1, 45) = 3.62$, $p= .06$, partial eta squared= 0.09. When their partner was described as being disabled, participants reported being sadder in public than in private; however, when their partner was not described as being disabled, participants reported

being less sad in public and sadder in private. Participants appeared to conceal sadness when there was no disability information given. In contrast, when their partner was described as disabled, they expressed more sadness publicly than privately. There were no significant main effects for disability status $F(1, 45) = 0.001$, $p= 0.98$, partial eta squared$= 0.00$ or public/private $F(1, 45) = 0.84$, $p= .0.37$, partial eta squared$= 0.02$ on the reported levels of sadness.

Overall, although some findings did not reach a traditional .05 level of statistical significance, participants reported being more irritable and less calm when their supposed partner was described as having a disability. Participants also reported being calmer and less irritable publicly compared to privately regardless of the disability status of their partners. There was evidence that participants reported being less nervous, less uncomfortable, and more optimistic in public versus in private regardless of their partner's disability status. Participants also expressed more sadness publicly when their partners were described as disabled and less sadness publicly when their partners were not described as disabled. None of the other main effects or interactions for each emotion reached statistical significance.

## Discussion

The purpose of this study was to examine people's private emotional reactions versus public expression of emotion to an upcoming interaction with a physically disabled individual. In our study, participants reported feeling more irritation when they believed the person they would be working with had a physical disability. In addition, individuals suppressed negative emotions when they believed their emotions would be shared with their partner. Specifically, they publicly suppressed how irritable, nervous, and uncomfortable they were feeling. Likewise, they increased their reports of positive emotions publicly indicating how calm they were prior to the upcoming interaction.

By demonstrating emotional regulation in the context of a social interaction involving teamwork, these results suggest individuals may conform to display rules that provide social benefits related to group work (Greenway & Kalokerinos, 2017). Past research indicates the expression of happiness in cooperative group environments puts group members at ease (Greenway & Kalokerinos, 2017). We believe the increase of positive emotions (calmness and optimism) and decrease in negative emotions (irritability, nervousness, and discomfort) may reflect participants desire to cooperate and perform well in the group activity with their partner (Greenway & Kalokerinos, 2017), as well as their desire to make a positive impression.

The current study also demonstrates people may regulate their expression of emotion based on contextual goals (Greenway & Kalokerinos, 2017; Pataki & Clark, 2004). Individuals likely learn to control their emotional expressions to ensure smooth and successful social interactions with others (Greenway & Kalokerinos, 2017). People may regulate their display of emotion to protect others' feelings and their own personal vulnerability (Pataki & Clark, 2004). In our study, people may have reported less irritability to their partner because they did not want to be viewed negatively or hurt the feelings of the other person. Privately, individuals likely felt freer to admit they were feeling irritable about the upcoming interaction.

In relation to disability, participants who believed they were going to work with someone who was physically disabled indicated feeling more irritable than participants who were not told their partner was disabled.  They also reported feeling less calm. One reason why participants may have felt more irritable is that they were told to change locations to accommodate their partner. After being told by the experimenter they would need to relocate to another room to accommodate their partner's wheelchair, most participants gathered their belongings to change rooms confirming participants truly believed the upcoming interaction was real and they would

need to move.  A second reason why participants may have felt more irritable when they

believed they would be working with someone with a disability may be directly related to their

perception of competence (Barg et al., 2010; Cahill & Eggleston, 1995) and its relevance in

knowing they were assigned to work with someone who was disabled.  Last, participants may

have anticipated a more awkward social interaction in which they would need to conceal their

discomfort in working with someone who was disabled. These explanations may account for the

increase in negative emotion in the disabled condition and are consistent with previous research

indicating that people prefer not to work with someone who is disabled due to perceived

inconvenience, incompetence, and the possibility of increased interaction strain (Barg et al.,

2010; Cahill & Eggleston, 1995; Norton, Dunn, Carney, & Ariely, 2012).

Interestingly, we also found people were less sad and less likely to suppress sadness in

public when their partner was physically disabled. Although speculative, we believe this finding

may be explained based on implicit beliefs related to disability. In the current study, participants

who were assigned a disabled partner may have assumed their partner was sad due to being

disabled. If this were the case, participants may have found themselves in a situation of

downward comparison. They may have believed their disabled partner felt more negative

emotions than they did. To compensate for the difference in their emotions, participants may

have tried to match these "sad" emotions by up-regulating their negative emotions (Greenway &

Kalokerinos, 2017). This "matching" may have been used to ease the upcoming social

interaction given research indicating individuals may express similar emotions to work together

effectively as a team (Greenway & Kalokerinos, 2017).

The current study enabled us to examine how people use emotional regulation in the

context of social interactions with those who are visibly disabled.  Our initial hypothesis, that

participants would report more negative emotions when partnered with a physically disabled individual, was consistent with our findings related to irritability, but not sadness. Although participants privately reported more irritation, they also privately reported feeling less sad when they believed they would be working with someone who had a disability, perhaps due to a downward social comparison.

These findings provide important insight on ways that individuals may use emotional regulation to alter their expression of emotion based on another person's disability. Previous research on disability and interpersonal interactions has concentrated on studying the stigma attached to physical disabilities based on hypothetical pictures or vignettes (Crystal, Watanbe, & Chen, 1999; Diamon & Tu, 2009; Nabors & Keyes, 1997; Richardson et al., 1961). Although these studies demonstrate the stigma people may feel toward physically disabled individuals, the use of hypothetical scenarios rather than real interactions may limit their external validity.

The current study adds to this literature and increases the external validity by investigating people's reactions to what they believed was going to be an actual interaction with a real person.  The small sample size, however, limited the statistical power of our analyses. Future research would benefit from access to a larger pool of participants than what was available given a small student population at the college where this study was conducted.  Future research should also focus on the relationship between disability status and perceptions of sadness. This study found people reported feeling less sad but were more willing to express their sadness publicly when their supposed partner was disabled. Examining whether people stereotype disabled individuals as being sad and unhappy may help to account for this finding. Future studies would also benefit by incorporating an actual interaction with an individual who

appeared to be physically disabled (e.g. in a wheelchair) versus not visibly disabled, and by incorporating behavioral measures of discomfort and nervousness in addition to self-reports.

Overall, this study highlights the way in which emotional expression in interpersonal interactions may be altered based on people's desire to make a positive impression. Although we found evidence of emotional regulation regardless of disability, there was also a unique pattern of emotional expression specifically related to disability status. To gain additional insight on the misunderstanding and discomfort that may characterize interactions with the disabled, further research is needed to understand the complex dynamics of interpersonal interactions between the disabled and non-disabled communities. Perceptions of stigma may have negative and serious effects on people's lives when others treat those who are disabled differently and respond to them based on stereotypes. By examining the stigma and reactions toward physically disabled individuals we hope to provide greater understanding and ultimately improve the quality of life for those who have disabilities by easing interpersonal interactions and reducing misperceptions.

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Appendix A

Table 1

*Means for each positive emotion by condition*

| Disability Status | Public Condition | | Private Condition | |
|---|---|---|---|---|
| | *M* | *SD* | *M* | *SD* |
| Disability | Enthusiastic 3.25 (1.06) | | Enthusiastic 3.00 (1.09) | |
| | Optimistic 3.42 (0.99) | | Optimistic 3.18 (0.982) | |
| | Content 3.50 (1.31) | | Content 3.64 (1.12) | |
| | Happy 3.83 (0.94) | | Happy 3.55 (1.04) | |
| | Relaxed 2.75 (0.97) | | Relaxed 2.73 (1.01) | |
| | Confident 3.00 (0.95) | | Confident 3.00 (1.00) | |
| | Excited 2.75 (1.22) | | Excited 2.73 (1.27) | |
| | Calm 3.63 (0.92) | | Calm 2.45 (0.93) | |
| No Disability | Enthusiastic 3.10 (0.99) | | Enthusiastic 2.85 (0.99) | |
| | Optimistic 4.10 (0.74) | | Optimistic 3.31 (0.86) | |
| | Content 4.00 (1.16) | | Content 3.85 (0.99) | |
| | Happy 3.50 (1.35) | | Happy 3.69 (0.95) | |
| | Relaxed 2.90 (0.74) | | Relaxed 2.62 (1.04) | |
| | Confident 2.80 (0.63) | | Confident 3.38 (0.77) | |
| | Excited 2.50 (1.08) | | Excited 2.69 (1.18) | |

|  |  |
|---|---|
| Calm 3.70 (0.95) | Calm 2.85 (1.21) |

*Note.* Each positive emotion was measured using participant's rating on a scale from 1-5.  Higher numbers indicate higher levels of each emotion.

Appendix B

Table 2

*Means for each negative emotion by condition*

| Disability Status | Public Condition | | Private Condition | |
|---|---|---|---|---|
| | *M* | *SD* | *M* | *SD* |
| Disability | Jittery 1.64 (0.81) | | Jittery 1.73 (0.79) | |
| | Irritable 1.55 (0.82) | | Irritable 2.18 (1.54) | |
| | Distressed 1.73 (0.79) | | Distressed 1.91 (1.04) | |
| | Nervous 2.00 (1.10) | | Nervous 2.64 (1.50) | |
| | Anxious 2.73 (1.10) | | Anxious 2.83 (1.12) | |
| | Uncomfortable 1.18 (0.41) | | Uncomfortable 1.64 (1.12) | |
| | Gloomy 1.91 (0.94) | | Gloomy 1.64 (0.67) | |
| | Stressed 3.64 (0.67) | | Stressed 3.45 (1.37) | |
| | Indifferent 1.73 (0.91) | | Indifferent 2.36 (1.36) | |
| | | | | |
| No Disability | Jittery 1.88 (1.13) | | Jittery 2.08 (1.26) | |
| | Irritable 1.00 (1.00) | | Irritable 1.62 (0.65) | |
| | Distressed 1.38 (0.74) | | Distressed 1.69 (1.03) | |
| | Nervous 1.63 (0.74) | | Nervous 2.54 (1.19) | |
| | Anxious 2.00 (1.07) | | Anxious 2.46 (1.33) | |
| | Uncomfortable 1.25 (0.46) | | Uncomfortable 1.92 (1.32) | |
| | Gloomy 1.38 (0.74) | | Gloomy 2.15 (1.07) | |
| | Stressed 2.75 (1.17) | | Stressed 3.38 (1.39) | |

Indifferent 2.50 (1.51)                          Indifferent 2.15 (0.89)

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*Note.* Each negative emotion was measured using participant's rating on a scale from 1-5. Higher

numbers indicate higher levels of each emotion.