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The Nature of Disabilities; Altering Attraction through Sensitization

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The Nature of Disabilities;
Altering Attraction through Sensitization

by

David Fisher

A Thesis

Presented to the Graduate and Research Committee

of Lehigh University

in Candidacy for the Degree of

Master of Arts

in

Sociology and Anthropology

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The Nature of Disabilities; Altering Attraction through Sensitization

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ABSTRACT

This experiment was an attempt to verify if an older disability sensitization exercise, originally conducted by Beatrice Wright (1983), could be used to impact participant's attraction to disabled figures. Eighty three participants completed surveys asking them to rate the romantic attractiveness of disabled individuals shown in pictures. Participants were either shown images of a person with a mental (schizophrenia), physical (missing limb) or physical unseen disability (blindness). It was expected that the experimental groups would yield lower attraction ratings than the control group which viewed models with no disability. Hypothesis two suggested that Wright's exercise would sensitize people to the nature of disabilities, increasing their attraction scores after the intervention was implemented. In the experimental groups, 91.9% of them chose their own disability over their paired disability replicating Wright's findings. However, no significant difference between or within groups for each of the two hypotheses were found.

The Nature of Disabilities; Altering Attraction through Sensitization

It is without question that America's past is plagued with social institutions dehumanizing disabled individuals and allowing for the permeation of disability stigmas within society. Although social institutions (i.e. the media, education system, etc) are starting to provide a foundation for altering societal perceptions of disabilities, there are still stigmas today related to disabilities of all kinds. For example, a mental illness and being wheelchair bound are only subsets of the immense umbrella term "disability".

There are ultimately an infinite variety of handicaps that can be considered disabilities. A disability, according to Beatrice Wright, is anything that is physically, mentally, or emotionally impairing. The disability can be seen as disabling by the person who has it or by outside parties (Wright, 1975). By this definition of disability, disabilities are so prevalent that everyone has one or more. Every individual has something about him or herself that he or she may view as impairing, or that someone else may view as impairing. There is not a rigorous distinction between disability and impairment. Any feature may be considered disabling by oneself or an outside party.

A majority of disabilities go widely unrecognized, possibly due to familiarity, and so society tends to focus on those which are of highest impact. As an example, an individual who has fingernail fungus may not view his or her condition as a disability, when it actually is somewhat disabling because of pain that is caused from pressure when using a pencil. This is an example of a disability that society is not focused on. However disabilities that are focused on and considered to be severe might be autism, birth deformations, etc. We notice these disabilities more because these disabilities are most

threatening to traditional norms and values. This leads to a variety of different negative consequences that will be discussed.

It may also be the case that perceptions about disabilities may affect attraction. Those who perceive themselves to be non disabled may look at individuals who are obviously disabled differently. Several arguments about how everyone has a disability, regardless of social perceptions and stigmas, will be discussed in this literature review. This research aims to: first, study if those with disabilities are looked at differently than those without disabilities, specifically as a person with whom one might be romantically involved, and second, see if there is a way to sensitize individuals to disabilities in order to make their perceived attractiveness more equivalent to that of the non-disabled. This sensitization technique will hopefully help participants to see disabilities from a different viewpoint. Is it possible to change the way people perceive the attractiveness of someone with a disability through sensitization?

Culture, preferences, and socialization

The literature on how perceptions of those with disabilities impede rehabilitation and integration in society is extensive. Socialization seems to be the most frequently cited example of how individuals come to view others with disabilities in a given society. People unintentionally construct hierarchical preferences for certain disabilities over others through socialization patterns, and we see this by studying children. Hierarchical preferences allow us to view disabilities differently (i.e. as more or less severe). Preference for accepting particular disabilities over others have been shown to vary from culture to culture.

For example, research on Nepalese children and their cultural views of disabilities show that disabilities in Nepal vary widely from children raised in a Western culture (Harper, 1997). Six schools were used to gather participants with ages ranging from ten to twelve years old. Children were asked to view several pictures of individuals from their same sex group who have disabilities (and one that didn't). Children were then asked which person they would most likely play with first and why. Results showed that many children perceived the obese child to be desirable to play with. This contrasts with western ideology since obesity is seen in Western societies as ugly and carries with it a number of negative connotations. Nepalese children, however, believe that body size is related to power, wealth, and availability of food. Therefore, the larger body types might be seen as the "cool" kids because they have more resources readily available.

Goodman, Richardson, Dormbusch, and Hasturf (1963) also looked at the socialization of disability perceptions with children and found that child perceptions of those with a disability tend to be created through the socialization of values from generation to generation. They argue that children are socialized through culture to have these values based on exposure and ability to learn the values. In societies where physical appearance is valued and prominent, physical abnormalities become devalued, which leads to negative perceptions. Researchers studied Jewish and Italian children's preference of images and found that they preferred images of various disabilities in the same way adults from their culture did. The researchers also found that mentally ill children and psychiatrically disturbed children preferred images in a different order. The order of preference verified that not only culture plays a role in shaping perceptions, but having a disability (i.e. mental illness or being psychiatrically disturbed) may shape

different value patterns, possibly because they have the actual disability and understand the nature of the disability better than those who would consider themselves to not have a disability.

Horne (1978) argues the mere fact that people create a hierarchical preference of disabilities is very important. This shows that individuals place certain values on some disabilities over others. This placement of values shows that individuals attempt to perceive what it is like to have certain disabilities. For example, one might prefer to deal with people who have ADHD rather than people who suffer from OCD. This placement of value shows that the individual has a preference for ADHD over OCD because they think that OCD is worse, therefore they are attempting to perceive what both disabilities are like.

Horne was also interested in the patterns of preference for disabilities but was more interested in whether other factors, aside from cultural norms, play a role in how cultures view disabilities. Horne's findings add to the literature that culture does indeed play a role in how individuals value and create preferences for disabilities, but Horne found that a general hierarchical preference for disabilities is created based on severity regardless of cultural perceptions. According to Horne, severity is culturally constructed in one specific location, but certain higher perceptions of severity can extend to other cultures. In a previous example, Nepalese children idolize larger body types while Westerners are shown to have the opposite opinions. This is a clear difference in cultural opinion. When it comes to a severe disability, according to Horne, both cultures would look at the severe disability the same way (e.g. losing an arm would be horrible). Horne argues this happens because labeling occurs across all cultures. Thus, a person's

perceptions of a disability is shaped through cultural perceptions and norms, as well as through labels.

Marceline, Linkowski, and Sieka (1969) found interesting results when studying the perceptions of hierarchical preference for disabilities in the United States, Denmark, and Greece. The researchers were interested in whether the type of contact and sex of the perceiver were other factors that played a role in how participants valued disabilities. In other words, proximity and time spent with a person who has a disability may affect how that person views disabilities in general. The main effect for gender and type of contact were not significant indicators of attitudes toward disabilities; however the research still showed cultural differences. The United States produced the highest values for disabled individuals with Denmark and Greece trailing respectively. Higher values indicated that there was a stronger hierarchical preference for some disabilities over others. Other researchers have also been interested in if attitudinal changes are possibly related to how much contact one has with people with disabilities (Man, Rojahn, Chrosniak, & Sanford, 2006), however they too found no significant results.

Hierarchical preferences exist not only for nondisabled people evaluating disabilities, but there are varying preferences for disabled individuals rating disabilities too. Like their nondisabled peers, those with disabilities do not necessarily wish to embrace their position within the disabled group. This group carries with it stigmatizing labels, and so hierarchical preferences tend to be the same for both the nondisabled and disabled groups. Deal (2003) argues that this is because both groups are competing for resources (i.e. social capital) and trying to avoid stigmas. People in the stigmatized group might place preferences on disabilities outside of his or her own impairment, allowing

that person to judge others with more severe disabilities. Deal argues that this might allow the stigmatized to distance themselves from the stigmatizer.

Stigmas

The term stigma is often used in this literature review. According to Goffman, a stigma is considered to be the evidence of some less desirable attribute which reduces an individual from a whole unit to a flawed person. Stigmatized characteristics are seen as discrediting to the rest of society and often seen as undesirable (Goffman, 1963).

Individuals in any given society can and will construct a stigma theory which allows for the creation of some negative ideology. Individuals will rationalize the creation of this negative ideology by using specific stigma terms (Cuzzort & King, 2002). These terms do not only allow for the continual permeation of stigmas but they are the source of its creation as well. Stigma related terminology might also overlap in meaning with disability terms. For example, stigmatization and marginalization of drug addicts is a frequent occurrence in society, however drug addiction may be looked at as a disability (Green, 2007). It is reasonable to assert that stigmas and disabilities can overlap in some contexts.

Two major groups emerge through these processes of stigmatization; the stigmatized and the stigmatizer. These groups have been notably seen in child research on perceptions of disabilities as a stigma. Tanis, Roslyn, Felcan, and Henek (1976) studied audio recordings of children interacting with each other. Children with average intelligence (those placed in normal classes) tended to receive more positive statements than children who were seen as having any sort of learning disability (those placed in special classes). Children with sub-average intelligence also received more negative

statements towards them (i.e. children in special education classes). This evidence, along with the other research examined in this article regarding factors relating to the formation of disability perceptions, provides a foundation for the possibility that children become socialized to disability early on. If negative disability assessments can form early on, it is essential to examine this process and also find to help negate these negative culturally based perceptions.

Disabilities and the process of social grouping

Perceptions of disabilities ultimately pave the way for the creation of social groupings. When one first recognizes and acknowledges that he or she has a disability, the first phase he or she might go through is individual isolation (Braithwaite & Thompson, 2000). This occurs for individuals who have a disability that is seen as severe. Remember that severity can be culturally defined in one culture and not another (i.e. obesity) or across cultures (i.e. losing an arm). A person who has a disability that is socially understood to be minor (i.e. joint pain) would most likely not go through this process of isolation because he or she doesn't see the disability themselves as disabling. The disabled individual may or may not seek help, but he or she is still placed in the social category of the disabled.

Several arguments about the formation of social groupings can be found in the literature on disabilities and stigmas. Gordon & Rosenblum (2001) argue that social grouping can be examined merely by the fact that we have a name for the group. Social constructions of race and gender have "names" that reflect some differences about groups within these umbrella terms (e.g. Negro). The mere fact that we have a term for the disabled group is the first social process by which people are categorized (e.g.

“handicapped”). Step two in the social construction of the status "disabled" consists of society lumping terminologies together in aggregate. For example, ADHD, colorblindness, and Parkinsons disease are vastly different disabilities but they can all lumped into to one status of "disabled" or "people with disabilities".

This is not always the case, since many people would not think of some illnesses and disorders as disabilities. Some might argue that colorblindness is not really a disability, since it is not disabling unless one's profession requires perfect vision. Some might think that it is a disability as well. It is up to individual interpretation, and the decision about what constitutes a disability is largely based on the construct of severity within that cultural context. Gordon and Rosenblum argue that the mere fact that disorders and illnesses can be called disabilities allows for the potential for social grouping to occur.

If illnesses and disorders are lumped in together under the umbrella term disability, then step three in the process of social grouping is the dichotomizing of the construct. The “disabled” no longer stands as just a descriptive meaning, but now is considered polar opposite to nondisabled. This creates a black and white construct and the social meaning of the construct has little or no grey area. This becomes a breeding ground for stigmas in areas like the education system (i.e. children are in either special education classes or not). While some schools are beginning to combine these classes to provide better education to everyone, many schools still segregate "normal" students from those with special learning disabilities. This physical separation adds to the social construction of what a disability means.

Finally, step four in the social grouping process ends with the disabled being denied values of the culture. For example, one might think that disabled people cannot be beautiful because they have defects and they cannot be happy because their disability must make them miserable. Step four finalizes the process of social grouping and status construction as a disabled person. This is argued to have profound impacts on the self and how disabled individuals compare themselves to others (Braithwaite & Thompson, 2000).

Research has also looked at behavior and communication shifts in individuals who have acquired disabilities (see Braithwaite, 1990). Social grouping can be seen by how individuals with acquired disabilities communicate with able bodied peers. Newly disabled individuals will shift their communication patterns to help the able bodied person accept the disability. This attempt to control what the able bodied individual feels about the new disability is argued to be impression management. By the disabled individual exhibiting new communication patterns, he or she clearly sees the shift in social position from able bodied to disabled. The acceptance of this group movement (from nondisabled to disabled) seen through communication reinforces social grouping exists is a prevalent issues in disability research.

Two extreme groups emerge; the perceived disabled and the perceived nondisabled. More appropriately, disability research has deemed these groups the insider (perceived non disabled) and the outsider groups (perceived disabled) (Dembo, 1975). These groups most often become synonymous with the stigmatizer and the stigmatized groups. The roles and perceptions caused by the groups can only continue to be created by the existence of the groups themselves (Brown, 2003). This concept is very cyclical. The mere existence of the disabled as a group creates negative perceptions that stem from

the nondisabled groups (through hierarchical preferences and cultural values, as previous discussed). Negative perceptions then continue to further isolate the disabled as a separate group from the nondisabled. This cyclical nature of the problem makes it a prevalent issue in modern day research, and therefore it is important to merge these groups by some form of sensitization to see if attitudes towards those with disabilities will improve.

Individual consequences of stigmas and negative disability perceptions

The permeation of negative perceptions about disabilities in a society has a profound impact on the people of that culture. One major impact often studied is the relationship between disability stigmas and potential health consequences emerging from stigmatization. Health is an indicator of the impact that stigmas have on individuals. Discrimination and the consequences of negative attitudes extend beyond just the public realm in to private lives, thus impacting the disabled constantly. Throughout one's life, a disabled individual may be looked at as filling a disadvantaged social position. In some instances where health factors are a concern by themselves (i.e. obesity), perceived discrimination can add to health risks.

Longitudinal research over ten years has shown that individuals who are impacted by perceived weight discrimination are more likely to be less mobile than those who were still obese but were not influenced by weight discrimination. Participants who were affected by obesity stigmas had a dramatic increase in weight over the course of the study which led to other problems. The researchers compared perceived weight against actual weight and found that when weight is combined with perceived discrimination, actual weight no longer affects self health shifts. Perceived weight is the underlying factor in

perceived health decline, but remember perceived weight is shown to be strongly influenced by perceived discrimination (Schafer & Ferraro, 2011). This is just an example of how weight stigmas can not only affect the individuals perceptions of him or herself, but also impact ones health.

Another major problem is isolation. Individual isolation ultimately leads to group isolation. The term group isolation is symbolic. Individuals may feel like they are different from their peers, and ultimately feel like they are different or abnormal from most people in society. Individuals tend to question how they understand their own disability, which affects how outsiders react to the disability. For example, if an individual is blind and does not accept his or her disability, he or she tends to not bring it up in conversation which perpetuates feelings of negativity and detachment (White, Wright, & Dembo, 1948). Further qualitative research has examined the relationship between people experiencing injury (as a form of disability) and their social environment (Ladieu, Adlr, & Dembo, 1948) which shows that non-injured subjects pitied and were disgusted by those who were injured, making the injured group feel as if they were a lower status in society. Negative empathy (pity, remorse, disgust) for individuals with disabilities thus leads to both individual and group isolation.

Please note that group isolation is something that can be perceived, but it can also be real. There is a distinction between actual physical group isolation, and perceived group isolation. An example of actual group isolation, as previously discussed, is certain schools that separate students who have learning disabilities from the mainstream environment. However, the student's perception of their isolation is variable. They are still a part of a group in their separated classes, so they are not really alone. These other

class members may serve as supportive figures that negate feelings of personal isolation. Thus group isolation and perceived group isolation are different things. It is all about how the individual internalizes his or her placement in the world. If a disabled person feels that he or she is different from peers due to a major injury, but are still part of the mainstream group, feelings of detachment may or may not occur. Group isolation is an occurrence that is variable depending on the individual and the situation.

Not only do negative perceptions lead to group isolation and hinder the rehabilitation process for people with injuries and disabilities, but they also lead to problematic situations within various social domains, including the professional arena. Schur, Kruse, Blasi, and Blank (2009) examined “corporate culture” through approximately 30,000 surveys sent to people who work and have disabilities and found that disability is linked with a variety of negative hindrances. A few examples of such negative consequences for those with disabilities include lower pay and less training for those with disabilities in comparison to nondisabled individuals. Disability has an impact on social capital as well. Managers and supervisors of the survey respondents reported that individuals who stated they were disabled and working were thought to have fewer resources and networking opportunities. Employees stated that stereotypes are a barrier at work, and that changing the attitudes of employees and employers is difficult. These social capital consequences only lead to further isolation.

Disability stigmas can also affect the personal social life of disabled individuals. Research has found that disabled college students expected themselves to go through social awkwardness because of their disability. This perception occurred through both disabled and nondisabled peers. Green (2007) notes that participants explained the

difference between social awkwardness and devaluation, stressing that they were not the same. Participants who had a disability showed an increase in devaluation of the disabled, along with a decrease in self perceived well being. Clearly stigmatization can impact the health and well being of the disabled individual, as well as cause self devaluation.

Some researchers argue that the consequences to the evolution of disability stigmas, as previously discussed, are very closely tied together (Green, David, Karshmer, & Marsh, 2005). Labeling occurs through devaluation of a trait, and only through traits that have social significance (i.e. eye color is not a significant trait). Stereotyping quickly follows labeling. Nondisabled individuals begin to assume that disabled individuals have specific feelings toward their disability (i.e. sadness, pity, remorse) and begin to feel wary of them. The nondisabled simply to refrain from being near the disabled to prevent having to deal with these perceived issues and feelings. This is only the case for disabilities with social significance and that are seen as above "minor". Separation (isolation) occurs after the stereotyping phase. The severity of the disability will be a large factor in how the individual deals with other around him or her. Not everyone can deal with managing negative reactions to disability. Separation is often fostered by acts of blaming, which helps individuals internalize what their disability means from outside sources. The disabled become their own critics, and slowly separate themselves from the rest of normal society.

Status loss occurs next in the cycle in which disabled individuals completely import themselves in to a different social category (Green et al, 2005). This strongly impacts romantic relationships and friendships because they no longer see themselves to fall within the realm of able bodied beauty. Discrimination is the final process in this

timeline. Discrimination especially occurs because of the social distance between the disabled and nondisabled. If there are no programs to help the disabled, for example in a school system, how does the disabled person know when to ask for help to prevent being looked down upon? The fact that this thought process occurred in several of the interviews conducted by Green et al. shows that discrimination can be a product of social distance.

Present arguments and attempts at sensitization

As previously discussed, there are some severe social consequences to disability stigmas that permeate society. What can society do to try and negate some of these stereotypes and stigmas? There have been various attempts at trying to favorably increase the awareness of disabilities in society. This process is widely known as *sensitization*. Sensitization takes place through many arenas. Green, David, Karshmer, Marsh (2005) found that social institutions can have a major role in the process of helping disabled individuals positively identify with their disability. This is an example of sensitization through the disabled group, not just the nondisabled group. The family, in particular, is a powerful force for people with disabilities. As previously discussed, however, it can also be a very negative force, as blaming is frequently noticed within families who have disabilities. However the family is positively influential because mothers help to shape the social context of the disabled child's environment. Parents can reinforce positive thinking and images of the self, and are caring enough that the child doesn't feel like they are a burden, allowing them to have an isolation free environment at home. Families can find creative ways to negate stereotypes and stigmas, especially since the family unit is such a close group where emotions are the key to bonding.

Social service agencies also help in the sensitization process. Agencies have long examined how to help individuals who experience learning disabilities. In the education system we segregate between special education and normal education, creating a mainstreamed environment catered to the norm. Modernizing social agencies and education systems to better accommodate children with learning disabilities has been a priority for the last decade or so. Bates and Fabian (2010) argue that the key to sensitizing people's reactions to the disabled, in an attempt to create better advocacy groups for the disabled, is to look at both social capital and social inclusion. Social inclusion has been previously discussed, but declines in social capital can be the product of isolation. Individuals may distance themselves from their mainstream peers and networks are never created. Friends are never made. Relationships never grow. Bates and Fabian suggest a complete revamping of the approach to advocacy groups related to learning disabilities to try and bring people together to increase social capital and networking skills.

Such attempts have already been studied several times. Unfortunately, most of the research on disability sensitization is studied in institutions like schools and heavily focuses on children. These studies are still valuable because they shed light on potential trials of sensitization. The most notable, frequently used, and easily applied method is to actually simulate the disability for a nondisabled person (see Wilson and Alcorn, 1969; Clore and Jeffery, 1972). Some of these methods are ineffective because they lead to negative empathy and pity, a complete counterproductive outcome to the intended effect on perceptions of those with disabilities.

Diamond, Hestenes, Carpenter and Innes (1997) argue that the key to reducing disability stigmas is through knowledge sensitization. Since sensitization is about creating awareness of disabilities and the prevalence of disabilities in society, these researchers argue that the more knowledge a child has about disabilities the more inclined he or she is to accept them. The researchers examined perceptions of acceptance toward the disabled as well as knowledge about disabilities with preschool students within inclusive classrooms versus classroom that separated disabled and nondisabled students. Those in the inclusive classrooms had much higher ratings for all measures than the students that were not in inclusive classrooms. This research shows that simply by bringing disabled and nondisabled students together within the same class environment the in and out groups become one entity. Research has yet to find if personal isolation is also reduced when physical groups isolation is halted.

Research conducted using children as participants which examines proximity to disabilities as a factor supports the findings by Diamond and colleagues. Nabuzoka and Rønning (1997) found that children who had more interaction (over a 6 month period) with disabled students of the same sex had more favorable perceptions of those students in comparison to the baseline group, who did not receive any increase in time spent with a disabled peer. This research supports that idea that proximity may be beneficial in merging the in and out groups of the disabled and non disabled. However, problems arise when this is applied to institutions such as schools. Policy changes bringing classes together would cost time and money. Teachers are not traditionally trained to handle certain disabilities, such as learning impairments, and therefore would need additional training. Aside from this, parents (who have a heavy hand in how Western educational

institutions run) may be concerned about how such a change would hinder their own child's education. Therefore this may not be a very practical approach.

In addition to literally merging the disabled and nondisabled groups in school settings, some researchers have considered a less drastic but similar approach. Fox (1989) has suggested pairing those with a disability that are seen as having less social acceptance with a peer that is highly socially accepted, or in other words a "cool" kid. Fox paired 172 students creating dyads with one of the group members having a learning disability. Over the course of several weeks, the dyad would engage in activities that promoted mutual interests. Levels of social acceptance were measured throughout the study. Fox found that pairing the learning disabled child with a non disabled peer that had high social acceptance increased social acceptance ratings of the disabled student.

While proximity may facilitate discussions and friendships among disabled and nondisabled students, the students who have a disability may feel like they cannot live up to their nondisabled other half. Furthermore, peer acceptance rising simply due to hanging out with a highly accepted peer does not promote positive empathy, but instead may make the learning disabled participant seem like a tag-along instead of a normal person. This research is also not realistic for institutional implementation, as we cannot simply pair students who have and do not have disabilities. Not only is that information confidential, but by doing this the institution is literally pointing out the disabled and non disabled groups and opening the door for further discrimination. These findings are also not practical in any setting outside of the controlled environment of the experiment (i.e. in personal lives).

As a final example of sensitization techniques used in past research, Woods and Poulson (2006) decided to try and initiate sensitization through the disabled student instead of through the nondisabled peers. It is common knowledge in this society that disabilities are not looked upon as favorable, which may lead to low social acceptance and social withdrawal. To facilitate communication and ultimately social acceptance, the researchers had second grade students with disabilities memorize scripts that might be considered conversation starters. These scripts are meant to initiate verbal communication between them and their "normally" developing peers. Attitudinal measures of the peers were taken before and after the scripts were memorized and used in the classroom. Results show that every score of the second grade peers went up. Aside from a possible Hawthorne effect, this approach would be difficult to implement in schools. Another practical issue is that schools would have to have inclusive classrooms, a drawback that was discussed earlier; otherwise the nondisabled may not come in to contact with peers who have a disability very often.

The impact of visual sensitization and the media

The media tends to be a major social institution that greatly affects how individuals are socialized. Visual reinforcement, either positive or negative, can have a strong presence in shaping attitudes. The media can also affect what we perceive to be desired traits, not only in ourselves but also in others. A study on children conducted by Hoffner (1996) showed that children identified with specific cartoon figures based on what they wanted to be like. For example, one predictor for male preference was strength, while the only predictor for females was attraction. This research builds on a large base of socialization and child research, and it shows that the media can allow for the

continual permeation of what is desired and not desired, what is good and bad, and what is beautiful and ugly. Further research found that disability perceptions can be positively shaped in children who have watched professional made videos that are created to sensitize people to understanding disabilities (Elliot and Byrd, 1983).

This effect is not seen through mass media. Once again, this is a costly and impractical form of sensitization. Kirkwood & Stamm, (2006) conducted analyses on how TV marketing advertisements can change how people feel about disabilities, particularly mental illness. These programs educate able bodied individuals on the nature of disability, and the hope is that newly educated people will spread the knowledge to others. Thus the goal is a mass sensitization process that is facilitated through education on disabilities. While Kirkwood argues several of these methods have worked, they are extremely cost ineffective in trying to merge the insider and outsider group perspectives. It may be the case that some forms of media may have been effective in changing perceptions about disabilities. A British television show called Britain's Missing Top Model had disabled female models compete for a prize in a modeling competition, similar to the American America's Next Top Model. There have been other media attempts at merging the gap between the in and out groups, such as the 1998 fashion shoot Fashion-Able. While the effects of these media programs and coverage have not been researched, the importance of their mere existence must be noted. These examples show that attraction is therefore an important issue when examining how individuals deal with their disabled peers in the social arena.

Disabilities and attraction

Beauty tends to be a construct that is highly stressed almost everywhere in American society. As such, attraction becomes an indicator for behavior and attitudes. Research finds that material cultures share similar perceptions of beauty across cultural boundaries (see Langlois et al, 2000; Perrett, May, & Yoshikawa, 1994). Within culture boundaries, disabled individuals who tend to fall in the out group are perceived as abnormal and therefore unattractive.

Some research negates this presumption, such as a study conducted by Asher (1973). Asher was looking to see if individual perceptions of attraction could be manipulated. Asher was interested in if the level of attraction able bodied individuals had for disabled individuals would increase if they knew the disabled person had similar social attitudes (for example, on abortion or religion). The results indicated that similar attitudes were a highly significant predictor of attraction, therefore physical attributes (i.e. the disability) is not a lone predictor of attraction. Research on attraction and disabilities is limited, and while this research has found that the physical attributes are not the sole predictors of attraction, it must also be noted that the primary purpose of this research was not specifically looking at the impact of the physical disability on physical attraction. Thus, the present research aims to study various types of disabilities, and specifically examine if attraction varies not only for physical disabilities, but other types as well.

The only known research that is recent and relates to this proposed research on attraction differences and disabilities was conducted by Man, Rojahn, Chrosniak, and Sanford (2006). These researchers examined interpersonal attraction for students who

were given 16 images of individuals. These individuals were shown from the shoulder up. Each image was given a short vignette about the individual shown on the screen. Each vignette either contained the fact that they were not disabled or that they were disabled. Each student looked at all 16 images, thus it was a within subjects design, however there were 2 between subjects factors of gender and race. The researchers found that individuals only significantly differed in attraction based on race – individuals of one race tended to be more attracted to images of people who were of the same race. There were no significant differences found for the condition of whether the image was said to be a disabled person or not.

This is a key flaw in the research, and one that the proposed research hopes to amend. The researchers note that they saw participants start to catch on to the design of the study after receiving multiple vignettes stating whether or not the person had a disability. This could have severely influenced responses on the attitude scale based on social desirability. The present research also proposes to look at different types of disabilities, not merely physical disabilities.

Current study

Up until this point, evidence has been provided that culture plays a major role in how individuals create hierarchical preferences for normality and different types of disabilities. Evidence also suggests that culture as well as proximity to disabilities on a daily basis and having a disability can shape these perceptions. Nevertheless, these perceptions lead to the individual creating social groups in his/her mind. These groups (with the disabled being the out group) lead to negative perceptions such as pity. Negative perceptions ultimately lead to group isolation which is the root of the problem

when stigmas emerge. With the emergence of these disability stigmas comes a slew of consequences, as previously discussed, influencing not only disabled individuals, but the people around them as well. Evidence of sensitization has also been provided through child research and media influence; however many of these findings are impractical, costly, and sometimes even detrimental to the cause of sensitization.

Beatrice Wright (1975), acknowledging the failure and possible negative outcomes of sensitization methods, has proposed several procedures for merging the insider/outsider groups which are relatively effective in sensitizing individuals to the nature of disability. The most effective method (according to Wright), which is a group sensitization activity called the mine-thine problem, utilizes individual accounts of disabilities to try and merge the perceived in and out groups. Wright argues that the merging of these perceived groups will actually lead to sensitization. Wright also argues that the insider/outsider group distinction is actually nonexistent because everyone has some form of a disability and that there is no rigorous definition to what a disability can be. Thus the purpose of sensitization through this design is to show participants that all of us are, in some form, disabled.

The culture which we live has the ability to construct the definition of disabilities as black and white, and this mentality allows for the continual permeation of stereotypes, stigmas and negative attitudes toward those who are disabled. Individuals may also tend to think that disabilities are only severe impediments on a person's life, however, severity cannot be assumed by the outsider. We also tend to look at some disabilities as ugly and abnormal. Is it possible to change the way people initially perceive the attractiveness of someone with a disability through Wrights sensitization exercise?

Wright's sensitization exercise entails placing the individual in both the in group(normal/ nondisabled) and out group (perceived abnormal/disabled) simultaneously. Participants are put into a group and are reminded that a disability is *anything* physical, mental, or emotional. She also reminds participants that a disability can be something that the individuals perceive to be disabling, or that someone else may see as disabling. They are asked to think about their worst disability and write it down on a piece of paper. These papers are collected, put together, and randomly paired. The disability pairs are then placed on the blackboard or projector. Participants are asked to find the first disability pair with their disability. They are then asked to write down the pair, underline their disability, and star the one they would prefer to have. Wright argues that this places the individual in both the disabled and nondisabled group simultaneously. They are placed in a situation where they may have never even thought about their disability but now they must go through a pros/cons analysis about why they might choose to keep their own or trade it.

Wright reports that she used various groups including children, hospital aides, college students, rehabilitation professionals, parents, and Head Start teachers. Sixty six to ninety two percent of the subjects in all groups chose their own disability over their pair. Results from the group discussion held after the experiment indicated six major reasons why people choose their own disability. Participants stated their handicap is familiar, it fulfills a part of their self identity, it has its own benefits, the opposite handicap was more severe, they wouldn't know how to cope with the pair, and/or they would have to make too many sacrifices with the pair. The goal is to have participants understand that the other person would likely see his or her handicap in similar terms.

Only one other study to date has examined Wright's claims (see Dunn, Fisher & Beard, in press) which concludes that Wright's estimates for how many people may choose their own disability are accurate. However, these results were only studied with a sample of college students. The discussion from this recent research has also verified the frequency of the six reasons participants tend to choose their own disability over their pair.

Wright argues that most disabilities that may be looked at as being severe are not perceived as severe by the disabled individual, so individuals who do not have the disability can't make that assumption. Her sensitization exercise will be the basis for the pretest-posttest design that will be used. Wright's mine-thine group activity will be the primary method of sensitizing participants to disabilities for this research, but several changes to her design have been made. Thus I hypothesize that individuals in all disability conditions will have lower attraction ratings when others are viewing images of models with disabilities than the control condition where no disability is shown. I also hypothesize that the attraction ratings for the disability conditions will significantly increase after the intervention of sensitizing individuals to the nature of disabilities, as well as several weeks after sensitization.

Method

Participants

Participants were recruited from an introduction to sociology class at Lehigh University. Incentive to participate in the study was based on an extra credit opportunity provided by the class instructor. A total of 125 students initially signed up to be part of the research. Since this research is a within subjects design, any participants who failed to complete part one or more parts of the study had to be excluded. Forty two participants

were excluded, leaving a total of 83 participants in the study. Thirty seven students were male and 46 were female. Participant ages ranged from 18 to 22 with an average of 19.43 years. Participants were mostly freshman (32) and sophomore students (31) with ten junior and ten senior students.

Materials

The research design required some dependent measure of attraction so that we can gauge how one may perceive an individual as a potential romantic partner. Measuring attraction toward a "potential romantic partner" was the standard used in the studies conducted by Asher and Man et al. previously discussed which is why it was also used in this study. The dependent measure of attraction toward a potential romantic partner was analyzed by using the Romantic Attraction Scale, (see Appendix A) which was created by Cambell (1999) to gauge how one may perceive another as potential romantic partner. The measure consists of five Likert scales each ranging from 1 (a very negative response to the stimulus image), to 7 (a very positive response).

Three online surveys were created to assess how individuals perceived the attractiveness of the models used. The surveys showed two images; one of a male model and one of a female model (see Appendix B). Both models were chosen due to their average appearance so as to prevent subjects from rating the models too high or too low initially. Following the images, participants were given a vignette to read.

These vignettes described a short biography of the individuals presented on the screen. The vignettes were fictional and unisex. There were 4 sets of vignettes, one for each type of disability and the control, thus participants only had one vignette to read based on the condition to which they were randomly assigned. The participants were free

to decide who to rate on the attraction scale based on their sexual preference, which is why vignettes are unisex (see Appendix C).

The same two base images with the same models were used across each group which allowed for comparison between group means. For example, individuals placed in the physical disability group were shown two models with missing forearms. These models were the same models as the control group, just with missing forearms. The same models were used in each group so that means between groups could be compared to test the hypothesis that the control would always yield higher attraction scores.

There are four types of disability conditions used to compile four different surveys for each specific group. The first condition is the physical disability condition, which is the only condition that participants will be able to actually see the disability. The models on the survey images had one of their forearms removed from the images and the vignette addressed this. The second condition is the non physical disability, which was chosen to be blindness. The models eyes were whitened and a cane was placed in their hand. The third condition is a mental disability condition, which was chosen to be mild schizophrenia. The models in these images looked identical to the nondisabled group. Finally, there is the control condition where the respective vignette did not address a disability.

These three disabilities were chosen as the most severe disabilities on a list that was given to 96 Lehigh University students who rated disabilities based on how severe they perceived them to be. The random pairs of disabilities that students were given during the sensitization exercise will also come from this list, however blindness, schizophrenia, and a missing limb were excluded because they were used to create the

experimental conditions. Several surveys were also given out during the group discussion to collect miscellaneous data regarding disability perceptions (see Appendix D).

Procedure

In accordance with IRB approval, identification numbers were previously assigned to each student for confidentiality purposes. The surveys for the study have a place at the top for subjects to write down their identification number. Participants were randomly assigned to one of three disability conditions or to the control condition. Participants were directly recruited from class, and so they were able to read and sign the consent form when being recruited. Identification numbers were distributed through email. This identification number was used for each online survey, and for the collection of surveys administered during the group exercise.

After all identification numbers had been emailed out, participants were randomly assigned to groups. There are four disability conditions, and all individuals were a part of only one group. All surveys were sent through a web link embedded in an email that led participants to a SurveyMonkey survey. At time one, individuals were instructed to enter their identification number as well as various types of demographic information. On the following page, subjects were asked to look at images of a male and female and to choose one to rate based on their sexual preference. The unisex vignette followed the images. Following the vignette, participants were asked to fill out the Romantic Attraction Scale which was on the same page. This allowed participants to go back to either look at the images, or read the vignette over.

Two weeks after data collection at time one, participants signed up to take part in the group exercise. Participants did not have to gather in groups based on their specific

condition. Instead, the disability conditions could meet at the same time, separate from the control condition. This procedure was done to ensure that a sufficient number of participants would show up for the exercise. Since students did not meet based on which group they were originally assigned to (i.e. all experimental groups were able to meet together, but the control had to meet separately), the second RAS was not given until after the meeting (via a weblink). Students who could not attend the session because of conflicts (i.e., sports teams, work, etc) were given multiple opportunities to sign up for their group.

For the sensitization group exercise, participants were seated and told they were going to engage in a mental exercise and then discuss it. The researcher began by describing what constitutes a disability (anything physically, mentally, or emotionally impairing), and then participants were asked to turn over their first piece of paper in the folder of surveys they were given upon entry into the room. The first piece of paper participants filled out is a statement asking individuals to write down their worst disability based on Wright's original instructions (see questionnaire one). The second piece of paper was a sheet with a predetermined disability already printed on it (see questionnaire two). There were six potential random disabilities printed on questionnaire two. They were colorblindness, anger/aggressiveness, pathological lying, high blood pressure, long term memory loss, and anorexia.

Individuals were then asked to write down their disability they wrote on sheet 1 next to their pre-determined random disability chosen for them. Participants were asked to underline their own disability, and to place a star next to the disability they would prefer. These papers were then collected while participants filled out questionnaire three

which was a short survey trying to gauge why individuals may or may not choose their own disability over their pair. According to Wright, a large majority of individuals will choose their own disability, and so the researcher quickly calculated the percentage of the group who chose their own disability over their pair.

After questionnaire three was completed, the percentages were revealed to the group which led to a short discussion that hopefully sensitized participants to the nature of disabilities. Participants were asked why they did or did not choose their own disability, which provided insight into the in-group/out-group distinction. Through their responses about their preference, the group distinction was made more apparent by the researcher. The control group went through a similar unrelated exercise. The control group was asked to write down their predicted profession after graduation on questionnaire one. Questionnaire two had a pre-chosen profession typed on it. Like the previous three experimental groups, participants were asked to underline the one they wrote, and put a star next to the one they would prefer. They were then asked to fill out a short modified questionnaire-three unrelated to disabilities. The reason the control group went through a process at all is to negate any presumption that the experimental groups may have formed a bond with the experimenter, therefore giving more favorable ratings to the stimulus simply because they think that is appropriate thing to do.

After this exercise, participants in all conditions were emailed a link for the second collection of attraction ratings. Several hours elapsed before sending out the link for the second data collection to hopefully prevent some demand characteristic. This is also the reason three times were chosen to collect data. If a demand characteristic is going to show, it should be highest at time two. Time three data collection of attraction scores

was sent out via a weblink two weeks after data has been collected at time two. All surveys collecting data on attraction were identical across the three times. The goal is to see if individual scores change directly after the intervention and several weeks after the sensitization exercise.

Results

For both hypotheses tested, there were no significant differences observed between the experimental and control groups, or over time after the intervention. Hypothesis one suggested that each of the experimental groups, where individuals were shown an image of a specific disability, would yield lower attraction scores than the control group. Three t-tests revealed that there were no significant differences found between the control groups summated attraction ratings ($M = 61.76$) and the group that was shown an image of a mentally disabled individual ($M = 60.32$), $t(38) = .808$, $p > .05$. For the group that viewed a blind model, their attraction ratings moved towards the hypothesized means ($M = 54.85$), but were not significantly different from the control group ($M = 61.76$), $t(45) = .24$, $p > .05$. The final t-test showed no significant difference in attraction ratings between the group that saw the physically disabled individual ($M=64.88$) and the control ($M=61.76$), $t(36) = .579$, $p > .05$. Even though scores for this last test were not significant, attraction ratings actually moved in the opposite direction of the hypothesized numbers, showing that individuals rated the images of the physically disabled as more attractive than the control. See Table 1 for individual summated group means.

After running the t-tests to test the first hypothesis and finding no significant results, several ANOVA's were run to test the presumption that was the basis for the first

hypothesis. Hypothesis one was created out the presumption that people are generally more attracted to those who are non disabled, and presumably this would be the case for this study especially at time one of data collection (before the intervention). However, no significant differences were found between any of the groups at any time period. Of particular interest was the data collected at time one. Based on the presumption that people are naturally more attracted to nondisabled models, the control group should have a significantly higher rating than all groups at time one, however this was not the case [$F(3, 79) = 1.17, p > .05$]. This presumption also did not hold true for post intervention scores collected at time two [$F(3, 79) = .75, p > .05$] and time three [$F(3, 79) = 1.76, p > .05$].

Three within subjects repeated measures ANOVAs were run to assess the impact of the intervention on attraction scores directly after the intervention, and several weeks after as well. These ANOVA's represent the findings for hypothesis two. It was predicted that attraction scores in all experimental groups would significantly increase after the intervention. The intervention was shown to be ineffective for the condition where subjects viewed a person afflicted by blindness [$F(2, 50) = .342, p > .05$], with a physical disability [$F(2,32) = .871, p > .05$], as well as the group with images depicting a mentally disabled individual [$F(2,36) = .293, p > .05$]. For the means of each time series ANOVA, see Table 1. Thus for all three conditions, the intervention of Wright's Mine-Thine sensitization exercise did not impact attraction scores at any time. However, Wright concluded that between 66 and 92 percent of people would choose their own disability, which would be the essence of the group discussion. This studied yielded similar results. Out of the 61 participants who went through the group discussion (21 were in the control

condition), 57 subjects (91.9%) chose their own disability over their pair, while only 5 (6%) chose their paired disability. A wide variety of personal disabilities were reported (see Table 2).

The same ANOVA's were run with a new variable of initial attraction as a between subjects factor. Initial attraction was determined by the respondents total score on the RAS at each time period and if it fell above or below the median. Results indicated a significant interaction effect between time and initial attraction but only for the condition where participants viewed a blind model. Post hoc tests showed a significant increase in attraction scores collected during pre intervention ($M = 12.15$) and post intervention ($M = 14.15$) for the group who initially thought that the models were unattractive. The scores dropped at time three ($M = 13.46$), although this drop was not statistically significant [$F(2, 48) = 4.18, p < .05$]. The group that initially found the models already attractive did not have any significant change in attraction scores, indicating that the intervention had more of an effect on the group with low initial attraction.

A crosstabulation was run to compare participant responses regarding if they chose their own disability or their pair, and if they think their paired disability would affect daily life. Results revealed that most participants thought that the paired disability would affect daily life and so they chose to retain their own disability $\chi^2 (1, n = 60) = 9.74, p < .01$. These results were further examined by t tests run to reinforce why participants chose their own disability over their pair. Two t-tests revealed results indicating that participants who chose their own disability thought that their paired disability would affect their life significantly more ($M = 5.30$) than those who chose their

paired disability ($M=3.40$), $t(59) = 2.78$, $p < .01$. Participants who chose their own disability also rated the seriousness of their paired disability much higher ($M=5.63$) than participants that chose their pair ($M=2.40$), $t(60) = 4.50$, $p < .001$. These tests shed some light on to why these individuals chose their own disability instead of choosing to take on a different one. These results also were found in Dunn et al (in press).

When directly asked why they chose their own, several common responses were given by participants. These responses are very similar to some responses that Wright reported regarding the factors contributing to why one might choose their own disability to keep. Students reported that their disabilities have shaped who they are today (an identity factor), the paired disabilities were more detrimental to their daily life (a spread factor), their disabilities were easy to deal with through trial and error (a coping factor) and they know their disability well (a familiarity factor).

Discussion

It was hypothesized that attraction scores would tend to be higher for the control condition, where no disability was discussed, and lower for the experimental conditions which showed disabilities. It was also suggested that participant attraction scores toward disabled models shown in pictures would increase after a disability sensitization exercise. While these hypotheses were expected to yield numbers that were at least moving in the right direction, there were no significant differences for both hypotheses. There was no significant difference between the control group and each experimental group. There was also no significant differences within each experimental condition over time, thus the sensitizing intervention had no effect on participants attraction ratings. While the data did not produce any significant findings to support the main hypotheses, several other

findings reinforced why individuals might choose to retain their own disability over the one with which it was paired. Also, participants shed insight in to their choice through some qualitative data that can be compared to Wright's original research findings.

Results of the ANOVA's measuring the impact of the intervention for groups with different levels of initial attraction show that the intervention may have had more of an effect of the group that had low initial attraction, but only for the blindness condition. The group that had low initial attraction may have been more impacted by the intervention because of more stigmatizing views impacting their attraction ratings. This effect was not seen with the group who had higher initial attraction scores, indicating that they may already have had favorable or neutral views toward the images of the blind model. While the main hypotheses were not supported, this finding sheds light on the possibility of the intervention working. Problems in the design elsewhere may have led to non significant findings for the main hypotheses.

Quantitative data showed that people mostly chose their own disability over their pair because they thought their pair would affect their daily life a lot, and they thought their pair was a very serious disability. Wright also reported six major reasons why participants will chose their own disability over their pair; familiarity, identity, personal gains, the pair's spread factor, coping reasons, and impact on how much one gives up (reactance factor). In every group, participants reported four of these factors (identity, familiarity, coping, spread) through personal life examples. One factor that students did not report in any group was what Wright called a reactance factor, where participants would have to give up some parts of their life to adopt the new disability. One factor that came up frequently that Wright did not report was a fear factor; participants reported that

despite their knowledge of the paired disability, there was a strong fear of unknown issues that might arise from choosing it over their own. Another factor that came up that was not reported by Wright was a familial or environmental factor. Participants reported that they did not know how taking on the paired disability would affect their family and close environment, thus they chose their own disability.

There are several implications of these findings in conjunction with previous research. It might be too difficult to sensitize individuals to disabilities in an effort to increase attraction toward the disabled. At each time that data was collected using the Romantic Attraction Scale, the average for the experimental groups came out to be approximately four (on Likert scale responses of 1 to 7). This might be because people were indifferent when rating the images of disabled individuals. It might be difficult because it is not something that they are asked to do every day. Through prior research, we have seen Wright's sensitization efforts succeed (Wright, 1975; Dunn, Fisher, & Beard, in press). This study replicated a specific study conducted by Man et al (2006) with several minor changes (including using Wright's exercise) that were made to assess if the research conducted by Man and colleagues had too many flaws in its design. The changes made did not yield any differences though, as the previous research yielded similar results to this study with no significance in attraction changes. These studies did not sensitize participants to the point of increasing attraction. Based on previous research, and the results of this study, changing attraction may be a point that is much more difficult to achieve or even nearly impossible.

The problem might not just be with the theory behind sensitization and extending it to attraction. There may have been issues with methodology, particularly with the

online survey execution. All three surveys where attraction scores were collected were conducted online. The rationale was to give students ample time to complete the survey and think about their responses adequately. This led to a slew of problems during data collection. Participants frequently used their phones to answer the surveys. Many students reported that the interface of the online survey was not entirely compatible with their phones' internet browser, thus it was difficult for them to look at the image, read the vignette, and click their desired response. There were some instances where student responses were in a straight line, indicating that the student clicked the maximum or the minimum numbers at all three times. It may be the case that students who did this were giving honest answers, but it may also be the case that they were just clicking responses to finish the survey. It is recommended that any within subject designs collecting data on Wright's intervention in the future should administer whichever measure they choose in person.

A major interesting finding was at all three time periods that data was collected, there was no significant difference between the experimental groups and the control. This shows the presumption that people are naturally more attracted to nondisabled figures is incorrect, at least for this particular sample of participants. There might be several reasons for this. First, the theory behind the research may be wrong. Presumably society has medicalized disabilities and stigmatized those with handicaps. It may very well be the case that nondisabled individuals have come to accept disabled individuals as a normal integral part of society. Also, students chosen for this study may just be more open minded to the accepting disabilities as normal. Individuals coming from an educational institution may be more likely to accept disabilities instead of reject them. Finally another

probable conclusion as to why the control did not have higher scores might be the fact that the pictures used as stimuli didn't have the intended effect. The images of the models were photoshopped to show a disability. Perhaps the images looked too unrealistic, or perhaps the image itself did not provide a good stimulus for this type of design. It may be the case that an actual real person in the room would have a much different effect on attraction ratings.

In accordance with Wright's original design, the term disability was loosely defined in this study. That is, Wright described a disability as anything physically, mentally, or emotionally impairing from the individual's perspective or an outside party. This may have been a problem with the design from the beginning. For example, some may or may not view high blood pressure as a disability because it can be controlled and has no impact on one's life after it is controlled. Others may view it as impairing simply because it has to be controlled with medication. The same argument can be made for being visually impaired; is visual impairment really a disability if one is wearing glasses to counteract the disabling features of the impairment? Wright would argue that decision belongs to the individual, thus the term disability was loosely defined and participants could choose whichever they wanted as their most severe disability; however using such a loose definition could take away from the meaning of the term disability.

Another problem with the methodology might be due to the altering of Wright's original exercise. In Wright's original sensitization exercise, she had participants write down a disability; those disabilities were collected and were then paired with each other. In this study, participants were randomly paired with a pre determined list of disabilities. The reason for using pre determined pairs is due to humans being naturally curious; when

you pair everyone's disability on the screen, participants will look around to try and figure out whose disability belongs to whom. This was noticed by the researcher while collecting data for another study using Wright's group exercise. Although using pre-determined disabilities for pairs was thought to be better methodologically, doing so alters the original paradigm and takes away the personal aspect of the group activity. Knowing that the pairs are simply just disabilities may have prevented the group from gaining insight through emotionality. Knowing that your paired disability might belong to the person sitting next to you most likely adds a significant amount of importance to the exercise.

An obvious possible methodological failure might be with the dependent variable measure. The Romantic Attraction Scale might be a poor measure to use when examining the in group's attraction to an out group (i.e., disabled individuals). The RAS doesn't ask participants anything regarding the disability. It would have been wiser to use a scale directly relating to disabilities. However, to the researcher's knowledge, a scale like this does not exist. It might also be the case that the scale cannot account for a social desirability factor. As previously stated, the averages for the RAS on each individual Likert scale question came out to around four, indicating that participants may have either felt indifferent or did not want to express their true opinion about the disabled person in the image. It may very well be the case that participants reported neutral (and sometimes favorable attitudes, especially with the physical disability condition) due to social desirability.

While mixing disabilities and attraction in a study is unorthodox, research to date does not address this type of issue with regards to disability sensitization. In the event

research on disabilities and attraction is replicated with a similar measure, it is recommended to also try take social desirability in to account. The impact of responses being impacted by a socially desirability bias would render the data useless. Social desirability indicates that participants may respond with more favorable attitudes than normal to a stimulus simple because they think it is more socially acceptable. Rating how attractive a disabled individual is, as in the case of this study, could have caused some respondents to answer the RAS with biased responses.

There are several implications for future research. One potential future study is of course to replicate Wright's exercise with different populations. Research thus far has mostly used college students and health care professionals. This exercise might be a practical tool elsewhere though, especially in the workplace. This sensitization effort may minimize anger and frustration toward coworkers who cannot work as quickly or as efficiently as their peers. Helping everyone to understand each other's disability as normal might aid in the growth of the workforce as a cohesive unit.

The purpose of this study was of course to extend Wright's paradigm to incorporate other factors (in particular, interpersonal attraction) and to see if the sensitization still had a similar effect. While future studies can still look at sensitizing and attraction, it would be interesting to look toward other areas of interest. For example, what age does this sensitization technique work? Considerable research has previously been cited discussing socialization and young children who are socialized to understand the perceived normal and perceived abnormal early on. Could this exercise be used in a classroom setting in elementary schools and be effective? This might be a very practical exercise for young children, and if research shows that this exercise helps sensitize

children to disabilities and negate stigmas early on, it might be even more practical to adopt widely.

It is important to recognize the significance of Wright's (1983) Mine-Thine exercise as a practical tool for use in a wide range of arenas if its significance can be verified through further scientific research. This study may have changed too many factors within the original design for it to actually work. The importance of this study verifies how altering the original exercise may be a factor in changing its significance in sensitization. I recommend that researchers try to refrain from changing too much of Wright's original setup. In the event that future research certifies this exercise's importance through statistical significance, society can move forward using this as a tool in everyday life. Should results of future research not show significance, it may be the case that this exercise is only useful in the field of psychology, particularly rehabilitation psychology. People may be more aware of what a disability is, or be more open to it at least, when they or a loved one is injured. However we cannot make this distinction until future research makes it for us.

Table 1

Means of attraction in each condition across time (time 2 being post intervention)

	Missing limb group	Blindness group	Schizophrenia group	Control
Time 1	21.88	18.23	20.47	19.71
Time 2	21.47	18.81	20.63	20.81
Time 3	21.53	17.81	19.21	21.24
Total	64.88	54.85	60.32	61.76

Table 2

Examples of self reported disabilities provided by participants

Acid reflux disease	High stress
Constant knee sprains	ADD
Egoism	Cancer
Anxiety	Dyslexia
Ugliness	Blindness
Social awkwardness	High blood pressure
Obesity	Chromosomal translocation

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Appendix B

Model images used (control condition)



Appendix C

Unisex disability vignettes by group

Disability condition 1 – Missing limb

The person you are going to be answering questions about grew up in a small suburban town 40 minutes south of Pittsburgh with 3 brothers. The mother was a stay at home mom and raised the family while dad worked as a lawyer in Pittsburgh. Ever since the age of 7, family friends and relatives supported the choice to try modeling. At the age of 12, mom had a professional photographer send a few pictures to a modeling agency. From there, prestige was all that followed. The constant modeling affected schooling a little bit, but grades were always maintained at a B+ or better. Modeling had become a passion, hobby, stress reliever, and main source of income. Prestige gained from photo shoots has grown so much over the last few years that an agent was necessary to deal with all of the modeling requests. Despite the busy schedule, there is always enough time found for relaxing and listening to music. Working out is also a top priority. Last year while the young talented model was out on college break, a car ran a red light which crushed both cars instantly, but the crash zones on both cars prevented the crash from taking anyone's life. However, part of the forearm had to be removed after the accident due to an infectious cut caused by the crash. Despite this, modeling is still one of the many passions still enjoyed by this lucky survivor.

Disability condition 2 – Blind

The person you are going to be answering questions about grew up in a small suburban town 40 minutes south of Pittsburgh with 3 brothers. The mother was a stay at home mom and raised the family while dad worked as a lawyer in Pittsburgh. Ever since the age of 7, family friends and relatives supported the choice to try modeling. At the age of 12, mom had a professional photographer send a few pictures to a modeling agency. From there, prestige was all that followed. The constant modeling affected schooling a little bit, but grades were always maintained at a B+ or better. Modeling had become a passion, hobby, stress reliever, and main source of income. Prestige gained from photo shoots has grown so much over the last few years that an agent was necessary to deal with all of the modeling requests. Despite the busy schedule, there is always enough time found for relaxing and listening to music. Ever since the model was a child, they had been diagnosed with a rare eye disease. Over the last few years the eyes had been getting progressively worse, and eventually the model was declared legally blind 6 months ago. Unable to see, and without any surgical procedure that can fix the disorder, the model still engages in photo shoots and advertisements.

Disability condition 3 –Schizophrenia

The person you are going to be answering questions about grew up in a small suburban town 40 minutes south of Pittsburgh with 3 brothers. The mother was a stay at home mom and raised the family while dad worked as a lawyer in Pittsburgh. Ever since the age of 7, family friends and relatives supported the choice to try modeling. At the age of 12, mom had a professional photographer send a few pictures to a modeling agency. From there, prestige was all that followed. The constant modeling affected schooling a little bit, but grades were always maintained at a B+ or better. Modeling had become a passion, hobby, stress reliever, and main source of income. Prestige gained from photo shoots has grown so much over the last few years that an agent was necessary to deal with all of the modeling requests. Despite the busy schedule, there is always enough time found for relaxing and listening to music. When reaching the mid twenties, the model had been diagnosed with mild schizophrenia. They sometimes see figures that aren't there and have mild auditory hallucinations. This disorder leads to varying levels of stress and anxiety when not on medication, however despite this, the model still engages in photo shoots and advertisements.

Condition 4 – Control

The person you are going to be answering questions about grew up in a small suburban town 40 minutes south of Pittsburgh with 3 brothers. The mother was a stay at home mom and raised the family while dad worked as a lawyer in Pittsburgh. Ever since the age of 7, family friends and relatives supported the choice to try modeling. At the age of 12, mom had a professional photographer send a few pictures to a modeling agency. From there, prestige was all that followed. The constant modeling affected schooling a little bit, but grades were always maintained at a B+ or better. Modeling had become a passion, hobby, stress reliever, and main source of income. Prestige gained from photo shoots has grown so much over the last few years that an agent was necessary to deal with all of the modeling requests. Despite the busy schedule, there is always enough time found for relaxing and listening to music.

Appendix D

Experimental group surveys

Questionnaire 1

Identification # _____

Please write down your chosen disability—the *worst* one you have—in the space below. Disabilities can be physical, mental, or emotional. You are not limited to your choice, since many qualities or conditions can be perceived to be disabilities.

Questionnaire 2

Identification # _____

- 1) Look at the disability you have paired with below. Please write down your worst disability you chose next to the disability you have been paired with

Random pair:

Your disability

- 2) Now, please underline the disability that is yours. Imagine you had the opportunity to exchange your disability for the other disability identified in the pair above. Would you prefer to switch or to keep your original disability? Put a ☆ next to the disability you would prefer to have out of the above pair. Please explain your starred choice below.

Questionnaire 3

Identification # _____

Please rewrite the personal disability you chose and the one which it was paired with in the space immediately below. Again, underline the one which is your own and star the one which you would prefer to have. Then, please answer the questions that follow.

- 1) Does your disability affect your daily living? (Conducting your normal routine, activities, and interests)

Circle one: Yes No

If you answered **YES**, answer question 2

If you answered **NO**, please go to question 3

- 2) Please rate how much your disability affects your daily life.

1	2	3	4	5	6	
7						
Never Impacts						Extremely
Disruptive to						
Daily Activities						Daily
Activities						

- 3) Do you think your paired disability would affect your daily life?

Circle one: Yes No

- 4) Rate how much you think your paired disability would affect your daily life if you had it.

1	2	3	4	5	6	
7						
Never Impact						
Extremely Disruptive						
Daily Activities						to
Daily Activities						

