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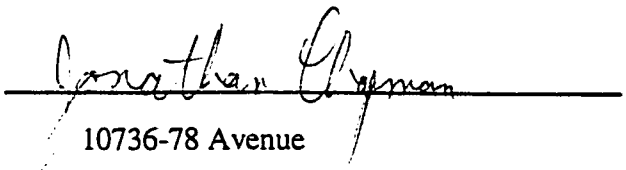
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Does Contact Prompt More Positive Attitudes Towards Deaf People?

by

Jonathan Edward Chapman



A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the requirements for the degree of Master of Arts

Department of Psychology

Edmonton, Alberta

Spring 1999

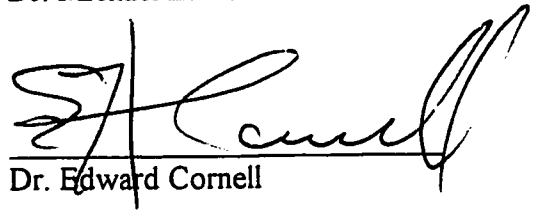
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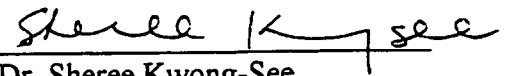
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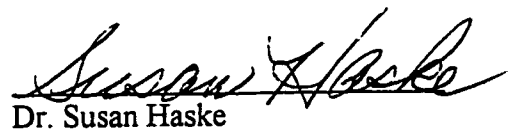
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Abstract

Some people hold negative stereotypical beliefs about minority group members such as deaf people. For instance, deaf people may be viewed as mentally slow and socially inept. Attitudes towards stereotyped people can improve via equal and positive contact (Makas, 1993) and mere exposure (Bornstein, 1993). It was expected that positive contact settings would contribute to more positive attitudes towards deaf people than no contact. One hundred and sixty-seven participants watched a videotaped interview of a deaf person (who spoke or signed) after pretreatment (American Sign Language or ASL vs Swedish vs No-Language Instruction). In the pretreatment condition, participants were exposed to someone using ASL or Swedish or were in a control group. Participants who learned sign language or Swedish rated the deaf person more positively than those who were not exposed to a language. Deaf signers were rated more positively than deaf speakers. The contact or mere exposure hypothesis is not sufficient to explain some of the results. Thus the results are compatible with Langer and Chanowitz's (1988) mindfulness theory (where people are prompted into a mindful state in order to categorize others more accurately) which seems to be a more plausible explanation.

Acknowledgement

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Does Contact Prompt More Positive Attitudes Towards Deaf People?

People with disabilities such as deafness are targets of stereotypes and prejudice (Yuker, 1988). Stereotypes are overgeneralized and widely shared beliefs about social groups or categories. Moreover, stereotypes are considered exaggerations of social reality in that stereotypers overestimate the prevalence of stereotypical attributes that the stereotyped target possesses, and underestimate the prevalence of counterstereotypical attributes (Ryan, Park, & Judd, 1996). For instance, an interviewer might assume that a blind interviewee is often unhappy and dependent, without considering the interviewee's outward appearance of being upbeat and self-sufficient.

Negative Effects of Stereotyping

Allport (1954) pointed out that stereotypes tend to discourage recognition of heterogeneity of characteristics among members of groups other than the perceiver's own (i.e., outgroups). This perception may be due to outgroup members being seen by the perceivers as less variable in characteristics than are ingroup members (Ostrom & Sedikides, 1992). Overall, ingroup members tend to exaggerate the homogeneity of characteristics shared by members of outgroups. Stereotypes can prompt negative reactions towards outgroup individuals. Negative consequences of stereotyping are more likely to occur when members of outgroups are judged according to socially undesirable characteristics included in the group stereotypes rather than by their individual characteristics. Interaction between the stereotyped individual and the categorizing perceiver may become negative when the categorizer negatively mislabels the stereotyped person or does not see that person's unique characteristics. Stereotyping a person with inaccurate labels is called misclassification (Jones, Farina, Hastorf, Markus, Miller, & Scott, 1984). Negative interaction based

on categorization is more pronounced when misclassification occurs due to the criteria for category membership not being directly observable or too vague to hold any logical merit.

Though stereotyped individuals are usually adversely affected by negative stereotypes, the negative effects of stereotypes are exacerbated when these negative beliefs are shared consensually within society (Stangor & Schaller, 1996). Negative beliefs shared by many do more harm than negative beliefs shared by a few or one. The negative consequences of stereotyping sometimes lead to the stigmatization of target individuals. According to Jones et al. (1984), the more deviant the outgroup is perceived to be from the ingroup in terms of social distance and characteristics such as sexuality and social class background, the greater the chance of these outgroup members being stigmatized. Stigmatization results in the stereotyped person or group being avoided and shunned by ingroup members. Stigmatized people are seen as having dispositions that discredits or demeans their character. On the other hand, stereotyped but not stigmatized persons may still be approached in spite of being negatively stereotyped.

Processes for Stereotype Development

There are several explanations for stereotype development. First, stereotypes could be formed by categorization processes (Park & Hastie, 1987) and by intuitive belongingness among personality traits (Linville & Jones, 1980). Stereotyping presumably originates from categorization, that is, the process of bunching together shared social and physical attributes of objects and/or events into one category (Miller, 1982). Furthermore, stereotyping includes presumed correlations between one trait (category membership) and other traits such as personality and physiognomy (Jones et al., 1984). Simon (1957) proposed that people are cognitive misers in that they tend to

satisfice thought processes rather than optimize them, meaning that people have a tendency to categorize people based on shared but often superficial features in order to preserve cognitive resources. This process can lead to stereotyping especially when people perceive individuals from the same group as sharing the same characteristics (Mackie, Hamilton, Susskind, & Rosseli, 1996).

Other theories focus on motivational and cultural causes of stereotyping. The sociocultural perspective claims that people acquire stereotypical beliefs from direct experience and from observing the behaviours and/or attitudes of significant others such as parents, media, and other agents (Fazio & Zanna, 1981). Strong correlations between stereotypes and prejudices of parents and children occur quite often (Fagot, Leinbach, & O'Boyle, 1992). The pressure to adhere to socially sanctioned stereotypes in order to avoid ostracization denotes the power of peer influence on compliance to these stereotypes (Stangor & Schaller, 1996).

Other theories propose that motivational processes lead to stereotyping. These processes include projections of characteristics which people abhor in themselves onto others (Dollard, Doob, Miller, Mowrer & Sears, 1939) and from beliefs that bad things happen to those who deserve it (e.g., just world theory, Lerner, 1970). The perception of the outsider as deviant allows perceivers to strengthen their group identity at the expense of the outsider and his group, according to the Social Identity Theory (Tajfel & Turner, 1986). Social Identity Theory would explain a supposed negative insider bias toward outsiders (Hamilton & Trolie, 1986). Insiders who have sparse or vague knowledge about particular outsiders may hold inaccurate and sweepingly negative judgements about those outsiders, particularly, if the outsider status is salient. According to Social

Identity Theory, people are motivated to bolster their ingroup identity while denigrating the outgroups. The result is the creation of a negative insider bias. Stereotypes conceivably could be formed by any of these three processes; however, research during the past 20 years makes a strong case for cognitive processes being a potent contributor to the development of stereotype patterns. In short, people do only what is necessary to understand others subjectively, regardless of how inaccurate these perceptions may be.

Sometimes false beliefs about people persist despite contradictory evidence. People tend to be selective about what they pay attention to, and tend to notice actions that reinforce their existing perceptions and beliefs, while overlooking those actions that are inconsistent with existing perceptions (Hamilton, 1981). The persistence of stereotypical thinking appears to be affected by people's direct experience. Fazio and Zanna (1981) claim that direct experiences are the most powerful influences on how one interacts with others. For instance, if a child were ritually abused by Christian guardians, the child might develop negative views about Christians in general, despite encountering many positive and caring Christians. According to Mackie et al. (1996), some people ignore stereotype-inconsistencies because of already ingrained perspectives that are very difficult to discount unless sufficient stereotype-inconsistent information is present with no distractions from stereotype-confirming information in order to stimulate changes in stereotypes.

Contact, Mere Exposure and How Stereotypes Might Be Changed

Negative stereotypes and prejudice are socially harmful, and hence, the intense focus on reducing these negative effects on society and on changing attitudes of prejudiced people. One suggested venue for reducing the negative impact of stereotyping and prejudice is contact. Allport

(1954) and Cook (1962, 1963) developed the contact hypothesis. A contact situation refers to proximity among people that makes interaction more likely; whereas contact is actual interaction between people (Cook & Selltiz, 1955). Level of contact can range from observation without communication to direct, prolonged, and intimate interaction. Allport (1954) and Cook (1962, 1963) attempted to show that contact is a simple but powerful explanation about how interracial and interethnic harmony could develop, in other words, how one type of stereotyping and prejudice might be changed. However, studies have demonstrated that for the contact hypothesis to successfully predict decreases in negative stereotypes about outgroup members, more complex and specific conditions than mere contact are required (Makas, 1993). A study by Sherif and Sherif (1953) indicated that contact can induce members of socially distant groups to change their attitudes favourably towards each other only if members of different groups converse with each other and participate successfully in joint projects. Theoretically, if outgroup members hostile to each other communicated from a distance with minimal interaction, there ought to be no reduction in their prejudiced attitudes towards each other. Thus, goals that require cooperation can make contact effective enough to reduce prejudice. Cook and Selltiz (1955) described more specific conditions that are required in order for contact to induce positive attitude changes as follows: contact must occur in a positive atmosphere, participants must have similar education and background, and communication must be equal between participants.

Cook and Selltiz (1955) also suggested that attitudes based on personal contact can be influenced by the level of the contact and the social consequences of being in contact with outgroup members. Nature of contact refers to the level of intimacy and openness between the

participants in contact with each other. For example, acquaintance-based contact refers to situations where people are at least exposed to one another and where the level of contact is usually superficial. On the other hand, contact which is more intimate may imply social acceptance (e.g., inviting the other person to a person's own home). Thus, positive contact on more intimate levels between people from different groups would denote mutually positive attitudes that were enhanced by contact. In addition, characteristics of the people involved in a contact situation can affect mutual attitudes. The more an outgroup person differs from the common unfavourable stereotypes against the outgroup and the more the outgroup member resembles the perceiver, the more favourable the perceiver's attitude towards the outgroup person should be. Typically, outgroup members include racial minorities, ethnic groups, women, and disabled people. For example, a deaf person who can communicate easily with hearing people might be accepted more by other hearing people than might a deaf person who cannot speak well.

An interesting style of contact is exposure without extended contact. Mere exposure can lead to positive stereotypes and regard for ingroup members if exposure occurs in a neutral or positive setting (Zajonc, Markus & Wilson, 1974). Frequent exposure to outgroup members would strongly influence perceivers' attitudes towards these outgroup members as long as the perceivers are not consciously pressured during exposure (Bornstein, 1993). In short, mere exposure occurs when a person casually observes other people on a daily basis without any pressure to be in their presence. The mere exposure setting where participants face each other must be on either neutral or positive grounds to effectively prompt more positive attitudes, as in contact situations (Amir, 1969). Bornstein's (1989) meta-analysis of mere exposure studies revealed very high correlations

between mere exposure effects and changes of attitude towards outgroup members. The effects of exposure to outgroup stimuli were considerably more than 50 percent higher for change in attitude than were the effects of exposure to ingroup stimuli. These correlational findings supported the notion that expectancy disconfirmation is the underlying process of mere exposure effects. The expectancy disconfirmation hypothesis indicates that when people's negative expectations of another person are disconfirmed through constant mere exposure or profound brief exposure, their attitudes become much more positive towards that person (Zajonc, 1984).

Stereotyping and Prejudice against Disabled People

How do stereotypes and prejudices relate to persons with disabilities? Throughout history, prevalent reactions towards those who are seen as being disabled include rejection, hostility, isolation, and institutionalization (Davis & Rizzo, 1991). These attitudes or behaviours have negative consequences because they undermine the survival and personal/social development of disabled people, according to Davis and Rizzo.

Prejudiced attitudes against disabled people include beliefs that disabled people are inferior or that their personalities are different and more poorly-developed than are those of nondisabled people. The term handicapism has been coined to capture the prejudicial attitudes and discriminatory behaviour directed to persons with handicaps (Bogdan & Biklen, 1993). For instance, people who stereotype may view mentally disabled people as being oversexed and childlike, or view deaf people as being melancholic and concrete thinkers. People demonstrate handicapist attitudes when, for example, they construct buildings that are not accessible for

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the minority group model than the functional-limitations model. This could benefit disabled people greatly.

Effects of Contact on Attitudes towards Disabled People

Research has examined the effects of contact on attitudes towards disabled people. Yunker (1988) conducted a meta-analysis on these studies and found mixed results which showed negative, positive, or no attitude change towards disabled people. As a result of contact, Yunker suggested that flawed methodologies and poor definitions of contact and disability contributed to these conflicting findings. Consideration of attitudes towards specific disabilities are needed. Previous studies arranged contact situations with disabled people in general (e.g., pairing up participants with people of any disability without consideration for type of disability) rather than with people who have specific disabilities. Effects on stereotypes about specific types of disability such as mental, emotional, physical, visible, or nonvisible disabilities need to be studied. For instance, people with mental or easily noticed disabilities are seen more negatively than physically or invisibly disabled people (Furnham & Gibbs, 1984). Therefore, research that focuses on specific types of disabilities may lead to more information regarding attitudes towards disabled people.

Although most studies on contact and attitudes towards disabled people produced mixed results, Makas (1993) suggested how contact which deepens in intimacy at each progressing stage (e.g., ranging from being mere work acquaintances to being close friends), can be applied to improved attitudes towards disabled people. Negative attitudes towards disabled people may change in a positive direction with increasing contact. For example, a person who has had some contact with a deaf person may begin to see her in a more complex way (seeing this particular deaf person as expressive instead of merely aloof). When hearing people meet more deaf people

on positive terms, their views of the deaf community may become less depersonalized, although the deaf community would remain an outgroup. Eventually, hearing people begin to be more familiar with deaf persons. Their stereotypical views toward deaf people break down, and deaf people thereby become potential ingroup members. Thus, more intense phases of positive contact can influence hearing perceivers to regard the outgroup members as complex individuals or even potential ingroup members.

Many people who have not met deaf people and have heard negative evaluations about them may regard deaf people with stereotypical labels such as being slow learners, fixated on concrete thinking, or impulsive (Furnham & Lane, 1984). Often, people fail to see that the only fundamental difference between deaf and hearing people is that deaf persons cannot hear. People may ignore other positive and individual features of these deaf persons, resulting in distorted perceptions of deaf people. Stereotyping of deaf people might be reduced if positive contact between deaf and hearing people continue to develop according to Makas' stages of contact (1993).

Research Hypothesis

I hypothesized that contact with or exposure to a presumed deaf person who instructs in sign language would lead to more positive attitudes towards deaf people. The contact conditions here should be sufficiently favourable to do so, in that the "deaf" person ought to be perceived as a capable and positive person based on her educated instructor status and professional behaviour. Moreover, the instructor-student setting allows for a certain level of a cooperative atmosphere. Therefore, based on a positive contact situation with the deaf instructor, the participants ought to

regard more positively the deaf people that they observe than those who have not encountered the deaf instructor. The initial contact with the instructor could lead participants to have somewhat less stereotypical views of the deaf person viewed. However, I believed that based on the similarity between oral deaf people and participants, the attitudes towards oral deaf people ought to be more positive than those towards deaf people who use American Sign Language (ASL).

In this scenario, the contact situation could consist of mere exposure to the deaf instructor. Would a brief session with the deaf instructor be sufficient to influence positive change in attitudes towards deaf people? Mere exposure that is repeated and without external pressure can enhance positive attitudes towards a person, object, or stimulus (Zajonc, 1968). Bornstein (1993) stated that the expectancy disconfirmation model predicted that repeated and non-externally pressured exposure to outgroup stimuli should have strong effects on perceivers' attitudes towards the outgroups. In short, frequent exposure, without pressure, to outgroup members should strongly influence their attitudes towards these outgroup members. For instance, white children exposed to photos of black children for 2 minutes liked the black children in photos 12 percent better than before they did before exposure, while no difference in liking was found for photos of white children (Cantor, 1972). Even a few minutes of mere exposure to outgroup stimulus can create a robust exposure effect for both children and adults, and can produce significant change in evaluative ratings of outgroup stimuli in terms of self-reported affect (Zajonc et al., 1974), desire for future contact (Ball & Cantor, 1974), and trait ratings (Perlman & Oskamp, 1971).

Language Instruction Main Effect

I predicted that participants who were exposed to a brief session of ASL would rate the personality and social characteristics of a deaf person they subsequently observed more positively than would participants who were exposed to a brief session in a language other than ASL or those who were not exposed to any learning experience. However, based on lack of contact with a deaf person, those exposed to a non-ASL language ought to rate the deaf person similarly to those who were not exposed to any language. Contact with a sign language instructor ought to make the participants more comfortable with deaf people. In other words, the predicted main effect for the dependent measure assessing effects of contact or lack of contact on stereotypical attitudes is that exposure to ASL would produce less stereotypical attitudes than would exposure to Swedish or no language. I believe that the effects of Swedish ought to be similar to no exposure to any language due to lack of contact with deaf people in both conditions. (See Table 1)

Deaf Mode of Communication Main Effect

It was predicted that participants would feel more comfortable and want more to be with deaf people who speak orally than those who use sign language. The reasoning was that because people tend to favour similar others more than different others, participants ought to identify more with those who use the speaking mode as the participants themselves. However, I believed that this main effect would be influenced by the interaction between language exposure pretreatment and mode of language expression since those who were exposed to ASL ought to favour both signers and speakers equally. Those who were exposed to Swedish or no language should not feel more comfortable with signers or identify more with them than if they were recently exposed to

ASL due to the lack of experience of seeing deaf signers as equal participants in society. Also, there are easily perceived qualitative differences in manual and vocal expression. The former is less frequent, increasing its novel value. (See Table 1)

Interaction Effects

Participants exposed to Swedish or no language ought to rate the social and personality characteristics of the Oral deaf more favourably than those of the ASL deaf. Those exposed to ASL ought to rate the signers and speakers equally. Those who were exposed to Swedish or no language should not feel more comfortable with signers or identifying more with them than if they were recently exposed to ASL due to the lack of experience of seeing deaf signers as equal participants in society. Please see Table 1 for the pattern of predictions. People tend to favour those who behave or think as the perceivers do themselves, and deaf people who speak would be behaving similarly to those in the hearing society.

When the deaf person being interviewed is using ASL, participant previously exposed to ASL ought to rate the deaf person higher than those who were exposed to Swedish or no language. Participants exposed to Swedish or to no language ought to produce similar ratings of the ASL-using deaf person. If the videotaped deaf person is speaking orally, participants from all of the language conditions ought to rate the oral deaf person equally. (See Table 1)

Method

Participants and Design

Participants were 167 university students who received credit toward an introductory psychology course requirement. They were randomly assigned to the conditions of a 3 (Swedish

language instruction vs. ASL language instruction vs. no-language instruction) x 2 (speaking vs. ASL using deaf person on videotape) between-subjects factorial design. Data from eight participants were discarded owing to procedural errors.

Materials

Eight videotaped interviews were devised for a mock community cable show, "Life in Edmonton." These interviews were shown to participants after they completed the language condition where participants were exposed to ASL, Swedish, or no language. An interviewer questioned eight different people. Each interview lasted approximately 2 minutes. Four of the interviewees (2 males and 2 females) were hearing. The other two interviewees (1 male and 1 female) were deaf. Each of the deaf interviewees were questioned twice. The deaf person used ASL in one interview and spoke in the other interview. The scripts for the oral and ASL interviews were the same for each deaf person. The interviewer used the same mode of communication as the deaf interviewee. Taped interviews of these deaf people were subtitled to ensure that the participants could follow the content of all interviews. Only the ratings of the interviews with the deaf people were scored.

Procedure

Up to six participants were seated in a semi-circular arrangement facing two experimenters. The experiment was to be in two parts with each experimenter in charge of each. The experimenter responsible for the second part of the experiment introduced the participants to both herself (Experimenter 2) and the other experimenter (language instructor) who would conduct the first part of the study (Experimenter 1). E2 explained the purposes of the two experiments to

the participants. The second experimenter went to another room so the first experimenter could proceed.

Language and control conditions. E1 told the participants that the purpose of the first study was to assess the participants' knowledge and perspectives of non-English languages. If the instructor (E1) taught American Sign Language (ASL), the participants each read a slip that stated that ASL was a language used primarily by the deaf community and that the participants would learn some basic signs. When Swedish was taught, participants each read a note explaining that they would learn some basic Swedish words. Both lessons took approximately the same length of time. In the control condition, no language was taught; participants instead each read a colloquial article on psychological research methods. The time for this reading task was equivalent to that required for the language lessons. The language instructor in the ASL and Swedish conditions did not speak English to the participants. When ASL was taught, the experimenter wrote down the English words on a whiteboard and showed the class the signs for each word or phrase, but did not speak. This format was similar for the Swedish instructions (E1 wrote English words on a whiteboard and spoke Swedish terms for them).

After the language or control instructions were completed, questionnaires were administered to assess the participants' experience with other languages to maintain the participants' belief that their participation was in two distinct experiments. Upon completion of the questionnaires, the participants were taken to second laboratory for the supposed second experiment.

Videotape selections. The second instructor selected two videos from among the video file (2 videotapes with one different hearing man each, 2 videotapes with one different hearing woman each, 1 videotape with a deaf female signer, 1 videotape with a deaf female speaker, 1 videotape with a deaf male signer, 1 videotape with a deaf male speaker) for the participants to view. One videotape included an interview with a deaf person (randomly selected among the deaf video section), while the other videotape included an interview with a hearing person (randomly selected among the hearing video section). Half of the participants witnessed the deaf interviewee using ASL, while the other half saw the deaf interviewee use speech. Only the ratings of the videotape of the deaf person were counted towards the results. I did not include the results regarding videotaped interviews of the hearing people because the context of the interviews were very different between the hearing and deaf interviewees. As well, of course, my focus is on comparisons of peoples' attitudes toward deaf signers and deaf speakers.

Videotape assessments. The participants were isolated in separate study carrels and were given instructions as they faced the experimenter and a video monitor. Participants were not permitted to interact with each other. The experimenter explained that the purpose of the procedure was for the participants to analyze personal and social characteristics of the person being interviewed in a mock community cable show, "Life in Edmonton." If the person to be interviewed was deaf, the instructor explained that fact beforehand. The experimenter turned off the room lights during the videotape viewing in order to prevent visual contact among the participants. At the conclusion of each interview, the experimenter administered questionnaires to

the participants who were given 10 minutes to complete them. At the end of both interviews, participants were probed for suspiciousness and were debriefed. No suspicions were found.

Dependent Measures

Participants were presented with 9-point bipolar scales on which to rate their attitudes towards the deaf interviewee based on three categories which included several items each: assessment of deaf person's social competence and value, assessment of deaf person's personality, and willingness to interact with the deaf person. Please see Table 2 for the specific items under each category cluster. Furham and Lane (1984) conducted a study to measure attitudes towards deafness, and they used a modified version of the Attitudes Towards Disabled Person (ATDP) scale, originally designed by Yuker, Block, and Campbell (1960). Many items used in my scale are similar to those in Furham and Lane's modified scale such as ratings of the deaf person's social skills, ability to participate in conversations, ability to take care of self, emotional stability, as well as the hearing person's willingness to interact with the deaf person. Clusters from a factor analysis on Furham and Lane's scale (1984) concurred somewhat with those of mine such as social life (akin to my study with perceived social ability of deaf people), integration and communication problems (akin to my study with willingness of hearing participant to interact with deaf person), Thus, my choice of items and clusters are consistent with those from past studies. I included feelings about friends' romantic involvement with the deaf person, because interaction with a friend's significant other indicates a high level of acceptance for that significant other as an equal participant in socializing.

Results

All measures were submitted to 2 X 3 between-subjects ANOVA. All measures were 9-point rating scales transformed so that higher numbers always correspond to more positive evaluations.

Assessment of Deaf Person's Social Competence and Value

Language instruction main effect. Participants who learned either ASL or Swedish perceived the deaf person as more able to take care of himself or herself than by participants in the control condition (see Table 3). Overall, participants in the Swedish condition ($M = 7.02$) rated the deaf person as more socially experienced than did those in the control condition ($M = 6.15$), $F(2, 153) = 5.60$, $p < .01$ (see interaction effects for this measure). Participants exposed to ASL or Swedish evaluated the deaf person as a better potential conversationalist than did the participants in the control condition ($M = 5.84, 6.02, 4.85$, respectively), $F(2, 151) = 4.62$, $p < .05$ (see interaction effect for this measure).

Deaf communication mode main effect. If the deaf person was an ASL user ($M = 7.00$), he or she was judged to have superior social skills than if he or she was oral ($M = 6.25$), $F(1, 152) = 7.36$, $p < .01$. Overall, participants rated the deaf signer ($M = 5.78$) as more sophisticated than the deaf speaker ($M = 5.25$), $F(1, 153) = 4.86$, $p < .05$ (see interaction effect for this measure).

Interaction effects. If the deaf person was oral, participants who learned ASL or Swedish viewed the oral deaf person as being more socially experienced than did those participants who did not learn any language. When no language was previously taught, participants regarded the deaf signer as being more socially experienced than if the deaf person was oral (see Table 4).

When the deaf person spoke orally, viewers who previously learned Swedish or ASL rated the deaf person as having more sexual skills in relationships than did the viewers who did not learn any language ($M_s = 7.32, 7.25, 5.82$, respectively), $F(1, 153) = 3.28, p < .05$. When the deaf person being assessed communicated orally, participants who learned ASL or Swedish felt that the deaf person was more likeable than did those participants who did not learn a new language ($M = 7.88, 7.57, 6.86$, respectively), $F(1, 153) = 3.49, p < .05$. When participants were asked how well they thought the oral deaf person could participate in a conversation, those who learned ASL believed that the oral deaf could fare better than did the viewers who did not learn a new language (see Table 5).

Personality Assessment of the Deaf Person

Language instruction main effect. Observers who learned ASL or Swedish judged the deaf person as being more quick-witted than did those in the control group as seen in Table 6.

Deaf communication mode main effect. As seen in Table 7, if the deaf person used ASL, participants regarded him or her to be more dominant than if he or she used oralism. The deaf person communicating only with speech was assessed as being more naive than if the deaf person used ASL (see Table 7). If the deaf person was a signer, he or she was judged as more quick-witted than if the deaf person spoke orally (see Table 7). I found an interesting contrast to the pattern of more positive assessments for signers than for speakers. The deaf person using the speech mode ($M = 7.53$) was perceived to be warmer (as opposed to cold, personality-wise) than if the deaf person used the signing mode ($M = 7.11$), $F(1, 153) = 5.27, p < .05$. Participants assessed

the deaf signer ($M = 7.21$) as more intelligent than the deaf speaker ($M = 6.76$), $F(1, 153) = 4.03$, $p < .05$ (see interaction effect for this measure).

Interaction effects. Viewers who had just learned ASL or Swedish perceived the oral deaf person as being more intelligent than did the viewers who did not learn new languages (see Table 8). In addition, the viewers in the no-language condition deemed the deaf person using ASL as more intelligent than the deaf person if he/she was using oralism. When the deaf person spoke orally, participants in the ASL ($M = 7.44$) condition rated the deaf person as being stronger than did the participants in the control condition ($M = 5.96$), $F(1, 153) = 3.64$, $p < .05$. Moreover, in the control condition, the deaf person signing in ASL ($M = 6.96$) was judged to be stronger than if the deaf person was speaking.

When the deaf person using oral methods was being assessed, participants who just learned ASL ($M = 7.50$) viewed the deaf person as being more relaxed than did the participants who did not learn a new language (see Table 8). Additionally, among the participants in the control group, the deaf person speaking orally was regarded as more tense than if the deaf person was a signer. The participants in the control condition assessed the deaf person using ASL ($M = 7.15$) as having higher self-esteem than the deaf person if he or she was using oralism ($M = 5.89$), $F(1, 153) = 3.25$, $p < .05$.

When the participants learned Swedish ($M = 8.38$), they regarded the oral deaf person as being more friendly than did the participants who did not learn a language ($M = 7.61$). However, it must be noted that the participants who learned ASL rated the oral deaf person as more friendly than even those in the Swedish condition; though, the result was not significant at the .05 level. In

contrast to the general pattern of the results, observers who learned Swedish rated the deaf person speaking orally as more friendly than if the deaf person was signing ASL ($M = 7.54$).

Social Adjustment

Language instruction main effect. Participants who learned either ASL ($M = 6.18$) or Swedish ($M = 6.35$) indicated that they would enjoy talking with the deaf person more than if they had not learned a language ($M = 5.46$), $F(2, 153) = 3.80$, $p < 3.80$.

Interaction effects. Participants were asked how they would feel if the deaf person became romantically involved with one of their friends (see Table 5). When the deaf person viewed used oralism, those learning ASL or Swedish had more positive feelings if the deaf person was romantically involved with a friend than did those in the control group. Moreover, in the no-language condition, participants felt more positively about the deaf person using ASL being romantically involved with a friend than if the deaf person was using oral methods.

MANOVA Versus ANOVA

Many ANOVAs were conducted to obtain the results. Normally, MANOVA would have been the preferred method of analyzing the data in order to reduce the error rate that would increase with use of multiple univariate tests. However, the uneven sample size would only serve to weaken the power of MANOVA tests. Therefore, series of ANOVA tests were conducted, keeping in mind the error rate problem.

Discussion

General predictions regarding how people view the social and personality characteristics of deaf persons were supported; however, surprising results occurred as well. One unexpected

result was that people exposed to Swedish or ASL lessons evaluated the deaf person similarly. In general, the participants rated the deaf ASL user more favourably than the oral deaf person. However, this result was less evident in the non-language lesson condition.

Overview of the Assessments

Due to the lack of actual interaction between the deaf person and participant in the Swedish and no-language conditions, it was believed that participants in the ASL condition would rate the oral deaf more positively, though the difference ought to be less pronounced than if the ASL deaf was rated. However, it was found that deaf interviewees were rated equally positively by those exposed to ASL and Swedish.

The prediction that people who learned ASL would evaluate deaf people more positively than would those who did not learn a new language was supported; however, the strong positive effects of learning Swedish on the participants' ratings of the deaf was not anticipated. This occurred for all the assessments of social competence, social adjustment, and personality assessment. Interestingly, observers in general regarded deaf ASL users more positively than oral-speaking deaf people. This finding is opposite of that which was expected, i.e., that because deaf speakers communicate more like hearing people, observers would regard oral deaf people more positively than deaf signers. I predicted that those exposed to ASL would not differ in their evaluation of oral and ASL deaf people equally, whereas observers who learned Swedish or no new language would rate oral deaf people more positively than ASL deaf people. In fact, the general pattern showed that observers, regardless of which language condition they were in, rated the deaf signer more positively than did the observers in the no-language condition regarding the

oral deaf person. Once more, these results suggest that learning Swedish was as strong an influence as ASL in influencing positive attitudes towards deaf people.

There was an interesting effect that did not follow some of the general patterns of this study. Observers learning Swedish rated the deaf speaker as being more friendly than the ASL user. This finding did support my hypothesis that participants would feel more comfortable with the deaf person who spoke than with the deaf person who signed.

Participants who learned ASL or Swedish showed greater anticipation of enjoyable interactions with deaf people than did those in the control condition. Apparently, exposure to either new language induced participants to believe that they would enjoy being with deaf people more and to see them as productive, self-sufficient, and socially adept people. Perhaps, people having had a taste of learning via a new language how to interact with others who speak or express differently, felt more comfortable as they imagined interacting with deaf people than if they did not learn a new language.

Interpreting the Results using ANOVAs instead of MANOVA

Individual items such as perceived ability of the deaf person to socialize and the degree of self-esteem of the deaf person were grouped in conceptual clusters such as social competence, personality type, and social adjustment. Each of the individual items shown here indicate main effects and/or interaction effects. Furthermore, the significant effects of these items could be interpreted as reflecting the clusters. For example, the impact of type of mode communication on perceived social competence (a cluster) may be inferred from several items that conceptually reflect social competence. Yet, there needs to be caution in interpreting the clusters. We used

series of univariate tests which produced strong ANOVA effects for each individual items; however, the risk of increased error rates could occur if we grouped these univariate findings under each cluster. Ideally, significant MANOVA results would have lessened the error rate difficulty, but as explained in the Results section, MANOVA tests would arguably have been lacking in power due to unequal sample sizes. The results are suggestive and in some respects clearly interpretable.

Validity of Contact Hypothesis

One reason why I predicted that learning ASL would lead to more positive attitudes towards deaf persons than learning Swedish was the contact factor. Contact in my study consisted of interacting with the ASL instructor (who was assumed to be deaf) on an instructor-participant level as well as watching videotaped interviews of deaf people. I believed that it would be the instructor-participant interaction that would have the most effect on the attitudes of observers toward the deaf person.

Makas (1993) listed stages of stereotype breakdown via degree of contact starting with no contact and a depersonalized view of an outgroup, some contact leading to a more personalized view of the outgroup. Moreover, further contact with individuating information about target-persons can lead to such a personalized view of the outgroup that the outgroup members become potential ingroup members. Contact must be positive in order for these phases to develop successfully. However, it is not clear how to determine which one of Makas' stages of stereotyping-breaking interactions might have occurred in the current study. I could best assume the contact level in this study was somewhere between Stage 1 (little contact where outgroup is perceived as more complex) and Stage 2 (transition from depersonalized view of outgroup to more personalized view

of group). It should be noted that contact was very brief. For contact to effectively change attitude, contact must be meaningful, intimate, and of significant duration (see Cook, 1963). Therefore, it seems that the contact hypothesis is inadequate for explaining why instruction in ASL and Swedish created more positive attitudes towards deaf people.

Langer's Mindfulness Hypothesis as a Plausible Explanation for the Results

Why did learning sign language or another language positively affect how the observers judged some personality and social characteristics of the oral deaf interviewee as compared to the observers in the no-language condition? Langer, Taylor, Fiske, & Chanowitz (1976) proposed that states of mindfulness and mindlessness are major factors that affect how people think about the world around themselves. Mindfulness occurs when people make distinctions among objects or persons by actively and consciously constructing accurate categories. Mindfulness involves attention and active manipulation of thought constructs about the person's own environment in which the person examines old categories then creates new categories in order to redefine these elements (Langer & Imber, 1980). For instance, a person might reexamine stereotypical views of professional ballplayers as self-centered substance abusers after taking into consideration certain athletes who maintain proper health while performing positive services for the community. On the other hand, mindlessness is a state of reduced cognitive activity in which people process cues from the environment in an automatic style without reference to other aspects of these cues, and they rely on established categories when perceiving their surroundings. According to the Langer et al. hypothesis (1976), people are usually prompted into a conscious or mindful state by novel experiences or by disruptions of ongoing mindless processes. A person in a mindless state

interacts with the environment passively and reactively without consciously examining the environment, and also fails to seek new distinctions among environmental stimuli due to preformed categories (Langer & Imber, 1980). According to Langer, mindlessness usually develops as the person performs a task repetitively and unconsciously (Langer & Imber, 1980). Mindlessness can even occur after a powerful experience (Langer & Chanowitz, 1988). For instance, a profoundly aversive encounter with a policeman could lead a person to automatically label all police officers as being aversive while not taking into consideration the more positive police officers that this person encounters afterward.

Evaluation of other people can be accomplished in a mindless fashion. If people encounter others in familiar ways, people normally react to others by what they have learned from experience rather than by investigating new information about the other person (Langer, Blank, & Chanowitz, 1978). This mindless reaction could lead to the persistence of stereotypes. When a perceiver in a mindless state comes across a disabled individual, this person likely will not invest the cognitive effort needed to attribute the deviance in the disabled person to the disability itself rather than to the person's personality. Moreover, this perceiver after meeting a few disabled individuals might not readjust his or her views to accurately fit that of other disabled people who are later encountered. Unfortunately, the perception of that difference can lead to perceptions of other differences between abled and disabled people; thus, some perceivers view disabled people as deviant and look at the whole person as disabled (Langer & Chanowitz, 1988). A common negative consequence of mindlessness during interaction could be that a perceiver persistently assumes that the target-person shares all the common features of the target-group. For example, a person

who has encountered deaf panhandlers on the street may assume that all deaf people are deficient in literacy, intelligence, life skills, and social ability. This perceiver is inflexible in how she categorizes other deaf people based on her preformed concepts influenced by the handful of deaf panhandlers she met. Thus, disabled people are classified as atypical people due to mislabelling of what is a normal person.

People who are mindful actively process novel stimuli to recategorize existing schemas, whereas mindless people do not. The ASL lesson, a novel experience, could have prompted mindfulness due to the novelty of exposure to ASL. Interestingly, the Swedish lesson could also have instigated mindfulness owing to its novelty. The difference, of course, is the mode of language, one being visual while the other is a foreign auditory language. Nevertheless, it is possible that mindfulness state could have persisted in both language conditions until participants viewed the videotapes. If so, then the novelty itself of both conditions, regardless of content, could have produced equivalent results on evaluations of the deaf target persons. The experimenter who showed the interviews to the observers noted that those in the no-language condition (note that this experimenter was blind to the condition of the first part of the experiment) were listless and appeared not to be thinking, while on the contrary, those in the language conditions seemed to be more alert and attentive. This observation seems to be a good indication of mindlessness versus mindfulness, even though the degree of mindfulness was not measured.

Langer and Imber (1980) indicated that interacting with the environment in a passive and reactive style reflects mindlessness. Participants in the no-language condition of my study could have been in a mindless state, because their thought processes were not stimulated in the control

condition and they were not elicited out of their automatic cognitive functioning. If this were the case, they would not have adjusted their preformed categories about the deaf, and would not have attempted to find new distinctions among the environmental stimuli to which they were exposed. Thus, if these observers were mindless and had negative preconceived notions about people who spoke on a subpar standard, they would not take into consideration that the speakers' speech impediments were due to deafness and that it in no way reflected their conversational skills. On the other hand, observers who should have been prompted into a mindful state via the recent language lessons, would have been in a state where they may have implicitly questioned what was happening around them and may have actively manipulated the categories formed in their minds to fit what they observed. Thus, the observers seemed to be able to identify how deafness would affect the interviewees: their voice patterns, and not necessarily their personal and social characteristics.

Langer, Bashner & Chanowitz (1985) pointed out problems with past methods of eliminating stereotypes. These authors suggested that increasing perceptual distinctiveness (i.e., seeing more features that are different between people) among others can decrease prejudicial behaviour caused by negative stereotyping. In other words, helping people see more differences between unlike persons can decrease prejudice. The hypothesis in their study was that mindfulness training would result in less haphazard processing and categorization and less avoidance of deviant others. However, the success of this hypothesis depended on the mindlessness dimension. Mindfulness was induced by training participants to seek several answers to how disabled people could be good and bad at a professional job rather than one

typical answer to these questions. This training supposedly induced the participants to create new categories with which to help answer the stimulus questions. For instance, the new categories included characteristics of the disabled person beyond the disability itself. After this process, participants encountered disabled people via slides. Those in the mindful-inducing condition were more likely to be less condescending and being able to recognize the more positive capabilities of disabled people than were those in the mindless condition. Participants in the mindfulness-inducing condition who were taught specifically about disabled people were less likely to avoid disabled people. Participants in the mindful condition learned to recategorize disabled people as specific-deviant (the disabled feature itself) rather than global-deviant (the whole person). Instead of seeing the disabled person as incompetent because of his or her disability, the mindful participants recognized the context-specific capabilities of the disabled person.

An Advantage for Sign Language over Speech in Influencing Attitudes?

It was assumed that people would react more favourably towards the deaf person who spoke than the deaf person who signed because of more similar communications patterns between both the hearing and deaf speakers. Hindsight suggests that the hypothesis might have been supported a decade or more earlier due to more negative attitudes towards sign language. Currently, however, sign language and its acceptance as a vital part of the deaf community is being advocated through government legislation, popular media, the education system, and other influential sources. Perhaps university students have come to accept sign language as the way deaf people communicate. Their education may contradict the old-school attitude that sign language is inferior and restricts a deaf person's intellectual and social developments. On the other

hand, the oral deaf or hard-of-hearing community has not received as much attention as has the Deaf Culture; hence, people may not be as familiar with communicating with oral deaf people.

My results indicated that if a person was not exposed to sign language or Swedish lessons prior to viewing the videotaped interviews of deaf people, the attitudes towards the oral deaf were relatively negative compared to those in other conditions. People tend to feel more comfortable socializing with people who share the same communication patterns as they themselves do (Fiske & Ruscher, 1993). Even today, many people champion deaf people learning to speak and to be like hearing people. Outgroup members (deaf people who speak) who act in order to fit in the ingroup (hearing world) are accepted and treated more intimately than outgroup members who do not fit in (Fiske & Ruscher, 1993). However, voices of many deaf people are not similar to that of hearing people in general. During this experiment, I received feedback (e.g., from feedback on the questionnaire and from colleagues who observed the tapes) that deaf interviewees' speech reminded people of how mentally disabled people speak: monotone pitch, lack of inflection, and less clear speech. It is very possible that this voice type affected how observers judged the oral deaf interviewees despite the fact that the interviews were subtitled and that these observers were told beforehand about the interviewees being deaf. Followup studies will clarify this. For instance, observers will view a deaf speaker with the volume on or off (content will be captioned), and their ratings towards the deaf speaker (volume on vs volume off) will be compared. If the ratings worsened for the deaf speaker with the volume on, that will support the hypothesis that voice quality of deaf speakers does hinder positive feelings towards them. However, there are some deaf people whose speech patterns are very clear intelligibly just like or almost like those of hearing

people with normal speech patterns; whereas, some deaf people's speech are clearly distinct from typical hearing voice patterns. From forth on in this report, the oral deaf people being discussed will be those with more unintelligible speech patterns. Further studies also ought to include comparisons of attitudes towards deaf speakers whose speech patterns are either clear or unclear.

What accounts for the results showing that observers rated the signers more positively than the speakers regardless of the prior language experience? According to Jones and Davis' attribution model (1965), a person who acts within role, as prescribed by socially accepted scripts, would be considered normal by observers. Their model states that the more normal a person's behaviour is, the less extreme and personally revealing the person's behaviour is, the less significant this deviance will be in the eyes of the evaluators. One study demonstrated that teachers of deaf children perceived less deviance among the deaf children whose behaviour problems matched stereotypes such as irritability, social immaturity, impulsiveness, and concrete thinking than among the deaf children who demonstrated stereotype-inconsistent behaviour (Murphy-Berman, Stofen-Fisher & Mathias, 1987). These results did not support the hypothesis that deaf children demonstrating more stereotypical behavioural problems would be seen as more deviant than those who did not. Hence, the deaf signers in my study might have fit within the "in-role" script according to the observers; thus, the deaf signers were seen as less deviant than the oral deaf. In sum observers perhaps viewed deaf people who signed as being more in-role than deaf people who spoke. Possibly, the voice quality of the deaf interviewees negatively affected the

observers' ratings of some social and personal characteristics, regardless of which language condition the observers were in.

Yuker (1988) demonstrated that people often feel uncomfortable when oral communication is disrupted, making it difficult to interact smoothly with some oral deaf speakers. Whenever oral communication is impeded or made difficult, feelings of discomfort increase as indicated in studies which showed children with speech problems were more likely to be rejected by their peers. One study showed that children who were trained to communicate with deaf children still rejected their deaf peers (Vandell, Anderson, Ehrhardt & Wilson, 1982). Therefore, if deaf people cannot communicate orally as well as hearing people (which happens some of the time), they are more likely to be evaluated negatively by their hearing peers. Observers in my study may have envisioned themselves communicating with the deaf person when the communication pattern was disrupted. However, if this was the case, observers should be even less comfortable when the deaf person was signing due to the greater communication barrier because observers most likely knew no sign language.

Sussman (1973) claimed that deaf people generally have lower self-esteem than their hearing peers; however, their self-esteem increases considerably when they become active members in the deaf community (Rodda, 1985). Signing is one action that denotes being part of the deaf community. If a disabled person is seen as having low self-esteem (which can result from self-fulfilling prophecies), people will tend to look down on them more than they will with disabled people with perceived higher self-esteem (Yuker, 1988). I had conferred with some deaf people about this study, and they pointed out that when deaf people are in a signing environment, they

tend to present themselves more positively and confidently than if they are in an oral environment. However, it is important to keep in mind the fact that observers rated the deaf person based on videotape presentations in my study, rather than on an actual interaction. Future studies could assess which factor is more important in determining what influences observers' judgments of oral deaf people: their voice quality or their self-presentation.

Attitudes of participants in the control condition. The evaluations of the oral deaf person by the participants who did not learn any language were compared with that of those who learned either ASL or Swedish. The differences in the ratings of the signing deaf and the oral deaf by those who did not learn any language are also compared. The mass media and educational system have made the public more aware of deaf people, especially those who use ASL as their main language. Therefore, people would likely see the distinction between deaf and hearing people based on mode of communication rather than on personal and social characteristics. Earlier attitudes were different: sign language was considered inferior and deaf people who could not speak were considered subnormal (Moore, 1987). However, it needs to be noted that the study participants were university students who may not necessarily have represented the general population.

Possibilities why attitudes towards oral deaf were more negative than expected. The oral segment of the deaf community has not been provided the same media and public treatment; thus, there may be greater ambivalence when encountering oral deaf people with unclear speech than signing deaf people. Did the observers feel ambivalence when viewing the oral deaf persons, and if so, did that affect their judgments of the oral deaf person's personal and social characteristics? Ambivalence seems to lead to behaviour instability towards a person or object (Katz, Hass, &

Bailey, 1988). One result of ambivalence is response amplification where responses towards the object or person are polarized toward either positive or negative ends of the response (Katz, Hass & Bailey, 1988). Lack of information is not necessary for ambivalence to occur. Ambivalence might be caused by the violation of observers' expectancies that deaf people only sign or that deaf speakers are as efficient in speech as are hearing people. According to Yuker (1988), people were more willing to help obnoxious wheelchair bound people than those who had cheerful dispositions. Thus, if people's notions of disabled people's characteristics are not confirmed, they may react negatively towards the disabled persons. Goffman (1963) pointed out that people evaluate others, especially those in minority groups, according to how well these minority members conform to typical characteristics as conceived by the evaluators.

Generally, the more concealed a disability is, the more positively evaluated the disabled person is. However, the opposite effect may occur. Shears and Jensema (1969) stated, "Visibility of a disability could actually assist in reducing awkwardness since the need to explain deviant behavior would be reduced and the perceiver would know from a distance what the encounter would require." (pp 94-95). Thus, deaf signers make their deafness more visible and viewers would be more prepared as to how to encounter them; whereas, viewers would feel more ambivalent about how to approach oral deaf people whose deafness is more concealed. The more the outgroup person (e.g., speech impediment) disrupts or burdens interpersonal relationships, the worse the stigmatization might be due to others showing low tolerance for disruption of the smooth flow of interpersonal relationships.

The inferior speech pattern of some oral deaf people may have suggested inferiority and limitations especially if the observers compared the deaf people's speech with perceived normal speech. Voice patterns of some deaf people that are rather monotone or unclear is called >deaf speech=. Moreover, deaf speech may have led to aversive feelings on the behalf of observers. Low ratings of sexual skills, romantic affiliation, strength, intelligence, competence, and social status for oral deaf compared to ASL deaf by observers support the aesthetic view where people perceive disabled people as limited in physical and personal relationships due to aesthetic-sexual aversion to disability (Hahn, 1981).

Is it possible that observers had a fundamental negative bias against the oral deaf persons in this interview? According to Wright's (1988) criteria for fundamental negative bias functioning, the voice pattern of oral deaf person stands out, and has a negative connotation because deaf speech is similar to that of the stigmatized mentally disabled people. Very possibly, the combination of some oral deaf people's voice patterns and sparse information on oral deaf and hard-of-hearing people (relative to that of signing deaf) may have helped contribute to a negative bias. On the other hand, observers might have had a fundamental affective bias that favoured the signing deaf people. However, comparisons between attitudes towards deaf people and hearing people are needed to better determine if affective bias is present.

Suggestions for Improvement of Attitudes towards Disabled People

Donaldson (1980) listed suggestions on how attitudes towards disabled people can be improved via contact, discomfort reduction during interaction, and media exposure. Apparently, it is not yet determined even from this study if people are actually more comfortable interacting in

person with deaf signers than deaf speakers. However, oral deaf people whose needs have been more neglected than the signing deaf people may benefit from more media exposure and personal contact from others in improving attitudes towards them. Moreover, techniques on how to reduce discomfort when interacting with oral deaf (e.g., slow clear speech, repetition, rephrasing when necessary) may help reduce discomfort or fear of stigmatizing which produced ambivalence that reinforces the negative attitudes.

Overall, the contact or mere exposure hypothesis was not sufficient to explain why signers were generally favoured over the speakers. Thus, Langer and Chanowitz's (1987) mindfulness theory seems to be a more plausible explanation as to why observers demonstrated more positive attitudes towards the deaf signers than the deaf speakers. Perhaps inducing people into a mindful state could improve their attitudes towards people who are different, especially disabled or deaf people whereas, the more advanced stages of contact could solidify the acquired positive attitudes.

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Table 1

Predictions for Assessments

Language Main Effect

ASL > Swedish = No exposure

Communication Mode Main Effect

Oral > ASL

Interaction Effect

Language Condition:

If exposed to ASL, Oral = ASL

If exposed to Swedish, Oral > ASL

If no exposure, Oral > ASL

Communication Mode Condition:

If videotaped in ASL, ASL > Swedish = No exposure

If videotaped in Oral, ASL = Swedish = No exposure

Note: The predictions apply equally to the following types of assessment: social competence and value, perceived personality, and social adjustment.

Table 2

Types of Assessments of Participants' Beliefs about Deaf Person

Cluster	Item
Social Adjustment	
	a) enjoy talking with person vs not enjoy talking
	b) feel good about friend romancing with deaf person versus not feel good
Social Competence/Value	
	a) socially experienced vs not socially experienced
	b) can take care of self vs cannot take care of self
	c) can participate in group conversation vs cannot
	d) sophisticated vs unsophisticated
	e) likeable vs unlikeable
	f) socially skilled vs not socially skilled
Personality Assessment	
	a) cold vs warm
	b) dominant vs submissive
	c) quick-witted vs slow-witted
	d) intelligent vs unintelligent
	e) strong vs weak
	f) tense vs relaxed
	g) high self-esteem vs low self-esteem
	h) friendly vs unfriendly
	i) naive vs not naive

Table 3

Language Main Effect on Assessment of Deaf Person's Social Competence and Value

Social characteristics	Language Taught			E	p <
	ASL	Swedish	None		
Self-care	7.90 _a	7.91 _a	7.25 _b	4.23	.05

Note: higher means indicate more positive ratings of deaf person on 9-point scale. Means that do not share the same subscripts differ significantly from one another.

Table 4

Interaction Effects on Assessment of Deaf Person's Social Competence and Value

	Language Taught						F	p <
	ASL		Swedish		None			
	ASL	Oral	ASL	Oral	ASL	Oral		
Social Characteristics	ASL	Oral	ASL	Oral	ASL	Oral	F	p <
Social experience	6.57 _a	6.88 _a	7.08 _a	6.96 _a	6.85 _a	5.50 _b	5.09	.01
Sophistication	5.49 _{ab}	5.69 _{ab}	5.88 _a	5.50 _{ab}	6.08 _a	4.75 _b	3.12	.05
Likability	7.29 _{ab}	7.88 _a	7.65 _a	7.57 _a	7.42 _{ab}	6.86 _b	3.49	.05

Note: Higher means indicate more positive ratings for the deaf person. Means that do not share the same subscripts are significantly different.

Table 5

Interaction Effects on Willingness to Interact with Deaf Person

	Language Taught						
	ASL	Swedish	None				
	Communication Mode		Communication Mode				
Will to Interact	ASL	Oral	ASL	Oral	F	p <	
Conversation	5.46 _{ab}	6.69 _a	6.50 _a	5.57 _{ab}	5.16 _b	4.56 _b	3.60 .05
Friend's Romance	6.97 _a	7.25 _a	6.85 _a	7.11 _a	6.88 _a	5.79 _b	3.30 .05

Note: Higher means indicate more positive ratings for the deaf person. Means that do not share the same subscript are significantly different.

Table 6

Language Instruction Main Effect on Personality Assessment of Deaf Person

Personal characteristics	Language Taught			E	p <
	ASL	Swedish	None		
Quick-wittedness	6.31 _a	6.43 _a	5.67 _b	3.17	.05

Note: higher means indicate more positive ratings of deaf person on 9-point scale. Means that do not share the same subscripts differ significantly from one another.

Table 7

Communication Mode Main Effect on Personality Assessment of Deaf Person

Personal characteristics	Communication Mode			E · p <
	ASL	Oral	E	
Competence	7.33	6.72	8.96	.005
Dominance	5.66	5.04	8.78	.005
Non-naivete	6.25	5.64	4.04	.05
Quick-wittedness	6.56	5.61	13.43	.001
Warmth	7.11	7.53	5.27	.05

Note: higher means indicate more positive ratings of deaf person on 9-point scale.

Table 8

Interaction Effects on Personality Assessment of Deaf Person

Personality Features	Language Taught						F	p <
	ASL		Swedish		None			
	ASL	Oral	ASL	Oral	ASL	Oral		
	Communication Mode		Communication Mode		Communication Mode			
Intelligence	7.11 _a	7.25 _a	7.15 _a	7.11 _a	7.38 _a	6.14 _b	4.36	.05
Personal strength	6.74 _{ab}	7.44 _a	7.08 _a	6.82 _{ab}	6.96 _a	5.96 _b	3.64	.05
Relaxed nature	6.77 _{ab}	7.50 _a	7.19 _a	6.86 _{ab}	7.38 _a	6.18 _b	4.56	.05
Friendliness	7.77 _{ab}	8.38 _a	7.54 _b	8.38 _a	7.88 _{ab}	7.61 _b	2.97	.055

Note: Higher means indicate more positive ratings for the deaf person. Means that do not share the same subscripts are significantly different.