Communicating with Types of Disability:

Communicative Competence and Patronizing Speech

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Abstract

**Objectives.** Study 1 was to explore the relationship between types of disability and their associated stereotyped expectations of communicative competence. Study 2 was to determine whether changes in stereotypical communicative competence towards persons with disabilities would affect the perception of level of patronizing speech they received by a third party.

**Methods.** In Study 1, a survey recruited sixty-two people at the campus of City University of Hong Kong to rate the communicative competence of nine types of disability varied with cognitive orientation, visibility and context-specificity. In Study 2, forty students of City University were assigned into the two experimental conditions (Public Relations vs. Computer Science) to evaluate the level of patronizing speech received by an interactant with disability. The patronizing speech was implemented in a conversational audiotape.

**Results.** Study 1 revealed that Schizophrenia was rated as less communicatively competent than Dyslexia, and Dyslexia less competent than Muscular Dystrophy, in terms of the cognitive orientation. In the dimensions of the visibility, Monoplegia and Amputation were rated as more competent than Quadriplegia. Epilepsy was rated as less competence than Cancer and Exercise-induced Asthma in terms of the visibility. Study 2 showed that the interactant with disability and with a context conveying his communicative competence as positive would be
perceived as receiving less patronizing speech than with a context conveying his competence as negative.

**Discussion.** Study 1 suggested that people without disability held heterogeneous and hierarchical stereotype towards the communicative competence of persons with different disabilities. Study 2 indicated that people without disability could perceive accommodations of external interability communications towards their own stereotypical expectations of communicative competence of those interactants and it might possible to change stereotypes towards people with disabilities with additional contexts.

*Keywords: Interability; Types of Disability; Communicative competence; Patronizing speech*
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Communicating with Types of Disability:

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Chapter 1

The minimal group study conducted by Tajfel and his colleagues (1971) tells us that interpersonal interactions could turn out to be intergroup ones (Ng, 2005). This is also the case in the communication between people with and without disabilities. When persons without disability come into contact with those with disabilities, such encounters are less likely interpersonal but more likely intergroup because the disability will be salient to both parties: non-disabled persons will less likely view persons with disabilities as individuals, but rather over-include them into the “disabled” social category (Fox & Giles, 1996a). For example, if Mr. A is a person with deafness, others may tend to view him as a member of deaf people group, rather than just someone with deafness, if his deafness is salient. Strena and Kleck (1985) found that salience of disability was relative that could cause influence on social interactions between people with and without disability: non-disabled medical patients and spinally injured people were more likely to rate the “wheelchair condition” in the interaction between people with and without disability as having more influence on such interaction than people with amputation did. Numerous other studies also suggest that variables that affect “category salience” are crucial to intergroup bias (see Oakes et al., 1994, for a review). Thus, Fox and Giles (1996a) term the interaction between people with and without disabilities as “interability” communication.
Yet, Fox and Giles (1996a) also pointed out that there was relatively little research about the interability communication, and the most prevalent communicative feature in interability situations – patronizing speech (see Fox, 1995) – was mainly studied in intergenerational settings. Although more than ten years have passed, that is still the case today. Thus, interability communication became the interest of the present study.

The present study consisted of two parts, Study 1 and Study 2. The former was to explore the relationship between types of disability and their associated stereotyped expectations of communicative competence. As reviewed below, however, earlier studies have shown that people without disability tend to over-accommodate towards those with disabilities by adopting patronizing speech because of their stereotypical communicative incompetence towards people with disabilities (Fox, 1995; Hummert, 1994; Ryan et al., 1995; Ryan et al., 1986). Thus, it might be possible that the level of patronizing speech towards people with disabilities was the function of the stereotypical level of their communicative competence hold by those without disability – lower/ higher competence would trigger more/ less patronizing speech. From this line of research, it was further proposed that a third party could expect people without disability to adjust their patronizing speech in the light of their stereotype about interactants with disabilities’ competence. Meanwhile, this expectation might affect the third party on perceiving and judging the level of patronizing speech taken place in interability communications. Thus, Study 2 was designed to explore whether changes in stereotypical communicative competence towards
persons with disabilities would affect the perception of level of patronizing speech they received by a third party.

**Study 1**

*Patronizing communication*

As mentioned above, interability communication can be generally characterized as patronizing speech (Fox, 1995), which is a kind of over-accommodation based on stereotyped expectations of communicative incompetence and dependence (Hummert, 1994; Ryan *et al.*, 1995; Ryan *et al.*, 1986), in terms of communication accommodation theory (CAT) (see Giles *et al.*, 1991, for a more in-depth discussion of CAT).

According to CAT, Individuals are often motivated to accommodate verbally and non-verbally to achieve different goals by different strategies: if individuals desire to gain social approval from their interlocutors or improve the effectiveness of the communication, they may adapt and modify their linguistic, paralinguistic and non-verbal behaviours in order to become more similar to their interlocutors’ behaviours (this strategy is defined as “convergence”), whereas if speakers aim to maintain or emphasize their social identities, they may accentuate or maintain the verbal and non-verbal differences between themselves and their listeners (this strategy includes “divergence” and “maintenance”) (see Gallois *et al.*, 2005; Giles & Noels, 2002; Shepard *et al.*, 2001, for comprehensive summaries of CAT).

However, people do not always accommodate their speech styles toward their
interlocutors’ actual behaviours, but toward stereotypical ones they expect their interlocutors 
possess instead (Ryan et al., 1986), which often results in miscommunication. For instance, in 
Fox and Giles’s interability study (1996b), their research participants commented that “the only 
time she was addressed was when she was one of the people in wheelchairs”, “she didn’t seem to 
address her as a normal person” and “the waitress’s comment generalized the disabled”, which 
meant that they believed that the interability communication was based on stereotypes people 
without disability held towards those with disabilities.

Over-accommodation is a category of miscommunication in which speakers 
over-accommodate their communicative behaviours that are believed to be necessary for 
harmonizing interactions but actually that is not the case, while under-accommodation is just the 
opposite of over-accommodation (Shepard et al., 2001).

Patronizing speech, or more precisely, patronizing communication (see Ryan et al., 1995, 
for the differences between patronizing speech and communication), is an over-accommodation. 
In intergenerational interactions, because people always tend to stereotypically expect that 
elderly people are communicatively incompetent (e.g., impaired mobility, vision or hearing) and 
dependent (e.g., “needy” or “losing some of their rights to make autonomous decision or to take 
complete control over their lives”), they may over-accommodate their verbal and non-verbal 
behaviours to be less communicatively competent (e.g., simple vocabulary, simple grammar, 
childlike terms, high pitch, slow speech, etc; see Ryan et al., 1995, for a summarized features of
patronizing communication) in order to meet their stereotypical expectations and to ease the interactions (Hummert, 1994; Ryan et al., 1995; Ryan et al., 1986).

*Stereotypes of communicative competence and dependence*

Therefore, it could be seen that how people view others’ communicative competence and dependence was central to the formation of patronizing speech or communication. If we intend to have a more clear picture of patronizing communication towards people with disabilities, it will be better to have a clear picture of such stereotypical expectations towards them first.

But so far, as Fox and Giles (1996a) stated, patronizing communication has only been being studied widely in intergenerational settings and it has not been clear yet if non-disabled people held similar stereotypes toward those with disabilities in interability interactions except the fact that patronizing behaviour is common in interability situations. Although there are many studies that are based on the stereotypes people without disability hold towards those with disabilities (see Fox & Giles, 1996a, for a review), not much of them are on the basis of the communicative competence and dependence and types of disability of persons with disabilities. Despite the fact that some research was on this basis (e.g., Ryan, Anas, & Friedman, 2006; Ryan, Anas, & Gruneir, 2006; Ryan, Anas, & Mays, 2006; Ryan et al., in press), neither has taken the variety of type of disability into account (mainly focusing on physical disability or sensory impairments instead) nor was in interability settings (merely in intergeneration instead). Therefore, there seems to be insufficient understanding of the effects of stereotypes of
communicative competence and dependence towards persons with disabilities, and their types of
disability on interability interactions.

Importance of types of disability to the study of interability communication

Some might question that why do types of disability play an important role in interability communication? Gordon (1990; as cited in Fox & Giles, 1996a) suggests that the type of disability can be a determinant of attitudes towards people with disabilities. For example, Tringo (1970) examined whether there was a hierarchy of preference (social distance) towards some specific disability groups, and he found that this was the case: the highest preference (lowest social distance) was towards physical disabilities like asthma, diabetes, heart disease and amputee, etc; followed by sensory disabilities including blindness and deafness; and then some brain-injured disabilities like paraplegic, epilepsy and cerebral palsy; and the lowest preference (highest social distance) was towards cognitive disabilities like mental retardation and mental illness. Interestingly, Thomas replicated Tringo’s study in 2000 with some changes in methodology and disability types, and reported that the hierarchy of preference towards disability group was pretty stable (30 years later!) except for the more appreciable change of cancer. Similarly, Kiger (1997) suggested that the attitudes, including stereotypes, emotions and values, towards people with deafness was different from those towards people with other disabilities.

From these findings, it is known that the stereotypes people without disability hold
towards those with disabilities were not homogeneous, but heterogeneous indeed, although the former tend to categorize the latter into one ‘disabled group’. This idea is also supported by what Hogg and Abrams (1988) theorize that “a specific group member is assumed to be, or is treated as, essentially identical to other members of the group, and the group as a whole is thus perceived and treated as being homogeneous. This homogeneous can vary in its extremity and rigidity” (p. 65). The previously cited study done by Strenta and Kleck (1985) also indicated that different disabilities could create different salience to different individuals. Say for an example, if a person who had a history of asthma before is going to talk to someone with asthma, the salience of asthma to that person may be somewhat different as compared to others, and his/ her stereotype towards the one with asthma may become more or less, which in turn affects their communication.

Gallois (2004) argued that since only few disabilities (usually deafness and motor disabilities confined to wheelchair) were frequently targeted by most of the research about stereotypes towards persons with disabilities, some important differences between disabilities might be hidden. According to her, disability should have its different distinguishing dimensions: from slight to severe, from context-specific (disabilities that happen only in some specific contexts, such as exercise-induced asthma that happens only after excessive exercise) to context-general (e.g., cancer), from visible (e.g., blindness) to invisible (deafness), and from physical (e.g., paraplegia) to cognitive (mental retardation), etc.
Hypotheses

As Fox and Giles (1996a) conclude, the stereotypes that non-disabled people hold towards people with disabilities “can translate into expectations about the intelligence, social skills and character which people with disabilities are believed to possess, and subsequently affect the behaviour of people without disabilities toward people with disabilities” (p. 223). Thus, Study 1 aimed at examining whether people held stereotype towards the communicative competence of persons with disabilities, and whether those stereotypes were homogeneous or heterogeneous towards people with different disabilities if that was. However, the stereotype of dependence was not the interest of the study, so only the aspect of communicative competence would be focused herein.

As people stably hold a hierarchy of preference (social distance) towards people with disabilities (Thomas, 2000; Tringo, 1970), it would be expected that there might also be a hierarchy of stereotype of communicative competence. Additionally, it was found that cognitive disabilities were less preferred than physical ones (Thomas, 2000; Tringo, 1970), and a less visible disability (aphasia) was less negatively stereotyped than a more visible one (paraplegia) (Spencer & Gallois, 2003; as cited in Gallois, 2004). Therefore, the hypotheses for Study 1 were as follows:

H1 – Persons with a more cognitive oriented disability would be rated as having lower communicative competence than persons with a less cognitive oriented disability (i.e., more
physical oriented).

H2 – Persons with a more visible disability would be rated as having lower communicative competence than persons with a less visible disability.

It would also be interesting in exploring the stereotypes of communicative competence and dependence towards people with disabilities in terms of a distinguishing dimension of disability, i.e., context-specific vs. context-general because there was no literature on such basis. Thus, a non-directional hypothesis was that:

H3 – The communicative competence of persons with a more context-specific disability and with a less context-specific disability (i.e., more context-general) would be rated differently.

**Study 2**

As previously stated, according to CAT, people are always motivated to converge, diverge or maintain their speech styles verbally and non-verbally to achieve certain goals in social interactions (Gallois *et al.*, 2005; Giles & Noels, 2002; Shepard *et al.*, 2001). Yet, they do not accommodate the speech styles in accordance with their interlocutors’ actual behaviours, but in accordance with the behaviours that they expect their interlocutors possess (Ryan *et al.*, 1986). When they expect the communicative competence and dependence of their interlocutors as not good enough, they may employ patronizing communication (over-accommodate) to them (Hummert, 1994; Ryan *et al.*, 1995; Ryan *et al.*, 1986).

However, the findings of Fox and Giles’ study (1996b) seemed to extend the types of
accommodation. CAT holds that accommodation may occur on several dimensions: objective accommodation (actual communicative behaviours), psychological accommodation (motivations of speakers to accommodate), and subjective accommodation (listeners’ perceptions of speakers’ accommodation) (Gallois et al., 2005; Giles & Noels, 2002; Shepard et al., 2001). Yet, Fox and Giles (1996b) found that the participants believed that the patronizing speech in the stimuli vignettes was based on the stereotypes that the non-disabled person held towards the person with disability. This might reflect that people can be aware of and can perceive the occurrence of accommodation in social interactions even though they are the outsiders (third party) of the interactions.

For instance, Thakerar and Giles (1981) reported that the non-linguistic stereotype – status – of the speaker in the audiotape could affect participants’ perceptions of the speaker’s speech styles including accent and speech rate: the participants who were told the speaker of a high status tended to perceive the speaker’s accent as more standard and speech as faster, whereas perceive the speaker’s accent as less standard and speech as slower in low status group, although they listened to the same audiotape.

This theoretical background combined to raise two research questions for Study 2: could people without disability perceive patronizing communication even if they were the outsiders of the conversation that the patronizing took place in? Second, what would happen to the level of perception of patronizing communication if there was an additional context other than the type of
disability to convey the communicative competence of interlocutors? In particular, would the level of perception of patronizing communication differ if the contexts conveying the communicative competence as positive or negative?

Additionally, Giles et al. (1998) conducted a cross cultural study about patronizing speech between Hong Kong and California and found that Hong Kong students were less likely to evaluate patronizing speech as ‘patronizing’ [they translated patronizing in Chinese as “behaving like a benefactor (XiangEnRenBan: 像恩人般)” and “arrogant (AoManDe: 傲慢的)”] than Californian students did. They interviewed those Hong Kong students, and the students replied that they could recognize the speech but did not evaluate it as negative, and the patronizing speech would be manifested more by some paralinguistic and prosodic changes. Giles and his colleagues (1998) then suggested that this possibility could be tested by using audio or videotaped means with manipulated paralinguistic features. This also triggered an interest for the present study to investigate whether ‘Hong Kong people’ without disability could perceive patronizing communication in interability interactions with such methodological improvements.

For the constraints of the present study, the non-verbal features other than paralinguistic, such as gaze, proxemics, facial expression, gesture and touch, suggested by Ryan et al. (1995) would not be examined. Thus, the study, precisely, was going to examine patronizing speech rather than patronizing communication, and the hypothesis was that:
H4: persons with disability with a context that conveyed their communicative competence as positive would be rated as receiving less patronizing speech. Conversely, persons with disability with a context that conveyed their communicative competence as negative would be rated as receiving more patronizing speech.
Chapter 2

Study 1

Method

Construction of types of disability

Nine types of disability were constructed as the three independent variables, while each variable encountered three levels. When disabilities were constructed in terms of visibility, context-specificity or cognitive orientation, the variation of the level of other distinguishing dimensions that were the confounding variables to the dependent measures was minimized. For example, when disabilities in terms of visibility, their levels of severity, context-specificity and cognitive (or physical) orientation or other dimensions were ‘tried’ to keep constant. In this way, “Monoplegia”, “Quadriplegia” and “Amputation” that all were supposed to be physical and context-specific, and affect limbs as well were constructed. Although “Deafness” and “Blindness” can more effectively represent more and less visible disabilities respectively, they are abandoned because they affect different organs. (Deafness may be more negatively influential to communication than Blindness does as it affects hearing.) Table 1 summarized the constructed disabilities of different distinguishing dimensions and levels.

Insert Table 1 about here
Pilot Test

The visibility, context-specificity and cognitive orientation of disabilities were examined in the pilot test on a sample of 6 undergraduates who majored in Psychology from City University of Hong Kong. These participants did not take part in the main study.

The pilot test served three purposes: first, it was to test whether the designed different disabilities corresponded to the distinguishing dimensions and implemented the ranges from most visible to least visible, most context-specific to least context-specific and from most cognitive to least cognitive. Second, it was to test what extent the participants felt familiar to the awkward wordings and understood those disabilities. If they were not clear about the disabilities, they would have difficulty in evaluating persons with those disabilities and it might be necessary to add some descriptions for the disabilities. Third, it was to explore the overall design of the questionnaire used in the main study (e.g., the questionnaire easy to read or not, the wordings were clear or not, the approximate time in filling in the questionnaire, etc.)

It was found that the initial designed disabilities were effective to represent their particular distinguishing dimensions and the overall design of the questionnaire was appropriate. But, some of the disabilities were less familiar to the participants. Thus, it was decided to add a brief description for each disability including its cause, symptom and effect.

Participants

The sample consisted of sixty-two people (33 males, 28 females and 1 unidentified), with
a mean age of 21.4 years ($SD = 2.58$). They were recruited at the campus of City University and by convenience sampling. All of them were Chinese.

**Materials**

Semi-structured questionnaires (the same questions but not in the same order) were involved. It began with a general introduction and the purpose of the study. The body of the questionnaire consisted of 3 parts that were about the evaluation of communicative competence related to the disabilities distinguished by previously stated 3 dimensions (i.e., visibility, context-specificity and cognitive orientation). The order of these 3 parts was counter-balanced, so the questionnaire had 6 different versions. Each part measured 3 types of disability ranging from the least level to most one, or vice versa. However, neither the distinguishing dimensions nor the ranging levels of the disabilities were presented to the participants, so they had to evaluate by themselves or with the help of the brief description for each disability. Each disability was identified with an anonymous person (e.g., “Person A is someone who suffers from Monoplegia” or “Person G is someone who suffers from Epilepsy”).

As for the measure of the communicative competence, the Communicative Competence Scale (Wiemann, 1977) was employed. Since those items in the first factor have already accounted for nearly 83 percent of the variance (Wiemann, 1977), only the 25 items from the first factor plus another 6 manipulation checks (also from the scale) were used. Therefore, the communicative competence of each disability was measured by 31 items, and the questionnaire
totally contained 279 items (31 x 3 x 3) plus the other 2 demographic items (age and gender).

The original scale was in English, so the Chinese translation checked by back translation was given to it.

The participants were required to evaluate the communicative competence of the disabilities or people with disabilities (i.e., from Person A to Person I) by thinking about and rating the likelihood of the social interaction described in each item using a 5-point Likert scale, with 1 = Strongly disagree, 3 = Undecided or neutral, and 5 = Strongly agree. To take the first item for example: “He/ she finds it easy to get along with others”, the participants rated it as “5” to mean that they strongly agree with that the person with that type of disability could do in such way.

Procedure

The survey was held in the podium of City University. At each round, only several questionnaires (no more than 10 sets) were distributed to the participants, they were told to read through the instruction and not to discuss any contents of the questionnaire with others while completing it. The researcher did not remain with them (but in somewhere else that they could saw) until they finished. The questionnaire took approximately 20 to 30 minutes to fill in.

Results

______________________________

Insert Table 2 about here
It was hypothesized that persons with a more cognitive oriented disability would be rated as having lower communicative competence than persons with a less cognitive oriented disability (i.e., more physical oriented). In particular, it was expected that persons with “Schizophrenia” (the most cognitive) would be rated as having the lowest score using the Communicative Competence Scale, persons with “Dyslexia” (the intermediate cognitive) the second high score, and persons with “Muscular Dystrophy” (the least cognitive) the highest score.

The means of the perceived communicative competence for Schizophrenia, Dyslexia and Muscular Dystrophy was presented in Table 2. A repeated-measures ANOVA was carried out for this data. The Mauchly’s test indicated that the data violated the assumption of sphericity ($p<.05$). With Greenhouse-Geisser adjustment, the means for the three disabilities were significantly different, $F(1.53, 93.35) = 52.42$, $p<.001$, and an overall effect size of 0.46 (Partial Eta Squared) showed that approximately half of the variation of the means could be accounted for by the variation of the cognitive orientation of disability.

A One-Tailed Paired Samples T-Test was employed to compare the mean differences between Schizophrenia, Dyslexia and Muscular Dystrophy. The mean of Muscular Dystrophy was 0.15 significantly higher than that of Dyslexia [$t(61) = -3.24, p = .001$], and the mean of Dyslexia was 0.52 higher than that of Schizophrenia [$t(61) = -6.39, p<.00$]. This revealed that
persons with Muscular Dystrophy would be stereotyped as having the relatively highest level of communicative competence and those with Dyslexia and Schizophrenia as having the intermediate and lowest level, respectively, in terms of the cognitive orientation of disability.

**H2:** Hypothesis 2 proposed that persons with a more visible disability would be rated as having lower communicative competence than persons with a less visible disability. It was specifically predicted that persons with “Amputation” (the most visible) would be rated as having the lowest score, persons with “Quadriplegia” (the intermediate visible) the second high score, and persons with “Monoplegia” (the least visible) the highest score.

Table 2 showed the means of the perceived communicative competence for Monoplegia, Quadriplegia and Amputation. The data was further analyzed with a repeated-measures ANOVA to compare the means for the three disabilities of visibility dimension. From the Mauchly’s test, the hypothesis of sphericity was rejected \( p < .05 \). With Greenhouse-Geisser adjustment, the means for the three disabilities significantly varied, \( F(1.7, 103.46) = 11.52, p < .00 \), and an overall effect size of 0.16 (Partial Eta Squared) indicated that 16% of the variation of the means was accountable by the variation of visibility of disability.

The mean differences between these three disabilities were tested by a One-Tailed Paired Samples T-Test. It was found that the mean of Monoplegia was significantly 0.18 higher than that of Quadriplegia \( t(61) = 5.46, p < .00 \). But, the mean of Amputation was 0.17 higher than that of Quadriplegia \( t(61) = -3.91, p < .00 \), and the means between Monoplegia and Amputation
did not significantly differed \[ t(61) = 0.9, \text{ns} \]. These differences suggested that people without disability would stereotype persons with Monoplegia and Amputation as relatively more communicatively competent than the persons with Quadriplegia in terms of the visibility of disability.

**H3**: Hypothesis 3 was non-directional: the communicative competence of persons with a more context-specific disability and with a less context-specific disability (i.e., more context-general) would be rated differently, namely, persons with “Cancer” (the least context-specific) would be rated as having the different score from persons with “Epilepsy” (the intermediate context-specific) and persons with “Exercise-induced asthma (EIA)” (the most context-specific), and persons with “Epilepsy” and with “EIA” would also be rated differently.

The means of the perceived communicative competence for Cancer, Epilepsy and EIA were presented in Table 2. The mean differences for the three disabilities were analyzed with a repeated-measures ANOVA. Again, the data violated the assumption of sphericity \( p < .00 \). After the adjustment by Greenhouse-Geisser, the means for the Cancer, Epilepsy and EIA significantly varied, \( F(1.52, 91.24) = 10.76, p < .00 \), and an effect size of 0.15 (Partial Eta Squared) suggested that about 15% of the variation of the means was accounted for by the variation of context-specificity of disability.

A Paired Samples T-Test was carried out. There were significant differences between the means for Cancer and Epilepsy \( t(61) = 3.51, p = .001 \), and for Epilepsy and EIA \( t(60) = -3.88, \)
In specific, the means of Cancer and EIA were 0.22 and 0.19 higher than that of Epilepsy, respectively. But, no difference was found between the means for Cancer and EIA \( t(60) = 0.56, \text{ns} \). This finding meant that persons with Cancer and EIA would be stereotyped as having relatively the same level of communicative competence, but persons with Epilepsy as having relatively such lower level as compared to the former two, in terms of the context-specificity of disability.

**Discussion**

Hypothesis 1 was fully supported, which meant that the people with more cognitive oriented disabilities would be stereotyped as having lower communicative competence than those with less cognitive oriented disabilities. In the study, the people with Muscular Dystrophy (least cognitive), Dyslexia (intermediate cognitive) and Schizophrenia (most cognitive) were stereotyped as having the highest, intermediate and lowest level of communicative competence, respectively. Hypothesis 2 was only partially supported by the results. The communicative competence of the persons with the least visible disability, namely, Monoplegia, was stereotyped as relatively higher than that of the persons with the intermediate visible disability (i.e., Quadriplegia). The persons with the most visible disability (Amputation) were not stereotyped as less communicatively competent than those with Quadriplegia, but the case was just the reverse. Hypothesis 3 was also supported partially. There were differences between the communicative competences of the people with the most context-specific disability (Exercise-induced asthma)
and with the intermediate context-specific one (Epilepsy), and the people with the least context-specific disability (Cancer) and with Epilepsy. However, no difference was found between the people with EIA and with Cancer.

Answering the research questions, these findings revealed that people without disability not only held stereotype towards the communicative competence of persons with disabilities, but also such stereotype was heterogeneous and hierarchical in accordance with different types of disability. This was as what Hogg and Abrams (1988) theorized that members of any social group appeared to share (a) homogeneous stereotype(s), which can “vary in its extremity and rigidity”. This study could also be supported by other earlier studies investigating the differences of attitude, stereotype and social preference non-disabled people held towards persons with different disabilities (e.g., Gordon, 1990; as cited in Fox & Giles, 1996a; Kiger, 1997; Spencer & Gallois, 2003; as cited in Gallois, 2004; Thomas, 2000; Tringo, 1970). Additionally, the results could also back up the idea that people without disability tend to categorize those with disabilities into a disabled group and communication between them is always an intergroup encounter (termed as “interability communication”) (Fox & Giles, 1996a). As mentioned in the methodology, the identities of those stimulus persons with disabilities were concealed (named as “Person A”, etc.), and the only information for them to rate those persons’ communicative competence included the types of disability and brief descriptions of those disabilities. If the participants viewed them as individuals but not any social members, there should be insufficient
information for the evaluation and it was less possible to expect that there should be any statistically significant differences. However, that was not the case indeed. As Perkins made a wonderful comment on stereotype, “Stereotypes are… prototypes of “shared cultural meanings”. They are nothing if not social” (1979, p. 141; as cited in Hoggs & Abrams, 1988). Of course, the alternative explanation could be that no other information except for the types of disability was available, so the participants were ‘forced’ to stereotype those persons with disabilities. However, this required stereotyping too.

Regarding the disabilities in terms of cognitive orientation, it was not surprising that people with Schizophrenia would be stereotyped as less communicatively competent as compared to those with Dyslexia or Muscular Dystrophy. On one hand, Schizophrenia is a mental disorder that severely and chronically affects cognition, behaviour and emotion, and in turn daily function of sufferers. Thus, the persons with Schizophrenia would be vulnerable to the stereotype of less communicative competent that requires lots of cognitive and behavioral resources indeed. On the other hand, mental disorder seems to be particularly stereotypically associated with deviant behaviours in Chinese society. For instance, people who dress rarely, shout in the public, or even behave unusually for obvious reasons (e.g., refuse to eat for on diet or continuously apply plastic surgery for being more beautiful) will often be ‘diagnosed’ as suffering some kinds of mental disorder and be labeled as “ShenJing (神經)”. Thus, it was not hard to understand why the people with a real mental disorder – Schizophrenia – would be
stereotyped less positively. But, it was interesting that people with cognitive disabilities would be rated as having less communicative competence than those with physical disabilities even though the former were not as visible as the latter.

Perhaps the most surprising findings were the relatively high communicative competences of the persons with Amputation. It was hypothesized that the people with Amputation would be perceived as having the lowest competence (H2) because of their most visible features. There could be three possible explanations of the higher communicative competence of the persons with Amputation: first, when the participants rated the disabilities in terms of visibility, they might not take the level of visibility of the disabilities into account (you may remember that the level of visibility of those disabilities was not presented to the participants), but they would rather take the ‘the numbers of the affected limb’ into account. It is clear that Monoplegia affects sufferer’s one of the limbs, and in general, so is the case of Amputation, while Quadriplegia affects sufferer’s all limbs. Further to say, the more limbs are affected, the more severe a disability seems to be, and the less the sufferer’s communicative competent is. Second, Amputation is an acquired disability as compared to Monoplegia and Quadriplegia, which are congenital (or acquired in early childhood) disabilities. Gallois (2005) argued that age of acquisition of disabilities might be crucial to stereotype, identity and communication. As people with congenital or early-acquired disabilities have belonged to the disabled group for a long period and those with acquired disabilities have shifted from the
non-disabled majority group to the disabled minority group just in later life, people with
disabilities of these two kinds may develop different attitudes and behaviours reflecting their
identities (Gallois, 2005). Thus, it may be the case that age of acquisition of people with
disabilities affects those without disability how to socially categorize them: persons with
acquired disabilities may be more categorized into the ingroup and less into the outgroup,
whereas those with congenital disabilities more into the outgroup and less into the ingroup, in
which ingroups are always stereotyped favorably while outgroups unfavorably (Hogg & Abrams,
1988). This might explain why the persons with Amputation would be viewed less negatively
than those with Monoplegia and Quadriplegia. Last but not least, the construction of the
disabilities in terms of visibility might be ineffective, which meant that Quadriplegia and
Amputation might not be the intermediate and most visible disabilities, respectively. (Discussed
further in Chapter 4)

Another unexpected result was the same level of communicative competence among
persons with Cancer and Exercise-induced asthma, and the relatively low level of competence of
persons with Epilepsy. Some explanations may account for this difference although Cancer
should be a more severe, deadly and context-general (least context-specific) disability than EIA
and Epilepsy. Since Cancer is the No. 1 killer in Hong Kong (Centre for Health Protection, 2005)
and becomes one of the most common disabilities, the participants may have once got
experiences in interacting with those people with Cancer. Prior interaction with people with
disabilities, however, can help to increase positive attitudes towards them (see Fox & Giles, 1996a). In this way, the relatively higher level of communicative competence of the people with Cancer might be due to the prior interability interaction experiences between the participants and them. However, this result can support Thomas’ finding (2000) that Cancer is showing more appreciate change. Similar to the case of Amputation, Cancer is acquired disability that may also make people without disability view them positively (see the above discussion of acquired and congenital disability). As for EIA, it is so context-specific (it occurs only after intensive exercise) that the participants might think that the persons with EIA would not always act as a member of a disabled group. As a result, the participants might be less likely to categorize them into the outgroup, but more likely into the ingroup instead.
Chapter 3

Study 2

Method

Pilot Test

Six students of City University who were not the sample of the main study were tested first to find out whether the stimulus audiotape was clear to listen to, the design of the response questionnaire was appropriate, and most importantly, the context (i.e., studying programme: Public Relations vs. Computer Science) of a person with disability could effectively elicit positive or negative stereotype of communicative competence. They reported that all designs were appropriate except for the fact that the studying programme failed to grasp their attention. Thus, two manipulation checks were added (detailed mention in Materials).

Participants

Forty students (15 males and 25 females) of City University participated in the present study. Their mean age was 21.43 years ($SD = 1.69$). Majority of them was recruited from some classes offered by the Department of Applied Social Studies, and the remaining was by convenience and snowball samplings, but neither of them majored in Psychology. They were randomly assigned to the two experimental conditions: the first came to the experimental laboratory would be assigned to the condition 1, the second to the condition 2, and the next back to the condition 1, and so on. As the stimulus audiotape and the questionnaire were in Cantonese
and Chinese, all of them had to be Chinese and proficient in Cantonese.

Materials

The materials comprised a sheet of the introduction and instruction of the experiment, a stimulus audiotape and a questionnaire. The introductory sheet also included a paragraph presenting the context about a male with disability, one of the interactants in the conversational situation given in the tape, such as his name (“Tony”), age, type of disability (“Paraplegia”) and the IV – his studying programme, and a foreword about the conversation. Only the studying programme was manipulated between the two experimental conditions: the programme was “Public Relations” in the condition 1 conveying positive stereotype of communicative competence, whereas “Computer Science” was the programme in the condition 2 conveying negative stereotype. There were two manipulation checks after presenting this information: one was about what level of the communicative competence of the interactant with disability should be using a 7-point scale (1 = very good, 7 = very bad), and the other was about what extent the studying programme affected his own communicative competence using a 7-point scale (1 = very positive, 7 = very negative) too. They aimed at making the participants to pay attention to the information about the conversations given in the audiotape and to stereotype the interactant with disability according to different studying programmes before listening to the tape.

The audiotape involved three 3-minute conversations recorded by two male speakers. The conversational situation took place in a salon between a barber without disability and the
interactant with disability (Tony). The conversations were characterized by some linguistic (e.g., shorter utterances, simple sentences, repetitions, interrogatives and imperatives, etc.) and paralinguistic features of patronizing speech (e.g., high pitch, exaggerated intonation, loud voice slow speech, summarizing and paraphrasing, etc.) (Ryan et al., 1995). To visualize and make the situation happened in a salon more realistic, songs were played with the conversations. Both the experimental conditions were presented with the same audiotape. It was installed in the computers of the laboratory before the experiment and was individual-administered to the participants by themselves.

The questionnaire totally had 13 items. Nine of them were employed to measure the perception of the level of patronizing speech. They were constructed from the work of Ryan, Hummert and Boich (1995) to measure the level of patronizing speech in the two dimensions: attitudinal and non-verbal. The attitudinal dimension was measured by some features including stereotypical communicative incompetent and dependent, sympathetic, pitying, excessively careful, complaisant and childish treating, while the non-verbal dimension was measured by paralinguistic features like high pitch, simple vocabulary and sentence, and slow rate. Ryan et al. (1995) suggested that non-verbal patronizing behaviours usually carried greater significances, so verbal features of patronizing speech were not measured in the current study. Other non-verbal features, such as gaze, proxemics, facial expression, gesture and touch, were also not measured as they were more visual and did not match the design of the ‘audiotape’. It might be expected
that there would be little significances for these features even they were to be involved in the measure. The participants were told to rate the extents of these features emerged from the conversations by using a 7-point scale (1 = None, 4 = Undecided or neutral, 7 = Completely). There was also an item that measured the extent of the barber treated the interactant with disability differently from other non-disabled people by using the 7-point scale too. The last three items were about other comments (optional), age and gender.

Procedure

The experiment was held in the Multi-function room located in the Department of Applied Social Studies. When the participants came in, they could choose a preferred seat with a pre-set computer. If they were in the condition 1 or condition 2, they would be presented the introductory sheet 1 or sheet 2, respectively. Then, they would be instructed to read the introduction of the experiment clearly. After they had consented to participate in it, they would be reminded to switch off any sounding electronic devices or turn them into the silent mode, and not to discuss with others during the experiment. Next, they started reading the context paragraph and then answered the two manipulation checks. After that, they could wear an earphone to listen to the tape. The tape could only be played once and the participants were not required to jot down any notes during the listening. Finished the listening, the questionnaire would be given to them to fill in. Each participant took less than 15 minutes to run the experiment.

Results
Reliability analysis of the scale: The internal consistency reliability of those items of the two dimensions (attitudinal and non-verbal) in the response questionnaire was tested by Reliability Analysis.

The items of the Attitudinal dimension including stereotypical communicative incompetent and dependent, sympathetic, pitying, excessively careful, complaisant and childish treating had an acceptable Cronbach’s Alpha of 0.78. The inter-correlations of these items were presented in Table 3.

As for the items of the Non-verbal dimension including high pitch, simple vocabulary and sentence, and slow rate, its Cronbach’s Alpha was acceptably 0.72. The inter-item correlations were shown in Table 4.

Any items deleted would lead to the decreasing of the Cronbach’s Alpha.

Thus, this suggested that the items of the attitudinal and non-verbal dimensions were measuring the same variables.

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Manipulation checks: The first check was about the level of the communicative competence of the interactant with disability (named Tony). Since the interactant was presented with the same disability (Paraplegia) between the two conditions (Public Relations and Computer
Science), it was expected that the communicative competence and dependence of the interactant should not be rated differently. As predicted, the participants in the two conditions did not claim the competence and dependence of the interactant as different \( t (38) = -1.3, \text{ ns} \).

The second check was about what extent the studying programme (Public Relations vs. Computer Science) affected communicative competence of the interactant with disability. It was found that the participants rated the interactant with disability studying Computer Science as having higher score (3.6) than the one studying the Public Relations condition (2.65), \( t (38) = -3.11, p<.00 \), which suggested that Computer Science was less positive to the communicative competence of the interactant with disability than Public Relations did. Therefore, it could be concluded that the stereotyping manipulation was effective.

\[
\text{Insert Table 5 about here}
\]

\[H4\]: The experimental study hypothesized that the persons with disability with a context that conveyed their communicative competence as positive (that is, in the Public Relations condition) would be rated as receiving less patronizing speech. Conversely, the persons with disability with a context that conveyed their communicative competence as negative (that is, in the Computer Science condition) would be rated as receiving more patronizing speech. It was supposed that the interactant with disability studying Computer Science (condition 2) would be
rated as having higher score than the one studying Public Relations (condition 1) on the items of
the attitudinal and non-verbal dimensions of patronizing speech. Also, the interactant with
disability in the condition 2 would be rated as having higher score than the one in the condition 1
on the item measuring the extent of the barber treated the interactant with disability differently
from other non-disabled people.

Table 5 presented the means of the perceived attitudinal dimension of patronizing speech
received by the interactant with disability in the Public Relations and Computer Science
conditions. A One-Tailed Independent-Samples T-Test was carried out for the data. The
Levene’s test indicated that the variance of the data of the two conditions was roughly equal
\(p > .05\). The mean of the attitudinal dimension in Public Relations condition was 0.78 lower
than that in the Computer Science condition, \(t(37) = -2.36, p < .05\). This pointed out that the
interactant with disability studying Computer Science would be perceived as receiving more
attitudinal dimension of patronizing speech than the one studying Public Relations.

The means of the perceived non-verbal dimension of patronizing speech in the Public
Relations and Computer Science conditions were shown in Table 5. To compare the mean of the
non-verbal dimension of patronizing speech in the two conditions, a One-Tailed
Independent-Samples T-Test was carried out. The Levene’s test revealed that the data of the two
conditions varied equally \(p > .05\). The mean of the Public Relations condition was 0.98 lower
than that of the Computer Science condition, \(t(38) = -2.81, p < .01\). This meant that the
participants perceived the non-verbal dimension of patronizing speech toward the interactant with disability studying Public Relations as lower than the one studying Computer Science.

The means of the difference between the treatment towards the interactant with disability and other non-disabled people were presented in Table 6. As the scores of this measure were skewed, a non-parametric test – the Mann-Whitney test – was used. The Public Relations condition had the overall behavioral difference of a lower rating (median = 3) than the Computer Science condition did (median = 5). The Mann-Whitney U was found to be 112.5 ($z = -2.44$, $p < .05$), which indicated that the different ratings between the two conditions were not due to the sampling error, but due to the difference of the conditions.

Discussion

Summing up the significant differences of the overall behavioral difference and, the attitudinal and non-verbal dimensions of patronizing speech between the Public Relations and Computer Science conditions, Hypothesis 4 was supported. This suggested that people with disabilities and with a context conveying their communicative competence as positive would be perceived as receiving less patronizing speech than those with a context conveying their competence as negative.
This study provided an interesting finding for several reasons. Communication Accommodation theory does predict the accommodative behaviours between speaker and listener in terms of objective, psychological and subjective accommodations (see Gallois et al., 2005; Giles & Noels, 2002; Shepard et al., 2001). Put another to say, both speakers and listeners can be aware of whether the opposite sides accommodates their communicative style or not (Giles & Noels, 2002). However, the present finding seemed to provide another possibility, which was the perception of the accommodation taking place in a conversation by a third party who was indeed out of the conversation. In the experimental design the audiotape did not differ for the two conditions, but the participants would still differentiate the speech (less or more patronizing). The results of the manipulation check 1 and 2 also indicated that the participants would associate the communicative competence of the interactant with disability with his studying programme. This implied that the different perceptions of the speech by the participants were due to their different perception of the interactant’s communicative competence. It might be simply concluded that people without disability would perceive accommodations of external interability communications towards their own stereotypical expectations of communicative competence of those interactants as speakers would accommodate their communicative style towards their stereotypes of listeners’ competence.

Next, the study contrasted with the findings of Giles et al. (1998) that Hong Kong students were less likely to evaluate patronizing speech as patronizing than California students
although the former could recognize such speech indeed. They suggested that the patronizing speech might be manifested to Hong Kong people by employing audiotape or videotape and manipulating paralinguistic features. The current study accepted this suggestion, and implemented the patronizing speech in the mean of audiotape and manipulated the speech with more paralinguistic features. Also, the study did not ask the participants to evaluate whether the speech was ‘patronizing’, but rather ask them to evaluate the speech in terms of ‘patronizing speech features’ (note that the term ‘patronizing’ never appeared in the experiment). The result was that the participants would differentiate the speech between the two conditions although the speech was the same among the conditions. This may imply two points: on one hand, patronizing speech is manifest to Chinese only if it includes more non-verbal patronizing features (or at least paralinguistic). On the other hand, Chinese does not view or accept the definition of patronizing speech as “behaving like a benefactor and arrogant”, but view it as something else. As commented by Giles et al. (1998), “the specific language forms evoking the label ‘patronizing’ may vary considerably cross-culturally – even if it exists as a universal anyway.”

Third, the study brought a question about stereotype change. Many studies suggested that social stereotypes were resistant to change (see Oakes et al., 1994). As Study 1 found, people without disability held a hierarchical stereotype of communicative competence of those with different disabilities. Yet, Study 2 revealed that when the interactant with disability presented with the additional context conveying his competence as positive would be perceived as
receiving more patronizing speech than the one presented with the context conveying his negative competence. Could it be possible that the stereotype of the competence of the interactant with disability changed? This remains unknown. It could be possible that this result just reflected that the ‘belief’ about the individual changed, but the ‘stereotype’ did not (Oakes et al., 1994). Put another to say, the participants might view the interability interaction as interpersonal but not intergroup anymore. Another possibility was that the participants just shifted from the stereotype of the persons with that particular disability type (Paraplegia) to the stereotype of the persons studying the particular programmes (Public Relations vs. Computer Science).
Chapter 4

Overall discussion and Conclusions

*Future Research*

Study 1 generally revealed that there was a hierarchical stereotype of communicative competence of people with various disabilities held by those without disability. Yet, some inconsistent findings suggested that such hierarchical stereotype was not always the function of the level of the distinguishing dimensions, but the functions of other variables as well. One possible and interesting variable may be the age of acquisition. The acquired disabilities like Amputation and Cancer were perceived as relatively more communicative competent than other congenital disabilities. This seemed not to be just coincident but pointed out a direction for future research to investigate the development of social identity, social stereotype and interability communication between people with acquired and congenital disabilities.

Study 2 found that people could perceive any accommodation taking place in the external communication based on their stereotypes towards the interactants. This may provide an extended insight into CAT that accommodation not only happens in the forms of objective, psychological and subjective between speakers and listeners, but also in the form of perceptive of a third party. Some literatures argued that perception of a third party is a frequent form of patronizing communication (see Fox & Giles, 1996b). Thus, how the perception of a third party functions in an interability or patronizing communication should be the future concern on the
The contrast between Study 2 and that of Giles et al. (1998) also raised an interesting research question: does the (perception of) patronizing communication culturally vary? Almost all the research about intergenerational or interability or patronizing communication was on the basis of Western cultures, so there may be much constraint on directly applying the concept of patronizing to other ethnic groups. It seems that patronizing communication should not only be focused from the intergroup approach, but also from the intercultural approach as well.

Another research direction could be the stereotype change of communicative competence towards people with disabilities. How the stereotype of the person with disability’s competence changed or shifted examined in Study 2 remains uncertain. This may leave a possibility of the ‘change’ of social stereotypes for the study of prejudice and discrimination towards minority groups although Hogg and Abrams (1988) claimed that stereotyping and prejudice are inevitable.

**Limitations**

The samples of the both studies were recruited from the university and by non-random sampling, so the generalization of the studies was limited. In addition to this limitation, the questionnaires used in both studies did not include any demographic items. As a result, it was not known whether demographic variables, such as educational background, socio-economic status and prior interability communication experience, would affect the stereotype of communicative competence of people with disabilities held by those without disability.
The construction of disability types would also generate confounding variables. As mentioned previously, when disabilities were constructed in terms of visibility, context-specificity or cognitive orientation, the variation of the level of other distinguishing dimensions was tried to be minimized. However, such variation could not be completely eliminated. For instance, Cancer, Epilepsy and Exercise-induced asthma not only varied in the level of context-specificity, but also varied in the level of severity. In this way, this might create another confounding variable to be measured. Besides, the construction of the disability types may not accurately and persuasively reflect the actual level of the distinguishing dimensions of the disabilities because it was derived from the work of a six-sample pilot test. Confused disability examples might include Amputation and Quadriplegia. This might leave criticism for the interpretation of the results.

Study 2 also encountered some limitations. Patronizing communication should be better to display what patronizing is than patronizing speech because non-verbal features usually carry more significance (Ryan et al., 1995). Since the stimulus speech was implemented in the mean of audiotape, the effect sizes of the dependent measures might be affected.

Moreover, the stimulus conversation audiotape was recorded by the two confederates and the conversational situation was not real. As argued by Fox and Giles (1996a), however, the studies using confederates who do not have disabilities role-playing a person who has disability may be restricted to be generalized to real-life interability settings.
References

Centre for Health Protection. (2005). *Number of deaths by leading causes of death by sex by age in 2005*. Retrieved April 1, 2007, from


Table 1

The *disabilities of visibility, context-specificity and cognitive orientation*

<table>
<thead>
<tr>
<th>Disabilities</th>
<th>Distinguishing dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Visibility</td>
</tr>
<tr>
<td>Monoplegia (單肢癱瘓)</td>
<td>Least visible</td>
</tr>
<tr>
<td>Quadriplegia (四肢癱瘓)</td>
<td>Intermediate visible</td>
</tr>
<tr>
<td>Amputation (截肢/斷肢)</td>
<td>Most visible</td>
</tr>
<tr>
<td></td>
<td>Context-specificity</td>
</tr>
<tr>
<td>Cancer (癌症)</td>
<td>Least context-specific</td>
</tr>
<tr>
<td>Epilepsy (癲癇)</td>
<td>Intermediate context-specific</td>
</tr>
<tr>
<td>Exercise-induced asthma (EIA) (運動引發性哮喘)</td>
<td>Most context-specific</td>
</tr>
<tr>
<td></td>
<td>Cognitive orientation</td>
</tr>
<tr>
<td>Muscular Dystrophy (肌內萎縮症)</td>
<td>Least cognitive</td>
</tr>
<tr>
<td>Dyslexia (讀寫障礙)</td>
<td>Intermediate cognitive</td>
</tr>
<tr>
<td>Schizophrenia (精神分裂症)</td>
<td>Most cognitive</td>
</tr>
</tbody>
</table>
Table 2

Means and SDs of the perceived communicative competence for the disabilities varied in the
levels of cognitive orientation, context-specificity and visibility

<table>
<thead>
<tr>
<th>Distinguishing dimension</th>
<th>Disabilities</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive orientation</td>
<td>Schizophrenia</td>
<td>2.64</td>
<td>.51</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>Dyslexia</td>
<td>3.16</td>
<td>.51</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>Muscular Dystrophy</td>
<td>3.31</td>
<td>.50</td>
<td>62</td>
</tr>
<tr>
<td>Context-specificity</td>
<td>Cancer</td>
<td>3.47</td>
<td>.38</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td>Epilepsy</td>
<td>3.26</td>
<td>.51</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td>Exercise-induced Asthma</td>
<td>3.45</td>
<td>.45</td>
<td>61</td>
</tr>
<tr>
<td>Visibility</td>
<td>Monoplegia</td>
<td>3.40</td>
<td>.42</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>Quadriplegia</td>
<td>3.22</td>
<td>.40</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>Amputation</td>
<td>3.39</td>
<td>.43</td>
<td>62</td>
</tr>
</tbody>
</table>

Note: The means were measured by a 5-point Likert scale. The higher the mean, the higher the competence was.
Table 3

The Inter-correlations of the Attitudinal items

<table>
<thead>
<tr>
<th>Items</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Communicative incompetent &amp; dependent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Sympathetic</td>
<td>.45</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Pitying</td>
<td>.59</td>
<td>.68</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Excessively careful</td>
<td>.29</td>
<td>.37</td>
<td>.38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Complaisant</td>
<td>.14</td>
<td>.41</td>
<td>.29</td>
<td>.45</td>
<td></td>
</tr>
<tr>
<td>6. Childish treating</td>
<td>.47</td>
<td>.51</td>
<td>.47</td>
<td>.07</td>
<td>.22</td>
</tr>
</tbody>
</table>
Table 4

*The Inter-correlations of the Non-verbal items*

<table>
<thead>
<tr>
<th>Items</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. High pitch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Simple vocabulary and sentence</td>
<td>0.473</td>
<td></td>
</tr>
<tr>
<td>3. Slow rate</td>
<td>0.514</td>
<td>0.390</td>
</tr>
</tbody>
</table>
Table 5

Means and SDs of the perceived level of patronizing speech received by the interactnat with disability in the Public Relations and Computer Science conditions

<table>
<thead>
<tr>
<th>Dimensions of patronizing speech</th>
<th>Public Relations (Condition 1)</th>
<th>Computer Science (Condition 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudinal dimension</td>
<td>Mean 3.36, SD .88, N 19</td>
<td>Mean 4.14, SD 1.16, N 20</td>
</tr>
<tr>
<td>Non-verbal dimension</td>
<td>Mean 3.70, SD 1.13, N 20</td>
<td>Mean 4.68, SD 1.07, N 20</td>
</tr>
</tbody>
</table>

*Note:* The means were measured by a 7-point Likert scale. The higher the mean, the higher the level of patronizing speech was.
Table 6

*Means and SDs of the extent of the barber treated the interactant with disability differently from other non-disabled people in the Public Relations and Computer Science conditions*

<table>
<thead>
<tr>
<th></th>
<th>Public Relations (Condition 1)</th>
<th>Computer Science (Condition 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment difference</td>
<td>Mean: 3.60 SD: 1.14 N: 20</td>
<td>Mean: 4.75 SD: 1.62 N: 20</td>
</tr>
</tbody>
</table>

*Note: The means were measured by a 7-point Likert scale. The higher the mean, the higher the difference was.*