

University of Alberta

Employer Attitudes and the Employment of People with Disabilities: An Exploratory
Study using the Ambivalence Amplification Theory

by

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Dedication

To Trish, for all of her support throughout this journey.

Abstract

Labor force statistics and other evidence have demonstrated that people with disabilities are under-represented in the work place in Canada and abroad. While an assortment of factors likely contributes to this disparity, the attitudes of employers towards hiring people with disabilities are often cited as important contributors to the situation.

Some authorities suggest that employer's attitudes towards people with disabilities bias their decision-making and influence employer behavior. This concept of simple discrimination suggests that employers, like others in the general public hold unfavorable stereotypes of people with disabilities that result in discriminatory hiring practices regardless the merit of a candidate with a disability.

An alternative concept, ambivalence amplification, suggests that disability and merit interact in a more complex way. Research on the general public's reactions to disability suggests that when all else is equal, people will rate a person with a disability who is portrayed in a positive manner significantly higher than a comparable peer without a disability, but that the reverse will occur when both are portrayed in a negative fashion. This suggests that under favorable circumstances, employer's attitudes towards employees or prospective employees with disabilities may be preferential, but under unfavorable circumstances, their negative attitudes are amplified to become more extremely negative.

Both models suggest that discrimination may be occurring, but provide unique perspectives on how and if it might be occurring during employee

recruitment. This study examined both simple discrimination and ambivalence amplification in order to explore their potential for explaining poor employment outcomes for people with disabilities.

Ninety-nine employers rated/scored one of four condition-specific cover letters and resumes (application documents) from a hypothetical applicant either with or without a disability. As well as identifying disability status, these documents also portrayed the applicant as having merit (no errors in documents) or limited merit (multiple errors in documents). Participants were also asked if based on their review of the cover letter and resume, they would be willing to grant the applicant an interview.

Analyses demonstrated that merit, as represented by error-free cover letters and resumes predicted employer behavior. There was no evidence main effect for disability status and no interaction between merit and disability status on either employer's ratings of application documents or on their willingness to grant an interview, regardless of gender, age, education, and affiliation with a public or private business.

These findings suggest that even when a person's disability is self-reported in an application, neither simple discrimination nor ambivalence amplification influenced employer's ratings of merit or decisions based on merit. Merit appears to be their primary focus in initial screening of potential employees. These findings further suggest that disparate employment outcomes of people with disabilities may instead be influenced later in the recruitment process, perhaps when employer's come face-to-face with applicants with disabilities

during the interview stage. It may be at this point in the hiring process that employer's negative attitudes towards people with disabilities result in discrimination.

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CHAPTER 1: INTRODUCTION

Employment and People with Disabilities

In 2007, the economic conditions in Canada and Alberta were extremely favorable. Economic activity over the previous 4 years had steadily increased and both the public and the private sectors were benefiting from an economic boom (Government of Canada, 2006). The 6.0% national unemployment rate was low by historical standards, and in Alberta the unemployment rate was almost half the national rate at 3.5% (Statistics Canada, 2008a). Economic indicators signaled labour market growth would continue across the country, and in Alberta particularly, the economic boom might result in a number of industries facing a critical shortage of workers. Increased construction projects in the province resulted in trades, transport and equipment operators, and those in related occupations seeing the largest employment increases, and the provincial government was predicting a shortage of over 110,000 workers by 2017 (Alberta Employment and Immigration, 2007).

As 2007 progressed, a number of sectors began to experience a shortage of workers and government responded by creating legislation and policy to aid in the recruitment needs of employers. Employers were fiercely competing for employees, and a great deal of effort was being made in both the public and the private sectors to recruit and retain staff from an increasingly smaller talent pool. As the number of potential employees continued to shrink, employers also began to focus their recruitment activities on groups of potential employees traditionally underrepresented in the workplace. Seniors, First Nations populations,

immigrants, and other minority groups were a viable option for helping employers meet their recruitment needs.

People with disabilities were another segment of the population that caught the attention of employers. Despite the favorable conditions, the employment outcomes for people with disabilities had not changed significantly over time and although many people with disabilities eagerly looked for employment, most had no realistic expectation of finding work (Morris, 2006). The recessions of the 1990s and 2000s had affected all groups of people participating in the labour market; however, employment statistics indicate that employment rates among people with disabilities fell faster than for employees without disabilities and furthermore, people with disabilities did not experience the same degree of recovery when economic conditions improved (Field & Jette, 2007).

Despite the most recent national survey data, which indicated some improvement in employment outcomes for people with disabilities, findings still highlight that Canadians with disabilities are much less likely to participate in the labour market (53.5% participation rate for people with disabilities compared to 75.1% for people without disabilities) and also experience an unemployment rate approximately 60% higher than the rate for people without disabilities (Statistics Canada, 2008b). Furthermore, people with disabilities are “less likely to have full-time, full-year employment” (Human Resources Development Canada, 2000, p. 1), are particularly vulnerable to labour force instability (Canadian Council on Social Development, 2005), have annual incomes below those of other Canadians,

and are more often reliant on income assistance from government programs than on earnings from employment (Crawford, 2004).

Potential Barriers to Employment for Persons with Disabilities

Disabling Conditions and Education

When trying to identify factors that contribute to the disparity in employment opportunities between people with and without disabilities, the degree to which a person's disability affects his or her ability to perform work-related tasks might be considered. Statistics indicate that of the almost 3.5 million Canadians with disabilities, approximately 30% report only one or two disabling conditions with the majority related to visual and hearing limitations that require only minor accommodations such as eyeglasses, contact lenses, or walking canes (Cossette & Duclos, 2002). In the workplace, approximately 15% of employees with a disability identify the need for a special chair, back support, or some other ergonomic redesign modification and less than 20% request accommodations such as modified hours or special staffing supports to maintain employment (Statistics Canada, 2008b). While the costs of accommodations may be a disincentive to hiring workers with disabilities, the frequency and expenditures related to the accommodations appear to be minor and do not adequately explain the disparate employment outcomes for people with and without disabilities.

A second factor to consider is education and training. Given the importance of education and training, one could assume that low employment rates for persons with disabilities are related to inferior educational opportunities or achievement rates. In fact, 64% of people with disabilities have high school

diplomas and 36% go on to become postsecondary graduates, which are statistics comparable to the general population (Canadian Council on Social Development, 2003). As well, the postsecondary education of people with disabilities encompasses training in many of the same occupational areas as their nondisabled peers, including the social sciences, business and management, arts and humanities, information technology, science and technology, and skilled trades (Canadian Abilities Foundation, 2004). These statistics indicate that the level of education and training achieved by people with disabilities should not pose significantly larger barriers to achieving employment than they would for people without disabilities, particularly in a vigorous labour market.

Unquestionably, a person's disability, the necessity for some workplace accommodation, and somewhat different educational outcomes contribute to the situation; however, other variables must also contribute to the discrepancy in employment rates. Research indicates that a lack of confidence in one's ability to find work (Canadian Abilities Foundation, 2004) and fear of losing some or all of one's income assistance if employed (Crawford, 2004) might also contribute to poor employment outcomes for people with disabilities.

Attitudinal Barriers

There are likely a number of reasons why employers may not be hiring a person with a disability. Some of these reasons could be based on valid concerns, while others may originate from negative attitudes and stereotypes regarding people with disabilities that have persisted over time and resulted in prejudiced attitudes towards them. It is suggested that as a result, people with disabilities are

“vulnerable to the issues of prejudice and discrimination in every facet of their lives” (Mason, Pratt, Patel, Greydanus, & Yahya, 2004, p. 52) including housing, medical care, and employment. Regarding employment, considerable attention has been paid to employer attitudes as a key barrier to employment for people with disabilities (Wilton, 2006).

Persons with disabilities report that one of the major obstacles to employment they face is not the disability itself but systemic and attitudinal barriers. The result is that individuals with disabilities are not viewed the same way as other potential workers and cannot access the same opportunities. (Minister’s Employability Council, 2002, p. 1)

Some authorities suggest that employer’s attitudes towards people with disabilities prejudice their decision-making and influence employer behavior. There are two possible explanations for these presumed attitudinal barriers: (1) Simple discrimination and (2) Ambivalence amplification. The concept of simple discrimination suggests that employers, like others in the general public hold unfavorable stereotypes of people with disabilities that result in discriminatory hiring practices regardless the merit of a candidate with a disability. The claim that prejudiced attitudes and discriminatory actions have a significant impact on the employment outcomes of people with disabilities is reinforced by research that demonstrates many Canadians believe discrimination against people with disabilities is taking place in today’s workplace and points to prejudice and intolerance by society as the most significant barrier to people with disabilities being included in community life (Human Resources and Social Development Canada, 2004). Furthermore, almost 8 in 10 (78%) Canadian co-workers strongly

agreed that “Canadians with disabilities are less likely to be hired for a job than those without disabilities, even if they are equally qualified” (Human Resources and Social Development Canada, para. 21).

An alternative concept, ambivalence amplification, suggests that disability and merit interact in a more complex way. This perspective suggests that even though employers support the inclusion of people with disabilities in the workplace, employers hold not only positive attitudes towards people with disabilities but also unconscious negative attitudes. The scenario regarding mixed feelings or contradictory ideas is a central feature of Katz and Glass’ ambivalence amplification theory (1979), which indicates that almost everyone has conflicting attitudes regarding many aspects of their life, but these become particularly evident when the focus is on people with disabilities and other marginalized groups. Ambivalence amplification theory also indicates that a number of identifiable variables can influence ambivalent attitudes that then contribute to extreme positive or negative amplification of the attitudes. Katz and Glass illustrated this phenomenon as it related to race and disability and demonstrated that reinforcing people’s positive or negative beliefs about a person’s race or disability can influence the occurrence of discrimination. For instance, Katz and Glass were able to demonstrate that when the general public perceived that a person with a disability performed or behaved equally as well as a peer without a disability, the person with a disability would consistently be rated more favorably than the person without a disability. Conversely, the theory also demonstrated that when a person with a disability performed or behaved as poorly as a peer without

a disability, the person with a disability would be consistently rated more negatively than his or her nondisabled peer was.

According to the ambivalence amplification theory, positive actions performed by a person with a disability led members of the general public to deny their negative feelings towards people with disabilities and respond in disproportionately positive ways, and negative actions from a person with a disability led people to deny their positive feelings towards people with disabilities and react in disproportionately negative and discriminatory ways (Taylor, 1998). Both cases pointed to the existence and possible manipulation of ambivalent attitudes towards people with disabilities.

Both perspectives suggest that employers may be discriminating against people with disabilities, but provide different explanations as to how this may be occurring and underscore the role that employer's attitudes might have in the employment potential for people with disabilities. Understanding how employer attitudes might be preventing people with disabilities from reaping the economic and social benefits of employment provides an important contribution to research and policy related to this topic.

After 2007, economic conditions changed suddenly and dramatically. In 2008, the economy was plagued by plunging oil prices, a crumbling financial market in the United States, an auto industry teetering on the verge of bankruptcy, and record lay-offs in Canadian industries (Alberta Seniors and Community Supports, 2009). The new economic context indicates an increasing number of Canadian job seekers will be competing for a decreasing number of jobs. It is

uncertain what effect this new environment will have on job applicants with disabilities.

In considering the study described in this thesis, it is important to remember that data were collected during a time of virtual full employment and labour shortages before the major economic downturn of 2008. Whether an interaction between the changing economic conditions and the findings of this study might exist remains a topic for discussion and, potentially, for future research.

CHAPTER 2: REVIEW OF LITERATURE

A central premise of this study is that the prejudiced attitudes of employers towards people with disabilities may be a factor in whether they recruit and hire people with disabilities. It is proposed that these attitudes could be manifested in behaviors of simple and outright discrimination or in more complex interactions between employer attitudes towards disability status and their reaction to external stimuli such as how a person with a disability's merit is portrayed. Therefore, a brief introduction to the concepts of prejudice and discrimination will provide a context for this and other chapters. This is followed by an overview of literature specific to the research design used in this study, as well as a review of literature on employer attitudes towards people with disabilities in the workplace. Finally, a discussion is presented that connects all sections of the literature review and sets the stage for the following chapter.

Prejudice, Discrimination, and Ambivalence

It has been proposed that humans have a natural inclination to classify others into distinct groupings and social subsets (Brewer & Miller, 1996). This tendency to categorize and organize others is also accompanied by the activity of assigning specific characteristics and qualities to individuals within those groups that may or may not be based on actual facts or first-hand information. This results in the development of particular impressions (i.e., stereotypes) regarding members of these social groups, which quickly becomes integrated into one's belief and value systems (Brewer, 2007; Fiske & Taylor, 2008; Levine & Kerr, 2007). Cognitive-Categorization theories see stereotyping activity as a mechanism

for dealing with the volume of information people are presented with throughout their daily lives, and helps individuals to organize social information into manageable clusters of knowledge. In this way, stereotyping provides a context for organizing information about the world, allows for classification and the prevention of information overload in social contexts, and for addressing gaps in information regarding other individuals and social groups not normally interacted with (Mason et al., 2006). Researchers have suggested external influences such as television, the Internet, and other media cultivate these stereotypical perceptions and portrayals of others (i.e., people with disabilities and other marginalized groups) that pervasively influence our attitudes and behaviors towards them (Blaine, 2007; Goggin & Newell, 2003; Snyder & Mitchell, 2006).

A logical outcome of stereotyping is the formation of an ‘us and them’ mentality, spoken of in terms of ingroups and outgroups (Allport, 1954). Generally speaking, research over time has identified that people think of members of their own group as having individual qualities and think of outgroup members as all having similar attributes and characteristics (i.e., stereotypical views) (Nelson, 2006). Sherman, Klein, Laskey, and Weyer (1998) have further suggested that without conscious awareness, people can remember positive things about members of their own group but more often remember negative things about members of an outside group.

Prejudice in and of itself is a value-neutral term used to describe how an individual or group evaluates and feels towards another individual or group; however, the focus for prejudiced attitudes is most often on negative attitudes.

Like stereotyping, these prejudiced attitudes may or may not be based on facts, direct involvement, or engagement with the target of prejudice. Others interested in the role that external factors might play on attitude development have indicated that prejudice towards members of other social groups is simply a necessary by-product of the evolutionary development of social groupings, structures, and hierarchies seen in the development of societies across the world (Whitley & Kite, 2006).

Social learning theory (Bandura, 1977, 1986) explains prejudice in terms of engaging with others in our social contexts and groupings. In a review of research on the development of prejudice in children, Katz (2003) identifies a range of social factors and events that influence the development of prejudiced attitudes. Direct parental instruction, child-rearing techniques, the social environment a child is raised in, and exposure to various social media are cited by Katz as information sources for children to use in developing their attitudes about members of groups they do not belong to or associate with. Mason et al. (2004) also identify that people become socialized towards prejudiced attitudes through family members and peers, cultural activities, and symbolic representations in media.

Discrimination is the negative behavior that directly reflects the prejudiced attitude an individual or group holds towards another. It is suggested that discriminatory behavior towards others occurs at the individual, group and cultural levels and ultimately results in the marginalization and stigmatization of the targeted group (Nelson, 2006; Whitley & Kite, 2006).

There are some who propose that people discriminate with very little thought or inhibition. For instance, Mackie and Smith (2002) have suggested that evaluations of, and behaviors towards, outside group members can originate from a purely emotional response, and that the reaction to outside members is often automatic. Vanman, Paul, Ito, and Miller (1997) have further suggested that negative feelings and behaviors can be generated from within people “when they are in the presence of, or even think about, members of the groups they dislike” (p. 71). Fazio and Hilden (2001) suggest that not only can prejudice and discrimination be an automatic response, it can influence our behavior even if we are not aware that we have such views, and that people will vigorously deny holding prejudiced attitudes despite acting on them. These discriminatory behaviors may originate from fear, perceived threat, having different goals from one’s own social group, as well as chronic intolerance of others (Whitley & Kite, 2006). The immediacy of action may stem from people being more interested in being efficient regarding their evaluations of others, than worrying about whether these evaluations are accurate. The main goal in some situations appears to be to arrive at the fastest decision and evaluation of people as is possible (Nelson, 2006), which may result in simply discriminating against another group or group member without much thought or deliberation.

An alternate perspective is that majority group members are not simply prejudiced against people with disabilities and other stigmatized groups; rather they are ambivalent towards them (i.e., hold both prejudiced and positive attitudes). Over the course of 13 years and 19 different experiments, Irwin Katz

(1986) was able to demonstrate that the general public held far greater ambivalent attitudes towards people with disabilities compared to people without disabilities and that depending upon external stimuli, these ambivalent feelings could be amplified negatively or positively in such a way that people could be influenced to act in a discriminatory or non-discriminatory fashion.

Researchers exploring these phenomena were able to demonstrate people induced to believe they had harmed either a person with or without a disability will more likely react in an extreme manner (i.e., denigrate the person) towards the person with a disability than the person without a disability after the harm-doing (Katz, Glass, & Cohen, 1973; Katz, Glass, Lucido, & Farber, 1977). Conversely participants who were induced to believe they had harmed someone (e.g., made critical remarks towards them or delivered a mild or noxious noise) could also be influenced to instead help a disabled actor after harming them (Katz, Glass, Lucido, & Farber, 1979). Guilt, restitution, and alleviation of psychic tension were proposed as the key motivators for these contradictory behaviors, particularly when a person with a disability or other stigmatizing attribute was involved (Katz et al., 1979).

Katz and other ambivalence researchers also looked at how the behavior of a person with a disability might influence the ambivalent feelings members of the general public. Common sense would indicate that actors, regardless of disability status, who behave positively, are more apt to gain assistance than actors behaving negatively. Katz and associates however, were most interested in the relationships between the degree of assistance one might get depending upon

the nature of the behavior exhibited by the actor, as well as the differences in assistance with the absence or presence of a disabling condition (i.e., stigma condition).

Findings from three experiments on ambivalence and behavior demonstrated that stigma actors received more help than nonstigma actors, and that actors using lower levels of assertive behavior received more assistance than actors using higher levels of assertiveness (Katz, Cohen, & Glass, 1975). Findings from an additional two experiments that exposed participants to favorable and unfavorable behaviors followed by a request for assistance produced intriguing results (Katz, Farber, Glass, Lucido, & Emswiller, 1978). The positive condition involved significantly more willingness to help the nondisabled actor than the disabled actor, whereas in the negative condition the disabled person received more help. Also of interest were the results of attitude questionnaires provided to participants after the request for assistance that demonstrated that in the positive self-presentation condition the disabled actor produced more anger responses from participants than the nondisabled actor, and the reverse occurred in the negative presentation condition.

The findings for these two experiments contradicted the initial hypothesis and resulted in the researchers naming the research report for these two experiments “When Courtesy Offends,” which was a reference to the fact that it appeared that participants were most upset with disabled actors who presented positively. Katz et al. (1978) posited that participants were responding to phenomena where “behaviors and personality traits ordinarily deemed desirable in

normal people may not be considered desirable in the physically disabled” (p. 516). Despite the contradiction between the hypothesis and the findings of these two experiments, Katz et al. (1978) noted that the “total pattern of results is generally supportive of the stigma-role interpretation. It also upholds the view that attitudes about the disabled are generally ambivalent, rather than simply hostile or sympathetic” (p. 517). See Appendix A, B, and C respectively, for a detailed description of these three areas of research on ambivalent attitudes towards people with disabilities and other marginalized groups.

The evidence suggests that majority group members can react to people with disabilities in different ways. Simply discriminating against them because they have a disability is one response identified in the literature. It also appears that the act of discriminating against people with disabilities can be either amplified or mitigated as evidenced in the research on ambivalence; even to the point where a majority group member will instead aid someone with a disability.

A final series of experiments related to ambivalence, focused on how the portrayal of someone from a stigmatized group could amplify participant’s ratings of that person in a positive or negative fashion. These experiments inform this study’s methods, procedures, and analysis plan for examining both simple discrimination and ambivalence induced discrimination. Because of this, a more detailed overview is provided.

Detailed Presentation of Actor Portrayal and Evaluating

Katz and associates conducted a total of eight experiments to examine the relationship between a person’s stigma identity and impressions and reactions of

the general public to this status. This line of study was based on Dienstbier's (1970) research, which had participants simultaneously evaluate two hypothetical people who were described as being very similar in personal circumstance and characteristics, but one of the two had a stigma label (i.e., mental health illness). Dienstbier's research indicated that evaluations of stigmatized persons who display desirable or undesirable traits tended to be more extreme (positively or negatively) than evaluations of nonstigmatized persons who displayed the same traits.

Four of the eight experiments (Carver, Glass, Snyder, & Katz, 1977) tested 395 Caucasian male college students in small groups of two to six and randomly assigned participants in those groups to one of four treatment conditions: favorable portrayal/stigma (African American or Hispanic/Latino), favorable portrayal/nonstigma, nonfavorable portrayal/stigma, and nonfavorable portrayal/nonstigma. Participants in the first experiment were required to provide a measure of racial prejudice towards African Americans using both subscales of Woodmansee and Cook's Racial Attitude Inventory (1967) and Schuman and Harding's (1963) scale on sympathetic identification with the racial underdog. No measure of prejudice was provided for the other three experiments.

After providing a measure of racial prejudice, participants read a transcript of a simulated interview with a hypothetical male in one of the four conditions described above. The transcripts in the favorable portrayal condition were identical with the exception of the stigma and nonstigma identifiers, as was the case for the transcripts for the unfavorable portrayal condition. Each participant

rated one transcript on a questionnaire derived from a Davis and Jones (1960) tool used in the original Dienstbier (1970) study.

The fifth and sixth experiments (Scheier, Carver, Schulz, Glass, & Katz, 1978) used a similar experimental design as described above. However, in the fifth experiment, the stigma condition was *elderly* and participants (21 women and 19 men, all Caucasian undergraduate students) evaluated a transcript of a hypothetical male using a nonvalidated questionnaire with 13 questions that rated the hypothetical person in 11 descriptive dimensions measured by scores on a 7-point scale anchored by polar-opposite adjectives (e.g., intelligent versus unintelligent).

In the sixth experiment (Scheier et al., 1978), the stigma condition was a physical handicap and 47 men and 113 women, all Caucasian introductory psychology university students, completed a Self-Consciousness Scale during class several weeks prior to the experiment to provide a measure of the individual's degree of self-consciousness (high and low self-consciousness). Once again, participants were tested in small groups and individuals within groups were randomly assigned to one of the four treatment conditions described earlier (favorable portrayal/stigma, unfavorable portrayal/stigma, favorable portrayal/nonstigma, unfavorable portrayal/nonstigma). The same questionnaire (Dienstbier, 1970) was used to provide a measure of the participants' impression of the hypothetical person.

In the seventh experiment on actor input and evaluation (Carver, Glass, & Katz, 1978), 93 female university students followed the same procedure as in the

above experiments. Participants were told they were part of a study on impression formation and that earlier participants had listened to or watched interviews. For their part, participants in this phase would read the transcript of the interview. All participants received unfavorable transcripts of a nonstigma, an African American stigma, or a physically handicapped stigma. Other than the stigma identifiers, the transcripts were identical. Participants read the transcript and then rated the transcript using the same questionnaire (Dienstbier, 1970) as in previous actor portrayal and evaluating experiments.

One modification was made for the seventh experiment in that half the participants followed the above procedure, while the other half were told that physiological measures (polygraph) would be taken to determine the strength of each person's emotional arousal and researchers would be able to distinguish whether the person liked or disliked the individual in the transcript based on the readings of the polygraph (Carver et al., 1978). These participants were connected to the apparatus and run through a calibrating exercise. They were then given the transcript to read and while recording their responses to the descriptive dimensions on paper, the polygraph machine printed a visual record of readings. Although the polygraph provided no actual measures, the researchers believed the procedure would tend to make participants answer more truthfully, as they would believe the machine was measuring their feelings while completing the questionnaire. After completing the rating, participants were probed for suspicion and then debriefed.

In the eighth and final experiment related to evaluating hypothetical interviewees, 248 female undergraduates from a university located in the Southern United States participated (Carver, Gibbons, Stephan, Glass, & Katz, 1979). Participants were randomly assigned to one of six conditions: favorable portrayal and stigma (handicapped or Hispanic/Latino), favorable portrayal and nonstigma, unfavorable portrayal and stigma (handicapped or Hispanic/Latino), unfavorable portrayal and nonstigma. Participants used transcripts as the basis for evaluating a hypothetical person, but prior to reading the transcript, half the participants were exposed to a treatment condition intended to induce ambivalence amplification. While waiting in the hallway to enter the room where the transcript rating was to occur, half the participants were approached by an actor who told the participant that they were circulating a petition concerning the enrollment of handicapped students at that campus. The cover page to the petition summarized two opposing positions regarding the issue in such a way that both positions on the subject seemed rational and reasonable. The cover page also suggested that the members of the university committee receiving the petition held support for both positions and that the committee believed it was important that all students should be made aware of the issue.

After reading the cover page, the participant was met by a second actor and escorted into a room and told he or she was part of a control group for research related to impression formation. They were told that their task was to rate a person based on a transcript of an interview that had occurred with that person. All transcripts in each condition were identical in their content. Only the stigma

identifiers differed. After reading the transcript, each participant rated the interviewee using a series of 11-point scales anchored by polar-opposite adjectives. Individual ratings were summed to yield an overall score. Participants were then queried for suspicion of the hypothesis and debriefed. See Appendix D for an overview of these experiments.

Findings and Related Prediction

A total of eight experiments were undertaken over the course of 3 years with overall findings assisting researchers to develop the fourth prediction related to ambivalence amplification. Based on the findings, researchers predicted that evaluations of a stigmatized person will tend to be more negative than evaluations of a nonstigmatized person when both are presented in an unfavorable manner and that evaluations of the stigmatized person will be more favorable when both are presented positively (Carver et al., 1977, 1978, 1979; Scheier et al., 1978).

The findings indicated that events preceding the evaluation of stigma and nonstigma actors could be orchestrated in a way to induce ambivalence amplification. The findings also supported the contention that the evaluation of stigmatized people will be more extreme than for nonstigmatized people when both people display the same characteristics and traits. See Appendix D for an overview of these experiments.

With regards to employment, this research suggests that despite having similar merit (i.e., similar portrayal and behavior) employer's assessment of applicants with disabilities will be more extreme than it would be for applicants without disabilities. In situations where a person with a disability is portrayed

favorably, employer's ambivalent attitudes might be influenced so as to have them react in an exaggerated positive fashion to the merit of the applicant with a disability (i.e., reverse discrimination), even though an applicant without a disability is portrayed with the same merit. This research also suggests that in the unfavorable condition, employers may overlook the fact that both applicants with and without a disability have similar merit, and react by simply discriminating against the applicant with a disability. In both cases, this information suggests that employer's may be focusing on disability status, not merit; and that this may stem from the negative stereotypes employers have regarding people with disabilities in the work place (Human Resources and Social Development Canada, 2004).

Employer Attitudes Towards People With Disabilities in the Workplace

Although the majority of studies related to employer attitudes towards people with disabilities have been generated since the late 1970s, earlier studies assist in creating a historical perspective on the topic. One example of a benchmark study on employer attitudes is Noland and Bakke's (1949) observations of the hiring practices and preferences of 240 employers in the Northeastern United States. Noland and Bakke's study was one amongst a number of interrelated studies under the guidance of the Yale Labor and Management Center that examined and chronicled the policies and practices in a variety of industries and businesses across the United States in an attempt to understand not only the economic goals that business leaders were attempting to achieve, but the underlying reasoning that went into how they were achieving their goals. Although Noland and Bakke looked at this topic from a broad perspective, they

did provide insights into employers' attitudes towards people with disabilities and other minority groups in the workplace, and they were not positive. As stated by one employer,

With my best efforts to weed them out (handicapped people, older workers, and those undesirable as employees for other reasons), I still have more than my share. And even if I don't, in the light of my responsibility to organize and direct the most effective producing unit possible, so what? (Noland & Bakke, p. 165)

Noland and Bakke noted that a large pool of World War II veterans as potential employees, combined with the belief that productivity and efficiency were the business community's gold standard, led post-World War II employers to overlook the merit and potential of people with disabilities, as well as to let long-held negative stereotypes regarding a host of minority groups negatively influence employer hiring practices.

Although one might suggest that such blatant negative attitudes might be reflective of an earlier and less tolerant era, similar negative attitudes can be found in more recent research. A 1978 review of 37 articles on employer attitudes undertaken since Noland and Bakke's (1949) research indicated that employer attitudes towards people with disabilities in the workplace were less than positive and demonstrated that employers were generally unreceptive and unsupportive towards hiring people with disabilities, regardless of the merit of the applicants (Emener & McHargue, 1978). Emener and McHargue suggested that their findings supported Nolan and Bakke's earlier assertions that people with

disabilities were unwelcome in the workplace. Even more current research found that over 40% of employers believe they cannot make the necessary workplace accommodations or adjustments to employ a person with a disability, and one in five employers believe they would be unable to employ anyone with a disability (Richards, 2002). Richards further noted that employers held negative stereotypes of persons with disabilities that led to discriminatory hiring practices.

Other evidence also indicates that some employers might have positive beliefs about people with disabilities in general, but have quite different attitudes regarding hiring them. Hernandez, Keys, and Balcazar (2000) reviewed 37 studies on employer attitudes conducted between 1987 and 1999 and discovered discrepancies between the stated positive attitudes of employers towards people with disabilities and the employers' hiring practices. Analysis of these discrepancies indicated that employers held positive global attitudes about the merit of people with disabilities, but when the studies began to focus on the employment of people with disabilities, employers began to exhibit "at best, conflicted" (p. 11) attitudes regarding hiring people with disabilities. Hernandez et al. (2000) acknowledged that many of the studies used invalid survey processes, and many had no information regarding the reliability and validity of findings. Despite these limitations, Hernandez et al. noted that findings from their review illustrated that employers feel positively about people with disabilities as citizens in their community, but have low expectations regarding both their own ability to accommodate people with disabilities in their workplace, as well as low expectations regarding the job-related skills of people with disabilities.

Other studies have also shown that employer attitudes towards people with disabilities have not translated into positive hiring practices, indicating that there are underlying negative employer attitudes not reported in survey results (The Center for Information, Training & Evaluation Services, 2003; Goldstone & Meager, 2002; Lengnick-Hall, Gaunt, & Brooks, 2005). The unreported attitudes result in low organizational commitment to hiring people with disabilities and reinforce Crawford's (2004) assertion that there continues to be "a veneer of employer acceptance of workers with disabilities" (p. 6) superimposed over a general reluctance to hire them.

Other employers appear to be more transparent regarding their attitudes, communicating that they are willing to hire people with disabilities, but only those with particular disabilities. A number of studies have illustrated that employers are influenced by the type and severity of a person's disability, which results in employers being more willing to hire people with minor physical disabilities than people with more visible physical disabilities and being more willing to hire people with physical disabilities before people with intellectual or mental health disabilities (Crawford, 2004; Greenan, Wu, & Black, 2002; Hernandez et al., 2000; Lengnick-Hall et al., 2005; Luecking, 2003). This group of studies demonstrated that having a disabling condition, regardless of the nature or severity, places people at a disadvantage to other job seekers and that employer attitudes towards people with disabilities become more negative the more severe the employer believes a person's disability to be. The studies also indicated that employers' fears, discomforts, and beliefs regarding the nature of different

disabling conditions also appear to contribute to their ambivalence towards different degrees of disability.

Some employers have noted that the low number of people with disabilities in the workplace is primarily due to the belief that people with disabilities do not have the necessary skills to perform the job tasks required, that they do not apply for jobs in their organizations, or that the supports provided to facilitate people's involvement in the workforce are inadequate, as opposed to acknowledging employer-created barriers (Gilbride, Stensrud, Ehlers, Evans, & Peterson, 2000; Greenan et al., 2002; Luecking & Mooney, 2002; Olson, Cioffi, Yovanoff, & Mank, 2001; Select Committee on Education and Employment, n.d.). The notion that primary fault for low employment rates lies with people with disabilities is reinforced by findings that also demonstrate employers with positive attitudes do not hire people with disabilities because they believe current employees might not accept the person in the workplace or react negatively (Hunt & Hunt, 2004; Jackson, Furnham, & Willen, 2000; Lengnick-Hall et al., 2005). The belief that the reaction of others to an individual's disability is the result of the disability, not prejudice and fear, reinforces the fact that many employers, despite their reported positive attitudes towards people with disabilities in the workplace, continue to hold negative stereotypes that, when acted on, lead to discriminatory hiring practices (Colorez, & Geist, 1987; Gilbride et al., 2000; Hunt, & Hunt, 2004; Mello, 1993).

Lastly, some employers feel positively towards people with disabilities in the workplace, hire them, find them to be valuable employees, and consider

people with disabilities to have great potential as future employees (Graffam, Shinkfield, Smith, & Polzin, 2002; Levy, 1992; Minskoff, Sautter, Hoffmann, & Hawks, 1987; Olson et al., 2001). Unfortunately the literature's emphasis on employers' negative and ambivalent attitudes towards people with disabilities in the workplace, as well as lower employment statistics for people with disabilities than the general population, demonstrates that despite what may be positive attitudes regarding the merit of applicants with disabilities, employers with hiring practices that are supportive of people with disabilities are in the minority.

Unger (2002a) noted that the diversity in findings related to employer attitudes is in part reflective of held attitudes, but is also indicative of the fact that the research conducted has used such a wide range of methodologies to measure employer attitudes that at times studies contradict one another, often making it difficult to come to sound conclusions. Despite these acknowledged limitations, Unger's (2002b) review of 24 studies on employer attitudes towards people with disabilities in the workplace reinforced the assertion that positive attitudes might not lead to positive hiring practices, and that negative feelings towards people with disabilities in the workplace often stem from myths and misconceptions that result in discriminatory hiring practices.

Overall, the literature reviewed indicated that employers hold a variety of attitudes towards people with disabilities in the workplace. Sometimes the attitudes are overtly negative and prejudiced; other times they are contradictory to stated values; as well as ambivalent depending upon the perceived nature and severity of a person's disabling condition. The literature also demonstrated that

despite changing eras and contexts, negative stereotypes and beliefs continue to influence the attitudes of employers towards hiring people with disabilities.

Connections

Literature related to employers demonstrates that negative attitudes towards people with disabilities exist within this subgroup of the general population. Evidence also suggests that employers hold negative attitudes towards hiring people with disabilities, regardless of their merit (Richards, 2002), believe that people with disabilities have limited employability potential (Hernandez et al., 2000), and might be willing to hire someone with a disability, but their willingness is dependent upon the nature of the person's disability (Crawford, 2004; Greenan et al., 2002; Hernandez et al., 2000; Lengnick-Hall et al., 2005; Luecking, 2003).

A review of research related to ambivalent attitudes demonstrated that participants held and acted on negative attitudes towards people with disabilities and other minority group members. The research also illustrated that participants' attitudes could be influenced so as to simply discriminate or in alternative ways to aid someone with a disability by manipulating a number of environmental and situational variables. The variables included controlling the behavior or presentation of the stigmatized person, inducing participants to behave in a particular fashion toward the stigmatized actor (e.g., harm doing), and controlling the nature of the ambivalence mediation strategies provided to participants to alleviate their psychic tension (i.e., evaluate or assist the stigmatized person).

In the section of the review pertaining to ambivalence, particular focus was paid to the group of experiments for which researchers attempted to manipulate participants' attitudes by portraying, in print, hypothetical stigma and nonstigma actors in either a favorable or an unfavorable manner (i.e., merit or limited merit), asking participants to quantify their response to the description of the actor, and then comparing the differences in ratings. Overall, findings from this group of experiments indicated that when both actors are portrayed as having merit, participants would not discriminate against the person with a disability and that the reverse would occur when both actors were portrayed unfavorably. Although the argument could be made that the samples used in many of these experiments were not representative of the general population, Katz and others (Carver et al., 1977, 1978, 1979; Scheier et al., 1978) believed that their overall findings supported the premise that Americans hold ambivalent (i.e., positive and prejudiced) attitudes towards African Americans and people with disabilities and that this ambivalence could be amplified negatively, which then results in simple discrimination against minority group members. The researchers also felt that despite the fact that some of the findings related to actor portrayal and evaluation did not achieve statistical significance, overall their findings supported their prediction that ambivalent feelings could be amplified positively or negatively, particularly when an ambivalence-inducing situation was available (e.g., a document describing opposing positions on a divisive issue directly related to the stigmatizing condition). The findings were consistent with earlier research (Dienstbier, 1970) on the public's reactions to other stigmatized people that

suggested that evaluations of and behavior towards a stigmatized person are dependent on how the stigmatized person is portrayed in print format and supported Katz and Gurin's (1969) earlier assertions that rather than using legislation, social change (i.e., majority members' attitudes towards marginalized groups) could be affected through the manipulation of environmental situations and contexts.

Katz and his associates attempted to use the ambivalence amplification theory to understand and solve race relations between people in mainstream America and their stigmatized brethren, and although their research had a particular focus on social justice, it also has an application for addressing employer's attitudes towards people with disabilities in the workplace. Despite being developed more than 30 years ago, the ambivalence amplification theory provides a unique framework for undertaking an exploratory study to understand the prejudiced attitudes that appears to exist within employers, particularly as it relates to research on actor portrayal and evaluation. Using the accepted practice of reviewing and rating applicants' cover letters and résumés as the mechanism for intersecting with this particular aspect of the ambivalence amplification theory creates a distinctive approach for examining if employers consider an applicant with a disability's merit or simply discriminate against them based on their disability status, and if ambivalent attitudes can be amplified positively or negatively as a result of external stimuli. Although the outcomes of the connection are described in more detail in following chapters, the juncture between the literature on employer attitudes towards people with disabilities in

the workplace and the ambivalence amplification theory served as the foundation for the current dissertation.

Concluding Comments

It has been 40 years since Katz and Gurin (1969) first proposed that the key to solving race relations in the United States lay not in changing attitudes but in structuring external stimuli to elicit more egalitarian behavior. Katz and other researchers involved in using the ambivalence amplification theory to test this premise were successful in demonstrating that the presentation of external stimuli could result in, if not egalitarian, at least predictable behaviors from the general public towards people with disabilities; however, by their own admissions, they were less successful in identifying the core values or origins at the heart of their ambivalent attitudes towards people with disabilities. Guilt, prejudice, sympathy, and acceptance were proposed as attitudinal factors for particular behaviors elicited through the various designs of ambivalence amplification research, yet Katz and others were never able to provide strong evidence for these relationships.

Reactions to deviations from group norms are complex (Levine & Kerr, 2007) and the literature on social science, employer attitudes, and the ambivalence amplification theory supports this assertion. Forty years after Katz and Gurin (1969) first proposed that the key to social change lay not in changing attitudes but in structuring external stimuli, it is clear that questions regarding the dynamics between attitudes, external stimuli, and behaviors continue to be posed and explored in social science research.

This exploratory study integrates an intriguing research design developed more than 30 years ago with a different experimental focus (i.e., disparate employment outcomes) as well as a different social context than experienced by the original ambivalence amplification theory researchers. Although one study cannot answer all questions regarding the interplay between attitudes, behaviors, and external stimuli, the current study might contribute to further understanding their effects on the employment outcomes for Albertans with disabilities in the 21st century.

CHAPTER 3: METHODS AND PROCEDURES

Purpose of Study

As detailed in the previous chapter, evidence suggests that employers hold prejudiced attitudes towards people with disabilities in the work place that results in discriminatory hiring practices. Research on discrimination suggests that employers may be discriminating without even considering the merit of an applicant with a disability (i.e., simple discrimination). The literature on employer attitudes also suggests that employers hold ambivalent attitudes towards people with disabilities which may also lead to discriminatory hiring practices. Evidence such as the literature illustrating that employers' attitudes towards hiring someone with a disability vary between acceptance and rejection depending on the nature of the individual's disability (Crawford, 2004; Greenan et al., 2002; Hernandez et al., 2000; Lengnick-Hall et al., 2005; Luecking, 2003) support this.

Findings from a series of eight studies related to the ambivalence amplification theory (Carver et al., 1977, 1978, 1979; Scheier et al., 1978) were used to demonstrate evidence of ambivalence towards people with disabilities by the general public, as well as to develop the prediction that despite having the same merit, people with disabilities will be rated significantly higher by the general public than nonstigmatized people (i.e., will not be discriminated against) when both are portrayed favorably and that the opposite would occur when both are portrayed unfavorably (i.e. discriminate on the basis of disability). This information also indicates that the ambivalence amplification theory could

provide a unique opportunity to examine how merit, prejudice, discrimination, and disability status may have interacted in the labour market conditions of 2007.

An additional purpose of this study was to explore if the original prediction stated above and the theoretical framework it originated from could shed light on this important topic despite a different environmental context (i.e., more than 30 years later, in Alberta, Canada) and a different sample (i.e., employers). In addition to exploring if ambivalence amplification could be demonstrated under these conditions, additional purposes of this study included the following:

1. To examine whether disability status and/or merit (i.e., positive or negative portrayal) predicts discrimination.
2. To establish if gender, level of education, disability status, and whether a participant is employed with a public or private business, predicts discrimination.
3. To determine if participants would be more willing to grant a person without a disability an interview over a person with a disability when both people are portrayed as having similar merit (i.e., simple discrimination).

Research Questions

The scope of this study included, but was not limited to, exploring the role that prejudiced and ambivalent attitudes might have on influencing employment outcomes for people with disabilities. As mentioned, the data collected also provided opportunities to seek insights into the relationship between the ratings that participants provided on transcripts they reviewed and factors such as age and

gender to inform a broader perspective on this topic than just ambivalence amplification. The research questions were as follows:

1. Will participants' ratings of positively or negatively portrayed (i.e., having merit or limited merit) people be influenced by disability status?
 - 1.1. Will participants' ratings significantly favor a person identified as having a disability over a similar person without a disability when both are portrayed as having merit?
 - 1.2. Will participants' ratings significantly favor a person identified as not having a disability over a similar person with a disability when both are portrayed as having limited merit?
2. Are participants' ratings more influenced by the disability status of the person in the transcript or by the perceived merit of the applicant?
3. Will the demographic status of participants influence their ratings?
 - 3.1. Will women rate transcripts significantly different from men?
 - 3.2. Do people of different ages rate their transcripts significantly different?
 - 3.3. Will significant differences in ratings of transcripts exist between people with different education levels?
 - 3.4. Will participants who work in the private sector rate transcripts significantly different from participants who work in the public sector?
 - 3.5. Will participants with disabilities rate transcripts significantly different from participants without disabilities?
4. Will disability status influence decisions to grant an interview?

- 4.1. When comparing results for positively portrayed transcripts, will participants be significantly more willing to grant an interview to a person with a disability rather than a person without a disability, despite both being portrayed as having merit?
- 4.2. When comparing results for negatively portrayed transcripts, will participants be significantly more willing to grant an interview to a person without a disability over a person with a disability despite both being portrayed as having limited merit?

Experimental Design

Participants

Approximately 1,500 potential participants consisting of Government of Alberta human resource staff and small business owners from across Alberta were invited to participate. 1,013 participants were contacted through an e-mail invitation, and approximately 500 participants were recruited through a Web site invitation. The methods for participant recruitment and participation proceeded in the following five phases.

Phase 1: E-mail invitation and random assignment. Three cooperating agents (i.e., two small business owners and a human resources director with the Government of Alberta) provided e-mail access to 1,013 potential participants. The e-mail addresses for these 1,013 human resources personnel and small business owners were randomly divided into four equal groups that coincided with one of four experimental conditions consistent with the original research design:

1. Merit (i.e., favorable portrayal) and disability
2. Merit and no disability
3. Limited merit (i.e., unfavorable portrayal) and disability
4. Limited merit and no disability

Limitations of the technology used necessitated that the random assignment of participants to condition-specific groupings occur in one of two ways: (a) for the cooperating agent providing access to Government of Alberta employees, random groupings were generated by a software program and (b) for the two cooperating agents providing access to small and medium business owners, random groupings were manually completed by the two cooperating agents. In both cases, the researcher provided guidance and support to cooperating agents developing the random groups to avoid seeing the identity of the e-mail recipients. After the strategy for randomly assigning potential participants to an experiment condition was completed, the cooperating agents independently used their specific strategy to assign e-mail recipients to one of four groups, each with its specific experimental condition.

The cooperating agents then sent potential participants two e-mail messages: an initial invitation, followed by an email reminder one week later. Both messages invited individuals to participate in the study and provided them a hyperlink in the e-mail that would take them to a Web site for further information on the experiment and their participation. The text in the invitation and follow-up message was identical between the four groups; however, the hyperlinks

necessarily varied as each required a condition-specific Web site for rating and data collection purposes (see Instrumentation section in this chapter for details).

In addition to the 1,013 e-mail invitations, one cooperating agent utilized an existing Web site for approximately 500 member-employers to post an introductory message to the research, which also stated the executive's support for participation. A hyperlink on the front page took interested parties to a second page on the Web site that provided additional information from the researcher regarding the nature of the study and an invitation to participate. If interested, participants were instructed to click on text that corresponded to the month that their birthday occurred in. Each month had been randomly assigned a condition-specific hyperlink that corresponded to one of the four experimental conditions. No visible information was available regarding which months were assigned to which experimental conditions (see Instrumentation section in this chapter for details).

Phase 2: Introduction to study and decision to participate. Potential participants read and considered the invitation to participate. Those who decided not to participate most likely deleted the original e-mail message or closed that Web page and took no further action. Those who decided to seek further information clicked either on the condition-specific hyperlink in their e-mail message or on the hyperlink that corresponded to the month of their birthday. In both cases, interested parties were taken to one of four condition-specific Web sites where they were initially provided with a more detailed introduction and overview of the research. The introductory page was followed by a second page

that provided what was intended to be an ambivalence-inducing message (see Instrumentation section of this chapter for details).

This page was followed by another that provided information on the role as a participant. Finally the participants were asked to read text that outlined the conditions of their consent (i.e., informed consent form). If at this point they chose not to participate, they could close the window or their browser and take no further action.

Phase 3: Review of condition-specific transcripts. If they chose to participate, participants then clicked on a hyperlink at the bottom of the page that contained the consent information, which then took them to a new Web page on the same site. The Web page then provided them with their condition-specific cover letter and resume for their review. They were also provided instructions on how to print the cover letter and résumé should they want to refer to them in the next phase of the experiment. Lastly, the participants were directed to click on a hyperlink that took them to a new Web site. If at this point they chose not to participate, they likely closed the window or their browser and took no further action. See Section E1 of Appendix E for details regarding the researcher's introductory Web site.

Phase 4: Participant data. If they chose to continue further, participants were taken to a Web-based survey site specific to the experimental condition they were assigned, where they were provided a brief introduction and welcome and asked to provide information on the following variables: (a) gender, (b) age (18-24, 25-34, 35-44, 45-65), (c) highest level of education (high school, certificate,

diploma, undergraduate, graduate, professional certification), (d) whether they were a public or private employee, and (e) disability status. After providing the above information, participants then received instructions on how to provide a score for their condition-specific cover letter and résumé for abilities or skills and practical experience using the following scale: *very good* (33-40), *good* (25-32), *suitable* (17-24), and *not suitable* (9-16).

The scoring scale was based on a Government of Alberta standard rating tool for scoring potential employee cover letters and résumés. The tool provides raters the ability to quantify their perspectives on an applicant's application documents and responses to interview questions.

Some modifications were made to the approach used in the standard rating tool to make scoring an easier task for participants in this experiment. The modifications were as follows:

1. The researcher identified and reduced the number of specific areas for participants to rate. For abilities and skills, these were writing skills, attention to detail, and administrative skills. For practical experience, these were work history, education, and computer/technology experience. The identified attributes then remained consistent across all four experimental conditions.
2. The researcher assigned consistent minimum and maximum numeric values for each rating. These values remained constant across all four experimental conditions.

3. Rather than multiple scores for subsets within abilities or skills and practical experience, the researcher chose to use an aggregate score for each attribute (i.e., abilities or skills and practical experience).

Modifications to the scale were reviewed with two Government of Alberta human resources personnel from different working environments to validate that the scale would not be viewed as significantly different as ones used in their professional work. An original assessment guide and draft of the rating tool are provided in Section E4 of Appendix E.

After they completed scoring their condition-specific cover letter and résumé, the participants were asked, “Based on your review of this cover letter and résumé, would you grant this applicant an interview?” Available answers were yes, no, and unsure. After all fields were completed, participants were thanked for their contribution and asked to click on a submit button, which then closed their window or browser. This step ended their participation in the experiment. See Section E2 of Appendix E for details regarding the survey Web site.

Phase 5: Data retrieval and analysis. One month following the initial e-mail invitation and launch of the cooperating agency’s Web site message regarding the research, each of the researcher’s Web sites was taken offline. Data from each of the condition-specific scoring sites were downloaded into a corresponding condition-specific spreadsheet. The data were next downloaded into SPSS for analysis purposes. See Figure 1 for a visual overview of the methods.

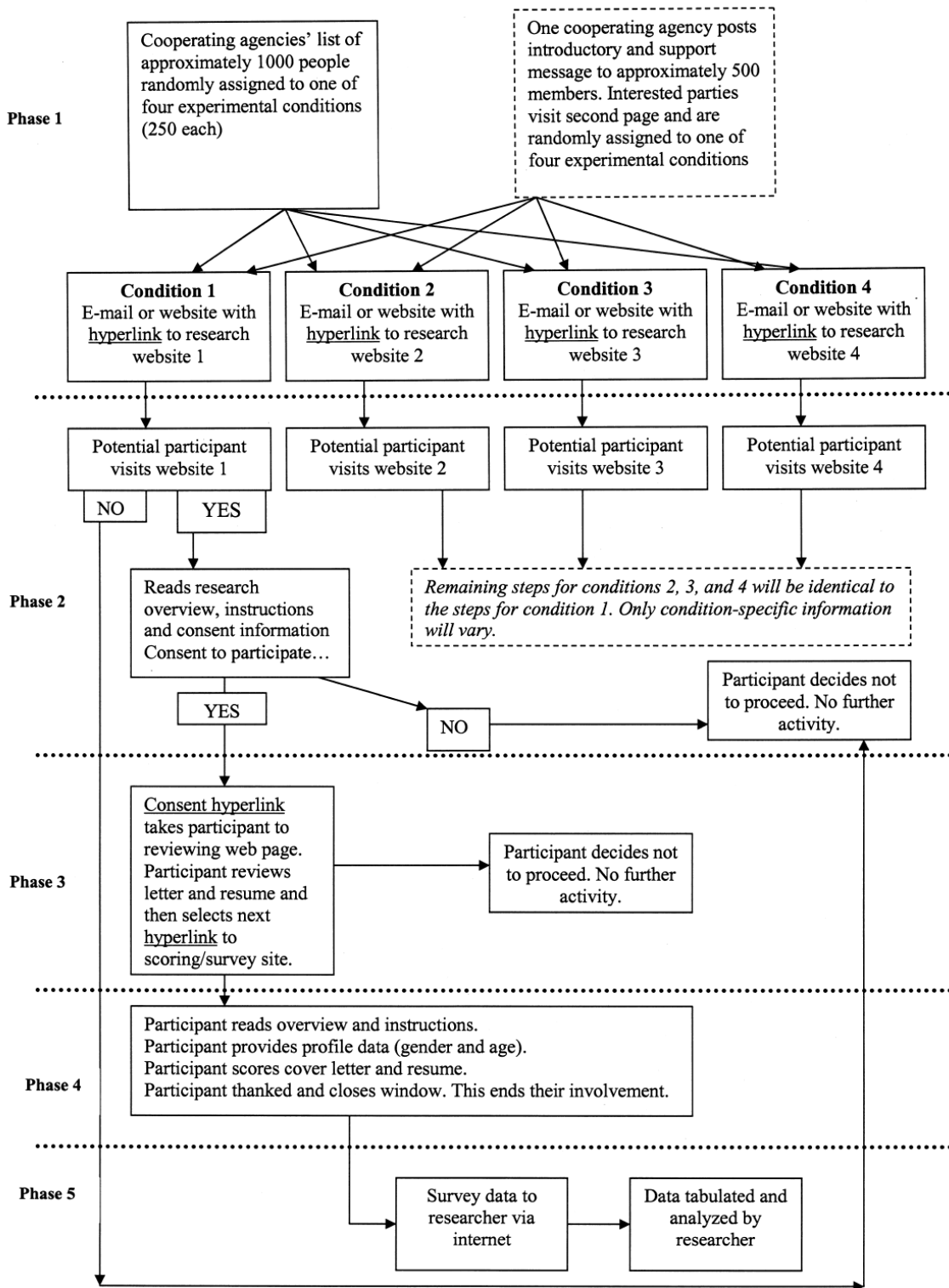


Figure 1. Visual overview of methods.

Instrumentation

In the original research related to actor portrayal and evaluation, participants were exclusively convenience samples consisting of undergraduate students in postsecondary institutions the researchers had an opportunity to recruit from. No information was provided in the research articles regarding communication from the researchers to participants prior to their involvement (i.e., voluntary or mandatory participation).

In this study, all communication with potential participants was conducted electronically using either e-mail messages or Web postings. E-mail messages to potential participants were reviewed with the cooperating agents to validate that messages were appropriate for each intended audience (i.e., government employees, business owners).

Government Employee E-mail Messages

Two separate e-mail messages were sent to human resources professionals employed by the Government of Alberta. Initially, the potential participants were sent an introductory message from a director of human resources to garner support for participation. The message read as follows:

Just a FYI that Human Resource Consultants will be sent an invitation in the next few days requesting participation in a Labour Market Research Project.

The HR Advisory Forum supported the voluntary request to be forwarded to HR Consultants who wish to participate in the Labour Market Research project that is being done by a Ph.D. student who is also a government staff. The study involves volunteers, in this case, Human Resource Consultants, to rate one of a variety of cover letters and résumés.

We have been assured that participation is voluntary and no identifying information regarding any participant will be collected or provided in any related research documents.

From what I've learned, his research is very applicable to our profession, and understand it will only take a brief amount of time.

If you'd like to find out more, this link will take you to this student's research website: [Labour Market Research: The Power of the Written Word](#). [Underlined words were a hyperlink to the website for the website for the first condition.]

An electronic message will be coming from Dr. Dick Sobsey, of the U of A as per the U of A internal ethics board policy and for ensuring specific participant information is not disclosed to the Student.

Thank you on behalf of the Ph.D. Student.

This initial e-mail message from the director of human resources was followed by a formal invitation to participate from the researcher's advisor. Four identical messages, each with their condition-specific hyperlink, were sent to the four experimental groups from this sample of participants. The e-mail read as follows:

My name is Dr. Dick Sobsey and I am writing you on behalf of Tim Weinkauff, a Ph.D. student at the University of Alberta to invite you to participate in labour market research Tim is undertaking.

We want to let you know that this research and this e-mail to invite you to participate have been endorsed by the Human Resources Advisory team of Corporate Human Services and your Director has also received an advanced notice that you would be receiving this invitation. Please be assured, however, that your decision to participate is purely up to you and neither the researcher nor your employer will be aware of whether or not you chose to participate. If you think you may be interested, please visit our website by clicking the link below for more details regarding your possible participation.

Tim is very interested in employment trends in the labour market. A particular area of interest of his is the recruitment phase of labour market participation, something each of you has a role in.

We would like to invite you to rate one of a variety of cover letters and résumés to aid in examining how the content of these has a direct bearing on the potential for an applicant to [be] given an interview. We believe both applicants and employers will benefit from these findings, and plan to share what is learned with you when this research has been completed.

If you'd like to find out more, please click on this link: [Labour Market Research: The Power of the Written Word](#). [Underlined text was one of four condition-specific hyperlinks.]

Business Owner E-mail Messages

The researcher collaborated with two cooperating agents who volunteered to send e-mail invitations to business owners they had e-mail addresses for. The researcher provided them with key points to include in their message; while also stressing that it was important that their voice speak to business owners rather than the researcher's voice. For reasons of expediency and ease, both agents elected to develop a common message that would be used by each. The text for condition-specific e-mail invitations sent to the four random groupings of business owners developed by each cooperating agent was as follows:

Greetings,

I've recently found out about some research a Ph.D. student is doing on the labour market. His research looks at cover letters and résumés and their eventual impact on hiring. Given the human resources crisis we are experiencing, I thought his research was relevant to us all.

What he is looking for are people to score a cover letter and resume. Anyone who would normally look at these and decide if the applicant should get an interview is what he is looking for. It's all web-based and takes about 10 minutes or so to do. I've also been assured that everything is strictly anonymous and confidential.

I wanted to pass the URL for his research website on to you and hope you will consider participating yourself and/or passing this message on to others.

I'd like to ask if you would consider clicking on the URL below and consider volunteering. Thanks and take care!

[Labour Market Research: Power of the Written Word](#) [Underlined text was a condition-specific hyperlink.]

Web site Invitation

As described earlier, one cooperating agent independently recruited support from a business organization to which the agent belonged to use a member-based Web site as an additional recruitment strategy. The executive of the organization was supportive of member participation, and developed a brief message on the home page of the Web site that identified that labour market research was being undertaken and indicating support for member involvement. If interested, members were able to click on a hyperlink that took them to a different page on the organization's Web site to find out more. The message on the page specific to this research read as follows:

Labour Market Research: The Power of the Written Word

My name is Tim Weinkauff and I am a Ph.D. student at the University of Alberta. I'm undertaking labour market research that looks at how the content of a cover letter and resume has a powerful impact on your potential for getting an interview.

I am looking for employers who will rate one of a variety of cover letters and résumés. It is all web-based, and takes about 10 minutes to complete.

I can assure you that I have no idea who the individuals are who are receiving this message, and also want you to know that the way I am conducting my research prevents me from finding out who you are, or for instance, what your e-mail address is.

I've created a way to provide you with one of the cover letters and résumés using birthdays and the months of the year.

Click or *Control key* + *Click* on the month that you were born to go to a website I've created to provide you a cover letter and resume for your review and rating.

[January](#) [February](#) [March](#) [April](#) [May](#) [June](#)
[July](#) [August](#) [September](#) [October](#) [November](#) [December](#)

[Each month was randomly assigned a condition-specific hyperlink]

PS: If you know of other employers who might be interested in participating, please feel free to forward this message on to them.

Thank you very much for considering this request.
Take care, Tim Weinkauff

Ambivalence Arousal Message

In the original study that introduced the use of a pretreatment event intended to arouse participants' ambivalent attitudes towards a stigmatized person (Carver et al., 1979), researchers used both face-to-face and print-based methods. In the original study using an ambivalent arousal message, all participants were required to wait in a predetermined area prior to their task of rating a transcript. Each participant (all females) was approached by a male actor who stated he was a member of the student association involved in urging for a referendum concerning enrollment of handicapped students at the university where the experiment was being conducted. This actor provided participants with a hypothetical transcript containing two paragraphs that presented opposing views to the issue and concluded with a statement that stressed support for both positions and the desire to ensure students were fully informed regarding the issues. After completing the task, the actor left and shortly thereafter the participant was escorted into a separate area to read and review a condition-specific transcript.

Due to the nature of the methods employed for this study (i.e., e-mail and Web site messages), it was not possible to replicate the use of an actor to facilitate the arousal of participants' ambivalent attitudes towards people with disabilities. Instead, as part of their review of the researcher's Web site, participants were asked to read a message intended to serve as an ambivalence arousal mechanism prior to their rating the condition-specific cover letter and resume.

Understanding that the participants were employers and their involvement in the study required them to review and rate a hypothetical application, the researcher elected to design the pretreatment message to speak to diversity in the labour market and potential issues that employers might face when considering an application (i.e., cover letter and résumé). The intent of the message was to arouse participants' latent ambivalent feelings towards people with disabilities that included underlying messages of charity and pity towards marginalized people as well as contradictory feelings such as equity and compassionate conservatism (e.g., "Hand up, not hand out" colloquialism). The message read as follows:

Alberta's labour market is very active these days, and some industries are dealing with a critical shortage of workers. One very legitimate strategy to address this issue is to recruit from even more diverse talent pools than in the past. This potential talent pool includes men and women of all nationalities and levels of education, people from all income levels, and men and women from a wide variety of family structures. People with disabilities are another group attempting to participate in today's labour market. The barriers to participation these groups face are complex. Research has demonstrated that both employers and applicants (e.g., people with disabilities), contribute to the situation.

However, one commonality all job seekers share is the fact that they need to produce a cover letter and resume as a way to make a positive impression on a potential employer. This applies to people applying for entry level positions and those applying for executive positions.

One assumption is that regardless of whom you are, your cover letter and resume has a direct effect on the employer considering you for an interview and ultimately a job. This effect can be either positive or negative. Well developed documents will impress a potential employer; poorly developed one's will not, regardless of who you are.

Past research in psychology has shown that the positive or negative behavior of one person has a direct and corresponding influence on the perceptions of someone on the receiving end of the behavior. This line of research has looked at the physical interactions of people and their effect on behavior or attitudes. My research intends to look at the power of the written word and how it might influence people; in this case, people reviewing an applicant's cover letter and resume.

I hope my research will demonstrate that among other things that the written word has as much of an influence on people's attitudes, as does behavior. I also hope that my research will show that putting yourself in the place of the person reviewing your documents can give you valuable insights into how the quality of your cover letter and resume affects that person's perceptions of you. Bottom line: if you want to land an interview or job, quality has few substitutes for achieving this outcome.

Cover Letter and Resume

Consistent with the approaches used in the original research related to actor portrayal and evaluation, four sets of cover letters and résumés were created that would be read and rated by participants. Templates of cover letters and résumés were retrieved from a Web site specifically used to demonstrate before and after examples of poorly written and then revised cover letters and résumés (<http://susanireland.com/resumeindex.htm>) and used as the basis for developing the necessary cover letters and résumés. Participants were randomly assigned to one of four experimental conditions that corresponded to a hypothetical cover letter and résumé:

1. Merit and disability
2. Merit and no disability

3. Limited merit and disability
4. Limited merit and no disability

The differences between transcripts that portrayed the applicant as having merit or limited merit was that limited merit transcripts were poorly written (e.g., multiple spelling errors) while the merit transcripts were well written (e.g., free of spelling errors). Validation that the absence or presence of errors in the cover letters and résumés would be viewed by participants as indicative of an applicant having merit or limited merit was achieved by having three Government of Alberta human resources personnel not involved in the experiment and who regularly reviewed applications for employment, review the merit and limited merit transcripts. This process affirmed that the absence or presence of multiple spelling errors should be noticed by others as well.

Each condition-specific cover letter and résumé was then coded to identify the particular condition it was assigned. See Section E3 in Appendix E for examples of each of the condition-specific cover letter and accompanying résumé.

With regards to disability status, the only difference between cover letters and résumés in the disability and no disability conditions was the absence or presence of a reference to disability status. Consistent with past research, a statement in the cover letter “I have a physical disability” and in the résumé, a reference to a career objective to be a “role model for other employees with a disability” signified the disability condition. With regards to the no disability condition, these statements were absent in both the cover letter and résumé.

Analysis Plan

To answer the research questions posed earlier, four separate analyses were undertaken. Results for the following analysis plan are in chapter 4.

Step 1: Conduct an analysis of variance (ANOVA) specific to the total mean scores (average of participant's total score for abilities or skills and practical experience) for each of the following experimental conditions:

1. Merit and disability
2. Merit and no disability
3. Limited merit and disability
4. Limited merit and no disability

Comparisons between Conditions 1 and 2 and Conditions 3 and 4 informed Research Question 1. If the total mean scores for Condition 1 are significantly higher than scores for Condition 2, and the total mean scores for Condition 3 are significantly lower than scores for Condition 4, these results would suggest that ambivalent attitudes are influencing participants to discriminate on the basis of disability status. In the first instance, significantly higher total mean scores for Condition 1 would suggest positive discrimination (i.e., overly positive reaction to disability status despite similar merit). In the second instance, significantly lower total mean scores for Condition 3 would suggest simple discrimination (i.e., overly negative reaction to disability status despite similar merit).

Step 2: Conduct an ANOVA specific to the total mean scores and demographic data provided by participants. Findings from the analysis will be used to determine if gender, age, education status, disability status, and being

employed in a private or public organization result in significant differences in ratings of transcripts (i.e., Research Question 3).

In both Steps 1 and 2, the critical alpha level was set at $p < .05$. Because the ANOVA could determine the existence of variance but could not identify which conditions vary, the Scheffé multiple comparison tests were conducted to indicate which conditions varied significantly from others. The Browne-Forsythe computation was also activated to account for different sample sizes between conditions.

Step 3: Reorganize the data from Step 1 to isolate disability status from merit status. Groupings of total means scores are (a) disability and merit and disability and limited merit and (b) no disability and merit and no disability and limited merit. This information will then be used to manually calculate two Scheffé multiple comparison tests: one focused on disability status and the other on merit. Findings from this analysis will inform the research question that asked if differences in ratings were the result of disability status or perceived merit (i.e., Research Question 2).

Step 4: Data obtained from participants asking whether they are willing to grant the hypothetical applicant an interview (i.e., yes, no, unsure) will be examined using the Pearson chi-squared test to determine whether the observed frequency of responses significantly differed from those expected by chance. To determine if responses to disability status demonstrate simple discrimination, comparisons will be made between the two groups of participants who review transcripts portrayed as having merit and the two groups of participants who

review transcripts portrayed as having limited merit. Findings from the analysis will provide insights into Research Question 4 pertaining to the role that disability status and merit might have on the demonstration of discrimination.

Experimental Assumptions

It has been alluded to previously, but it is important to reinforce that the conditions for this study were quite different from those experienced by researchers and participants over 30 years ago. The suggestion that the research on actor portrayal and evaluation, which originated from the ambivalence amplification theory, might still have applicability necessitated grounding this study in the following experimental assumptions:

1. Employer attitudes, both positive and negative, towards people with disabilities influence their decision to hire someone with a disability.
2. The ambivalence amplification theory and its related prediction to actor portrayal and evaluation are relevant in the current era and study.
3. The ambivalence amplification theory and its related prediction to actor portrayal and evaluation are relevant to a different sample than originally used.
4. The sample for this experiment has ambivalent feelings towards people with disabilities in the workplace.
5. The sample will score cover letters and résumés in the same manner as they would in nonexperimental conditions.
6. The sample for this experiment will provide an approximation of how the entire population would respond to the experimental conditions.

Limitations

Limitations to this study were impacted primarily by temporal factors that might have bearing on the social and economic context for this study. For instance, the original ambivalence amplification research was undertaken approximately 30 years ago and focused on the general public's attitudes towards African Americans and people with disabilities. This study took place within a much different societal context (i.e., Alberta, Canada, in the 21st century) and involved participants who were dissimilar to those involved in the original research studies (i.e., employers versus undergraduate students). A different social context combined with the particular economic environment that this study was undertaken in (i.e., significant economic growth in Alberta) was an additional limitation that needed to be acknowledged.

Delimitations existed for this study as well. For instance, while the research design for this study was similar in nature to the original studies, unique methods were employed in the current study (i.e., e-mail recruitment and Web site survey). Other delimitations such as time frame for recruitment of participants, accessing a purposive sample, and limiting the geographical boundaries in which the study took place placed restraints on the ability to generalize findings from this study to the much larger and diverse population of employers.

An additional delimitation was that both the original research and this study used physical disability as the disability label to evoke a reaction to a much broader category of people with disabilities. It is uncertain how and if the findings of the original research on ambivalence amplification, or this study, might be

influenced by this particular reference to stigma status. For these reasons, it was important to reinforce that the current study needed to be considered exploratory in nature.

Ethics

Methods and procedures utilized in this study were provided to and approved by the Faculties of Education, Extension, and Augustana Research Ethics Board of the University of Alberta before the study was implemented. In addition, where necessary (i.e., Government of Alberta), approvals to release and utilize e-mail addresses for recruitment purposes were obtained by the researcher prior to initiating the study's methods and procedures.

CHAPTER 4: FINDINGS

Participant Profile

Ninety-nine people participated in this experiment. Responses from the participants were collected and input into SPSS for specific analyses related to the research questions posed. Table 1 provides an overview of the demographic information provided by the 99 participants. The information is presented across the four experimental conditions.

Table 1

Participant Profile

Participants	Experimental condition				n	%
	Merit		Limited Merit			
	Disability	No disability	Disability	No disability		
Gender						
Male	6	10	9	11	36	36
Female	23	11	13	16	63	64
Total	29	21	22	27	99	100
Age						
18-24		1		3	4	4
25-34	7	4	6	6	23	23
35-44	9	5	2	6	22	22
45-65	13	11	13	12	49	50
Total	29	21	21	27	98	100
Education						
High school	4	1	2	2	9	9
Certificate	2	2	3	2	9	9
Diploma	7	4	3	6	20	20
Undergraduate	9	6	7	8	30	30
Graduate	5	4	5	6	20	20
Professional certificate	2	4	2	3	11	11
Total	29	21	22	27	99	100
Affiliation						
Public sector	9	10	12	14	45	45
Private sector	20	11	10	13	54	55
Total	29	21	22	27	99	100
Disability status						
Yes		1			1	1
No	28	20	21	27	96	99
Total	28	21	21	27	97	100

Missing data occurred in three fields: merit and disability status, limited merit/disability condition and age, and limited merit/disability and disability status. The demographic information collected identified that almost twice as many women than men provided responses for analysis. The dominant age group was the 45- to 65-year-old cohort and a majority (79%) of participants had a postsecondary education. Although variations within experimental groupings existed, the number of respondents who worked in the public sector was comparable to those who worked in the private sector. Only one respondent identified having a disability.

Participation Rate

The participation rate was calculated by adding the total number of e-mail messages sent by the three cooperating agencies (1,013) to the number of Chamber of Commerce members (500). This number (1,513) was then divided by the total number of individuals who completed the Web site survey (99) to calculate a participation rate of 6.5%. This participation rate should be considered an estimate as experimental procedures made it impossible to determine how many people read their introductory e-mail message or replied to the Chamber of Commerce Web site invitation. Participation rates across the four experimental conditions were as follows:

1. Merit and disability: 29
2. Merit and no disability: 21
3. Limited merit and disability: 22
4. Limited merit and no disability: 27

Total Mean Scores Across Conditions

Participants were asked to review a condition-specific cover letter and résumé from a hypothetical applicant and provide one score for abilities and skills and one score for practical experience. The two scores were then combined to calculate the total mean score for each condition. Once combined, the scoring legend for the total mean score was as follows: *very good* (66-80), *good* (50-65), *suitable* (34-49), and *not suitable* (18-33). The total mean scores for each condition are shown in Table 2.

Table 2

Total Mean Scores Across Conditions

	<i>n</i>	<i>M</i>	<i>SD</i>
Merit			
Disability	29	59.41	8.82
No disability	21	58.48	13.81
Limited Merit			
Disability	22	50.68	10.75
No disability	27	47.85	11.86
Total	99	54.10	11.31

Research Question 1: ANOVA for Total Mean Scores Across Conditions

Consistent with earlier ambivalence amplification theory studies, data were subjected to ANOVA. As identified in the Methods section, the significance for the ANOVA calculations was set at $p < .05$. To accommodate for the different sample sizes between conditions, the Browne-Forsythe computation was activated for ANOVA calculations and the Scheffé computation activated for multiple comparisons tests.

The ANOVA results identified that there were no significant differences in comparisons of merit and disability and merit and no disability (i.e., Condition 1

compared to Condition 2), or in comparisons of limited merit and disability and limited merit and no disability (i.e., Condition 3 compared to Condition 4). The original prediction related to ambivalence amplification suggested total mean scores for merit and disability would be significantly higher and that limited merit and disability would be significantly lower than its comparable condition.

ANOVA results did indicate a significant between-group difference ($F(3,95) = 6.460, p < .001$). Post hoc comparisons indicated a significant difference between Condition 1 (i.e., merit and disability) and Condition 4 (i.e., limited merit and no disability) ($p < .004$) and Condition 2 (i.e., merit and no disability and Condition 4 ($p < .021$). Table 3 shows the differences between total mean scores across conditions, with significant differences identified with an asterisk.

Table 3

Differences Between Total Mean Scores Across Conditions ($p < .001$)

	Merit portrayal		Limited merit portrayal	
	Disability	No disability	Disability	No disability
Merit portrayal				
Disability		.938	8.73	11.56 ^a
No disability			7.79	10.62 ^a
Limited merit portrayal				
Disability				2.83
No disability				

^a Significant difference.

In addition to the ANOVA on total mean scores, a separate ANOVA was conducted for each attribute (i.e., abilities and skills and practical experience) to determine if significant differences at this level could be identified between Conditions 1 and 2 or between Conditions 3 and 4. No significant differences were identified in either ANOVA.

Lack of Transitivity Between Total Mean Scores for Conditions

An examination of the Scheffé post hoc tests for the ANOVA identified that the mean for limited merit and disability was referenced in both subsets of data (i.e., merit and limited merit conditions). See Table 4 for details.

Table 4

Post Hoc Results for Total Mean Scores

Condition	<i>n</i>	Subset for alpha = .05	
		1	2
Condition 4 Limited merit portrayal and no disability	27	47.85	
Condition 3 Limited merit portrayal and disability	22	50.68	50.68
Condition 2 Merit portrayal and no disability	21		58.48
Condition 1 Merit portrayal and disability	29		59.41
Significance		.862	.076

Note. Harmonic mean sample size = 24.302.

What became evident was that in the pairwise comparisons, the Scheffé calculation identified no significant differences between the total mean scores for the two separate comparisons of Conditions 1 and 2 and of Conditions 3 and 4. These two comparisons identified that in both the merit and the limited merit conditions, the participants' total mean scores for documents from applicants with and without disabilities were similar.

In the comparisons across merit and limited merit conditions, the Scheffé calculation also identified no significant difference between the total mean scores for Conditions 1, 2, and 3. This appears to create a contradiction because

1. Condition 1 = Condition 2 = Condition 3 = Condition 1
2. Condition 3 = Condition 4; however,

3. Condition 1 and 2 \neq Condition 4

This breakdown in logic highlighted that the Scheffé multiple comparison tests produced a lack of transitivity between data subsets (i.e., a lack of congruence between the comparisons of various pairs). This same issue arose in ANOVA post hoc results for two participant demographic variables: age and education status.

The test merely reports that the groups are not significantly different or different enough that the observed differences are unlikely to have been due to chance or random error. Therefore, the significant difference between the extremes simply indicates that the lack of demonstration of difference between adjacent pairs cannot be interpreted to mean that all adjacent pairs are identical.

Examination of the post hoc results indicates the lack of transitivity is likely due to inadequate experimental power to detect mean differences, which likely results from a sample size that was too small for each condition. A small sample size increases the potential for Type II errors (i.e., finding no significant difference when a difference actually exists).

The analysis plan was to compare conditions in the same subset (i.e., comparing merit and disability to merit and no disability and comparing limited merit and disability to limited merit and no disability), not across subsets. Nonetheless, the identification of the lack of transitivity between the two subsets does warrant attention.

Research Question 2: Contrast of Total Mean Scores for Disability and Merit

The analysis plan for informing the research question regarding whether disability status or portrayal of merit had a greater influence on participants' ratings necessitated isolating and contrasting groupings so that disability status was the common element (a) total mean scores for *merit and disability* and *limited merit and disability* compared to (b) total mean scores for *merit and no disability* and *limited merit and no disability*. It was also necessary to isolate and contrast groupings so that favorability status was the common element (a) total mean scores for *merit and disability* plus *merit and no disability* compared to (b) total mean scores for *limited merit and disability* and *limited merit and no disability*.

The next step was to use this information and perform manual Scheffé calculations to undertake individual comparisons to determine if and where significant differences might exist. By doing so, the calculation provided evidence of whether participants rated cover letters and résumés from an applicant with a disability significantly differently than cover letters and résumés from an applicant without a disability (a prediction of the original ambivalence amplification theory research) or whether the perceived merit of the applicants elicited significantly different ratings from participants. Results indicated no significant difference between the total mean scores for disability and no disability ($F(3,95) = 1.8106, p < .184$) and a significant difference between the total mean scores for merit and limited merit ($F(3,95) = 17.43, p < .001$). See Appendix F for the manual Scheffé calculations.

Research Question 3: ANOVA on Demographic Variables

Participants provided data on five demographic variables: (a) gender, (b) age (18-24, 25-34, 35-44, 45-65), (c) highest level of education (high school, postsecondary certificate, postsecondary diploma, professional certification, postsecondary undergraduate degree, postsecondary graduate degree), (d) employee affiliation (public or private sector), and (e) disability status (yes or no). An ANOVA was first conducted on total mean scores for each demographic variable with the exception of disability status, as there was only one participant who responded yes to this question. Results of the initial ANOVA identified no significant differences between participants' total mean scores on any of the demographic variables.

Once again, the lack of transitivity issue arose in ANOVAs where more than two independent variables were involved (i.e., age and highest level of education). The strategy chosen for addressing the lack of transitivity in the age and highest level of education data subsets was to combine multiple levels of data for each demographic variable into just two comparable data subsets.

An examination of the participant profile data identified a logical solution for this data set. Forty-nine percent of participants were in the 45-65 age range, which meant that collapsing the preceding three age categories into a comparable subset was the most sensible approach. This strategy resulted in the creation of a sample of younger (18-44) and older (45-65) participants for ANOVA purposes.

A similar approach was used for the six data subsets related to highest level of education. Fifty-percent of participants held either a postsecondary

undergraduate degree or a graduate degree. Therefore, the decision was made to collapse the remaining education categories into one comparable subset resulting in the establishment of a sample of degree holders and non-degree holders for ANOVA purposes.

A second ANOVA was completed on these newly created variables and results identified no significant differences between how younger and older participants or degree and non-degree holders scored their cover letters and résumés. See Table 5 for results of both ANOVAs.

Table 5

ANOVA Results for Total Mean Scores and Demographic Variables

Demographic variable	ANOVA 1	ANOVA 2
Gender	$F(1,97) = .109, p < .742$	
Affiliation	$F(1,97) = .982, p < .252$	
Age (original)	$F(3,94) = .267, p < .929$	
Education (original)	$F(5,93) = .155, p < .383$	
Age (collapsed)		$F(1,95) = .484, p < .792$
Education (collapsed)		$F(1,97) = .913, p < .896$

Research Question 4: Analysis of Categorical Data and Making a Decision on Granting an Interview

The research questions related to willingness to grant an interview focused on whether it can be expected that participants would be more willing to grant an interview to a person with a disability in the merit condition and less willing to do so in the limited merit condition. To analyze the responses to the question on granting an interview, the Pearson chi-square test was used to compare the responses expected to those observed to see if they were significantly different.

Participants' categorical responses were assigned a numerical value (1 = yes, 2 = no, 3 = unsure) and the responses for merit and disability were compared to merit and no disability, followed by the comparison of responses for limited merit and disability to limited merit and no disability.

The analyses identified no significant differences between participants' responses to granting an interview for an applicant with or without a disability in either the merit or limited merit conditions. See Table 6 for results of these analyses.

Table 6

Pearson Chi-Square Results for Grant Interview Question

Grant interview	Comparison of disability to no disability			
	Merit portrayal		Limited merit portrayal	
	Disability	No disability	Disability	No disability
Yes	24	15	10	14
No	2	3	3	8
Unsure	3	3	8	5
Total	29	21	21	27
	$X^2(2) = 1.023, p < .600$		$X^2(2) = 2.297, p < .231$	

Summary of Findings

Earlier ambivalence amplification theory studies predicted that when hypothetical people with and without a disability were portrayed as having merit, participants would rate people with a disability significantly more positively than people without a disability (i.e., positive discrimination as demonstrated by an overly positive reaction to disability status despite similar merit), and that the opposite would occur in the limited merit condition (i.e., simple discrimination). The primary variable for this prediction was the person's disability status.

The findings from the ANOVA on total mean scores between conditions did not support this prediction. The manual Scheffé calculations indicated the perceived merit of the individual (i.e., error-free vs. error-ridden application documents), not their disability status, was the primary variable for differences in participants' ratings of documents. Equally important, the results of the Pearson chi-square indicated that disability status had no significant effect on participants' willingness to grant applicants an interview. Finally, no significant differences existed in how participants from different gender, age, education, and affiliation (i.e., public versus private employees) groupings scored the four condition-specific cover letters and résumés.

From a practical perspective, the question was whether employers would attend primarily to merit or disability status. In this study, findings demonstrated the merit or the quality of the transcripts affected the outcome regardless of disability status.

This experiment does not however, eliminate the possibility that there may be prejudice towards disability status or that ambivalence amplification can be demonstrated. It is possible a statistically significant effect could be established with a larger sample; however, since this sample was large enough to demonstrate an effect related to the quality of the transcripts (i.e., merit) via the manual Scheffé and other calculations, it was clear that if there was an effect of prejudice or ambivalence amplification, it was small in comparison to the effect of merit and insufficient so as to override it.

CHAPTER 5: DISCUSSION

Introduction

This study compared simple discrimination and ambivalence amplification for their potential to explain poor outcomes for people with disabilities. It has been suggested that employers may act in a discriminatory way towards people with disabilities without much thought or inhibition; simply discriminating against them without considering the potential or merit of the applicant with a disability (Fazio & Hilden, 2001; Mackie & Smith, 2002). This concept of simple discrimination suggests that employers hold unfavorable stereotypes of people with disabilities that result in discriminatory hiring practices regardless the merit of a candidate with a disability (The Center for Information, Training & Evaluation Services, 2003; Gilbride et al., 2000; Goldstone & Meager, 2002; Hernandez et al., 2000; Human Resources and Social Development Canada, 2004; Hunt & Hunt, 2004; Lengnick-Hall et al., 2005; Richards, 2002)..

An alternative concept, the ambivalence amplification theory, suggests that disability and merit interact in a more complex way. Research on the general public's reactions to disability suggested that when all else is equal, people will rate a person with a disability who is portrayed in a positive manner significantly higher than a comparable peer without a disability, but that the reverse will occur when both are portrayed in a negative fashion (Katz, 1981). This suggests that under favorable circumstances, employer's attitudes towards employees or prospective employees with disabilities may be preferential, but under unfavorable circumstances, their negative attitudes are amplified to become more

extremely negative. In both cases however, findings from ambivalence amplification research suggest that disability status may influence employers' decisions to hire someone more so than merit.

However, findings from this study suggested that neither simple nor ambivalence-related discrimination was related to participants' responses. In fact, there was no evidence of a main effect for disability status and no interaction between merit and disability status on either employer's ratings of application documents or on their willingness to grant an interview, regardless of gender, age, education, and affiliation with a public or private business.

The findings suggest that even when a person's disability is self-reported in an application, neither simple discrimination nor ambivalence amplification influenced employers ratings of merit or decisions based on merit. Merit appears to be their primary focus in initial screening of potential employees.

At least four possible explanations exist for the lack of demonstration of simple discrimination or ambivalence related discrimination in this study. The first explanation is that under the prevailing social and economic conditions at the time of this study, it is possible that simple discrimination and ambivalence amplification were mitigated and resulted in pragmatic decision-making regarding ratings of applicants with disabilities. The second explanation is that neither simple discrimination nor ambivalence amplification influences employers' willingness to grant someone an interview, irrespective of labor market conditions. The third explanation is that simple discrimination and ambivalence related discrimination are occurring; however, not during the screening phase of

recruitment for potential employees. The fourth explanation is that both simple discrimination and ambivalence related discrimination remain relevant, but could not be demonstrated due to specific characteristics of the study. Each of these explanations needs to be examined, along with the possibility that a combination of these explanations contributed to the findings of this study. An examination of the first three will follow, with the fourth explanation to be explored in the implications for future research section of this chapter.

Before presenting these explanations, it is important to clarify the notion of people with disabilities as used in this research. Like Katz and his colleagues, this study included the descriptor *physical disability* to evoke responses from participants towards the broader category of people with disabilities. Katz (1981) noted that for the general population, physical disability was an explicit and recognizable stigma label that could bring to mind latent attitudes regarding a broader spectrum of people with disabilities. Current research also indicates that the general population is exposed to images of specific categories of disability that are then generalized to people with other disability labels (Blaine, 2007; Goggin & Newell, 2003). It is unclear how the findings of this study are influenced by the particular reference to physical disability; however, the hypothesis that the label physical disability can induce a reaction to people with disabilities in general is used to compare and discuss findings of this study.

Economic and Social Contexts as Contributing Factors

It is important to acknowledge that research is not undertaken in a vacuum; rather, it is implemented within various environmental contexts that

influence its outcomes (Adler & Clark, 2008; Babbie, 2008). In December 2007, at least two important contexts were intersecting. The first of these environmental contexts to be considered is the economic context.

At the time of this study, the labour market in Alberta was very favorable for the creation of employment opportunities for people with and without disabilities (TD Bank Financial Group, 2008), and as described in the introduction, predictions were that Alberta would experience a significant shortage of workers to fuel its booming economy, with some sectors already experiencing a critical shortage of workers (Alberta Employment and Immigration, 2007). At the time, both government and the private sector were touting the merits of tapping into underutilized talent pools to address their need for employees, including people with disabilities.

It is therefore conceivable that within this labour market context employers would consciously or unconsciously moderate their prejudiced or ambivalent attitudes towards hiring people with disabilities. Barak (2005) noted that in such a labour market it would be too costly for employers to ignore the competitive advantage that would come with recruiting from an untapped labour pool. A wide range of skills and talents could be offered by underrepresented groups such as people with disabilities, and failing to take advantage of this opportunity would result in lost business opportunities and income. Disability status aside, employers' primary interest would therefore be in hiring the person with the best potential to help their organization (i.e., merit). Under these labour market conditions, employers would screen for people to consider hiring based on

the merit of the candidate. In this regard, cover letters and résumés that were error free would logically portray the applicant as having merit, and the decision to grant someone an interview would also be based on this portrayal.

It is also worthwhile to note that unlike the original studies that utilized undergraduate students with potentially less of an interest in their ratings of transcripts, participants in this study were professionals trained and experienced in screening for potential employees. The participants in this study were likely very aware of the economic conditions, the increasing competition for a shrinking pool of talent, and also that negating someone because of a disability would be impractical from a business perspective. In this situation, the participants would likely perform as the professionals they were trained and needed to be.

An additional contextual factor to consider in explaining the divergence between the positive findings of this study for people with disabilities and the literature regarding employer's negative attitudes towards hiring people with disabilities is the social conditions under which this study took place. While evidence indicates that people with disabilities continue to be marginalized in community life (Canadian Association for Community Living, 2008; Kleinert, Miracle, & Sheppard-Jones, 2007; Pretty, Rapley, & Bramston, 2002; Spreat & Conroy, 2002) and school (Farrell, 2000; Kauffman, 2003; Kleinert et al., 2007) on the whole, it can also be noted that things have changed positively for people with disabilities and for society at large.

A significant number of people with disabilities have been deinstitutionalized and are now living in community-based settings (Lakin,

Prouty, & Coucouvanis, 2006; Stancliffe & Lakin, 2004). Schools have become more inclusive of students with disabilities (American Youth Policy Forum and Center on Educational Policy, 2002; Connor & Ferri, 2007), and across North America, millions of people with disabilities are employed alongside other citizens (Ministry of Community and Social Services, 2008; U.S. Department of Labor, 2008). The employment rate for people with disabilities was approximately 24% in 1982 (Stapleton, Burkhauser, & Houtenville, 2004) and by 2006 had more than doubled to 53.5% (Statistics Canada, 2008b). Demographic statistics also indicate as the population ages and acquires age-related disabilities, the workplace will become even more inclusive of people with disabilities (Statistics Canada, 2008a). In North America, it is now the norm that children and adults with mild, moderate, and severe disabilities live in neighborhood settings with their families and participate in community life with others. No longer are the days when people with disabilities are absent from others' everyday community lives.

Both of these contextual factors help to explain and support the findings of this study and participants in this study may have been impacted by both. From their perspective, the economic environment at the time of this study, along with living an increasingly inclusive life that included ongoing and regular engagement with people with disabilities could have been enough to influence them to rate a potential applicant primarily on the basis of their merit, not their disability status.

Absence of Simple Discrimination and Ambivalence during the Screening Phase

At the screening phase of recruitment, employers are looking to establish a

pool of candidates from which to hire a future employee. Depending on circumstances, employers may want to interview as many candidates as meet minimal qualifications for that position. While multiple candidates would result in more time being needed during the interview stage, adopting this strategy provides employers access to a larger talent pool to draw from and greater choice in who they want to hire than a small number of interviewees would. As well, decisions at this point in the recruitment process are not as final as during the point in time when employers are forced to select just one contender from many, so interviewing multiple candidates would be a logical approach to finding the best person for the job.

If the purpose of the screening process is to provide the employer with the best selection of qualified applicants to choose from, employers may be focusing on identifying candidates to interview which have the most merit (i.e., skills, abilities, and experience). As stated earlier, this study utilized participants who were experienced professionals and likely knew their responsibility was to provide an unbiased analysis of the merit of the candidate, regardless of disability status, so as to create a qualified pool of talent from which to hire.

Relative to this interpretation, these findings could support the position that the duty to accommodate, a provincially and federally legislated requirement is being practiced by employers and human resource professionals in Alberta. The *Human Rights, Citizenship and Multiculturalism Act* and the *Canadian Human Rights Act* prohibit discrimination on the basis of disability and the results of this study suggest that employers, at least in this particular phase of hiring employees,

are complying with these *Acts*.

Pragmatism (i.e., gaining access to potential employees with the most merit, regardless of disability status), legal obligations to accommodate, and positive social attitudes towards people with disabilities discussed earlier may explain why simple discrimination or ambivalence amplification might not be demonstrated in the screening phase. While not specifically addressed in this study, future research could shed more light on this matter.

Discrimination after the Screening Phase

While it is plausible that the first two explanations could help to explain why participants disregarded disability status and focused on the merit of the applicant, this does not help to explain the chronic underrepresentation of people with disabilities in the work place. What may be instead occurring, is that employers treat people with and without disabilities equally during the initial screening process (i.e., limited negative or ambivalent attitudes), but that simple discrimination and ambivalence amplification may play a role at some other stage in the hiring process. Given the dramatic differences in employment outcomes for people with and without disabilities, findings from this study might then suggest that applicants with disabilities are being treated equitably during the application review process, but that as a result of negative attitudes of people making hiring decisions, applicants with disabilities may be impacted by discrimination in the face-to-face interview process or beyond.

That people react differently to hypothetical versus real-life, face-to-face situations has been demonstrated through research (Leary, McDonald & Tangney,

2003; Woodzicka & LaFrance, 2002) and even in our personal lives we may be able to draw on experiences that illustrate this. Understanding this concept, we can then assume that for employers the experience of rating someone with or without a disability on paper before the interview, and then rating them following a face-to-face interview is a distinctly different experience for them.

As an example, research indicates that employers, particularly those who have not had personal experience with someone with a disability, often rely on media and other sources of information to generate an image of someone with a disability, one that is often unrealistic in real life (Snyder & Mitchell, 2006). Taking this into account, one could suggest that an employer might go into an interview believing he or she would be willing to hire a person with a disability because of their preconceived notion of what a person with a disability looks like and how they behave; however, when the employer comes face-to-face with the person, the “positive image in our time quickly becomes a later moment’s insufficiency of portrayal” (Snyder & Mitchell, 2006, p. 201). In this case, the person with the disability can never live up to the expectations of the artificial image the employer has developed through various social media, leaving the employer to decide not to hire the applicant with a disability after all.

The issue of discrepancies between how employer might respond to someone with a disability in a face-to-face situation was also considered during the initial research on ambivalence amplification. Discussions posed in experiments undertaken by Carver et al. (1977) and Scheier et al. (1978) both

alluded to the need to personalize the experience of raters by having them engage in direct contact with people they were ranking. Scheier et al. (1978) noted,

The data suggests that any technique used to personalize and individuate members of a stigmatized group should also have the effect of increasing the positivity of the group. One technique that should lead to personalization is direct contact with the stigmatized person (p. 280)

and that “the interview is clearly one technique which leads to personalization” (p. 281). Carver et al. (1978) also believed that what participants see on paper and what they experience in real life results in quite different realities and outcomes. Carver et al. (1978) noted, “While people might have favorable feelings about the handicapped, it does not necessarily follow that they therefore will want to interact with the handicapped” (p. 104). Both groups of researchers felt that adding face-to-face interaction between raters and those they were rating would achieve greater ambivalence amplification in participants and ratings more reflective of how they truly felt.

Equally importantly, it is at the interview stage of the hiring process that decisions regarding potential employees with disabilities carry very real consequences for the employer, other employees, and for the bottom-line of their business. If bias exists, and people with disabilities and research suggests that it does, it may exist at the offer stage in regard to the need for workplace accommodation.

The reality is that some employees with disabilities require workplace accommodations. In Canada, the most common accommodation relates to the

need for a modification to work hours or days; however, there are other accommodations which would require the employer to purchase special equipment such as specialized office furniture and ergonomically designed workstations (Statistics Canada, 2008b). Costs for these workplace accommodations would vary between individual situations; however, faced with the decision of having to incur costs for modifications, employers may not believe that from a bottom-line standpoint they can fulfill their duty to accommodate an applicant with a disability, despite their merit. Combined with evidence that suggests employers may be unwilling to hire someone with a disability because they believe current employees might not accept them in the workplace or react negatively (Hunt & Hunt, 2004; Jackson, Furnham, & Willen, 2000; Lengnick-Hall et al., 2005), a context is created that allows for discrimination.

The explanation that the findings of this study reflect that people with disabilities are being treated equitably in the screening process is a plausible one. While a possible explanation has been proposed as to why applicants with disabilities are treated fairly during the screening process but still unable to attain the same employment outcomes as applicants without disabilities, further research is required to determine what might occur in these later stages of employee recruitment. Furthermore, the findings of this study only identify what is potentially happening at the screening stage, not why; a common problem with the original research on ambivalence amplification (Katz, et al., 1973; Katz, et al., 1977; Katz, et al., 1979).

Singularly or in combination, the social context, economic conditions, nature of the participants, and the phase of recruitment during which data was collected provide reasonable explanations for the findings for this study. It is one study, but it holds important implications for people with disabilities and their allies, for employers, and for researchers interested in contributing solutions to the problem of underemployment of people with disabilities.

The findings of this study are significant as they offer an alternate perspective to the evidence which suggested that ambivalence may contribute to discriminatory behavior (Carver et al., 1977, 1978, 1979; Scheier et al., 1978), research which suggested that employers simply discriminate on the basis of disability status (Crawford, 2004; Greenan et al., 2002; Hernandez et al., 2000; Lengnick-Hall et al., 2005; Luecking, 2003), first-hand reports from people with disabilities that suggests they experience discriminatory hiring practices (Minister's Employability Council, 2002; Statistics Canada, 2008), and suggestions that employers continue to hold negative stereotypes that when acted on, lead to discriminatory hiring practices (Coloroz, & Geist, 1987; Gilbride et al., 2000; Hunt & Hunt, 2004; Mello, 1993). Instead, this study demonstrated that when screening for potential employees, employers look primarily at how well a candidate presents themselves in application documents.

While recognizing that the findings from a single exploratory study cannot be properly generalized to a broader context, they do however, suggest that at the initial point of screening for potential candidates, employers are not as prejudiced as past research has indicated and that employer's ambivalent attitudes cannot be

easily amplified as has been presumed. This is important as it suggests that employers, regardless of age, gender, level of education or affiliation to a public or private business, do not see people with disabilities with the same degree of stigma or ambivalence as suggested in past and current literature. These findings suggest that employers representing a broad demographic profile do not pay undue attention to disability status when screening prospective employees for an interview. Rather, employers appear to rate applications from potential employees primarily on the basis of the perceived merit of the applicant as indicated in the quality of their application documents.

For people with disabilities and their allies, these findings suggest that employers' negative attitudes towards people with disabilities might be less extreme than past research has suggested and that in positive economic conditions, employers' negative or ambivalent attitudes can be mitigated even further to the point that the positive or negative quality of applications, not disability status, results in differences in ratings of application documents. If this is true, then people with disabilities should not be overly concerned that employers will simply discriminate against them because of their disability, or be worried with reporting a disability on cover letters and résumés. Rather, the findings of this study suggest that their primary concern should be to ensure that they portray themselves in the best possible light to a potential employer. In particular reference to this study, this would suggest they ensure that application documents are error free.

For policy makers, these findings suggest that government efforts such as employer focused campaigns to promote the hiring of people with disabilities can have positive benefits. As earlier indicated, the government of Alberta was investing public resources towards promoting people with disabilities as a potential and worthy pool of untapped talent for the business community. The findings of this study also suggests that employers in both the public and private sectors can be influenced by this type of messaging and influenced to hire someone with a disability, as long as the applicant had merit. In this sense, government policy makers can infer that public campaigning does influence behavior, and that messages sent to the business community regarding the potential for hiring someone with a disability contributed to their intended goal of improved employment opportunities for people with disabilities. The findings of this study and the suggestion that discrimination may still be occurring in the hiring process does however, suggest that government efforts may need to focus on ensuring equitable treatment throughout the hiring process, in particular during stages beyond the initial screening.

For researchers, the findings of this study provide a perspective into new directions for future studies which examine how attitudes of employers may be impacting employment outcomes for people with disabilities. The suggestion that simple or ambivalence-related discrimination may not be occurring at the initial screening stages of employee recruitment, rather at later points in the hiring process, provides an important focus for future research. While further research needs to be undertaken to support this idea, the findings of this study illustrate

that attitudes should not be necessarily considered as homogeneous across all people involved in the recruitment stages. It may be prudent in future research to explore how attitudes of employers screening for potential employees might be different than that of employees responsible for making the final decision regarding hiring someone with a disability, as well as what additional factors (e.g., cost for workplace accommodation, reaction of other employees) might be influencing employers. Moving from research that examines the issue of employer attitudes at a global perspective to one that focuses on different phases and different decision-makers would be a useful contribution to research and our understanding of this issue.

Conclusion

Some social psychologists believe that prejudice and discrimination towards others will always exist, as it is an inevitable and natural human response to categorize one's social world into distinct social groups. The interactions of these groups will naturally lead to the development of negative, prejudiced attitudes towards each other (Brewer, 2007; Devine, 2007; Fiske & Berdahl, 2007; Fiske & Taylor, 2008; Lepore & Brown, 2007; Levine & Kerr, 2007). People with disabilities are identified as one of a number of social groups often impacted by this phenomenon (Blaine, 2007; Goggin & Newell, 2003; Snyder & Mitchell, 2006). Research on employer attitudes suggests that employers have both prejudiced and ambivalent attitudes towards hiring people with disabilities (Crawford, 2004; Greenan et al., 2002; Hernandez et al., 2000; Lengnick-Hall et al., 2005; Luecking, 2003). It has also been suggested that these prejudiced and

ambivalent attitudes then result in employers adopting discriminatory hiring practices towards people with disability (Colorez, & Geist, 1987; Gilbride et al., 2000; Hunt, & Hunt, 2004; Mello, 1993).

Findings from this study provided an alternate perspective to this body of literature and suggested that employers are not simply discriminating against people with disabilities in the screening process, nor are they as ambivalent towards hiring someone with a disability as the literature indicated. Instead, the findings of this study suggest that employers are more interested in the perceived merit of the applicant than their disability status. This was evident regardless of participant's age, gender, level of education or affiliation to a public or private business.

Findings from this study also suggest that while simple discrimination and ambivalence amplification may not be present in the screening phase that one or both might be occurring during the interview or offer stage of recruitment. This may help to explain the contradiction between findings of this study and poor employment outcomes for people with disabilities.

Social, economic and other conditions at the time of the experiment were used to explain this departure from the current understanding that a significant barrier to employment for people with disabilities is employer's negative attitudes. In particular, strong economic growth has been demonstrated to be of benefit to people with and without disabilities and the economic conditions experienced in the time and environment of this study was very favorable for people with disabilities seeking employment. In fact, at the time of this study,

public and private businesses were advocating that people with disabilities were an untapped pool of skilled labour for meeting their increased need for staff and it was clear they were interested in exploring this possibility.

The findings of this study hold promise for people with disabilities and their allies, as well as employers. For people with disabilities, the findings suggest that employers are focused on interviewing the best person for the job regardless of disability status, particularly in positive economic conditions. This means that negative or ambivalent attitudes of employers screening for applicants might not be a significant barrier to their employment outcomes as once thought, and that attention should perhaps be focused on attempting to identify and reduce attitudinal barriers in other phases of the recruitment. Nevertheless, some caution is advisable in this interpretation because the lack of demonstration of simple discrimination and ambivalence amplification might result from the procedures employed in this study or a sample size that was too small. Future research may be necessary to determine whether these are the case.

For employers, the findings reinforce the need to be deliberate and vigilant about screening applicants on the basis of merit, not disability status, which appears to be the case in current times and under positive economic conditions. It also suggests that employers need to be conscious of their attitudes towards people with disabilities in other stages of the hiring process, so as to ensure they make decisions on the basis of merit not disability status.

Regarding this last point, the findings might also provide other researchers with an important contribution to future research. It has been proposed that while

this study was not able to demonstrate simple discrimination and ambivalence related discrimination, it may not be because they do not exist; rather, they may not be occurring during the initial screening phase of hiring. Instead, both may be occurring at later points in the hiring process, perhaps when employers and potential employees meet face-to-face. Replicating or building on this study provides opportunities for focusing research on an alternate point in the recruitment process such as the interview or offer stage.

Recommendations for Research

The findings of this study indicate a variety of interesting opportunities for researchers interested in employment opportunities for people with disabilities. As stated earlier, although the focus of the study has been on the issue of simple discrimination, ambivalence, and related attitudes of prejudice in the initial process of screening potential applicants, the job interview and the second-level interview of short-listed candidates are just two examples of additional research contexts in the labour market continuum that could lend themselves well to further studies.

For purposes of providing the fourth explanation for findings of this study, the recommendations for future research will continue to focus on the initial screening process and approaches that future research could consider. Some researchers might look at the findings of this study and attempt to replicate it to determine the generalization to different environments and contexts. Conducting such an experiment in the not too distant future, and under both different economic conditions and similar social conditions, might help to determine if the

findings of this study are transferable across different times, places, and circumstances.

Other researchers might want to consider refinements to experimental methods and procedures to see if these changes might account for the inconsistencies between the findings of this study and past and current research. If so, the following observations might be of assistance.

Ambivalence Inducement Message

On the Web site where participants retrieved their condition-specific cover letter and resume, a message was created that was intended to arouse and amplify participant's latent ambivalent feelings towards people with disabilities. The message consisted of a statement that today's workforce is made up of a diverse group of employees and this diversity is also reflected in the pool of people attempting to get a job. The message went on to note that while diversity is a common and valued characteristic of the labour market, diversity (e.g., disability, gender, and race) should not be achieved at the price of quality work, experience, and skills and abilities.

The intent of the message was to arouse participants' latent ambivalent feelings towards people with disability that might include charity and pity as well as contradictory feelings such as high expectations and compassionate conservatism (e.g., the hand up, not hand out colloquialism). Inadvertently, two things might have happened that could have influenced ambivalence amplification: (a) in scoring the documents or in considering granting an interview, participants might have thought they were being instructed to disregard

disability status all together and did so or (b) the ambivalence arousal message was not effective in inducing participants' latent ambivalent feelings towards someone with a disability, so disability status did not overly influence participants' responses.

If one or both of these occurred, participants' focus might have been on the quality of the documents and not disability status. It might also be that in situations where there is less ambivalence towards people with disabilities, the ambivalence-inducing message might need to be more forceful to generate an amplified reaction.

Disability Status Message

Regarding disability status, one reference indicating the applicant had a physical disability was inserted in the cover letter and a second reference in the résumé (i.e., "I have a physical disability and . . ."). No indication regarding the nature or severity of the disability was provided. This specific procedure was replicated from the earlier ambivalence amplification theory studies on actor portrayal and evaluation, in which no reference to the nature or severity of the disability was provided. These two succinct references to the applicant's disability status might not have been explicit or salient enough to catch the participant's attention or might have been too ambiguous regarding the nature or severity of the disability to stimulate a significant reaction from participants.

One should also consider that the résumés for both applicants with and without a disability were identical other than the reference to disability. The work histories and education for both were exactly the same, perhaps identifying to

participants that disability status posed no significant barrier to employment potential or for considering them for an interview.

Singularly or in combination, the nondescript reference to disability status and résumés that reflect employment potential might have influenced participants to purposively or subconsciously negate the disability variable in scoring the documents or deciding on whether to grant an interview.

Contrast Between Favorable and Unfavorable Conditions

Along with identifying the absence or presence of a disability, cover letters and résumés for the study were designed so that participants would notice the absence or presence of spelling errors in the documents they were reviewing. Specifically, favorable cover letters and résumés had no spelling errors; unfavorable cover letters and résumés had 10 such errors in total. Human resource professionals were consulted in designing the cover letters and résumés and validating the document's ability to illuminate the disability and favorability status for participants.

Despite this validation, it is possible that the contrast between the favorable and unfavorable cover letters and résumés (i.e., no errors versus 10 errors) might have been too extreme and therefore overwhelmed any potential effects of the disability status of the applicants. This could help to explain why the Scheffé calculations identified significant differences between favorable and unfavorable conditions, but not between disability and no disability conditions.

Socially Desirable and Positive Prejudiced Responses

One experimental assumption of this study was that the sample would score cover letters and résumés in the same manner as they would in nonexperimental conditions. Future research might seek to test this assumption, and the following considerations could assist with this.

Participants were asked to review and rate a cover letter and résumé, to score them, and then to respond to a question regarding their willingness to grant the applicant an interview. Based on information provided by the cooperating agencies, potential participants were skilled and experienced in these two tasks, with some doing this type of work on a daily basis. However, it is an important distinction that their work-related decisions have real-life implications whereas decisions made under the experimental conditions had no consequence for them, for their employer, or for the supposed applicant. They likely would have surmised from the e-mail and Web site messages that they were participating in labour market research, that the cover letter and resume they reviewed were constructed for this specific situation, and that in a very real sense, they were participating in a hypothetical situation. Responding in a hypothetical context with no real-life consequences or outcomes might have led participants to deliberately negate disability status from their responses and provide responses that were socially desirable in nature rather than responses that reflected how participants truly felt.

Authors of the original ambivalence amplification theory research believed this might have occurred in more than one instance (Carver et al., 1977, 1978, 1979; Scheier et al., 1978). Socially desirable responses were referred to in

the original research as the positivity effect or positive prejudice (i.e., people provide an overly positive rating of a person with a disability, believing this would be seen as socially desirable).

A social theory called dramaturgy provides one explanation for how socially desirable responses originate. Dramaturgy speaks to the concept of behaving publicly in a way that influences others to see things in a particular light. How a person wants others to perceive him or her is directly influenced by cultural values, norms, and expectations. In a sense, people are actors who are constantly performing to manage other's impressions and to convey desired personal characteristics. Public performances often only provide the audience with information that ensures an idealized view of the situation to avoid contradicting social norms or to avoid making a person appear in a negative fashion, even though that person's private performances would provide a more honest insight into his or her beliefs and attitudes (Flecha, Gomez, & Puigvert, 2003; Goffman, 1959; Lincoln & Denzin, 2003; Prasad, 2005; Ritzer, 2007). Participants' awareness that not only was this an experiment, but that their responses to disability status would become public might have resulted in politically correct or dramaturgical responses of a public nature.

Evidence also indicates that a sense of social responsibility from a majority group member towards a marginalized person or group does lead to helping behavior (Batson et al., 2007). This helping behavior can be a means to relieve psychic tension and distress from the feelings of sadness and empathy the majority person feels towards the disadvantaged person (Cialdini et al., 2007).

The willingness to help appears to also be influenced by the sense of threat felt by majority group members; that is, when the marginalized group poses no threat to majority group members, they are more willing to help (Brewer, 2007).

A general sense of social responsibility might have motivated a number of participants to respond to the invitation to participate. If one hypothesizes helpfulness as a general trait that might result both in an individual's willingness to take part in a survey and in an individual's willingness to accommodate members of marginalized groups, it is possible that those self-selecting into the survey would be more likely to express positive attitudes toward people with disabilities and those opting out of taking the survey would be more likely to have negative attitudes.

If the sample for this group was overly comprised of people who believed that their responses would be publicly known or that the research dealt with a disadvantaged group for whom they felt a social responsibility, the study might have resulted in responses from participants that were either inaccurate or charitable. In both cases, it would be useful for future research to try and elicit responses more accurate of participants' authentic attitudes towards people with disabilities.

Reviewing Contrasting Documents

Carver et al. (1977) noted that one reason that findings on actor portrayal and evaluation were not always consistent with earlier research undertaken by Dienstbier (1970) was that participants in the ambivalence amplification theory studies rated one document while participants in Dienstbier's study rated two.

Carver et al. (1977) noted, “Perhaps the opportunity to contrast two stimulus persons was responsible for the display of amplification among Dienstbier’s (1970) subjects” (p. 235). Having participants’ rate two contrasting application documents should also be a consideration in future research designs.

Researchers could employ any number of variations to the research design to further explore the issue of people with disabilities being underrepresented in the labour market. The recommendations offered above focus on studies that would continue to utilize the ambivalence amplification theory’s research framework. While it is being proposed that the ambivalence amplification theory’s framework has merit, other researchers will utilize equally compelling theories in future studies of this nature.

Implications for Practice

The findings from this study indicate that the practice of screening applicants for a job interview is consistent with provincial and federal antidiscrimination legislation (i.e., Human Rights, Citizenship and Multiculturalism Act and the Canadian Human Rights Act). While positive news for both employers and applicants, the findings of this study illuminate a conundrum: the findings of this study appear to contradict what is found in the labour market statistics and the lived experiences of people with disabilities. However, this juxtaposition does create an opportunity.

From the perspective of enhancing best practices in recruiting and hiring people with disabilities, one application for these findings is to use them to generate cross-stakeholder discourse with employers and applicants regarding the

connection between this study's findings and continued disparate employment outcomes for people with disabilities. Related questions that could be used to guide this discussion include the following:

1. Are the results of this study consistent with what is happening in real-life situations?
2. If employers are screening solely on the basis of the quality of the application, then why isn't this translating into even greater employment rates for persons with disabilities?
3. If the practice of screening applicants is consistent with antidiscrimination legislation and any related policy, then what is happening in the stages beyond the screening process that is preventing people with disabilities from securing more equitable employment outcomes?

Using the findings of this study to engage these two primary stakeholder groups in discussion might to some degree achieve something the original ambivalence amplification theory's researchers believed could and should happen: helping people to become aware that they have ambivalent attitudes towards an individual or group can, in the long run, lead to long-term, positive changes in attitudes and behaviors (Rokeach, 1960). Therefore, the findings of this study could be used as a training and education tool for employers and applicants alike.

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APPENDIX A: DETAILED DESCRIPTION OF EXPERIMENTS RELATED
TO HARM DOING AND DENIGRATION

Harm doing and Denigration

Katz, I., & Glass, D. C., & Cohen (1973). Ambivalence, guilt, and the scapegoating of minority group victims. <i>Journal of Experimental Social Psychology</i> , 9, 423-436.	
Hypothesis	1.Harm-doers are more likely to derogate a black victim than a white victim 2.Derogation of black victim is most likely to occur with participants with high ambivalence
Participants	<u>Exp 1</u> : 43 white male college students <u>Exp 2</u> : 22 white male college students.*Measurement of sympathy and prejudice towards African-Americans as part of design
Design	Participants contacted by phone and offered minimal sum to participate. Participants meet actor (stigma/non-stigma) and told participating in ESP experiment (hoax). Participants pre-rate actor on character traits using questionnaire (Davis and Jones, 1960). Participants induced to harm actor (mild or severed shock or noise) as part of experiment. Can only hear actor responses to harm. Participants exposed to one of four conditions: 2X2 design: (strong/mild harm)(stigma/non-stigma) (stigma or non-stigma)(Exp1: black/white Exp 2: disabled/non-disabled) Participants harm actor (mild or severe shock or noise) and listen to responses. Participants post-rate actor using the same questionnaire
Findings	<u>Exp 1</u> : Strong shock and stigma only condition where post evaluation was less favorable than pre evaluation denigration <u>Exp 2</u> : Participants with high prejudice and sympathy (high ambivalence) denigrate stigma more than non-stigma
Discussion	Proposition that denigration a product of guilt unsupported. Cause for denigration unknown. Suggests denigration was easiest way to maintain psychic stability. Wonders what is given chance to help?
Katz, I., Glass, D. C., Lucido, D. J., & Farber, J. (1977). Ambivalence, guilt, and the denigration of a physically handicapped victim. <i>Journal of Personality</i> , 45, 419-429.	
Hypothesis	*Replication of 1973 study using disability as stigma. Harm-doers with high ambivalence will show more negative change from pre-to-post assessments in the harm doing/stigma condition than any other The magnitude of the negative change will be highest in the harm doing/stigma condition
Participants	63 females between 18 and 45 years of age. Random selection from pool recruited via newspaper ad offering small sum for participation.

Design	<p>Participants arrive and meet actor. Participants exposed to one of four conditions: 2X2 design: (strong/mild harm)(stigma/non-stigma). Participants told they were participating in ESP experiment (hoax). Participants fill out personality and social attitude tests to assign high/low ambivalence status (Kaplan's split semantic differential scales for the concept the physically disabled, 1972 and others not described). Participants pre-evaluate actor (stigma/non-stigma) using the Davis Jones (1960) personality rating questionnaire as part of experiment. Participants harm actor (mild/noxious noise). Participants post-evaluate actor using same questionnaire. Participants debriefed.</p>
Findings	<p>Noxious noise subjects were significantly less favorable in post-experiment evaluations than low noise subjects. Participants with high ambivalence towards people with disabilities had most negative change from pre-to-post assessment scores.</p>
Discussion	<p>Authors were intrigued in the similarity of findings despite differing stigma conditions, differing attitude scales (towards people with disabilities and towards blacks), differing feedback (shock versus noise) and differing gender of participants (male versus female). Findings from these two studies demonstrated that both stigma groups are regarded with ambivalence.</p> <p>The authors did note that self-reports of guilt were only found in the noxious noise condition and none others. They suggested that this might have been due to measurement error. Still believed that ambivalence potentates guilt arousal (or threat to self-esteem), and that guilt mediates not only negative behavior such as denigration but also positive behavior such as helping. Overall: least favorable post-ratings were those in the wheelchair/noxious noise condition and that in this condition the degree of denigration was directly related to the degree of ambivalence the person held towards the person in the wheelchair. **Both predictions were derived from the 'ambivalence-guilt-response amplification hypothesis' about reactions to the stigmatized.</p>

Detailed Description of Experimental Procedures

Harm Doing and Denigration

This particular research stream served to demonstrate that people who believed they had harmed either a stigma (African American or physically disabled) or a nonstigma actor would later degrade the stigma actor more often than the nonstigma actor. In the three experiments undertaken to test this hypothesis, individual participants were paired with either a stigma or a nonstigma actor and led to believe the two of them were part of an experiment related to Extra-Sensory Perception (ESP). A third actor served as a researcher and led the two through the experimental procedures.

Under the guise of the ESP experiment, each was asked to first complete a standardized evaluation of the other prior to the experiment beginning in an attempt to understand how first impressions might impact ESP communication. They were then taken to a room where there was a table with a partition in the middle that would visually separate the two during the experiment. On one side of the partitioned table was a piece of equipment visually labeled the shock generator (complete with switches, wires, lights, and other technical-looking hardware) that one person would use to supposedly harm the other. The nature of the harm doing would be one of mild or severe shock or mild or noxious noise over headphones. On the other side of the partition was a set of wires leading from the shock generator that would be connected to the actor, supposedly used to deliver the shock or noise.

The actor-researcher explained that one strategy for improving general

learning was to punish errors and the experimenter wanted to understand if punishing incorrect responses would facilitate ESP training. Therefore, the ESP experiment required one person to punish incorrect responses (the harm-doer) and a second person to receive the signal and attempt to use ESP to determine what signal the sender was transmitting. Through a predetermined process, participants were always put in the role of the unwilling harm-doer.

Harm-doers were instructed to press a red or a green button and then attempt to send this color to the receiver via ESP. The receiver would receive visual notice that an ESP signal was being sent and then attempt to determine the correct color by depressing their red or green button. Incorrect responses were to be followed by simulated mild or severe pain (half the sample sent mild pain; half the sample sent severe pain) to the actor. Correct responses were to be rewarded with no harm doing. Once the participants understood the instructions, the researcher left the room.

During the experiment, harm-doers could only hear the actor's reactions to the harm doing, and as it was described, both stigma and nonstigma actors performed very well in portraying their different levels of pain and anguish. Each participant completed 20 trials and 10 of the trials were of the incorrect variety. After completing the 20 trials, the researcher asked the actor to leave the room under the premise to complete some forms and the participant was then told that separating the two would help alleviate any awkward feelings each might have about their participation. The researcher would then ask the participant to fill out the initial questionnaire about the actor a second time to establish pre-post

evaluation scores. The participant was also asked to fill out additional questionnaires related to their feelings about their involvement in the experiment (i.e., feelings of responsibility or guilt, attitudes towards experiments where harming another is used), and an assessment of the researcher's performance. Once the experiment had been completed, participants were debriefed.

These same procedures were used for all three experiments. Stigma status for two of the experiments focused on male African Americans, and one experiment focused on females with a physical disability (wheelchair). The gender of the participants for all experiments mirrored those of the actors. The two experiments dealing with African American stigma used 65 White male college students and used simulated electrical shock as the harm doing. The one experiment dealing with physical disability used 63 White females from the general public ranging in age from 18 to 45 years of age and used simulated noise shock as the harm doing.

Findings and Related Prediction

Researchers exploring the relationship between harm doing, stigma, and ambivalence used the findings from the three experiments to predict that people induced to harm either a stigmatized or a nonstigmatized person will more likely denigrate the stigmatized person than the nonstigmatized person after the harm doing. This prediction is based on findings that illustrated those participants who were asked to preevaluate a stigmatized or nonstigmatized actor and then induced to harm them were more likely to evaluate the stigmatized actor less favorably in post-harm evaluations than the nonstigmatized actor (Katz, Glass, & Cohen,

1973; Katz, Glass, Lucido, & Farber, 1977). Findings from the three experiments undertaken demonstrated that the least favorable postevaluations were consistently in stigma/strong-harm conditions.

Statistically significant interactions between stigma and strong-harm conditions were found in Katz et al.'s 1977 experiment with wheelchair/noxious noise and a sample consisting entirely of women. The earlier 1973 experiment with African Americans/strong-shock conditions and a sample consisting entirely of men did not attain findings of significance, but rather provided a strong trend towards the prediction. The similarity in findings, despite the use of different stigma conditions (African American and physically disabled), different harming conditions (electrical shock and noxious noise), and different gender samples is compelling, as is the finding that only one experimental condition, that dealing with women and disability, was able to demonstrate statistical significance.

Researchers' attempts to find correlations between measures taken for guilt, prejudice, and ambivalence were equivocal. The authors questioned the validity of the scores obtained, suggesting that more reliable attitude measurement tools needed to be developed for future attempts to understand the relationship between central values and attitudes of ambivalence.

Of note is that in the 1973 experiments, Katz et al. mused that examining what might happen when harm-doers are provided the opportunity to help after harming rather than evaluate after harming would be an interesting line of study. Six years later, Katz and associates undertook three experiments using harm doing, stigma/nonstigma, and posthelping as variables to examine this question.

APPENDIX B: DETAILED DESCRIPTION OF EXPERIMENTS RELATED
TO HARM DOING AND HELPING

Harm doing and Helping

Katz, I., Glass, D. C., Lucido, D., & Farber, J. (1979). Harm doing and victim's racial or orthopedic stigma as determinants of helping behavior. <i>Journal of Personality</i> , 47, 340-364.	
Hypothesis	Harm-doers would be more likely to make restitutions by doing a favor for a stigmatized victim than for a non-stigmatized victim. Experiment 1 used race as stigma and experiment 2 used disability as stigma.
Participants	<u>Exp 1</u> : 104 white male college students, aged 18 to 29. Just over half recruited through college newsletter ad and offered minimal pay for participation; remainder from psychology class and not paid. <u>Exp 2</u> : 86 white females aged 17-65. Recruited through newspaper ads and offered minimal pay to participate. <u>Exp 3</u> : 28 men and 29 women aged 18 to 68. Recruited through newspaper ads and offered minimal pay to participate.
Design	<u>Exp 1</u> : 2x2 design (harm-doer/non-harm-doer)(stigma/non-stigma). Participant and actor meet casually. Both briefed of experiment; fill out self-assessments and one would have to read to other. Participants were induced to read either highly critical or neutral personality assessments of black/white actor. Participant could only hear actor's reaction to reading of personal assessment. After harming, participants asked to fill out self-report on feelings of guilt. After session completed participant leaves. On behalf of the actor, secretary sees if participant will assist him by performing a tedious task (repeat handwriting). Testing done with two experimental teams (actors) of same demographics. <u>Exp 2</u> : Same scenario as #1 (exception of gender, stigma, and nature of harm doing). 2x2 design (harm-doer/non-harm-doer)(stigma/non-stigma). Participants believed they were in ESP experiment and were induced to harm actor using mild or noxious noise over headphones. Participants could only hear actor's reaction to noise. After harming, participant's asked to fill out self-report on feelings of guilt. After session completed participant leaves. On behalf of the actor, secretary sees if participant will assist him by performing a tedious task (repeat handwriting). <u>Exp 3</u> : 2x2 design (harm-doer/non-harm-doer)(stigma/non-stigma). Participants in small groups. Administered personality tests (Bell Adjustment Inventory) by stigma/non-stigma actors and told that candidness was critical to findings of false-pretence experiment. Half of participants later told that evaluations were not candid enough and would result in extra work for actor (poor performers/harm-doers). Other half of participants was told tests were adequate (good performers/non-harmdoers). All participants re-did the personality test once more to determine if first trial had affected their mood. All participants provided opportunity to help actor after initial procedure by participating in an interview

	(short, med., long duration) for the actor's research (false). Participants choose. Debriefed.
Findings	<p><u>Exp 1</u>: Harm-doers were significantly more apt to help stigma person than non-stigma person. High criticism situations resulted in more help for black (performed tedious task longer) and low criticism gave slightly more help to white stigma. Results consistent with hypothesis.</p> <p><u>Exp 2</u>: Results show that only a weak trend to age and stigma (older women more willing to help stigma person; no significant differences otherwise; proportions of helpers very similar in various conditions). Suggest that although the interaction of noise and stigma was not significant that between cells comparisons are consistent with hypothesis, but only provides equivocal support. Decide to do an additional experiment to test hypothesis</p> <p><u>Exp 3</u>: Stigma helped more than non-stigma. Trend (not statistically significant) for poor performers to help disabled actor more than non-disabled actor. Harm-doer/stigma condition created the most negative changes in pre-post attitude results.</p>
Discussion	<p>Role that self-reporting of feeling of guilt equivocal/conjecture.</p> <p>Overall findings from the 3 experiments demonstrate:</p> <ul style="list-style-type: none"> • People have ambivalent feelings • Ambivalence is influenced by stigma • Amplification of ambivalence can be equalized by denigration or assistance (two ends of the continuum) • Input factors contribute to amplification • Not sure of the role that guilt might play in threat reduction (assume it plays a role but have no empirical evidence) • Able to demonstrate ambivalence-response amplification but not guilt-mediation hypothesis <p>Authors identify limits of findings.</p>

Detailed Description of Experimental Procedures

Harm Doing and Helping

This research built on previous research related to harming and denigration, using the option of helping the victim after harming as opposed to evaluating them. Guilt, restitution, and alleviation of psychic tension were proposed as the key motivators preceding assistance, particularly when a person with a stigma condition was involved. Three different experiments were conducted and each experiment had a unique procedure that borrowed elements from previous experiments related to harm and denigration.

In the first experiment, 104 White male college students were recruited from an introductory psychology course and from the student body of the college. Sixty-nine of the participants, those recruited from outside of the psychology course, were paid a nominal fee to participate.

On an individual basis, participants would arrive at a predetermined office space where an actor (half the time African American and half the time Caucasian) would already be waiting. Time was given to enable the two to engage in small talk for 5 minutes. During this time the actor would mention that he was undertaking graduate-level research. An actor-researcher would then enter the room and escort the pair to another room where he would explain that the study being conducted was to examine how people make first impressions. The actor and participant would be asked to fill out a self-description personality inventory that would later be read by their experiment partner. People would then create a personality sketch of the other based on their interpretation of that person's self-

description. Participants were always in the role of reading the actor's inventory and then creating a personality sketch.

The actor-researcher would then take the actor to another room under the premise they were escorting them to a place to fill out a form. The actor-researcher would then return to the participant where he stated that the real purpose of the experiment is to examine people's reactions to negative feedback from a stranger and suggested to the participant that the other person (the actor) did not know this. Participants were also told that the actor would be hooked up to equipment that would measure his physical reactions to hearing their personality sketch.

Using a standard framework to make the personality sketch, each participant was asked to create or write a fictitious sketch of the actor. Half the participants were asked to write a neutral sketch, and half the participants were asked to write a negative sketch. Each participant was given 10 minutes to write the sketch at which point the researcher would return with the actor, who up until this point was unaware of the condition they would be acting under. The actor would then be supposedly hooked up to a polygraph machine to later provide visual stimuli to the participant. Under the high criticism condition, the actor would make audible reactions to negative remarks. Under the low criticism condition, the actor would be less vocal.

Once the sketch had been read, the actor was led to another room to supposedly complete more forms. The actor-researcher would then return and in the high-criticism condition remark at how obviously painful it was for the actor

to hear such derogatory remarks. Low-criticism conditions resulted in comments regarding the impact being more neutral in nature. The actor-researcher would then relay that the actor had to leave to go to work but that at least the experiment could be completed. The actor-researcher and participant would then take a look at the polygraph results. In the high-criticism condition, the spikes would be noticeably peaked and in the neutral condition, spikes would be smoother.

The participant was then sent to another room where a secretary (unaware of the condition) asked them to sign an invoice for payment and then passed on a fictitious note from the actor explaining their research and requesting help. The request was to write up to 144 repetitious sentences as part of an experiment on motor control. The secretary would give the participant the booklet to write the sentences in and show them to a writing desk. The dependent variable was the number of times the subject wrote the sentence.

Once this task was completed, the researcher entered the room and suggested that he forgot to have the participant fill out one more questionnaire and asks the participant to fill out a brief questionnaire describing their feelings about the experiment. Once this final task was completed, participants were debriefed.

One team (actor, researcher, secretary) completed the experiment with 59 participants. A second team completed the experiment with 45 participants. In both teams, only the actor-researcher knew of the hypothesis being tested. All other actors were unaware and simply performed their role according to experimental procedures.

The second related experiment for the most part replicated the ESP design used in the harm and denigration studies. Eighty-six Caucasian females were recruited from a newspaper ad and paid \$5 to participate. Their ages ranged from 17-65 and their mean age was 30 years old. The stigma condition used for this experiment was a physical disability (sitting in a wheelchair) and the nonstigma condition was no physical disability (standing). All actors were Caucasian.

One primary difference between this and the ESP study in harm and denigration was that the participant was then provided the opportunity to assist, rather than evaluate, the person they harmed by completing the same writing task as described earlier in the previous experiment.

The third experiment related to harming and helping used 28 men and 29 women, all Caucasian, recruited from newspaper ads and paid \$5 to participate. Participants were tested in small heterogeneous groups of approximately 4 people. Participants would arrive and be escorted into a room where the actor was in a wheelchair half the time and standing half the time. Participants were told they were part of an experiment for the norming of personality tests being undertaken by the actor.

Participants would fill out a mood scale and the Bell Adjustment Inventory and were told by the actor that it was imperative that they be as candid as possible, or it would result in additional work for the actor. Participants completed the mood scale and inventory and were then asked to complete a writing task (filler task) at which point the actor would leave room for approx. 10 minutes. The actor would then return, let them complete the filler task, and then

suggest that some of the participants (generally half) did not candidly fill out the scale and inventory and this would necessitate additional interviews, which meant the actor would not be able to complete the research on time.

Participants were given their scale and inventory booklets back, and a handwritten note on the face indicated whether their work was satisfactory/candid or not satisfactory/not candid. They were then asked to complete the mood scale for a second time to assess their reaction to the experiment and told a second researcher would come in, retrieve the scales, and pay them for participating. At this point the actor would leave.

A second actor would come into the room to discuss the premise for the hypothetical experiment. Once he had paid the participants, he gave them a flyer from the initial actor describing that the school assists graduates by letting them recruit participants for their own research from people recently involved in an experiment. The flyer asked if they would be willing to participate in the actor's research and if so, would they be willing to be interviewed for either 30, 60, 90, or 120 minutes. Participants were asked to identify which of the interview sessions they would be willing to participate in and to provide contact information. Dependent variables being measured were willingness to help and length of interview. Once these forms had been returned, the researcher debriefed the participants.

Findings and Related Prediction

Based on findings of these three experiments, researchers predicted that people induced to harm either a stigmatized or a nonstigmatized person will more

likely help the stigmatized than the nonstigmatized person after the harm doing. Overall findings from these experiments demonstrated that participants who were induced to harm a stimulus person (e.g., make critical remarks towards them or deliver a mild or noxious noise) were most likely to help the stigmatized actor than the nonstigmatized actor after the harming (Katz, Glass, Lucido, & Farber, 1979).

Findings from the first and third of these experiments demonstrated a significant relationship between stigma and helping (stigma actors received more help than nonstigma actors), a significant relationship between harm doing and stigma (harm-doers aided the stigma actor significantly more than they helped the nonstigma actor), and a significant relationship between the level of harm doing and stigma (high-criticism/stigma actors received significantly more help than high-criticism/nonstigma actors). Findings from the second experiment showed a strong trend towards these relationships but they did not achieve significance. Analysis of participants' self-reported feelings of guilt, and pre-post changes in mood did not provide any reliable information regarding the relationship between participant attitudes and their responses to harming. The authors suggested that although the attitude questionnaires did not produce any empirical support for their hypothesis, they did support it.

APPENDIX C: DETAILED DESCRIPTION OF EXPERIMENTS RELATED
TO ACTOR INPUT AND HELPING

Actor input and helping

Katz, I., Cohen, S., & Glass, D. (1975) Some determinants of cross-racial helping behavior. <i>Journal of Personality and Social Psychology</i> , 32(6), 964-970.	
Hypothesis	Caucasians will favor black help-seekers over white help-seekers when both display socially valued characteristics
Participants	<u>Exp 1</u> : 2340 white males <u>Exp 2</u> : 960 males (mixed stigma status) <u>Exp 3</u> : 800 males (mixed stigma status)
Design	<u>Exp 1</u> : Sample from census. Request to complete telephone survey: 3x3x2 design (black/negro/no stigma)(low, medium, high assertiveness)(black actor/white actor). Actors identify status and request help to complete survey. Use three different assertiveness conditions. 130 subjects per cell. <u>Exp 2</u> : Sample from public venue. In-person request for assistance in filling out survey: 2x2x2x2 design: (race of participants)(age of participants)(race of actors)(education status of actors) 60 subjects per cell. <u>Exp 3</u> : Sample from public venue. Request for change for a quarter: 2x2x2 design (race of subject)(age of subject)(race of actor). 100 subjects per cell.
Findings	<u>Exp 1</u> : Low assertiveness results: negro, black, white caller: Medium assertiveness results; negro, white, black caller: High assertiveness results; negro, white, black caller (not statistically significant; convergence). Analysis of post-experiment attitude assessment also showed that helpers had less favorable attitudes towards minorities than did non-helpers. <u>Exp 2</u> : Black actors received more assistance than white actors. High education status actors received more assistance than low education status actors. Effect of age stronger for white than black actors. <u>Exp 3</u> : White actors received more assistance than black actors. Weak tendency for white subjects to comply with black actors more than black subjects.
Discussion	<ol style="list-style-type: none"> 1. Minority help-seekers were favored over white help-seekers when both displayed the same socially desirable responses and that differences decreased as social behavior became more negative (but preference still continued for black help-seekers) 2. Participants were more accepting of Negro's versus blacks, suggesting that conformity behavior was perceived and acted on. Participant's acceptance of high status minorities over low status minorities also reinforces this suggestion 3. Support for their self-esteem conception derived from their racial ambivalence hypothesis of 1973; contradictions in behavior and attitudes of helpers in experiment 1 (follow up survey from

	<p>experiment 1) and their negative responses to the survey suggests that these same people were on the one hand willing to help someone (convenient, low-cost help that reinforced their altruistic beliefs) but at the same time held more negative attitudes towards blacks than did non-helpers “The political poll provided an opportunity to justify one’s dislike without completely ruling out the possibility of sympathy, whereas granting the small request of an individual black with socially desirable traits was an easy way to express sympathy and prove one’s fair-mindedness without having to disavow negative feelings about the group as a whole” p. 970</p>
<p>Katz, I., Farber, J., Glass, D C., Lucido, D., & Ermswiller, T. (1978) When courtesy offends: Effects of positive and negative behavior by the physically disabled on altruism and anger in normals. <i>Journal of Personality</i>, 46, 506-518.</p>	
Hypothesis	<p>Physically disabled help-seekers will receive more aid from a normal person than will non-disabled help-seekers when both display positive personal qualities.</p>
Participants	<p><u>Exp 1</u>: 31 men and 35 women aged 15 to 62. Recruited through newspaper ads and offered minimal pay to participate. 39% college graduates, 44% college experience. <u>Exp 2</u>: 29 men and 38 women. Recruited through newspaper ads and offered minimal pay to participate. 41% college graduates, remainder with college experience.</p>
Design	<p><u>Exp 1</u>: Participants in groups of 2-6. 2x2 design (stigma/non-stigma)(positive/negative portrayal of actor). Participants briefed on ‘environmental stress on cognitive functioning’ experiment (hoax). Once participants had completed tasks, 2nd actor asked participants if they would assist the initial actor by participating in survey or interview. Indicate not interested, yes to survey, or yes to interview (if interview, how many interviews to maximum of 3). Participants debriefed. <u>Exp 2</u>: Same design as in #1 with the exception that they first completed a filler task and then asked to complete a synonym test identifying degrees of hostility and aggression. Synonym test completed with actor (stigma/non-stigma)(positive/negative portrayal) in room. Actor leaves. No request for assistance. Participants debriefed.</p>
Findings	<p><u>Exp 1</u>: Analysis showed that presentation variable was independent of disability variable. Analysis of variance demonstrated that in the positive condition, people were more willing to assist the non-disabled person than the disabled person, and in the negative condition, people were more willing to help the disabled person than the non-disabled person. Obnoxiousness favored the disabled person. <i>Opposite of what they predicted.</i> Re-examined assumption that the personal qualities which society finds desirable in normal people are also the qualities that are deemed desirable in the handicapped.</p>

	<p>Point to Goffman (1963) and discussion of stigma role in society: stigma should know their place, keep aspirations in check, and refrain from testing the limits given them.</p> <p><u>Exp 2</u>: In the positive presentation condition the disabled tester occurred more negative words/higher hostility than the non-disabled tester. In the negative presentation the disabled tester occurred more positive words/less hostility than the non-disabled tester. Difference was significant in the positive condition but not in the negative condition. <i>Opposite of what they predicted.</i></p>
Discussion	<p>Authors recognize that results contradict hypothesis; suggest their error was in not recognizing “that behaviors and personality traits ordinarily deemed desirable in normal people may not be considered desirable in the physically disabled” (p. 516) (Goffman, 1963; Dembo, Leviton, and Wright, 1956; ‘stigma-role conception’; notions of stigma) Based on this past work “subjects would be angered when the handicapped person in the positive condition violated the stigma-role requirements of suffering and acknowledge inadequacy” (p. 517) Although contradictory to initial hypothesis, findings uphold the view that attitudes towards the disabled are generally ambivalent, rather than simply hostile or sympathetic.</p>

Detailed Description of Experimental Procedures

Actor Input and Helping

These studies examined how the behavior and stigma status impacted people's willingness to help a stranger. Common sense would indicate that people who behave positively are more apt to gain assistance than people behaving negatively. Katz and associates were interested in this aspect but also in the relationship between the degree of assistance one might get depending upon the absence or presence of a stigmatizing condition.

Five different experiments were undertaken where the procedure followed a general pattern of positive or negative behavior by either a stigma or a nonstigma actor towards participants, followed by a request for some type of assistance. The five experiments used three different methods to engage participants.

The first two experiments used a total of 60 males and 73 females, all Caucasian, who were recruited from newspaper ads and paid a nominal fee to participate. Participants were put into groups of 2 to 6 and each group was exposed to one of four conditions. Equal numbers of participants were exposed to one of four conditions: stigma/favorable, nonstigma/favorable, stigma/unfavorable, and nonstigma/unfavorable. Groups were escorted to a room where an actor would be either be seated in a wheelchair or be standing. Along with stigma status, actors were presented to the group either positively or negatively by demeanor and dialogue.

Participants were asked to sit in writing seats and told they were part of an exercise to pretest cognitive tasks for future studies. In the positive condition the actor would be pleasant in explaining the research thesis and mention that they too were involved in research, but with no details as to the nature of their research. In the negative condition the actor was abrupt regarding the experiment in general and unpleasant in demeanor. No mention of research was made in the negative condition.

Participants were then asked to complete three filler tasks that took approximately 30 minutes to complete. After completion of the tasks, the actor then announced that a second researcher would complete the rest of the work with them and left the room. The second researcher, unaware of which condition the group was exposed to, then came into the room and informed them that they were a control group in the overall experimental design that would provide the baseline for future work on cognitive tasks and provided them with an opportunity to ask questions. The researcher then paid the participants and told them that the actor who oversaw their work is a research student that requires volunteers to participate in 1, 2, or 3 interviews and if this was not possible participants could complete a 30-minute exercise right then.

Subjects were then asked to identify on the stub they submitted for payment which of the helping conditions they would be willing to undertake, or not. Lastly, participants were asked to complete an evaluation of the initial actor under the guise of quality control. The evaluation required participants to score the initial actor relative to their efficiency, sense of warmth, level of interest in

their work, and their level of motivation. Evaluations were completed anonymously and then turned in. Participants were then debriefed.

The next three experiments related to input and helping were conducted in the subways of New York City. Six actors (3 African American and 3 Caucasian) similar in age were used in both experiments to request assistance in completing a task or complying to a request. The six actors had been trained to approach participants in as similar a manner as possible. Actors recorded the race and age of participants approached to ensure equal representation.

All requests for assistance were carried out on a weekday during off-rush-hour periods in two separate subway stations. Only one actor worked a station at any time. African American and Caucasian males who appeared to be at least 18 years of age were approached and asked to participate in a survey or provide change for a quarter.

In the first of three experiments, 960 males representing both race variables were approached and requested to participate in a face-to-face survey regarding a particular product. Actors would either identify themselves as college students or not. This identification would later be used as a status variable in the analysis of data.

In the second experiment, 800 males representing both race variables were approached and asked to provide change for a quarter visibly shown by the actor. The educational status of the actors was not communicated during this request. Compliance was attained if the male reached into his pocket to retrieve change.

The third experiment involved 2,340 Caucasian males from a middle-class

neighborhood in New York City. Using recent census information, researchers were able to identify the sample. Participants were then randomly assigned to one of 18 conditions (3 levels of help-seeker assertiveness (low, medium, high), 3 types of help-seeker racial identification (Black, Negro, no label), and 2 actors). Equal numbers of participants were exposed to each condition.

Each actor would call a participant on the telephone and assume an identity consistent with one of the conditions. Each actor's voice was similar in nature and all actors were coached to deliver a scripted call in a similar way. After connecting with the identified participant, the actor would ask assistance in completing a consumer attitude survey regarding a line of shoes that would take approximately 5 minutes. Compliance was attained if the participant agreed to participate. Noncompliance was based on refusal to participate.

Phase 2 of the experiment occurred 1 month later after the 2,340 subjects were sorted into complier and noncomplier groups and then randomly assigned to one of the 18 previous conditions with two new actors. The purpose of Phase 2 was to survey subjects on their feelings towards African Americans and their access to jobs, education, and participants' feelings regarding the cleanliness of African American neighborhoods. This survey provided researchers with evidence of participants' feelings of prejudice and sympathy towards African Americans. Approximately 70% of the sample used in Phase 1 completed the telephone attitude survey.

Findings and Related Prediction

The prediction that positive stigmatized help-seekers will receive more

assistance than will positive nonstigmatized help-seekers, but that the preference will be reversed when both help-seekers display undesirable personal qualities, was based primarily on the three subway experiments undertaken in New York City. Findings from these three experiments demonstrated a main effect for stigma and a main effect for assertiveness. That is, the compliance rate for Negro was statistically higher than for the no-label/Caucasian and Black label conditions, respectively, and overall subjects were more willing to help African American actors than White actors. The compliance rate for assertiveness was fairly linear from low assertiveness to high assertiveness. The predicted interaction of both variables was not significant, but the trend in the data supported the prediction.

As well, findings from the one experiment where actors identified themselves as college students or not demonstrated that high educational status actors received more help than low education status actors. The effect however, was not significant.

Findings from the telephone survey regarding participants' beliefs about minority issues demonstrated a significant interaction between helpers and beliefs. That is, findings from this experiment demonstrated that a significant number of participants who were willing to assist in the survey had less favorable attitudes towards minorities than did nonhelpers. Relationships between any remaining conditions were insignificant.

Findings from the two experiments where participants were asked to provide assistance to complete an actor's research task produced very interesting

results. The interaction effect of disability and presentation produced a significant effect for the positive presentation condition. In this condition, there was significantly more willingness to help the nondisabled actor than the disabled actor, whereas in the negative presentation condition it was the disabled person who received more assistance. Also of interest were findings that demonstrated that in the positive self-presentation condition the disabled actor produced more anger responses than the nondisabled actor, and this was reversed in the negative self-presentation condition. However, this finding did not achieve significance.

The findings from these two experiments contradicted the initial hypothesis and resulted in the researchers naming the paper reporting the results of these two experiments “When Courtesy Offends,” a reference to the fact that it appeared that participants were most upset by stigmatized actors who behaved courteously. The authors suggested that participants were responding to phenomena where “behaviors and personality traits ordinarily deemed desirable in normal people may not be considered desirable in the physically disabled” (Katz et al., 1978, p. 516). Despite the contradiction between the hypothesis and findings of these two experiments, the authors suggested that the “total pattern of results is generally supportive of the stigma-role interpretation. It also upholds the view that attitudes about the disabled are generally ambivalent, rather than simply hostile or sympathetic.” (p. 517).

APPENDIX D: TABLE OF EXPERIMENTS RELATED TO ACTOR INPUT
AND EVALUATING

Actor input and evaluating

Carver, C. S., Glass, D. C., Snyder, M. L., & Katz, I. (1977). Favorable evaluations of stigmatized others. <i>Personality and Social Psychology Bulletin</i> , 3, 232-235.	
Hypothesis	Caucasians will favor black actors over white actors when both display socially valued characteristics, and the reverse will occur when both display negative characteristics. *Replication of Dienstbier (1970) experiment with mentally ill as stigma
Participants	<u>Exp 1</u> : 106 introductory psychology students <u>Exp 2</u> : 73 male undergraduates <u>Exp 3</u> : 107 male undergraduates <u>Exp 4</u> : 109 male undergraduates
Design	<u>Exp 1</u> : Participants in small groups. Participants fill out measure of prejudice and measure of sympathy (Woodmansee and Cook's Racial Attitude Inventory, 1967; Schuman and Harding's Scale on sympathetic identification with the racial underdog, 1963) towards blacks to assign them to ambivalence categories (high/low). 2x2 design: (stigma/black and presentation). Provided participants with information regarding hoax experiment. Were told to read interview transcripts and rate interviewee. Identical transcripts revised to fit the design (identify stigma or not). Then told to rate the hypothetical person, using questionnaire from Davis and Jones (1970). <u>Exp 2</u> : Same procedure as in #1, except no measure of ambivalence (replication of Dienstbier, 1970). <u>Exp 3</u> : Same procedure as #2 but substituted college student status instead of high school status (Dienstbier used high school status in original experiment) <u>Exp 4</u> : Same procedure as #3 but substituted Chicano for black stigma status.
Findings	<u>Exp 1</u> : Instead of response amplification, findings suggest a tendency towards positive effect (ratings favor whites). Findings were reverse of Dienstbier's. Individual contrasts showed that high-ambivalent participant's rated the unfavorable-stigma condition more negatively than any other attitude combination. <u>Exp 2</u> : Results same as in #1 <u>Exp 3</u> : Results similar as in #1 and #2. Main effect for race (unfavorable black rated more positively than unfavorable white) but favorable interviewees did not differ. <u>Exp 4</u> : None of the contrasts were strong enough to approach significance
Discussion	Believed that people either responded in what they thought was a socially desirable way or the augmentation principle: that people are given credit for the struggles they have to endure with their stigma.

	Also suggest that simply labeling the person with a stigma is not enough to induce people's ambivalent feelings: amplification not a response to labeling, rather its effect is to make people more positive/sympathy
	Scheier, M. F., Carver, C. S., Schulz, R., Glass, D. C., & Katz, I. (1978). Sympathy, self-consciousness, and reactions to the stigmatized. <i>Journal of Applied Social Psychology</i> , 8(3), 270-282.
Hypothesis	Providing only general information about a stigma person requires evaluators to rely on stereotypical information to form an impression of that stigma person which often results in negative evaluations. Personalizing a target person evokes sympathy for him among raters and results in overly positive evaluations.
Participants	<u>Exp 1</u> : 21 female and 19 male undergraduates (psychology students) <u>Exp 2</u> : 47 male and 113 female undergraduates (psychology students)
Design	<u>Exp 1</u> : Participants in small groups. Told they were part of an unrelated experiment. Participants asked to read transcript with personal information in one of four conditions (old/young)(favorable/unfavorable), then asked to rate person using 11 descriptive dimensions; 7 point likert scale; polar-opposite adjectives. <u>Exp 2</u> : Same procedure as in #1 except substituted handicapped condition for stigma (disabled/non-disabled)(favorable/unfavorable) Along with using a different stigma condition this experiment wanted to ascertain if people who are most aware of their feelings of sympathy provide the most favorable responses. Have participants fill out scale that indicates level of self-consciousness (Self-Consciousness Scale). Scale has two factors: public and private self-consciousness (private would be the condition where people are most self-aware of their feelings and would most likely express their sympathy through favorable responses versus others). Conditions: (normal/stigma)(favorable/unfavorable)(low private self-consciousness/high private self-consciousness)
Findings	<u>Exp 1</u> : Findings from this experiment demonstrated that when presented with personal information it has the effect of inducing people to overcompensate for negative beliefs they have about group as a whole (sympathy inducing). Elderly rated more positive regardless of condition. Findings contradict research where no personal information was provided. These findings had been replicated in earlier studies using black as the stigma condition. Designed a second experiment using disability as a stigma to test the hypothesis. <u>Exp 2</u> : Stigma condition reported more favorably in all conditions; stigma condition and high private produced the most favorable responses; low or high private did not rate the non-stigma person differently; private self consciousness affected ratings, public self consciousness did not. Findings

	suggest that personalization of the targets is essential for evoking ambivalence; simple labeling not adequate enough stimuli.
Discussion	<p>Why would personalizing work?</p> <ul style="list-style-type: none"> a) Personalizing evokes sympathy and this makes people overcompensate for negative beliefs they hold about the stigma group as a whole b) Social desirability is ruled out as public self conscious did not show effect c) Augmentation principle: people given credit for struggles associated with stigma <p>Overall, findings demonstrate that it is important to provide personal information about stigma group in order to combat effects of stereotypes, which are used when no personal information is available. It was also suggested that it is important for people to be self-conscious of their private feelings, not so they will arouse sympathy for all people but only for those who require it</p>
Carver, C. S., Glass, D. C., Snyder, M. L., & Katz, I. (1977). Favorable evaluations of stigmatized others. <i>Personality and Social Psychology Bulletin</i> , 3, 232-235.	
Hypothesis	<p>Caucasians will favor black actors over white actors when both display socially valued characteristics, and the reverse will occur when both display negative characteristics.</p> <p>*Replication of Dienstbier (1970) experiment with mentally ill as stigma</p>
Participants	<p><u>Exp 1</u>: 106 introductory psychology students</p> <p><u>Exp 2</u>: 73 male undergraduates</p> <p><u>Exp 3</u>: 107 male undergraduates</p> <p><u>Exp 4</u>: 109 male undergraduates</p>
Design	<p><u>Exp 1</u>: Participants in small groups. Participants fill out measure of prejudice and measure of sympathy (Woodmansee and Cook's Racial Attitude Inventory, 1967; Schuman and Harding's Scale on sympathetic identification with the racial underdog, 1963) towards blacks to assign them to ambivalence categories (high/low). 2x2 design: (stigma/black and presentation). Provided participants with information regarding hoax experiment. Were told to read interview transcripts and rate interviewee. Identical transcripts revised to fit the design (identify stigma or not). Then told to rate the hypothetical person, using questionnaire from Davis and Jones (1970).</p> <p><u>Exp 2</u>: Same procedure as in #1, except no measure of ambivalence (replication of Dienstbier, 1970).</p> <p><u>Exp 3</u>: Same procedure as #2 but substituted college student status instead of high school status (Dienstbier used high school status in original experiment)</p> <p><u>Exp 4</u>: Same procedure as #3 but substituted Chicano for black stigma status.</p>
Findings	<u>Exp 1</u> : Instead of response amplification, findings suggest a tendency towards positive effect (ratings

	<p>favor whites). Findings were reverse of Dienstbier's. Individual contrasts showed that high-ambivalent participant's rated the unfavorable-stigma condition more negatively than any other attitude combination.</p> <p><u>Exp 2</u>: Results same as in #1</p> <p><u>Exp 3</u>: Results similar as in #1 and #2. Main effect for race (unfavorable black rated more positively than unfavorable white) but favorable interviewees did not differ.</p> <p><u>Exp 4</u>: None of the contrasts were strong enough to approach significance</p>
Discussion	<p>Believed that people either responded in what they thought was a socially desirable way or the augmentation principle: that people are given credit for the struggles they have to endure with their stigma.</p> <p>Also suggest that simply labeling the person with a stigma is not enough to induce people's ambivalent feelings: amplification not a response to labeling, rather its effect is to make people more positive/sympathy</p>
Carver, C. S., Gibbons, F. X., Stephan, W. G., Glass, D. C., & Katz, I. (1979). Ambivalence evaluative response amplification. <i>Bulletin of the Psychonomic Society</i> , 13(1), 50-52.	
Hypothesis	Once the direction of an ambivalent person's response towards a target person has been determined, the intensity of that response will be greater if there was initial ambivalence than if there was not (If ambivalence can be aroused, amplification can be obtained even in impression formation scenarios).
Participants	248 female undergraduate students
Design	Subjects randomly assigned to one of following conditions: (pre-treatment: ambivalence inducement/no pre-treatment: no inducement)(handicapped/Chicano/non-stigma)(favorable portrayal/unfavorable portrayal). Participants approached individually by actor who offers document that reports two opposing views to campus issue (admissions of one of the three stigma groups) to evoke ambivalent feelings. Participants asked to read transcript and then evaluate interviewee using 11-point scales anchored by polar-opposite adjectives
Findings	<p>Favorably portrayed interviewees rated better than negative. Highly significant favorability by pre-treatment interaction. Favorably and unfavorably portrayed interviewees rated more negatively following pre-treatment than with no pre-treatment. Significant effects for handicapped and Chicano, marginally significant for non-stigma. Handicapped rated more positively overall, followed by Chicano and non-stigma.</p> <p>When participants required to focus on ambivalent feelings, amplification occurred (supports Ambivalence-amplification theory).</p>

Discussion	<p>Earlier experiments had contrary findings to hypothesis because participant's ambivalence had not been aroused. Labeling person is not enough to stimulate ambivalent feelings. Need stimuli to evoke emotional response and to arouse ambivalent feelings.</p> <p>Exact cause for ambivalence unknown: sympathy, augmentation principle (Kelly, 1971), or socially desirable response?</p> <p>Authors favored extreme responses as "convenient, low-cost modes of resolving attitude conflict" (p. 52); emphasize one feeling and de-emphasize another.</p>
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APPENDIX E: INSTRUMENTATION

Section E1

LABOR MARKET RESEARCH**The Power of the Written Word: Why some Resumes will get you an Interview, and Others will not.**

Welcome and thank you for considering participating in this research. My name is Tim Weinkauff and I am a Ph.D. student in Educational Psychology at the University of Alberta. This website will provide you with information on the research being conducted, your potential role, and tools for participating should you choose to.

Simply follow the links on the side of each page to access the information you desire. My suggestion is that you move through the site from the top link down to the bottom link as this will give you all of the information you need to participate in this study.

Background on Research

Instructions for Participating

Consent to Participate information

Cover letter and Resume

Scoring Tool

Section E1

LABOR MARKET RESEARCH**The Power of the Written Word: Why some Resumes will get you an Interview, and Others will not.**

Background: Alberta's labor market is very hot these days, and job seekers are asked to submit a resume as a way of introducing their self to an employer and profiling their skills. This resume is often accompanied by a cover letter and together they are an applicant's first chance to make an impression on a potential employer.

Today's job seekers are a diverse group of people. They represent men and women of all nationalities and levels of education, people with and without disabilities, people from all income levels, and men and women from a wide variety of family structures.

One commonality between these job seekers is the fact that they need to produce a cover letter and resume as a way to introduce themselves to a potential employer. This applies to people applying for entry level positions and those applying for executive positions. One assumption is that regardless of whom you are your cover letter and resume has a direct effect on the employer considering you for an interview and ultimately a job. This effect can be either positive or negative. Well developed documents will impress a potential employer. Poorly one's will not; regardless of who you are.

Past research in psychology has shown that the positive or negative behavior of one person has a direct and corresponding influence on the

Background on Research

Instructions for Participating

Consent to Participate information

Cover letter and Resume

Scoring Tool

perceptions of someone on the receiving end of the behavior. This line of research has looked at the physical interactions of people and their effect on behavior or attitudes. My research intends to look at the power of the written word and how it might influence people; in this case, people reviewing an applicant's cover letter and resume.

I hope my research will demonstrate that among other things that the written word has as much of an influence on people's attitudes, as does behavior. I also hope that my research will show that putting yourself in the place of the person reviewing your documents can give you valuable insights into how the quality of your cover letter and resume affects that person's perceptions of you. Bottom line: if you want to land an interview or job, quality has few substitutes for achieving this outcome.

LABOR MARKET RESEARCH**The Power of the Written Word: Why some Resumes will get you an Interview, and Others will not.****Instructions for Participating**

1. Please read the consent to participate information. This will provide you with all of the details regarding the ethical guidelines I will use in this study.
2. If you agree to the consent information, you will be asked to click on a hyperlink that will provide you with your cover letter and resume for review. Please read and review the cover letter and resume and use your experience to reflect on its quality. You will be able to print these documents for referring to while scoring if you choose.
3. A second link at the end of the cover letter and resume page will be provided that takes you to a web site where you can next score your cover letter and resume.
4. You will be asked two basic demographic questions: gender and age, and then you will click on a button/score that best represents the quality of the cover letter and resume you viewed and the messages it implies about the skills and experience of the applicant. Submission of these two scores will end your participation.

I'm using two web-based tools to first give you information and second, to record your scores, so please understand the need to go from one website to another. Hyperlinks between pages and web sites will make this process easy to navigate.

Background on Research**Instructions for Participating****Consent to Participate information****Cover letter and Resume****Scoring Tool**

I expect that if you consent to participation, that your participation will require approximately 10 minutes of your time.

LABOR MARKET RESEARCH

The Power of the Written Word: Why some Resumes will get you an Interview, and Others will not.

Consent to Participate Information

I want you to understand that your participation in this research is strictly voluntary and that you can choose to stop at any time you choose with no consequence to you.

I have developed this study so as to ensure there are no ways for me to know who you are, or what your e-mail address is. I will have no access to any identifying information about you or any of the other participants. The only records of your participation will be anonymous information about gender, age, and a numerical score on a survey. This information will be kept secure by using a stand alone computer for storing the electronic data. This computer is password protected so that only I can access the data generated by this experiment.

I also want to assure you that I will not divulge or provide any identifying information regarding who your employer is. All of this information will be kept strictly confidential. My only reference to participants in future writings will be as human resource personnel in Alberta.

For the reasons above, I cannot foresee any risks to your participation in this research.

This research study has been reviewed and approved by the University of Alberta Ethics Review Committee and

Background on Research

Instructions for Participating

Consent to Participate information

Cover letter and Resume

Scoring Tool

meets their requirements for ensuring the safety, security, and anonymity of participants. If you have any questions about the study, you may contact Dr. Dick Sobsey at 780-492-3755 or by e-mail to dick.sobsey@ualberta.ca.

Section E1

LABOR MARKET RESEARCH**The Power of the Written Word: Why some Resumes will get you an Interview, and Others will not.**

Your mouse click on the hyperlink below indicates that you have read the consent information above and agree with the conditions stated. If you choose to click on the hyperlink below, this action will also provide you with your cover letter and resume for review and rating.

Note: The cover letter and resume are in PDF format, and a new window will open. Feel free to print the cover letter and resume for referring to when scoring. Closing or minimizing your PDF window will display this page again, which you will need to see once more to complete the last stage of your participation; scoring your cover letter and resume.

I consent to participate and would like to view a cover letter and resume

Background on Research

Instructions for Participating

Consent to Participate information

Cover letter and Resume

Scoring Tool

Section E1

LABOR MARKET RESEARCH**The Power of the Written Word: Why some Resumes will get you an Interview, and Others will not.****Scoring Your Cover Letter and Resume**

After reviewing your cover letter and resume, I would like you to click on the link below this paragraph. This link will take you to a web-based survey where you can score your cover letter and resume.

[Take me to the scoring website](#)

[Background on Research](#)

[Instructions for Participating](#)

[Consent to Participate information](#)

[Cover letter and Resume](#)

[Scoring Tool](#)

Section E2

Cover Letter and Resume Research: Scoring Site 1

1. Labor Market Research: The Power of the Written Word

Thank you for coming to this website where you will be given the opportunity to score your cover letter and resume you received in my previous website. I'm hoping that you can provide your input by (Date) to help me meet my timelines for completion.

Your Task:
I would like you to reflect on the cover letter and resume you reviewed and rate the applicant's a) Abilities/Skills and b) Practical Experience.

Abilities/Skills: score based on the applicant's writing skills, their attention to detail, and their administrative skills.

Practical Experience: score based on the applicant's work history, education, and computer/technology experience.

The most your applicant can score in each of these categories is 40; the lowest 16. The range in scores provided below is to provide you with a degree of flexibility in scoring these two categories.

Provide one score for each area using the following scale:

- Very Good; score between 33 and 40
- Good; score between 25 and 32
- Suitable; score between 17 and 24
- Not Suitable; score between 9 and 16

If you don't mind, before scoring your documents there are two optional questions that I'm hoping you will consider answering. One is regarding gender, the other age. I'm asking for information on these two variables to help me understand and describe who my participants were and how they compare to past research participants. These next few questions are voluntary and do not require an answer.

The last three questions (#7, 8, and 9) require answers, but please remember that you can close your browser to end your participation at any time, with no risk or harm to you.

1. Could you please indicate your gender:

Male

Female

2. Could you please provide me with the following information regarding your age:

18-24

25-34

35-44

45-55

65 or older

3. Could you please provide me with your level of education

High School

Section E2

Cover Letter and Resume Research: Scoring Site 1

Post-secondary Certificate

Post-secondary Diploma

Post-secondary Undergraduate

Post-secondary Graduate

Professional Certification

4. Do you work in the private or public sector?

Private

Public

5. How long have you been reviewing and screening applications for employment?

Less than 5 years

6-10 years

11-15 years

16-20 years

21 or more years

6. Do you have a disability?

Yes

No

7. I would score this candidate's Abilities/Skills as:

- Very Good; score between 33 and 40
- Good; score between 25 and 32
- Suitable; score between 17 and 24
- Not Suitable; score between 9 and 16

8. I would score this candidate's Practical Experience as:

- Very Good; score between 33 and 40
- Good; score between 25 and 32
- Suitable; score between 17 and 24
- Not Suitable; score between 9 and 16

Section E2

Cover Letter and Resume Research: Scoring Site 1

9. In my opinion, this cover letter and resume would warrant giving this applicant an interview

Yes

No

Unsure

2. Untitled Page

Thank you very much for participating in this study. Much appreciated!

Your role is now complete. Click on the 'Done' button to exit this site.

Section E3

Cover Letter Condition 1: Disability and Favorable

Wendy Eveningstar
12323 – 109St.
Edmonton, AB.
T5J 3S2
weveningstar@nova.com

June 22, 2006

Director of Human Resources
Paradox Enterprises
15963 – 23 St. SW
Edmonton, AB.
T5L 0C1

Dear Director,

Working for an organization like Paradox Enterprises has long been a career objective of mine. I have a physical disability and now that I've earned my Office Administration diploma, I'm eager to apply for a position on your team.

After reading my enclosed resume, please consider me for an appropriate position in your organization. My desire to be a receptionist is strong and I believe that once I join your staff, we will together discover my niche.

I will call you on Friday to learn what positions are open for the fall. Thank you!

Sincerely,

Wendy Eveningstar
Enclosure: resume

Section E3

Resume Condition 1: Disability and Favorable

Wendy Eveningstar
 12323 – 109St.
 Edmonton, AB.
 T5J 3S2
weveningstar@nova.com

Objective:

- Administrative position using skills in desktop publishing
- Role model for other employees with disabilities ←

Highlights of Qualifications:

- Experienced office worker and administrator; successful in desktop publishing and systems administration.
- Skilled working with:
 - Windows 98 and higher; Windows NT.
 - Microsoft Office.
 - Adobe Illustrator and Photoshop.
- Energetic self-starter with strong communication skills; work well independently or on a team.
- Highly productive managing projects; a creative problem-solver who rapidly adapts to changing demands.

Professional Experience:

- Desktop Publishing and Project Coordination.
- Published marketing materials for Clines, the nation's largest developer of healthcare facilities.
- Extensively utilized P Cs with the latest technologies and programs for ABC and Clines.
- Performed marketing research for Clines on products, services and companies via the Internet.
- Handled production and timely distribution of Clines' marketing materials and reports.
- Planned installation of Windows network with ISDN for Clines; oversaw network consultant.

Office Administration & Support

- Managed office, performing customer service, supervision and accounting for ABC.
- Experienced working in variety of industries, including printing, manufacturing and development.
- Utilized databases and accounting programs to organize and maintain company records.
- Worked dependably on projects within budgets and timetables for Clines, ABC and Bracco.
- Maintained Clines' network of eight computers and three printers.
- Troubleshoot and solved system problems for Clines; trained personnel on

- programs.
- Kept Huntington Forms' web press in production 24/7; planned and upgraded printing equipment.

Work History:

2001 to present	Administrative Assistant in Marketing Company, Toronto, Ontario	Clines
2000 to 2001	Office Manager Sales, Toronto, Ontario	ABC Machine
1999 to 2000	Temp Office Worker Mississauga, Ontario	Temp-to-Hire, Quality
1998 to 1999	Customer Service Representative Graphics, Mississauga, Ontario	Quality
1996-1997	Customer Service Rep & Purchasing Agent Development, Whitby, Ontario	Bracco
1984-1996	Pre-Press Manager Forms Co., Whitby, Ontario	Huntington

Education:

Adelphi University, Toronto, Ontario
 Visual Design for Computer Professionals, 2004
 Adobe Illustrator & Adobe Photoshop, 2003
 Microsoft Office: Word, Excel, PowerPoint, Access, 2003

Suffolk Community College, Mississauga, Ontario
 Business Administration

Section E3

Cover Letter Condition 2: Favorable and No-disability

Wendy Eveningstar
12323 – 109St.
Edmonton, AB.
T5J 3S2
weveningstar@nova.com

June 22, 2006

Director of Human Resources
Paradox Enterprises
15963 – 23 St. SW
Edmonton, AB.
T5L 0C1

Dear Director,

Working for an organization like Paradox Enterprises has long been a career objective of mine. Now that I've earned my Office Administration diploma, I'm eager to apply for a position on your team.

After reading my enclosed resume, please consider me for an appropriate position in your organization. My desire to be a receptionist is strong and I believe that once I join your staff, we will together discover my niche.

I will call you on Friday to learn what positions are open for the fall. Thank you!

Sincerely,

Wendy Eveningstar
Enclosure: resume

Section E3

Resume Condition 2: Favorable and No-disability

Wendy Eveningstar
 12323 – 109St.
 Edmonton, AB.
 T5J 3S2
weveningstar@nova.com

Objective:

- Administrative position using skills in desktop publishing

Highlights of Qualifications:

- Experienced office worker and administrator; successful in desktop publishing and systems administration.
- Skilled working with:
 - Windows 98 and higher; Windows NT.
 - Microsoft Office.
 - Adobe Illustrator and Photoshop.
- Energetic self-starter with strong communication skills; work well independently or on a team.
- Highly productive managing projects; a creative problem-solver who rapidly adapts to changing demands.

Professional Experience:

- Desktop Publishing and Project Coordination.
- Published marketing materials for Clines, the nation's largest developer of healthcare facilities.
- Extensively utilized P Cs with the latest technologies and programs for ABC and Clines.
- Performed marketing research for Clines on products, services and companies via the Internet.
- Handled production and timely distribution of Clines' marketing materials and reports.
- Planned installation of Windows network with ISDN for Clines; oversaw network consultant.

Office Administration & Support

- Managed office, performing customer service, supervision and accounting for ABC.
- Experienced working in variety of industries, including printing, manufacturing and development.
- Utilized databases and accounting programs to organize and maintain company records.
- Worked dependably on projects within budgets and timetables for Clines, ABC and Bracco.
- Maintained Clines' network of eight computers and three printers.
- Troubleshoot and solved system problems for Clines; trained personnel on programs.

- Kept Huntington Forms' web press in production 24/7; planned and upgraded printing equipment.

Work History:

2001 to present	Administrative Assistant in Marketing Company, Toronto, Ontario	Clines
2000 to 2001	Office Manager Sales, Toronto, Ontario	ABC Machine
1999 to 2000	Temp Office Worker Mississauga, Ontario	Temp-to-Hire,
1998 to 1999	Customer Service Representative Graphics, Mississauga, Ontario	Quality
1996-1997	Customer Service Rep & Purchasing Agent Development, Whitby, Ontario	Bracco
1984-1996	Pre-Press Manager Forms Co., Whitby, Ontario	Huntington

Education:

Adelphi University, Toronto, Ontario
 Visual Design for Computer Professionals, 2004
 Adobe Illustrator & Adobe Photoshop, 2003
 Microsoft Office: Word, Excel, PowerPoint, Access, 2003

Suffolk Community College, Mississauga, Ontario
 Business Administration

Section E3

Cover Letter Condition 3: Unfavorable and Disability

Wendy Eveningstar
12323 – 109St.
Edmonton, AB.
T5J 3S2
weveningstar@nova.com

June 22, 2006

Director of Human Resource
Paradox Enterprises
15963 – 23 St. SW
Edmonton, AB.
T5L 0C1

Dear Director,

Working for an organization like Paradox Enterprises has long been a career object of mine. I have a physical disability and now that I've earned my Office Administration diploma, I'm eager to apply for a position on your team.

After reading my enclosed resume, please consider me an appropriate position in your organization. My desire to be a receptionist is strong and I believe that once I join your staff, we will together discover my niche.

I will call you on Friday to learn what positions are open for the fall. Thank you!

Sincerely,

Wendy Eveningstar
Enclosure: resume

Section E3

Resume Condition 3: Unfavorable and Disability

Wendy Eveningstar
 12323 – 109St.
 Edmonton, AB.
 T5J 3S2
weveningstar@nova.com

Objective:

- Administrative position using skills in desktop publishing
- Role model for other employees with disabilities

Highlights of Qualifications:

- Experienced office worker and administrator; successful in desktop publishing and systems administration.
- Skilled working with:
- Windows 98 and higher; Windows NT.
- Microsoft Offices. ←
- Adobe Illustrator and Photoshop. ↘
- Energetic self-starter with strong communication skills; work well independently on a team.
- Highly productive managing projects; a creative problem-solver who rapidly adapts to changing demands.

Professional Experience:

- Desktop Publishing and Project Coordination.
- Published marketing materials for Clines, the nation's largest developer of healthcare facilities.
- Extensively utilized P Cs with the latest technologies and programs for ABC and Clines. ↘
- Performed marketing research for Clines on products, services an companies via the Internet.
- Handled production and timely distribution of Clines' marketing materials and reports.
- Planned installation of Windows network with ISDN for Clines; oversaw network consultant. ↘

Office Administrate & Support

- Managed office, performing customers service, supervision and accounting for ABC. ↘
- Experienced working in variety of industries, including printing, manufacturing and development.
- Utilized databases and accounting programs to organize and maintain company records.
- Worked dependably on projects within budgets and timetables for Clines, ABC and Bracco.
- Maintained Clines' network of eight computers and three printers.
- Troubleshoot and solved system problems for Clines; trained personnel on

- programs.
- Kept Huntington Forms' web press in production 24/7; planned and upgraded printing equipment.

Work History:

2001 to present	Administrative Assistant in Marketing Company, Toronto, Ontario	Clines
2000 to 2001	Office Manager Sales, Toronto, Ontario	ABC Machine
1999 to 2000	Temp Office Worker Mississauga, Ontario	Temp-to-Hire, Quality
1998 to 1999	Customer Service Representative Graphics, Mississauga, Ontario	Quality
1996-1997	Customer Service Rep & Purchasing Agent Development, Whitby, Ontario	Bracco
1984-1996	Pre-Press Manager Forms Co., Whitby, Ontario	Huntington

Education:

Adelphi University, Toronto, Ontario
 Visual Design for Computer Professionals, 2004
 Adobe Illustrator & Adobe Photoshop, 2003
 Microsoft Office: Word, Excel, PowerPoint, Access, 2003


Suffolk Community College, Mississauga, Ontario
 Business Administration

Section E3

Cover Letter Condition 4: Unfavorable and No-disability


Wendy Eveningstar
12323 – 109St.
Edmonton, AB.
T5J 3S2
weveningstar@nova.com

June 22, 2006

Director of Human Resource 
Paradox Enterprises
15963 – 23 St. SW
Edmonton, AB.
T5L 0C1

Dear Director,

Working for an organization like Paradox Enterprises has long been a career object of mine. Now that I've earned my Office Administration diploma, I'm eager to apply for a position on your team.

After reading my enclosed resume, please consider me an appropriate position in your organization. My desire to be a receptionist is strong and I believe that once I join your staff, we will together discover my niche. 

I will call you on Friday to learn what positions are open for the fall. Thank you!

Sincerely,

Wendy Eveningstar
Enclosure: resume

Section E3

Resume Condition 4: Unfavorable and No-disability

Wendy Eveningstar
 12323 – 109St.
 Edmonton, AB.
 T5J 3S2
weveningstar@nova.com

Objective:

- Administrative position using skills in desktop publishing

Highlights of Qualifications:

- Experienced office worker and administrator; successful in desktop publishing and systems administration.
- Skilled working with:
- Windows 98 and higher; Windows NT.
- Microsoft Offices.
- Adobe Illustrator and Photoshop.
- Energetic self-starter with strong communication skills; work well independently on a team.
- Highly productive managing projects; a creative problem-solver who rapidly adapts to changing demands.

Professional Experience:

- Desktop Publishing and Project Coordination.
- Published marketing materials for Clines, the nation's largest developer of healthcare facilities.
- Extensively utilized P Cs with the latest technologies and programs for ABC and Clines.
- Performed marketing research for Clines on products, services an companies via the Internet.
- Handled production and timely distribution of Clines' marketing materials and reports.
- Planned installation of Windows network with ISDN for Clines; oversaw network consultant.

Office Administrate & Support

- Managed office, performing customers service, supervision and accounting for ABC.
- Experienced working in variety of industries, including printing, manufacturing and development.
- Utilized databases and accounting programs to organize and maintain company records.
- Worked dependably on projects within budgets and timetables for Clines, ABC and Bracco.
- Maintained Clines' network of eight computers and three printers.
- Troubleshoot and solved system problems for Clines; trained personnel on programs.

- Kept Huntington Forms' web press in production 24/7; planned and upgraded printing equipment.

Work History:

2001 to present	Administrative Assistant in Marketing	Clines
Company, Toronto, Ontario		
2000 to 2001	Office Manager	ABC Machine
Sales, Toronto, Ontario		
1999 to 2000	Temp Office Worker	Temp-to-Hire,
Mississauga, Ontario		
1998 to 1999	Customer Service Representative	Quality
Graphics, Mississauga, Ontario		
1996-1997	Customer Service Rep & Purchasing Agent	Bracco
Development, Whitby, Ontario		
1984-1996	Pre-Press Manager	Huntington
Forms Co., Whitby, Ontario		

Education:

Adelphi University, Toronto, Ontario
 Visual Design for Computer Professionals, 2004
 Adobe Illustrator & Adobe Photoshop, 2003
 Microsoft Office: Word, Excel, PowerPoint, Access, 2003

Suffolk Community College, Mississauga, Ontario
 Business Administration

Section E4

Alberta

Seniors and Community Supports

ASSESSMENT GUIDE SUMMARY PAGE

Candidate:	Date	Time:
Competition	Working Title:	

Additional Notes on the Qualifications Candidate's Qualifications Requirements Assessment of Against the Basic Requirements

Education:	Above	
	Meets	
	Below	
Experience:	Above	
	Meets	
	Below	

Candidate's Rating Recap

Candidate's Assessment Summary

Knowledge		
Abilities/Skills		
Personal Suitability		
Total or (X) if not Suitable		
Certifiable (X) Subject to Change		
Rank Order		

Selection Panel Information

Additional

Chairperson:	Date Reference Checks Completed	
	Date Available to Start	
Panel Members:	Salary Expectations	
	Other Pre-Employment	

	Checks and Conditions
--	-----------------------

Section E4

ASSESSMENT GUIDE
FACTOR PAGE

Candidate	15	20	25	30	35	40
	12	16	20	24	28	32
	9	12	15	18	21	24

Assessment Factor (X) Specific Sub-Factors to be Assessed

Factor Rating Guide

Knowledge	X	-knowledge of the Ministry -some knowledge of Division -office practices and procedures -computer applications	Very Good	25
Abilities/Skills			Good	20
Personal Suitability			Suitable	15
			Rating or (X) if Not Suitable	

Interview Questions

Section F4

ASSESSMENT GUIDE

Candidate	15	20	25	30	35	40
	12	16	20	24	28	32
	9	12	15	18	21	24

Assessment Factor (X) Specific Sub-Factors to be Assessed
 Factor Rating Guide

Knowledge		-deal with public	Very Good	40
Abilities/Skills	X		-reception/telephones	Good
Personal		-priorize/organize/administrative practices	Suitable	24
Suitability			-deal with stress	Rating or (X) if Not Suitable

Interview Questions

Section E4

ASSESSMENT GUIDE
FACTOR PAGE

Candidate	15	20	25	30	35	40
	12	16	20	24	28	32
	9	12	15	18	21	24

Assessment Factor (X) Specific Sub-Factors to be Assessed
Factor Rating Guide

Knowledge		Initiative	Very Good	35
Abilities/Skills		Team player	Good	28
Personal		Dependability/Flexibility	Suitable	21
Suitability	X	Compatibility	Rating or (X) if Not Suitable	

Section E4

DRAFT RATING TOOL

Candidate: Wendy Eveningstar	Date Fall 2006	Time:
Competition	Working Title: Receptionist	

Assessment Factor 1	Specific Areas to be Assessed	Rating Guide
<u>Abilities/Skills</u>	Writing skills Attention to detail Administrative skills	Very Good (33-40) Good (25-32) Suitable (17-24) Not Suitable (9-16)
Assessment Factor 2	Specific Areas to be Assessed	Rating Guide
<u>Practical Experience</u>	Work History Education Computer/Technology	Very Good (33-40) Good (25-32) Suitable (17-24) Not Suitable (9-16)

Candidate's Score

	Score
Abilities/Skills	
Practical Experience	
Total or (X) if not Suitable	

APPENDIX F: SCHEFFÉ MULTIPLE COMPARISON CALCULATIONS

The formula for the contrast of **Disability to No Disability** was as

follows:

$$\text{Step 1: } F(3,95) = \frac{[(59.41 + 50.68) - (58.48 + 47.85)]^2}{\text{Mean Square of Within Group difference (130.66) } \times [(1/29 + 1/21 + 1/22 + 1/27)^2]}$$

$$\text{Step 2: } F(3,95) = \frac{38.9376}{21.50528}$$

$$\text{Step 3: } F(3,95) = 1.8106$$

Critical value of (3,95) = 2.70

(F (3,95) = 1.8106, p=0.1844)

The formula for the contrast of **Favorable to Unfavorable** was as

follows:

$$\text{Step 1: } F(3,95) = \frac{[(59.41 + 58.48) - (47.85 + 50.68)]^2}{\text{Mean Square of Within Group difference (130.66) } \times [(1/29 + 1/21 + 1/22 + 1/27)^2]}$$

$$\text{Step 2: } F(3,95) = \frac{374.8096}{21.50528}$$

$$\text{Step 3: } F(3,95) = 17.43$$

Critical value of (3,95) = 2.70

(F (3,95) = 17.43, p<.001)