

Running head: CONTACT AND AGING ANXIETY ON AGEISM

Ageism: Contact with Older Adults and Anxiety Towards Aging

By

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## Abstract

Ageism against older adults has become an increasingly popular research area with the increase in life expectancy. Participants ( $n = 101$ ; age range: 19-42) completed an Aging Semantic Differential (ASD) scale of a 70-year-old target, an ASD scale for oneself at 70 years of age, and the Relating to Older People Evaluation (ROPE). It was hypothesized that participants who indicated more frequent positive contact with older adults, awareness of someone else's positive contact with an older adult, and a lack of anxiety about aging would have less ageist attitudes and behaviours. It was also hypothesized that participants would score lower on the ASD when rating themselves at 70 years of age than when rating a 70-year-old target. Results indicated that ratings of direct contact predicted scores on the ASD for the target ( $R^2 = .136$ ). As predicted, participants scored higher on the ASD when rating the 70-year-old target ( $M = 123.64$ ,  $SD = 18.74$ ) than when rating themselves at 70 years ( $M = 105.33$ ,  $SD = 22.16$ ), indicating participants held more positive attitudes of themselves at 70 years of age than the 70-year-old target.

### **Ageism: Contact with Older Adults and Anxiety Towards Aging**

Medical advancements have increased life expectancy throughout the world (Giannakouris, 2008; Huang, 2011; Lovell, 2006; Statistics Canada, 2007). Individuals who were once lucky to live to see half a century, now can expect to celebrate their eightieth birthday, if not longer (Giannakouris, 2008; Huang, 2011; Lovell, 2006; Statistics Canada, 2007). This increase in life expectancy and the lower birth rate, has led to a significant increase in the number of older adults (those aged 65 or older) in the global population, including Canada. Over the last two decades, the population of older Canadians has doubled from 2.4 million to 4.2 million and it is expected to double again within the next two decades (Statistics Canada, 2007). Older adults are the fastest growing cohort in many countries (Huang, 2011; Statistics Canada, 2007). Professionals who specialize in providing care and assistance to older adults cannot keep up with the increasing number of older adults (Allen, Crowther, & Molinari, 2013; Hinrichsen & Zweig, 2005; Honn-Qualls, Segal, Benight, & Kenny, 2008; Honn-Qualls, Scorgin, Zweig, & Krauss-Whitbourne, 2010; Huang, 2011; Karel, Altman, Zweig, & Hinrichsen, 2013; Karel, Knight, Duffy, Hinrichsen, & Zeiss, 2010; Klein & Liu, 2011; Konnet, Dobson, & Watt, 2009; Segal, 2012; Zweig et al., 2005).

As the population ages, the need for professional services to examine, assess, and meet the needs of older adults becomes increasingly important. The creation of gerontology, which is “the scientific interdisciplinary study of old age and the aging process” (VandenBros, 2007, p. 408), and geropsychology, which is “a branch of psychology dealing with the mental health of older adults and the study of the process of aging” (VandenBros, 2007, p. 408), reflect this importance.

Despite the growing reflection for the need of age-related professionals, education on aging is very limited (Allen et al., 2013; Hinrichsen & Zweig, 2005; Honn-Qualls et al., 2008; Honn-Qualls et al., 2010; Huang, 2011; Karel et al., 2013; Karel et al., 2010; Klein & Liu, 2011; Konnent et al., 2009; Segal, 2012; Zweig et al., 2005). This lack of gerontological education has been seen from elementary school to post-doctorate (Allen et al., 2013; Hinrichsen & Zweig, 2005; Honn-Qualls et al., 2008; Honn-Qualls et al., 2010; Huang, 2011; Karel et al., 2013; Karel et al., 2010; Klein & Liu, 2011; Konnent et al., 2009; Segal, 2012; Zweig et al., 2005). Textbooks often offer limited information regarding aging and older adults (Allen et al., 2013; Hinrichsen & Zweig, 2005; Honn-Qualls et al., 2008; Honn-Qualls et al., 2010; Huang, 2011; Karel et al., 2013; Karel et al., 2010; Klein & Liu, 2011; Konnent et al., 2009; Segal, 2012; Zweig et al., 2005). Courses within developmental psychology, clinical psychology, and counseling psychology are a few of the areas of psychology where gerontology is rarely even mentioned (Segal, 2012). When information regarding older adults and aging is provided, the information is often negative (Greene, Adelman, Charon, & Hoffman, 1996; Krauss-Whitbourne & Hulicka, 1990). Portrayals of older adults as sick, stubborn, dependent, inactive, and unintelligent are common within society (Barret & Cantwell, 2007; Musaiger & D'Souza, 2008; Nelson, 2002; Okoye & Obikeze, 2005). When an older adult does not express these characteristics, he or she is not considered "old" (Fineman, 1994). Gerontological education within social work, psychology, and medicine is often not viewed as important as other areas, such as child psychology, child development, and pediatrics (Allen et al., 2013; Hinrichsen & Zweig, 2005; Honn-Qualls et al., 2008;

Honn-Qualls et al., 2012; Huang, 2011; Karel et al., 2013; Karel et al., 2010; Klein & Liu, 2011; Konnent et al., 2009; Segal, 2012; Zweig et al., 2005).

In terms of professional training and experience within psychology, medicine, and social work, few educational programs provide, let alone require, training in assisting and interacting with older adults (Konnent et al., 2009; Segal, 2012). As a result of this lack of education, individuals are not receiving the awareness needed to enter into fields where issues related to aging are prominent, such as gerontology or geropsychology (Karel et al., 2013; Karel et al., 2010). For example, only 6% of both British and Australian psychologists specialize in working with older adults (Helmes, 2003). Within Canada, the popularity of gerontology and geropsychology is even less because of its relatively new existence (Honn-Qualls et al., 2008; Segal, 2012).

Although many psychology interns are supervised in geropsychology, few of the supervisors themselves receive specialized training in geropsychology supervision (Karel et al., 2013; Karel et al., 2010). This lack of specialized training in geropsychology not only impacts the supervisors but also impacts the supervisees and the clients that they serve as well (Karel et al., 2013; Karel et al., 2010). Without geropsychological training, students are often not adequately prepared to assess issues that are common among clinical work with older adults (Karel et al., 2013; Karel et al., 2010). Lack of training creates low professional confidence, which leads to a low interest in working with older adults (Boswell, 2012a; Boswell, 2012b; Harris & Dolinger, 2001; Gellis, Sherman, & Lawrence, 2003; Klein & Liu, 2010). Another result of the lack of gerontological and aging training and education is that students may develop negative attitudes and beliefs about gerontology and geropsychology, such as the view that working with older adults is

easy; boring; depressing; and a waste of time, effort, and skill (Gellis et al., 2003; Klein & Liu, 2010). This perception is evident when many professionals express unhappiness when they have to work with older adults, and they often wish to move to a different specialty as soon as possible before they even begin the placement (Klein & Liu, 2010). In contradiction of this perception, most professionals who work within gerontology or geropsychology find the profession to be rewarding, satisfying, and intellectually challenging (Karel et al., 2010; Klein & Liu, 2010). These negative attitudes of older adults and gerontology are only a few examples of ageism.

### **Ageism**

Ageism involves prejudicial attitudes and discrimination based on age and the aging process (Butler, 2005). Although individuals of any age can experience ageism, older adults are seen as having the most likelihood of experiencing ageism (Butler, 2005). Much research has focused on the origins of ageism. Older adults, once valued in agricultural society for their experience and knowledge, are now devalued within today's industrialized society (which is based on productivity and technology) (Butler, 2005; Nelson, 2005). For example, older adults are now no longer needed to provide a history of the past through their memories and past experiences due to the creation of the printing press, which can keep meticulous records (Butler, 2005; Nelson, 2005). As the number of older adults increased, so did the responsibility of caring for them, thus lessening the value of older adults.

Ageism can be seen within employment, health care, and social policies that reduces quality of life and dignity for those who experience it (i.e., older adults) (Butler, 2005). As previously mentioned, aging is rarely covered in educational materials and

when it is, the information is often negative (Allen et al., 2013; Hinrichsen & Zweig, 2005; Honn-Qualls et al., 2008; Honn-Qualls et al., 2010; Huang, 2011; Karel et al., 2013; Karel et al., 2010; Klein & Liu, 2011; Konnet et al., 2009; Segal, 2012; Zweig et al., 2005). Butler (2005) found that medical students are not even taught that older adults with cognitive illnesses, such as Dementia, react in an opposite manner to some drug prescriptions. Other forms of ageism within history range from mandatory retirement to inequality in housing and social services (Butler, 2005; Kelahear, 2011).

Ageism has been seen in employment and occupations. Mandatory retirement in Canada did not become illegal until 2012 (Kelahear, 2012). Many companies located outside of Canada still terminate employees once they reach a certain age. The employee's age is seen to negatively impact his or her productivity, thus the amount of money the company can make off of him or her. Employers have been shown to have an age preference for certain services (Kalavar, 2001). Younger employees are preferred for jobs that require adaptability and the ability to use technology while older workers are preferred for jobs that call for maturity, experience, and responsibility (Kalavar, 2001).

Many professionals have been found guilty of holding ageist attitudes and beliefs against older adults (Butler, 2005). Physicians often have negative attitudes and perceptions about older adults and the process of aging (Butler, 2005). They often view older adults as lacking the capacity to benefit from therapies and methods of treatment (Butler, 2005). Negative views towards older adults may develop as a result of the medical community's perception that aging is a failure because aging leads to death (Butler, 2005; Klein & Liu, 2010; Nelson, 2005). Butler (2005) found that medical professionals often refer to older patients using derogatory names, such as "crone,"

“troll,” “turkey,” and “gomer.” Often, older adults internalize these ageist attitudes and come to believe them themselves (Klein & Liu, 2010).

### **Factors that Influence Ageism**

#### **Culture**

Culture has been cited as an explanation for the differences surrounding ageism among varying countries and societies. It is thought that individuals from cultures that value youth, independence, and individualism hold more ageist attitudes than those who come from collectivist cultures that value life experience and cooperation (Butler, 2005). Although this theory was a sufficient explanation in the past, globalization and increased communication between Western and non-Western societies have caused this theory to be criticized and challenged. Research into ageism across different cultures fails to find significant differences (e.g., Cuddy, Norton, & Fiske, 2005; Lin & Bryant, 2009; Okoye & Obikeze, 2005), thus causing this theory to be unsupported.

#### **Gender**

Gender is a widely examined area of research, especially within research on ageism. Although studies have found that females hold less ageist attitudes than do males, this gender difference is not large enough to be meaningful (Allen & Johnson, 2009; Fraboni, Saltstone, & Hughes, 1990; Kalvar, 2001; Randler, Vollmer, Wilhelm, Flessner, & Hummel, 2014). When females do hold ageist views towards older adults, these views are considered to be more positive, such as the view that older adults need assistance (Cherry & Palmore, 2008). This gender difference could be due to the fact that women are socialized into caregiver roles, whereas men are socialized into roles that focus on financial support, rather than emotional support. Indeed, the fact that the

majority of Canadian caregivers of older adults are women (54%) supports this explanation (Statistics Canada, 2013). Contact with older adults could also explain this gender difference. If females are more likely to care for older adults, this interaction could help to reduce any ageist attitudes and behaviours that they may have.

### **Age**

There is mixed support regarding the influence of age on ageism. Ageism is commonly perceived to be one age group (i.e., the young) discriminating against or stereotyping another age group (i.e., the old) based on age, so it is commonly believed that younger individuals are more ageist in their attitudes and behaviours than older individuals. However, most research has found that age is unrelated to ageism. That is, older participants were not found to hold less ageist attitudes and behaviours than younger participants (Cherry & Palmore, 2008; Lin & Bryant, 2009). These non-significant findings between age and ageism have pointed to contact with older adults and anxiety towards aging as factors that influence ageism. Whereas some believe that as an individual ages, he or she may gain more contact and experience with older adults, thus dispelling incorrect (often negative) perceptions of older adults which decreases his or her ageism (Kalavar, 2001), others suggest that as age increases so too does ageism (Randler et al., 2014). To explain these inconsistent findings, *terror management theory (TMT)* is used to suggest that as an individual ages, he or she may experience an increase in anxiety regarding becoming increasingly closer to old age and death, so by adopting ageist attitudes and behaviours towards older adults, he or she can decrease his or her anxiety towards aging and eventual death. (Bodner, 2009; Martens, Goldenberg, & Greenberg, 2005; Popham, Kennison, & Bradley, 2011).

### **Knowledge about Aging**

There is evidence that ageism stems from the limited attention given to aging within education. Aging content in textbooks and curriculum from elementary school to graduate school is very limited (Allen et al., 2013; Hinrichsen & Zweig, 2005; Honn-Qualls et al., 2008; Honn-Qualls et al., 2010; Huang, 2011; Karel et al., 2013; Karel et al., 2010; Klein & Liu, 2011; Konnet et al., 2009; Segal, 2012; Zweig et al., 2005).

Most of the literature regarding knowledge about aging indicates that most individuals are not knowledgeable in this subject. Allen and Johnson (2009) found that the average score on *Palmore's Facts about Aging Quiz (FAQ)* scale was 47.68% while Gellis et al. (2003) found an average FAQ score of 49% in their study. As previously mentioned, even physicians do not have an extensive knowledge about aging (Butler, 2005) and most individuals who supervise others in working with older adults do not receive formal training (Karel et al., 2013; Karel et al. 2010). This lack of knowledge may cause negative beliefs about the aging process and older adults to develop, thus increasing an individual's anxiety about aging and decreasing his or her desire to work with older adults (Karel et al., 2013; Karel et al., 2010; Krain, Fitzgerald, Halter, & Williams, 2007). Much research aimed at reducing ageism through increasing knowledge about aging has used courses on aging to increase aging knowledge (Bergman, Erickson, & Jocelyn, 2014; Bowell, 2012a; Boswell, 2012b; Burbank, Dowling-Castronovo, Crowther, & Capezuti, 2006; Harris & Dolinger, 2001; Koder & Helmes, 2008). However, results regarding knowledge about aging have found inconsistent results. Whereas some research has found that increasing education about aging decreases ageism (Boswell, 2012a; Boswell, 2012b; Burbank et al., 2006; Harris & Dolinger, 2001) other

studies have found that aging knowledge has no impact on ageism (Cottle & Glover, 2007; Stuart-Hamilton & Mahoney, 2011).

In order to explain the inconsistent findings surrounding knowledge about aging on ageism, contact with older adults and anxiety towards aging have been explored as factors that influence ageism. Knowledge about aging is often related to contact with older adults (directly or indirectly). For example, Randler et al. (2014) found that students whose grandparents lived closer had more knowledge about aging and more positive attitudes towards older adults due to increased contact with their grandparents. Course work on aging would be considered an indirect form of contact with older adults through readings and case studies while volunteer or internships that involve directly interacting with older adults would be an example of direct contact with older adults. The differing results on ageism found between these two forms of educational interventions on aging have been attributed to the interventions themselves. Course work has often been found to have no significant influence on ageism while contact with older adults through volunteering or a working relationship has been seen to decrease negative attitudes towards older adults (Bergman et al., 2014; Cottle & Glover, 2007; Stuart-Hamilton & Mahoney, 2011). Thus, there may be differences between the effects of direct and indirect contact with older adults on ageism.

Knowledge about aging and anxiety about aging are often seen to influence one another. If an individual has less knowledge about aging he or she often develops misconceptions about aging (which are often negative), thus increasing anxiety about aging. Indeed it has been shown that those with less knowledge about aging and higher anxiety about aging exhibit more ageist attitudes and behaviours than those who do not

have anxiety about aging (Allen & Johnson, 2009; Boswell, 2012a; Boswell, 2012b; Harris & Dolinger, 2001).

**Anxiety towards aging.** As previously mentioned, anxiety about aging has been used to explain why individuals develop ageist attitudes and behaviours. *TMT* suggests that individuals associate aging with the increasing likelihood of death. Fear of death increases as fear of aging increases due to physical deterioration of the body and decreasing mental ability which is believed to occur as one ages (Bodner, 2009; Martens et al., 2005). As an individual ages, he or she often fears the perceived negative consequences of aging, such as dependency, isolation, and loss of control (Butler, 2005). Physical and cognitive losses related to age may signify the aging process, and therefore exacerbate anxiety about aging and ageism. Attributing negative aspects of aging to the fault of the personal shortcomings of the older adult allows an individual to distance himself or herself from the fact that he or she will also experience the same problems related to aging and therefore become closer to death (Bodner, 2009; Martens et al., 2005). Although most studies have examined anxiety about aging directly, there has been research to support an indirect relationship between anxiety about aging and ageism, as seen in risk-taking behaviour (Popham et al., 2011). The fact that individuals with more ageist attitudes and behaviours engaged in more risk-taking behaviours has been used to support this theory (Popham et al., 2011).

**Contact with older adults.** Much research has been conducted to examine if providing individuals with more contact with older adults through educational and volunteer opportunities leads to these individuals exhibiting less ageist attitudes and behaviours (Bergman et al., 2014; Boswell, 2012a; Boswell, 2012b; Burbank et al., 2006;

Knapp & Stubblefield, 2000; Koder & Helmes, 2008). However, as with the factors previously mentioned, research regarding the influence of contact with older adults has found inconsistent results. Whereas some studies have found that those who engage in frequent contact with older adults hold more positive views towards older adults (e.g., Rosencranz & McNevin, 1969), other studies have found that frequency of contact is not related to ageism (Boswell, 2012a; Boswell, 2012b; Bousfield & Hutcherson, 2010; Koder & Helmes, 2008; Schwartz & Simmons, 2010) and more contact may even increase negative attitudes and behaviours towards older adults (Allan & Johnson, 2009).

*Quality of contact.* To help explain this inconsistency, quality of contact with older individuals has been cited as an important factor in dispelling ageism (Bousfield & Hutchison, 2010; Schwartz & Simmons, 2010; Tam, Hewstone, Harwood, Voci, & Kenworthy, 2006). Allport (1954) believed that mere exposure to members of an out-group was not sufficient to reduce prejudice. Context and the quality of the interaction are the determining factors for reducing prejudice (Pettigrew, 1998). Allport developed the *intergroup contact theory* which has four criteria that must be met in order for increased contact to reduce stereotypical attitudes and behaviours towards older adults. These criteria are equal status, common goals, cooperation, and institutional support (Pettigrew, 1998). The *intergroup contact theory* has been used extensively in research regarding how contact with older adults impacts ageism (Caspi, 1984; Knox, Gekoski, & Johnson, 1986; Schwartz & Simmons, 2010; Wittig & Grant-Thompson, 2010). Previous research has led to the conclusion that interactions or relationships with older adults that are stronger, deeper, and more meaningful, such as relationships with family members, lead to a greater decrease in ageist attitudes and behaviours than superficial distant

interactions, such as the relationships that are created when students interact with older adults as an educational or volunteer requirement (Fraboni et al., 1990; Rosencranz & McNevin, 1969). Often familial relationships have more opportunity for equal status, common goals, cooperation, and institutional support (Pettigrew, 1998) to develop.

However, perceptions of the contact with older adults are influential on ageism. Positive contact has been seen as necessary to reduce ageism. Positive contact with older adults is related to positive attitudes towards older adults while negative contact with an older adult leads to negative attitudes towards older adults (Angiullo, Krauss-Whitbourne, & Powers, 1996; Bousfield & Hutchison, 2010; Schwartz & Simmons, 2010). It has been suggested that older family members viewed as independent, competent, and healthy are viewed more positively and increase positive attitudes towards older adults in general (Rosencranz & McNevin, 1969). However, research has found that older family members tend to be viewed more negatively while older co-workers, who the participant interacts with several times a day are viewed more positively (Allen & Johnson, 2009; Iweins, Desmette, Yzerbyt, & Stinglhamber, 2013). This may be due to the fact that older family members may require assistance and care from the younger family member (the participant) than older co-workers do (Allan & Johnson, 2009; Bousfield & Hutcherson, 2010; Schwartz & Simmons, 2010). If an older adult needs assistance then the *intergroup contact theory* criteria of equal status, common goals, cooperation, and institutional support (Pettigrew, 1998) are less likely to be met. If an older co-worker and a younger co-worker work together these criteria would most often be met.

***Expended contact or vicarious contact.*** Not only has research shown that direct contact with older adults can decrease ageism but much research has examined if indirect or vicarious contact can also decrease ageism. The *expended (or vicarious) contact hypothesis* focuses on reducing ageism by making individuals aware of the fact that members of their in-group have positive relationships with members of an out-group (e.g., older adults). When individuals engage in positive interactions with members of the out-group, their own prejudice does not only decrease but those who are aware of this positive interaction or relationship also experience a reduction in prejudice (Cameron, Rutland, Brown, & Douch, 2006; Mazziotta, Mummendey, & Wright, 2011; Paolini, Hewstone, & Cairns, 2007; Paolini, Hewstone, Cairns, & Voci, 2004; Turner, Crisp, & Lambert, 2007; Turner, Hewstone, & Voci, 2007).

### **Hypotheses**

Based on findings from previous research, it was hypothesized that contact with older adults (directly and indirectly) and anxiety about aging would have an influence on ageism as measured by scores on the *Aging Semantic Differential (ASD) scale* for the 70-year-old target and scores on the *Relating to Older People Evaluation (ROPE)*. Lower scores on these two scales would indicate lower ageist attitudes (ASD) and behaviours (ROPE). Specifically, it was hypothesized that those who engaged in more frequent contact with older adults would score lower on the ASD scale for the 70-year-old target and the ROPE. It was also hypothesized that participants who perceived their contact with older adults more positively would also score lower on the ASD scale for the 70-year-old target and ROPE. Also, in terms of indirect contact, it was predicted that participants would have lower ASD scores for the 70-year-old target and ROPE scores if

they indicated that someone they knew engaged in contact or had a relationship with an older adult. Participants who perceived this contact with older adults [by someone he or she knew] more positively were predicted to have lower ASD scores for the 70-year-old target and the ROPE as well. Participants who indicated that they experienced anxiety about aging were hypothesized to have higher ASD scores for the 70-year-old target and ROPE scores than participants who did not indicate experiencing anxiety about aging. Finally, it was hypothesized that participants would score lower on the ASD scale for themselves at 70 than for a 70-year-old target, based on previous research (Mosher-Ashley & Ball, 1999).

## Method

### Materials

**Scales of ageism.** Many scales have been developed to measure ageist attitudes towards older individuals. Rosencranz and McNevin's (1969) *Aging Semantic Differential (ASD) scale*, which was revised by Polizzi (2003), and Cherry and Palmore's (2008) *Relating to Older People Evaluation (ROPE)* were used in this study.

***Aging semantic differential scale.*** The *Aging Semantic Differential (ASD)* scale by Rosencranz and McNevin (1969) was developed to further the research already conducted on ageism among undergraduates. Since its publication, it has been cited many times (e.g., Angiullo et al., 1996; Gellis et al., 2003; Harris & Dolinger, 2001) within the literature. This scale uses a method that allows for various connotative contributions to create an overall score, rather than assessing ageism based on a single stereotype score which was previously the method of choice (Rosencranz & McNevin, 1969). Participants are asked to indicate where on a semantic seven point scale he or she believes the target (i.e., a 70-year-old adult) would fall within two adjectives which describe attributes or behaviours of all ages (Rosencranz & McNevin, 1969). The scale is divided into three components: the instrumental-ineffective dimension, the autonomous-dependent dimension, and the personal acceptability-unacceptability dimension. Seeing how one adjective has a negative connotation (e.g., weak) while the opposite adjective is more positive (e.g., strong), this scale can test the traditional definition of ageism: negative attitudes towards an older adult. Although scores for the three dimensions can be calculated individually, many studies (including this one) have opted to calculate a total score for all 32 items.

Polizzi (2003) revised the scale to make the adjectives more understandable and relevant to current times. Polizzi did not include “busy vs. idle” and “expectant vs. resigned” in his revised version because these were determined to be out of date. Four of the adjective pairs were revised (Polizzi, 2003). “Progressive vs. old fashioned” became “progressive vs. conservative,” “handsome vs. ugly” became “attractive vs. unattractive,” “neat vs. untidy” became “neat vs. messy,” and “aggressive vs. defensive” became “aggressive vs. passive” (Polizzi, 2003). He also included 22 adjective pairs from Osgood and Suci’s (1995) study as well as “fit vs. unfit,” “nice vs. mean,” and “cheerful vs. crabby” (Polizzi, 2003).

Although Polizzi’s (2003) version may be more up to date, this scale also includes an increased number of adjective pairs (32 in the original scale compared to 81 in his scale) which may decrease the completion rate of the questionnaire. The reliability of Rosencranz and McNevin’s (1969) original version has been shown through its extensive use in previous research on ageism. Polizzi’s version was considered as a possible option if permission to use this scale was granted, but obtaining permission from Rosencranz and McNevin, and Polizzi was unsuccessful. Contacting the authors through the email addresses provided in the original articles and contacting the institutions of previous employment of the three authors also was unsuccessful. Further investigation revealed a memorial academic award in Rosencranz’s name, suggesting that he is deceased. The institutions that these researchers were once affiliated with had no contact information to aid in contacting them (see Appendix B for copies of the emails sent to Rosencranz, McNevin, as well as to Polizzi). Because of these reasons, an adapted

version of Rosencranz and McNevin's (1969) original *Aging Semantic Differential (ASD) scale* was used in this study and Polizzi's (2003) version was not used.

In order to aid in the participants' understanding of the adjectives, some of Rosencranz and McNevin's original adjective pairs were adapted in this study by replacing the original adjective from Rosencranz and McNevin (1969) scale with a synonym (similar to Polizzi's (2003) revised version) to make the scale more up to date, using more current language: progressive vs. old-fashioned was changed to "innovative vs. old-fashioned," "consistent vs. inconsistent" became "reliable vs. unreliable," "busy vs. idle" was changed to "busy vs. lazy," "expectant vs. resigned" became "eager vs. submissive," "neat vs. untidy" became "neat vs. messy," "trustful vs. suspicious" was changed to "trustful vs. mistrusting," "self-reliant vs. dependent" became "independent vs. dependent," "liberal vs. conservative" was changed to "open-minded vs. closed-minded," "tolerant vs. intolerant" became "accepting vs. non-accepting" and "ordinary vs. eccentric" became "ordinary vs. uncommon."

***Relating to older people evaluation (ROPE)***. Most research conducted in the past about ageism has focused on the negative aspects of discrimination and prejudice based on age, such as the *ASD scale* previously mentioned. As well, a great deal of the literature regarding ageism solely focuses on attitudes of older adults and ignores ageist behaviours. Thus, this study used the *Relating to Older People Evaluation (ROPE)* by Cherry and Palmore (2008) because it assesses both 'positive' and 'negative' ageist behaviours. Including 'positive' ageist behaviours (e.g., "I open doors for old people because of their age") was thought to allow participants to be more honest and decrease the chances that participants would act in a socially desirable manner. Participants were

believed to be more likely to indicate that they had participated in the behaviour because the “positive” behaviours do not create negative connotations that come with the usual measurement of negative ageism, such as ‘wrong,’ ‘inappropriate,’ and ‘bad.’ Cherry and Palmore indeed found that participants were more likely to report engaging in “positive” behaviours than “negative” behaviours (Cherry & Palmore, 2008). Permission to use this scale was granted from Cherry (see Appendix C).

*Additional measures.* In addition to using the two previously published scales mentioned above, Mosher-Ashley and Ball’s (1999) study provided the idea to compare the participant’s perception of an older adult with his or her perception of himself or herself as an older adult. This allowed for further exploratory of the in-group vs. out-group theory and the anxiety about aging hypothesis. Within the literature the age range which defines “young older adult” is between the ages of 55 to 70 and “old older adult” is 70 years and older (Nelson, 2006). Despite this differentiation, the age of 70 was decided upon to make the results comparable to Rosencranz and McNevin’s (1969) study which used the age of 70 (although in Mosher-Ashley and Ball’s study the age used was 75). Also, because of the increased life span of human beings, it was believed that many would not consider older adulthood to begin until an individual enters into their early seventies which could have impacted the results of the study if an age below 70 was used for the target.

The demographics section which included questions about age, gender, current year in university, and university major (if declared) were taken from Mosher-Ball and Ashley’s study. The researcher also used several questions from Mosher-Ball and Ashley’s study pertaining to whether participants experienced any anxiety about aging, if

the participant had ever lived with an older adult, and if so, what was the relationship between the participant and older adult.

Following the demographics section, the *ASD scale* was used for participants to indicate on a seven point scale where he or she believed a young man would rate a 70-year-old man on various adjectives and characteristics (e.g., “innovative vs. old-fashioned”). This projective task allowed for social desirability to be removed as a confounding variable because participants were not specifically asked how he or she would rate the target, so participants may not be as inclined to respond in a socially appropriate way (Rosencranz & McNevin, 1969). Then the participants completed the *ROPE*. Following the *ROPE*, the participant completed the exact same *ASD scale* he or she previously completed only the target was the participant at age 70.

The influence of contact with older adults on ageism was assessed within the questions pertaining to frequency of contact with older adults (i.e., never/rarely/sometimes/often), quality of contact with older adults (i.e., highly positive/positive/neutral/negative/highly negative), if the participant was aware of anyone who engaged in contact with or had a relationship with an older adult (i.e., yes/no), and the perceived quality of this relationship by the participant (i.e., highly positive/positive/neutral/negative/highly negative). Finally, the participant’s anxiety about aging was measured by the question, “do you worry about aging (i.e., yes/no).” See Appendix D for a complete copy of the questionnaire that was used in this study.

**Informed consent.** The consent form explained that participation was voluntary, and anonymous, and explained the purpose of the present study, the tasks involved, the length of the study, the risks or benefits of participation, contact information for the

researcher and counseling personnel. Two consent forms were provided. One copy of the consent form was for the researcher to keep and the other copy was for the participant to keep for his or her own records. Both copies of the consent form can be found in Appendix A.

### **Procedure**

Following permission by faculty members, participants were recruited from various second and third year psychology classes. Participants were told that the study was assessing perceptions of older adults. The term “ageism” was not mentioned to ensure honesty on the part of participants and to lessen the influence of social desirability on their responses. The study and procedures were briefly explained using a script (which can be found in Appendix E). All students were given a package containing both copies of the consent form and the questionnaire used within this study. Once the consent form and questionnaire were explained, students could read, sign, and date the consent form to participate in the study.

Participants could then begin the questionnaire. Questions of clarification were answered while participants completed the survey. An envelope for the questionnaires was passed around from one side of the class while an envelope for the informed consent form was passed around from the other side of the classroom to ensure anonymity. Participants were then thanked for their participation as they deposited their questionnaires and informed consent forms into the separate envelopes.

### **Participants**

A convenience sample of 101 undergraduate students (15 males, 85 Females, 1 undeclared) voluntarily participated in this study. The mean age for the male participants

was 20.99 with a range of 19 to 28 years and a standard deviation of 2.37 while the mean age for the female participants was 20.85 with a range of 19 to 42 and a standard deviation of 3.89.

## Results

### Scoring of scales

In accordance with previous studies that used the *ASD scale* and the ROPE, ASD and ROPE total scores were conducted for each participant. Therefore, each participant had three total scores; an ASD total score for the 70-year-old target, a ROPE total score, and an ASD total score for himself or herself at age 70. Response sets and coding were kept as similar as possible to those used in the original studies. The ASD scales were coded from 1 (rating closest to positive adjective) to 7 (rating closest to negative adjective). ASD total scores could range from 32 (least ageist in attitudes) to 224 (most ageist in attitudes). For the ROPE scale, an answer of “never” was coded as 0, “sometimes” was coded as 1, and “often” was coded as 2. ROPE scores which measured each participant’s frequency of engagement in ageist behaviours could vary from 0 (no engagement in the ageist behaviours mentioned in the ROPE scale) to 40 (frequent engagement in the ageist behaviours mentioned in the ROPE scale).

Direct contact was measured by the questions: “has an older adult ever lived with you” (“yes” was coded as 0 and “no” was coded as 1) and “how often do you interact with older adults.” For the frequency of contact with older adults, a code of 0 referred to an answer of “often,” 1 referred to an answer of “sometimes,” 2 for an answer of “rarely,” and 3 for an answer of “never.”

Indirect contact or vicarious contact was assessed through the item, “do you know of anyone who engages in contact with or has a relationship with an older adult” which was coded as 0 for “yes” and 1 for “no.”

Measurements for quality of contact with older adults for both direct (participant's personal contact with older adults) and indirect contact (contact with older adults engaged in by someone the participant knew) were coded as 0 for "highly positive," 1 for "positive," 2 for "neutral," 3 for "negative," and 4 for "highly negative," and 5 for "non-applicable." Answers of "non-applicable" were treated as missing values for the analysis of this study.

The question "do you worry about aging" was coded as 0 for "yes" and 1 for "no." Differences between participants' attitudes of themselves at age 70 and their attitudes of the 70-year-old target were measured using each participant's total ASD score for themselves at 70 and his or her total ASD score for the 70-year-old target.

### **Quantitative Analysis**

Due to incomplete inventories, only the results of 89 of the 101 participants were used in the analysis comparing ASD scores for the self at 70 and ASD scores for the 70-year-old target. Answers of "non-applicable" in regards to ratings for direct and indirect contact were treated as missing values in the analyses of this study. Therefore, the sample size was further reduced to 63 for the *ASD scale* for the 70-year-old target and 62 for the *ROPE*. Two backwards multiple regression analyses examined the degree to which each predictor variable (see Table 1) influenced perceptions of older adults and behaviours towards older adults. The first regression examined ratings of a 70-year-old target (as measured by the *ASD scale* for the 70-year old target) while the second regression examined frequency of engagement in ageist behaviours (as measured by the *ROPE scale*).

For the first multiple regression analysis, the final regression model of the ASD scale for the 70-year-old target contained the item “how would you rate the quality of this [your] contact with older adults,”  $F(1, 62) = 9.76, p = .003, R^2 = .136$ . As ratings of one’s own contact with older adults increased, ASD scores for the 70-year-old target decreased,  $t = 3.12, p = .003, \beta = .369$ . This indicated less ageism.

For the second multiple regression analysis, the final regression contained the items “how would you rate this [your] contact” and “how would you rate this [by someone you know] contact with older adults,”  $F(2, 61) = 2.72, p = .074, R^2 = .082$ . Participants’ ratings of their own contact with older adults ( $p = .066$ ) and ratings of the contact someone they knew engaged in with older adults ( $p = .071$ ) approached but did not reach statistical significance. As ratings of direct contact increased, engagement in ageist behaviours (ROPE scores) decreased. Engagement in ageist behaviours (ROPE scores) increased as ratings of someone else’s contact increased.

Finally, a repeated-measures t-test was conducted on each participant’s total ASD score for the 70-year-old target and each participant’s total ASD score for himself or herself at age 70. A significant difference was found between the two scores. Participants rated themselves at age 70 more positively than they rated the 70-year-old target,  $t(88) = 9.44, p < .001$ . The mean ASD score for the 70-year-old target was 123.64 ( $SD = 18.74$ ), while the mean ASD score for the self at age 70 was 105.33 ( $SD = 22.16$ ).

Table 1

*Descriptive Statistics for Individual Predictors of Perceptions and Behaviours Towards Older Adults*

Variables	<i>M</i>	<i>SD</i>	Min. Possible Score	Max. Possible Score
	Criteria Variables			
70-year-target ASD	123.64	18.74	76.00	183.00
ROPE	13.92	4.33	4.00	27.00
	Predictor Variables			
Lived with elderly	.67	.47	0	1
Frequency of direct contact	.55	.50	0	1
Ratings of direct contact	.53	.52	0	2
Awareness of another's contact	.27	.45	0	1
Ratings of another's contact	.44	.64	0	3
Anxiety towards aging	.37	.49	0	1

*Note.*  $n = 63$  for the 70-year-old target ASD

$n = 62$  for the ROPE

## Discussion

After an exploration of the previous literature on ageism, it was thought that contact with older adults through personal (direct) contact with older adults, awareness of someone else's contact with older adults (indirect or vicarious contact), and anxiety about aging would influence ageist attitudes and behaviours. Specifically, it was hypothesized that those who engaged in more frequent contact with older adults of a positive nature would express less ageist attitudes and behaviours (by scoring lower on the ASD scale for the 70 year-old-target and the ROPE). It was also predicted that participants who knew someone who engaged in contact with or had a positive relationship with an older adult would also score lower on the ASD scale for the 70-year-old target and the ROPE scale. Participants who did not worry about aging were also hypothesized to have lower ASD scores for the 70-year-old target and lower ROPE scores. Additionally, it was hypothesized that individuals would score lower on the ASD scale for themselves at 70 than the ASD scale for the 70-year-old target.

### Contact With Older Adults

As hypothesized, participants' ASD scores for themselves at 70-years-old were significantly lower than their ASD scores for the 70-year-old target, meaning participants rated themselves at 70 significantly more positively than they rated the 70-year-old target. Also as predicted, the more positively participants rated the contact that he or she engaged in with older adults the lower they scored on the ASD scale the 70-year-old target, meaning they rated the 70-year-old target more positively.

Contrary to what was hypothesized, this study did not find that participants' ratings of his or her own contact with older adults and participants' ratings for the contact

with older adults that someone they knew engaged in predicted ROPE scores. While not statistically significant, however, it should be noted that these variables approached significance. Despite findings and previous studies, no other variables, such as living with an older adult, frequency of direct contact, awareness of someone else's contact or relationship with an older adult, or anxiety about aging significantly predicted ageism as measured by ASD scores for the 70-year-old target or ROPE scores.

This study did not find that anxiety about aging predicted ASD scores for the 70-year-old target or ROPE scores. This non-significant finding may be due to participants differentiating between themselves and older adults. Participants may be attributing personal traits to their attitudes towards their own aging more than they are for their attitudes towards the aging of older adults in general (Harris & Dolinger, 2001). *Terror Management Theory (TMT)* explains that individuals develop negative attitudes towards members of an out-group, such as older adults, as a way to minimize the distress that appears with anxiety towards aging due to fear of one's own mortality (Bodner, 2009; Martens et al., 2005; Schwartz & Simmons, 2010). These individuals may fear aging because his or her experience with aging relates to a loss of cognitive, physical, and psychological abilities (Bodner, 2009; Martens et al., 2005; Schwartz & Simmons, 2010). By "othering" older adults or developing the idea that any decreases in ability are the fault of the older adult, individuals reassure themselves that they will not experience these same losses because these individuals can prevent these losses from occurring to them (Bodner, 2009; Martens et al., 2005; Schwartz & Simmons, 2010). Another explanation relates to *social identity theory (SIT)* whereby individuals perceive their in-group (e.g., younger adults) more positively than the out-group (e.g., older adults) to

maintain positive self-regard because the group identity is connected to the individual's self-esteem (Bodner, 2009). The findings that participants rated their 70-year-old selves significantly more positive than the 70-year-old target suggests these explanations are valid. However, the results of this study do not allow for the interaction between anxiety towards aging, the perceptions of the self at 70, and perceptions of the 70-year-old target to be assessed because this study only examined anxiety about aging in relation to perceptions of a 70-year-old target (using the ASD scale) and engagement in ageist behaviours (using the ROPE). Previous research regarding aging anxiety used Likert scales to measure anxiety towards aging rather than using "yes/no" responses which was done in the present study, so differences between findings could be due to the different measures used.

This study found that ratings of direct contact predicted ASD scores for the 70-year-old target but not ROPE scores which suggests that ratings of direct contact affect attitudes towards older adults (as measured by the ASD) but not behaviours towards older adults (as measured by the ROPE). This difference may also be due to the fact most previous research regarding ageism examined attitudes towards older adults rather than behaviours (e.g., Polizzi, 2003; Rosencranz & McNevin, 1969). This study examined both attitudes and behaviours towards older adults, so discrepancies between findings on the ASD scale for the 70-year-old target and the ROPE may highlight that ageist attitudes and ageist behaviours are influenced differently.

In regards to the findings that the predictor variables 'awareness of someone else's contact with older adults' and 'having lived with an older adult' did not significantly predict ASD scores for the 70-year-old target and ROPE scores, further

exploration of the literature regarding the influence of contact with older adults on ageism allows for some explanations to be given. Although some research has shown that living with an older adult reduces ageism (Rosencranz & McNevin, 1969), other research has not found the same result (Boswell, 2012a; Boswell, 2012b; Koder & Helmes, 2008). Previous studies suggested that those who had lived with an older adult were more ageist and held more negative attitudes towards older adults (Allan & Johnson, 2009). This could be due to the quality or perceptions of the contact. Different types of contact may lead to different effects on ageism (Allan & Johnson, 2009). For example, living with an older adult as a caregiver might involve more responsibility and labor, so ageist attitudes and tendencies that the caregiver develops may differ depending on if the caregiver perceives the interaction to be positive or negative. Within Canada, half of all caregivers express experiencing five or more symptoms of psychological distress and 30% of these individuals seek medical assistance for these symptoms (Statistics Canada, 2012). The findings that 9 out of 10 caregivers indicated that caregiving was rewarding and 7 out of 10 caregivers stated that caregiving strengthened their relationship with the individual they were caring for (Statistics Canada, 2013) show the effects that perceptions of contact with older adults can have. Caregivers who viewed their caregiving responsibilities as more positive and rewarding may have had a decreased likelihood of experiencing psychological distress as a result of their caregiving duties. The finding of this study that ratings of one's own contact predict ASD scores for the 70-year-old target provide support for this theory. Participants may have viewed older adults differently depending on their perceptions of their own contact with older adults versus their perceptions of someone else's contact with older adults.

The form and setting in which the contact occurs, such as whether the contact occurs formally (e.g., in a work setting) or informally (e.g., through family interactions) may also explain differences among frequency and ratings of contact on ageist attitudes and behaviours (Angiullo et al., 1996; Caspi, 1984; Bergman, et al., 2014). For example, older workers are perceived more positively when they express competency in their job (Iweins et al., 2013). Students who engaged in contact with older adults in a nursing home setting were more likely to express negative attitudes towards older adults (Caspi, 1984). Individuals who live in nursing homes may be perceived more negatively because they are more likely to be cognitively, physically, and psychologically impaired, thus require assisted living (Angiullo et al, 1996; Caspi, 1984). Employment settings often allow for the Allport's four criteria for the *intergroup contact theory* of equal status, common goals, cooperation, and institutionalized support (Pettigrew, 1998) to be met while nursing homes would not. It has also been found that ageist attitudes are lower in those who engage in aging related coursework, higher frequency and quality of formal contact (Bergman et al., 2014; Harris & Dolinger, 2001). However, this study did not ask any questions pertaining to what forms of contact with older adults the participant engaged in or the settings which contained the contact with older adults. Until more research is conducted on this area, no definite assumptions can be made.

### **Limitations**

The limitations of this study need to be acknowledged. As with any convenience sample, problems are often experienced when collecting data. The sample used in this study was smaller than expected because some data had to be removed due to participants' failure to complete the inventories. Also, gender analysis could not be

performed due to small number of males within the sample. As well, the sample used within this study was fairly homogenous in regards to university major so differences among university majors could not be assessed. As experienced by Mosher-Ashley and Ball (1999), this current study also had a small number of individuals who indicated having lived with an older adult ( $n = 29$ ) compared with the 58 individuals who had not lived with an older adult. This may have influenced the ability to accurately assess if living with an older adult influenced ASD scores for the 70-year-old target and ROPE scores.

In terms of the survey, there are some improvements that could be made. Some of the adjectives used within the ASD survey were viewed as being gender specific. For example, female participants expressed difficulty in rating themselves at age 70 on the “handsome” vs. “ugly” item, so gender neutral adjectives need to be explored.

A specific definition of older age was not given throughout the survey to achieve the highest response rate possible. Although the two ASD scales explicitly gave an age for which someone is considered to be an older adult, the ROPE and questions pertaining to frequency and quality of contact did not, which left participants to subjectively infer what it meant to be an older adult. For example, some participants indicated parents as the older adult with whom they lived. By not providing an age for the participant to use when deciding if an individual was an older adult or not comparisons with previous studies were limited.

### **Future Research**

This study identifies where future research regarding ageism could proceed. The finding that having lived with an older adult did not account for any of the variance in

attitudes and behaviours towards older adults (as measured by ASD scores for the 70-year-old target and scores for the ROPE) could be attributed to the differing categories of older adults assessed in the present study. For example, much research only examines contact with grandparents (e.g., Rosencranz & McNevin, 1969; Tam et al., 2006), whereas in the present study, any adult who lived with the participant could have been considered an older adult. Participants in this study were not given a specific relationship or age to use when answering if he or she had ever lived with an older adult. Therefore, participants may have had differing conceptions of “older adult” when answering the question. Indeed, the fact that some participants’ indicated that the older adult that he or she had lived with was his or her parent supports this explanation. Further research should define “older adult” more clearly if comparison between past and present findings are to be made. Various relationships between participants and older adults other than the grandparent-grandchild relationship should also be explored. Due to the inability to compare age, gender, and university major, it is necessary to ensure that a representative and equal sample size is achieved when conducting future research.

This study asked if participants had ever lived with an older adult, and the frequency at which he or she engaged in contact with older adults irrespective of each other. Participants could therefore have engaged in contact with older adults without having lived with an older adult. A difference between the ability to reduce ageism may exist between these two forms of contact. For example, studies conducted in the past often examine frequency and perceptions of formal and informal contact. Formal contact through work settings may be beneficial in reduces ageism if the contact is positive, whereas informal contact provided by living with an older adult may increase ageism if

the contact is perceived negatively due to responsibility to care for the older adult (Allan & Johnson, 2009; Bousfield & Hutchison, 2010; Koder & Helmes, 2008; Schwartz & Simmons, 2010). Future research should examine what forms of contact (e.g., formal and informal) the participant engages in to see if any differences between the two forms of contact exist.

Unlike some studies (Rosencranz & McNevin, 1969), this present study did not examine perceptions of living with an older adult, so further research is needed to see if perceptions of living with an older adult influences ageist attitudes and behaviours. For example, more frequent and positive contact through living with an older adult may lead an individual to hold less ageist attitudes and engage in less ageist behaviours, but because there was no question that directly assessed the quality of contact with living with an older adult, further exploration is needed.

Although direct ratings or perceptions of one's own contact or relationship with an older adult predicted ASD scores for the 70-year-old target, indirect rating for another's contact or relationship with an older adult did not significantly predict ASD scores for the 70-year-old target or ROPE scores. This finding may signify that individuals perceive their own contact differently than others' contact. For example, individuals may perceive their own contact with older adults more positively or they may be more aware of their own contact with older adults than the contact that someone they know engages in with older adults. Further exploration is needed to either support or contradict this idea.

Despite previous findings that indirect or vicarious contact leads to a decrease in ageism by making an individual aware that a member of his or her in-group, such as a

friend, engages in positive contact with an out-group member (e.g., an older adult) (Cameron et al, 2006; Mazziotta et al., 2011; Paolini et al., 2007; Paolini, et al, 2004; Turner et al., 2007; Turner et al., 2007), participant's awareness that someone they knew engaged in contact or had a relationship with an older adult and their ratings for the contact with older adults that someone they knew engaged in did not predict ASD scores for the 70-year-old target or ROPE scores in this study. Although, ratings of contact engaged in by someone they knew approached but did not reach statistical significance ( $p = .071$ ). This could be explained by the fact that the questions regarding indirect contact and quality of indirect contact were not proper measures of indirect contact with older adults and quality of indirect contact with older adults. When developing the inventory for this study, no suitable questions regarding indirect contact with older adults and ageism were found within the literature, so these questions did not have the benefit of being validated through previous use. Future research should examine possible options for measuring indirect contact to aid researchers in ensuring that research tools are valid and reliable.

Although age has been shown to be unrelated to ageism, previous research has shown that the age at which an individual is considered an older adult can influence ageist attitudes and tendencies (Cottle & Glover, 2007), so the age at which an individual considers old age to occur should be examined. Often, an individual's own age helps determine when his or her older age begins. As one ages, the age at which one is considered an older adult may increase in order to keep the individual from perceiving himself or herself as an older adult (Bodner, 2009; Cottle & Glover, 2007; Martens et al., 2005). For example, younger undergraduates often indicate that old age begins earlier

than older students do (Cottle & Glover, 2007). Definitions of old age have also been seen to change with increasing knowledge about aging (Cottle & Glover, 2007), so the factors that determine categorization of older adult need further exploration.

Future research should examine other characteristics to examine ageist attitudes and behaviours. For example, Cottle and Glover (2007) found that physical appearance is used to assess the personality, physiology, and cognitive ability of older adults. This exploration would allow researchers to examine the mental representation individuals have regarding aging and older individuals. Concepts regarding what “good” and “bad” aging means could also be explored because research suggests that negative attitudes towards older adults come from the negative perceptions of aging (Martens et al., 2005). Interest in working with older adults should be examined further because interest in gerontology or geropsychology has been suggested to influence attitudes towards older adults (e.g., Harris & Dolinger, 2001).

### **Implications**

The practical implications of this study relate to both the professional and educational aspects of gerontology and geropsychology. By examining the different factors that influence attitudes and behaviours towards older adults new methods for increasing positive perceptions of older adults and the aging process can be developed based specifically on individual factors. For example, it may be that increasing volunteer opportunities or internships (which are forms of direct contact) may be beneficial in decreasing negative attitudes of older adults while using indirect forms, such as course work (e.g., case studies, narratives) to show positive portrayals of older adults may be beneficial in decreasing negative behaviours engaged in when interacting with older

adults. By providing positive perceptions of working with older adults individuals may be increasingly likely to pursue careers in gerontology and geropsychology aiding in meeting the high demand within those fields (Bergman et al., 2014; Bowell, 2012a; Boswell, 2012b; Koder & Helmes, 2008) which could reduce ageist attitudes even more because those with an interest in working with older adults have been shown to have more positive attitudes towards older adults (Harris & Dolinger, 2001). Thirdly, finding methods which aid in dispelling negative attitudes and behaviours towards older adults may reduce ageism because if younger individuals are not ageist they will not perpetuate ageist attitudes and behaviours when they interact with older individuals. This will prevent older adults from internalizing these attitudes and behaviours themselves, preventing the self-fulfilling prophecy (Lin & Bryant, 2009). If ageist attitudes and behaviours towards older adults are dispelled, it not only aids the older adult population but the younger generation as well. After all, ageism is thought to be “prejudice against our feared future self” (Nelson, 2005).

### **Conclusion**

In conclusion, due to the increase in the population of older adults, it is necessary to examine the origins of stereotypic attitudes and behaviours towards older adults that decrease an individual’s interest in interacting and working with older adults. Through an exploration of the research, it can be seen that the development of ageist attitudes and behaviours are complex and intersecting. Many factors influence ageism, such as contact (direct and indirect) and perceptions of this contact by both the individual who engages in this contact and by the individuals who are aware of this contact. These factors may influence ageist attitudes and behaviours differently, so it is important to examine many

different methods of contact with older adults to see which methods work best in order to reduce ageism as much as possible.

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## Appendix A

### Perceptions of Older Adults Among Undergraduates

#### Informed Consent Form

**The purpose of this Informed Consent Form is to ensure you understand the nature of this study and your involvement in it. This Consent Form will provide information about the study, giving you the opportunity to decide if you want to participate.**

**Researchers:** This study is being conducted by Mandy Penney as part of the course requirements for Psychology 4959: Honours Project in Psychology. I am under the supervision of Dr. Sonya Corbin Dwyer.

**Purpose:** The study is designed to investigate perceptions of older adults among undergraduate students. The results will be used to write a thesis as part of the course requirements. The study may also be used in a larger research project and may be published in the future.

**Task Requirements:** You will be asked to complete a questionnaire assessing perceptions of older adults. There are no right or wrong answers to the attitude statements; we are only interested in your opinions.

**Duration:** The questionnaire will take approximately 10-15 minutes to complete.

**Risks and Benefits:** There are no obvious risks or benefits involved with your participation in this study.

**Anonymity and Confidentiality:** Your responses are anonymous and confidential. Please do not put any identifying marks on any of the pages. All information will be analyzed and reported on a group basis. Thus, individual responses cannot be identified.

**Right to Withdraw:** Your participation in this research is totally voluntary and you are free to stop participating at any time. You may also omit any questions you do not wish to answer.

**Contact Information:** If you have any questions or concerns about the study, please feel free to contact me at [mvpenny@grenfell.mun.ca](mailto:mvpenny@grenfell.mun.ca) or my supervisor, Dr. Sonya Corbin Dwyer at 639-2546 or [scorbin@grenfell.mun.ca](mailto:scorbin@grenfell.mun.ca). As well, if you are interested in knowing the results of the study, please contact me after April 20<sup>th</sup> 2013. If this study raises any personal issues for you, please contact the counseling centre at Grenfell, specifically, Dr. Paul Wilson at 637-6234 or

pwilson@grenfell.mun.ca or Ms. Maureen Bradley at 637-6211 or  
mbradley@grenfell.mun.ca

This study has been approved by an ethics review process at Grenfell Campus,  
Memorial University of Newfoundland.

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I acknowledge that I have been informed of, and understand, the nature and  
purpose of the study, and I freely consent to participate. This Informed Consent  
Form will be placed in a separate envelope to ensure anonymity. I acknowledge I  
have a copy of this informed consent form for my own records.

Signed \_\_\_\_\_

Date \_\_\_\_\_

## Perceptions of Older Adults Among Undergraduates

### Informed Consent Form

**The purpose of this Informed Consent Form is to ensure you understand the nature of this study and your involvement in it. This Consent Form will provide information about the study, giving you the opportunity to decide if you want to participate.**

**Researchers:** This study is being conducted by Mandy Penney as part of the course requirements for Psychology 4959: Honours Project in Psychology. I am under the supervision of Dr. Sonya Corbin Dwyer.

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**Right to Withdraw:** Your participation in this research is totally voluntary and you are free to stop participating at any time. You may also omit any questions you do not wish to answer.

**Contact Information:** If you have any questions or concerns about the study, please feel free to contact me at [mvpenney@grenfell.mun.ca](mailto:mvpenney@grenfell.mun.ca) or my supervisor, Dr. Sonya Corbin Dwyer at 639-2546 or [scorbin@grenfell.mun.ca](mailto:scorbin@grenfell.mun.ca). As well, if you are interested in knowing the results of the study, please contact me after April 20<sup>th</sup> 2013. If this study raises any personal issues for you, please contact the counseling centre at Grenfell, specifically, Dr. Paul Wilson at 637-6234 or [pwilson@grenfell.mun.ca](mailto:pwilson@grenfell.mun.ca) or Ms. Maureen Bradley at 637-6211 or [mbradley@grenfell.mun.ca](mailto:mbradley@grenfell.mun.ca)

This study has been approved by an ethics review process at Grenfell Campus, Memorial University of Newfoundland.

### Appendix B

Attempts made to seek permission to use the Aging Semantic Differential Scale by Rosencranz and McNevin (1969) and Polizzi (2003). Phone calls to previous places of employment of these authors were also made to of no avail.

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Dr. Kenneth G. Polizzi: kpolizzi@muw.edu

Dr. Kenneth G. Polizzi,

My name is Mandy Penney and I am currently in my fourth year of my Bachelor of Arts degree in Psychology (honors) with a minor in Sociology at Memorial University of Newfoundland, Grenfell Campus in Corner Brook, NL.

I was inquiring about whom to contact in order to seek permission to use a Semantic Differential Scale on Ageism (1969) by Howard A. Rosencranz and Tony E. McNevin in my thesis about ageism among undergraduate students? I found the scale within the article, "A Factor Analysis of Attitudes Toward the Aged (1969)" by Howard A. Rosencranz and Tony E. McNevin. I have been unsuccessful in contacting either of these two authors. I have contacted the universities that the authors were once affiliated with but the individuals with whom I have contacted have no contact information for the individual(s) with the rights to the scale.

I found the author that you co-published in 2003 entitled, "Assessing attitudes toward the elderly: Polizzi's refined version of the Aging Semantic Differential." My thesis supervisor said that I should contact you to see if you could help me.

Any information or advice you could provide to me about whom to contact to obtain permission for the ASD scale would be greatly appreciated.

Best regards,

Mandy Penney

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This message was sent several times to the email provided in the article but each time the email failed to be delivered.

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To: Dr. Anita Perkins: aperkins@pa.muw.edu;

To whom it may concern,

My name is Mandy Penney and I am currently in my fourth year of my Bachelor of Arts degree in Psychology (honors) with a minor in Sociology at Memorial University of Newfoundland, Grenfell Campus in Corner Brook, NL.

I am having difficulty contacting Howard A. Rosencranz and Tony E. McNevin to seek permission to use a Semantic Differential Scale on Ageism that was mentioned in the article, "A Factor Analysis of Attitudes Toward the Aged (1969)" by Howard A. Rosencranz and Tony E. McNevin to use in my thesis which will examine ageism among undergraduates.

I was hoping to contact Kenneth G. Polizzi because I found his article from 2003 that included an altered version of this scale that I am hoping to use. I sent various emails to the email address that was given within Dr. Polizzi's 2003 article but the emails keep bouncing back to me. Do you know how I could get in contact with Dr. Polizzi?

Any information or advice that you could provide to me would be greatly appreciated!

Best regards,  
Mandy Penney

---

Anika Perkins <amperkins@muw.edu>

Mon 10/28/2013 1:35 PM

School

To: Penney, Mandy V.;

You forwarded this message on 10/28/2013 1:38 PM.

Ms. Penney,

Unfortunately, our office does not have any contact information for Dr. Polizzi.

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To: Dr. David Miller: David.B.Miller@uconn.edu;

Dr. Miller,

My name is Mandy Penney and I am currently in my fourth year of my Bachelor of Arts degree in Psychology (honors) with a minor in Sociology at Memorial University of Newfoundland, Grenfell Campus in Corner Brook, NL. I was inquiring about whom to contact in order to seek permission to use a Semantic Differential Scale on Ageism (1969) by Howard A. Rosencranz and Tony E. McNevin in my thesis about ageism among undergraduate students? I have been unsuccessful in contacting either of these two authors. I believe that Howard A. Rosencranz was once affiliated with the University of Connecticut, so I was hoping that the University of Connecticut would be able to assist me in locating one or both authors of the ASD scale.

Any information or advice that you could provide to me would be greatly appreciated.

Best regards,  
Mandy Penney

---

To: Penney, Mandy V.;

You replied on 10/20/2013 9:17 PM.  
Miller, David <david.b.miller@uconn.edu>

Sun 10/20/2013 8:43 PM

Mandy,

Wow, this is a tough one. I've never heard of either of these two individuals. I've been with our Dept. since 1980, and they have never been faculty members. I wish I could help, but I'm clueless.

---

---

To: Bev Skyles: skylesb@missouri.edu;

Dr. Bev Skyles,

My name is Mandy Penney and I am currently in my fourth year of my Bachelor of Arts degree in Psychology (honors) with a minor in Sociology at Memorial University of Newfoundland, Grenfell Campus in Corner Brook, NL. I was inquiring about whom to contact in order to seek permission to use a Semantic Differential Scale on Ageism (1969) by Howard A. Rosencranz and Tony E. McNevin in my thesis about ageism among undergraduate students? I have been unsuccessful in contacting either of these two authors. I believe that Tony E. McNevin was once affiliated with the University of Missouri, so I was hoping that the University of Missouri would be able to assist me in locating one or both authors of the ASD scale.

Any information or advice that you could provide to me would be greatly appreciated.

Best regards,  
Mandy Penney

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Skyles, Beverly G. <SkylesB@missouri.edu>  
Tue 10/22/2013 1:31 PM  
School  
To: Penney, Mandy V.;  
You replied on 10/25/2013 7:13 PM.

Hello Mandy; I checked with 3 of our top psychologists here in Psych and nobody was familiar with either of these names nor their work.

I'm sorry we could not be more help.

Bev

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**Appendix C**

Katie E Cherry <pskatie@lsu.edu>;

Dear Mandy,

Lovely to hear from you - thanks for checking in. I'd be delighted to have you use the ROPE for your undergraduate thesis. I've attached the original, and also 2 pdfs of recent articles that might be helpful. The JAG paper is still in press, so these are just proofs. Best of luck with your project and I'd be most interested to hear how it turns out when you are finished.

With warm regards,

Katie Cherry

### Appendix D

#### Demographics

Age: \_\_\_\_

Gender: \_\_\_\_ **Male** \_\_\_\_ **Female**

Current Year in University: \_\_\_\_\_

Major: \_\_\_\_\_ (If declared)

#### Aging Semantic Differential Survey

Please indicate where you think a young man would see a **70-year-old male** fall within the following dimensions.

<b>Innovative</b>	__	__	__	__	__	__	__	<b>Old-fashioned</b>
<b>Reliable</b>	__	__	__	__	__	__	__	<b>Unreliable</b>
<b>Independent</b>	__	__	__	__	__	__	__	<b>Dependent</b>
<b>Rich</b>	__	__	__	__	__	__	__	<b>Poor</b>
<b>Generous</b>	__	__	__	__	__	__	__	<b>Selfish</b>
<b>Productive</b>	__	__	__	__	__	__	__	<b>Unproductive</b>
<b>Busy</b>	__	__	__	__	__	__	__	<b>Lazy</b>
<b>Secure</b>	__	__	__	__	__	__	__	<b>Insecure</b>
<b>Strong</b>	__	__	__	__	__	__	__	<b>Weak</b>
<b>Healthy</b>	__	__	__	__	__	__	__	<b>Unhealthy</b>
<b>Active</b>	__	__	__	__	__	__	__	<b>Inactive</b>
<b>Handsome</b>	__	__	__	__	__	__	__	<b>Ugly</b>
<b>Cooperative</b>	__	__	__	__	__	__	__	<b>Uncooperative</b>
<b>Optimistic</b>	__	__	__	__	__	__	__	<b>Pessimistic</b>
<b>Satisfied</b>	__	__	__	__	__	__	__	<b>Dissatisfied</b>
<b>Eager</b>	__	__	__	__	__	__	__	<b>Submissive</b>

<b>Flexible</b>	—	—	—	—	—	—	—	<b>Stubborn</b>
<b>Hopeful</b>	—	—	—	—	—	—	—	<b>Depressed</b>
<b>Organized</b>	—	—	—	—	—	—	—	<b>Disorganized</b>
<b>Happy</b>	—	—	—	—	—	—	—	<b>Sad</b>
<b>Friendly</b>	—	—	—	—	—	—	—	<b>Unfriendly</b>
<b>Neat</b>	—	—	—	—	—	—	—	<b>Messy</b>
<b>Trustful</b>	—	—	—	—	—	—	—	<b>Mistrusting</b>
<b>Independent</b>	—	—	—	—	—	—	—	<b>Dependent</b>
<b>Open-minded</b>	—	—	—	—	—	—	—	<b>Closed-minded</b>
<b>Certain</b>	—	—	—	—	—	—	—	<b>Uncertain</b>
<b>Accepting</b>	—	—	—	—	—	—	—	<b>Non-accepting</b>
<b>Pleasant</b>	—	—	—	—	—	—	—	<b>Unpleasant</b>
<b>Ordinary</b>	—	—	—	—	—	—	—	<b>Uncommon</b>
<b>Aggressive</b>	—	—	—	—	—	—	—	<b>Defensive</b>
<b>Exciting</b>	—	—	—	—	—	—	—	<b>Dull</b>
<b>Decisive</b>	—	—	—	—	—	—	—	<b>Indecisive</b>

(adapted from Rosencranz & McNevin, 1969)

### Relating to Older People Evaluation

Choose the frequency of which you engage in the following behaviours.

1. Compliment old people on how well they look, despite their age.

**Never** **Sometimes** **Often**

2. Send birthday cards to old people that joke about their age.

**Never** **Sometimes** **Often**

3. Enjoy conversations with old people because of their age.

**Never** **Sometimes** **Often**

4. Tell old people jokes about old age.  
**Never** **Sometimes** **Often**
5. Hold doors open for old people because of their age.  
**Never** **Sometimes** **Often**
6. Tell an old person, "You're too old for that".  
**Never** **Sometimes** **Often**
7. Offer to help an old person across the street because of their age.  
**Never** **Sometimes** **Often**
8. When I find out an old person's age, I may say, "You don't look that old".  
**Never** **Sometimes** **Often**
9. Ask an old person for advice because of their age.  
**Never** **Sometimes** **Often**
10. When an old person has an ailment, I may say, "That's normal at your age".  
**Never** **Sometimes** **Often**
11. When an old person can't remember something, I may say, "That's what they call a 'Senior Moment'".  
**Never** **Sometimes** **Often**
12. Talk louder or slower to old people because of their age.  
**Never** **Sometimes** **Often**
13. Use simple words when talking to old people.  
**Never** **Sometimes** **Often**
14. Ignore old people because of their age.  
**Never** **Sometimes** **Often**
15. Vote for an old person because of their age.  
**Never** **Sometimes** **Often**



<b>Cooperative</b>	—	—	—	—	—	—	—	<b>Uncooperative</b>
<b>Optimistic</b>	—	—	—	—	—	—	—	<b>Pessimistic</b>
<b>Satisfied</b>	—	—	—	—	—	—	—	<b>Dissatisfied</b>
<b>Eager</b>	—	—	—	—	—	—	—	<b>Submissive</b>
<b>Flexible</b>	—	—	—	—	—	—	—	<b>Stubborn</b>
<b>Hopeful</b>	—	—	—	—	—	—	—	<b>Depressed</b>
<b>Organized</b>	—	—	—	—	—	—	—	<b>Disorganized</b>
<b>Happy</b>	—	—	—	—	—	—	—	<b>Sad</b>
<b>Friendly</b>	—	—	—	—	—	—	—	<b>Unfriendly</b>
<b>Neat</b>	—	—	—	—	—	—	—	<b>Messy</b>
<b>Trustful</b>	—	—	—	—	—	—	—	<b>Mistrusting</b>
<b>Independent</b>	—	—	—	—	—	—	—	<b>Dependent</b>
<b>Open-minded</b>	—	—	—	—	—	—	—	<b>Closed-minded</b>
<b>Certain</b>	—	—	—	—	—	—	—	<b>Uncertain</b>
<b>Accepting</b>	—	—	—	—	—	—	—	<b>Non-accepting</b>
<b>Pleasant</b>	—	—	—	—	—	—	—	<b>Unpleasant</b>
<b>Ordinary</b>	—	—	—	—	—	—	—	<b>Uncommon</b>
<b>Aggressive</b>	—	—	—	—	—	—	—	<b>Defensive</b>
<b>Exciting</b>	—	—	—	—	—	—	—	<b>Dull</b>
<b>Decisive</b>	—	—	—	—	—	—	—	<b>Indecisive</b>

(adapted from Rosencranz & McNevin, 1969)

21 a).How often to you interact with older adults?

**Never**

**Rarely**

**Sometimes**

**Often**

If you answered “**Never**”, please proceed to question 22.

b). How would you rate the quality of this contact?

**Highly Positive      Positive      Neutral      Negative      Highly Negative**

22). Has an elderly person ever lived with you? \_\_\_ **Yes**    \_\_\_ **No**

If you answered “**No**” please proceed to question 23.

If so, how is this elderly person related to you? \_\_\_\_\_

23 a). Does anyone you know engage in contact with or have a relationship with an older adult?

\_\_\_ **Yes** \_\_\_ **No**

If you answered “**No**” please proceed to question 24.

23 b).How would you rate the quality of this contact?

**Highly Positive      Positive      Neutral      Negative      Highly Negative**

24). Do you worry about getting old?            \_\_\_ **Yes**    \_\_\_ **No**

**Thank you for your participation!**

## **Appendix E**

### **Script**

My name is Mandy Penney and I am completing my thesis under the supervision of Dr. Sonya Corbin Dwyer. I am assessing undergraduate's perceptions of older adults. I am seeking volunteers to participate in my study. If you do choose to participate in the study you will be asked to fill out a questionnaire regarding your perceptions of older individuals. Participation is anonymous. There are no obvious risks or benefits to participating in this study. Everyone will receive a package which includes the informed consent form for you to read, sign and date if you would like to participate. Following the informed consent is the questionnaire. One envelope will be sent around for the informed consent forms and another envelope will be sent around beginning at the opposite end of the classroom for the questionnaires. I would like everyone (regardless of whether they choose to participate or not) to put their informed consent form in one envelope and their questionnaire in the other envelope. This will help to ensure anonymity even if some students choose not to participate. If anyone has any questions before beginning the questionnaire or during the completion of the questionnaire please do not hesitate to ask. I would like to remind everyone to take their copy of the consent form which is included in the package for your own personal record. Thank you for your time and participation!