Harnessing Cognitive Dissonance to Promote Positive Attitudes Toward Older Workers in Australia

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Negative stereotyping of older workers has been identified as a major factor in employment discrimination against them. A study of Australian employers' attitudes toward older workers found systematic negative stereotyping and low likelihood of hiring older workers. The current study employed a national random sample of 267 employers, and tested 3 interventions aimed at promoting positive attitudes toward older workers and increasing the likelihood of their hiring. The first intervention was in the form of a fact sheet; the second aimed at inducing cognitive dissonance, and the third was a combination of the two. The combination intervention produced promising results. Employers in this condition showed more favorable attitudes toward older workers overall, and greater preference toward hiring older workers.

The combination of medical advances and improved public health that contribute to longevity, together with the advancing age of the baby-boom generation and the lower birth rates of subsequent generations, has led to a significant growth in the population of older adults. Most developed countries are expected to have more than 20% of their populations aged 65 and over by the middle of the 21st century (Clare & Tulpule, 1994; Kinsella & Velkoff, 2001). As the number of older adults grows, governments are likely to face increasing difficulties supporting them through social and healthcare services.

One solution to the predicted financial difficulties related to population aging is for older adults to remain in paid employment longer (Bishop, 1999; Holzman, 2002; House of Representatives Standing Committee on Employment [HRSCE], 2000). This would increase the tax base and alleviate the financial burden placed on younger taxpayers. As statistical data and
empirical research show, however, older adult job seekers are discriminated against in favor of younger applicants, even in countries where legislation prohibits this discrimination, such as Australia and the U.S. (Australian Bureau of Statistics, 1999; Bendick, Jackson, & Romero, 1996; Gringart & Helmes, 2001; HRSCE, 2000; Meddows-Taylor, 1999).

Research conducted independently in both Australia (Gringart & Helmes, 2001) and the U.S. (Bendick, Brown, & Wall, 1999; Bendick et al., 1996) found that older applicants were discriminated against in favor of younger ones, even when presented with similar job-related information. Both the Australian and U.S. researchers concluded that the most likely reason for hiring discrimination against older adults is negative stereotyping. A review of relevant sources (Bennington & Tharenou, 1996; Fastenau, 1998; Meddows-Taylor, 1999; Pickersgill, Briggs, Kitay, O’Keeffe, & Gillezeau, 1996; Ranford, 1987; Steinberg, Donald, Najman, & Skerman, 1996; Taylor & Walker, 1994; Ventrell-Monsees & McCann, 1994; Warr, 1994) has shown that while employers view older workers as generally more reliable, more loyal, and harder working than younger workers, they consider them to be inferior to younger workers on many other job-related attributes.

Gringart, Helmes, and Speelman (2005) surveyed a national random sample of 128 hiring decision makers across industries and found systematic negative stereotyping of older workers. A significant correlation was found between overall attitudes and respondents’ reported likelihood of hiring, such that those with more favorable attitudes indicated that they were more likely to hire older workers. This added support to the stereotyping–discrimination relationship. In accord with previous literature, it was found that compared with younger workers, older workers were stereotypically considered to be less adaptable, less interested in technological change, less trainable, less physically strong, less likely to be promoted, less ambitious, less energetic, less healthy, less creative, less mentally alert, and less flexible, and to have a less functional memory.

Specific negative stereotypes that are held toward older workers by Australian hiring decision makers do not match actual abilities of older workers, and are often misconceptions that are refuted by empirical research (Bottomley, 2001; Charness, Kelly, Bosman, & Mattram, 2001; Czaja, 2001; Forbes & Hirdes, 1993; Hill & Leonard, 1993; Kok Tee, 2002; Krohe, 1991; Mayhew & Swindell, 1996; Pasupathi, Carstensen, & Tsai, 1995; Schaie, 1996; Schooler, Mulatu, & Oates, 1999; Seedsman, 1996; Simon, Morse, Speier, & Osofsky, 1993; Sterns & Milkos, 1995; Yearta & Warr, 1995). The current study, then, represents an attempt to address the resulting injustice by developing and testing interventions aimed at promoting positive attitudes toward older workers and at increasing the likelihood of their hiring.
While several avenues to combat ageism have been explored previously, most do not show promise in the area of hiring discrimination. Mere exposure to older adults has not been effective, nor have intergenerational interactions (Bottomley, 2001; Encel, 1998; Gingrich, 2000; Palmore, 1999). Dissemination of information programs and educational initiatives have also shown little promise (Palmore, 1999; Pasupathi et al., 1995; Scott, Minichello, & Browning, 1998). Mass-media and comprehensive awareness programs may prove effective, but are expensive and need further validation (Donovan & Leivers, 1993; Hill & Leonard, 1993; McFee, 1992).

The lack of effectiveness of many approaches to alter stereotype-based behaviors may be a result of the recognized difficulty in changing stereotypes (Macrae & Bodenhausen, 2000; Petty, Wegner, & Fabrigar, 1997; Wood, 2000). Considering that stereotyping is fundamental to the perception of social reality and to appropriate behavior, it can be expected that trying to change stereotypes will meet with resistance. People often report that they hold egalitarian views, are low in prejudice, and that stereotyping does not influence their behavior or judgments. Research, however, has suggested that activation of stereotypical information may occur automatically and despite conscious countervailing views (Devine, 1989; Perdue & Gurtman, 1990).

It has been suggested that age stereotypes are deeply entrenched in Western cultures, and that negative inferences about older people may take place automatically and without awareness (Hamilton & Sherman, 1994), as is the case with other stereotypes (Devine, 2001; Levy, 2001; Macrae & Bodenhausen, 2000; Petty et al., 1997; Wood, 2000). Although several authors have recently challenged the notion of automatic stereotype activation (Blair, Ma, & Lenton, 2001; Rudman, Ashmore, & Gary, 2001; Wittenbrink, Judd, & Park, 2001), it is still supported by the majority of evidence to date (Baron, 1995; Devine, 2001; Levy, 2001; Macrae & Bodenhausen, 2000; Ottati & Lee, 1995; Petty et al., 1997; Wood, 2000).

A review of relevant literature indicates that potentially effective interventions aimed at promoting attitude change and reducing stereotype-based behaviors should offer countering information from a credible source (Funder, 1995), provide a rational argument for behavioral change in terms of desirable outcomes (Kunda & Sinclair, 1999), and tap the moral values of their targets (Remenyi, 1994; Smith, 2001). This is in accord with Macrae and Bodenhausen (2000), Petty et al. (1997), and Wood (2000) who, having reviewed literature in the area of attitude and attitude change, all suggested that harnessing both hot (i.e., “self-involving”) motives and cold (i.e., rational) motives enhances the effectiveness of interventions.

Literature in the area of attitudes and attitude change has suggested that interventions using cognitive dissonance could combine hot and cold motives, tap moral values, and be effective in stereotype change as well as
reducing stereotype-based behaviors (Aronson, 1999; Devine, 1989; Festinger, 1957; Johnston, 1996; Macrae & Bodenhausen, 2000; Monteith, 1993; Petty et al., 1997; Wood, 2000). Such interventions are based on the notion that becoming aware of behaving in a way that is incongruent with one’s self-concept creates unpleasant cognitive dissonance. In order to reduce this dissonance, the person adjusts his or her subsequent behavior to be more in line with his or her self-concept (Aronson, 1999; Festinger, 1957).

Several studies (Aronson, Fried, & Stone, 1991; Devine, 1989; Dickerson, Thibodeau, Aronson, & Miller, 1992; Leippe & Eisenstadt, 1994; Monteith, 1993) have suggested that stereotype-based behaviors and attitudes can change through the use of cognitive dissonance. Taken together, these studies indicate that six factors need to be borne in mind for the construction of a successful intervention based on cognitive dissonance. Devine as well as Monteith proposed that behavioral change following cognitive dissonance is mediated by a threat to one’s self-concept. Hence, people for whom behavioral change is sought should embrace a view that is contradictory to that behavior as a part of their self-concepts. Leippe and Eisenstadt found choice and publicity to be significant factors in promoting behavioral change through cognitive dissonance. Aronson et al. and Dickerson et al. both reported that behavioral change followed cognitive dissonance when people were reminded of their unsatisfactory past behavior, were committed to change, and were made active in preaching to others.

While studies have demonstrated that cognitive-dissonance induction can facilitate attitudinal and behavioral changes, participants in these studies all shared similar levels of knowledge in the areas concerned. For example, participants in Dickerson et al.’s (1992) study all had similar knowledge related to water conservation. Thus, participants in whom cognitive dissonance was induced in effect were exposed to both relevant information and cognitive-dissonance induction. This is different from hiring decision makers whose knowledge of the capabilities and actual performance of older workers has been found to be inaccurate and stereotypical. This lack of accurate knowledge provides an opportunity to assess the effectiveness of information-based intervention and cognitive-dissonance-based interventions alone, as well as a combination of both. This is important because the induction of cognitive dissonance alone may fall short in promoting attitude change and reducing hiring discrimination against older adults as a result of the lack of information that is relevant to their capabilities and actual performance.

Combining cognitive-dissonance-based and information-based interventions might enhance the effectiveness of interventions. According to Festinger (1957), one way to reduce the discomfort experienced by cognitive
dissonance is to seek and incorporate information that is congruent with a chosen alternative. For example, having chosen to purchase a particular make of automobile, individuals seek technical and general information that is favorable to the car they have chosen (Festinger, 1957). This suggests that combining cognitive-dissonance induction with information that is congruent with the desirable choice could enhance the effectiveness of an intervention. In the case of hiring discrimination against older adults, inducing cognitive dissonance in relation to such prejudice and providing information about the actual abilities and performance of older workers could be more effective than using either cognitive-dissonance-based or information-based interventions alone. Thus, cognitive-dissonance-based interventions and information-based interventions may be complementary in that the former could provide the motivation needed to embrace the latter.

Making use of the six factors that could contribute to the effectiveness of a cognitive dissonance-based intervention, a novel intervention targeting hiring decision makers was developed in order to promote positive attitude change toward older workers and to lead to reductions in discriminatory behavior toward them. Using the information gathered in Gringart et al. (2005), an empirically driven information-based intervention was also developed.

Gringart et al. (2005) identified specific characteristics for which older workers were stereotypically viewed as inferior, compared to younger workers. These were identified as misconceptions that are refuted by empirical data. These misconceptions were used to develop an information-based intervention in the form of a fact sheet. The fact sheet lists these misconceptions and explains their inaccuracy in light of empirical data.

As explained earlier, the potential effectiveness of cognitive-dissonance-based interventions may be enhanced by the incorporation of six factors. These factors are choice, knowledge of inappropriate past behavior, publicity, commitment to appropriate behavior in the future, preaching to others, and threatening the self-concept. The cognitive-dissonance-based intervention that was developed in the current study is novel in its incorporation of all of these six factors.

Participants were given the choice of whether or not to respond to the materials that were sent to them and were advised that employers were found to discriminate against older adults. Thus, the factors of choice and being reminded of unsatisfactory past behaviors were addressed. Respondents were advised that their names were going to be published as people who oppose hiring discrimination against older adults and who are committed to nondiscriminatory practice. Thus, the factors of publicity, commitment to change, and preaching to others were incorporated.
Both Devine (1989) and Monteith (1993) found significant differences in the effectiveness of cognitive-dissonance-based interventions as a function of level of prejudice. Behavioral and attitudinal changes were observed among individuals low in prejudice, but not among those who were highly prejudiced. Nevertheless, both high- and low-prejudiced people viewed themselves to be egalitarian to the same extent. Monteith suggested that the self-concept of the highly prejudiced was not threatened, hence no significant behavioral and attitudinal changes followed interventions. Thus, people's views of themselves as egalitarian were not disturbed as a consequence of being informed that they discriminated against those of which they were highly prejudiced.

In order to address the issue of threatening respondents' self-concept, as well as potential differences in their levels of prejudice, discriminatory behavior toward older adults was presented as being at odds with the principle of “giving people a fair go,” which is an important value in Australian culture. This way, respondents' values were tapped and were placed at odds with discriminatory behavior. The principle of fair go endorses that all people should be given an equal chance and should be treated fairly, regardless of individual differences such as sex, race, age, disability, marital status, or religious or political beliefs (Western Australia Equal Opportunity Commission [WAEOC], 1998).

While different levels of prejudice against older adults are likely to be found among potential respondents, we theorized that this issue may be addressed by including the value of fair go, which is likely to be endorsed by Australians, regardless of their direct level of prejudice against older workers. We reasoned that placing the undesirable behavior at odds with such a culturally enshrined value could facilitate a threat to the self-concept for both low and highly prejudiced people. The principle of giving each individual a fair go is important in hiring as it facilitates objectivity in employing the best person for the job and is fundamental to the issue of equal opportunity in employment (WAEOC, 1998).

The two other issues that were considered and utilized in developing the cognitive-dissonance-based interventions of the current study are the inclusion of hot and cold arguments, and pointing to desired outcomes. The cognitive-dissonance-based intervention included hot arguments in terms of a threat to the self-concept, and cold arguments pointing to desired outcomes in explaining to respondents that hiring discrimination could be counterproductive in cases in which the best person for the job happens to be older.

The questionnaire that was developed and used in Gringart et al.'s (2005) study measured the effectiveness of the interventions in the current study. One question was added in the current study that was not an integral part of
the questionnaire. Respondents were asked to rate their level of hiring preference as a function of worker’s age, regardless of job description. This was important because it allowed the observation of differences in general age preference in hiring across interventions. Although this question does not directly measure actual hiring behavior, it stands to reason that respondents who would indicate no age preference in hiring or preference of older workers are likely to consider job applications submitted by older adult job seekers. Those who would indicate a priori preference for younger workers, however, are likely to discard the applications of older adults without much consideration.

The current study examines three questions. First, based on the literature indicating that information-based interventions are low in effectiveness, it is hypothesized that respondents in the fact sheet (FS) condition will be least affected, as reflected in all dependent variables. Second, following the literature suggesting that cognitive-dissonance manipulations are effective in promoting attitude change and amending stereotype-based behaviors, it is hypothesized that respondents in the cognitive-dissonance (CD) conditions will be affected to a significantly greater degree, compared to both FS and controls. Finally, the research question is whether the cognitive dissonance/fact sheet (CDFS) combination will enhance the intervention’s effectiveness so that it will produce significantly greater effects on the dependent measures.

Method

Design

The study comprised two stages. The first was an intervention, and the second was a follow-up test. In the first stage, respondents in the intervention groups were sent one of three intervention materials: a cognitive dissonance manipulation, a fact sheet, or a combination of the two. In the testing stage, respondents of the intervention groups plus a new control group were all sent questionnaires in order to assess the effects of the different interventions.

The study thus employed a 2 × 2 between-subjects design with cognitive dissonance (Yes or No) and fact sheet (Yes or No) as the independent variables (IVs). There were four dependent variables (DVs): age preference (respondents’ general age preference in hiring), sum of scale (the sum of the stereotype scale of the questionnaire), age relevant (how relevant was age in making hiring decisions), and likely to hire (how likely were respondents to hire older workers). These DVs were based on those used in Gringart et al.’s (2005) attitude survey.
Respondents

There were 1,200 companies randomly selected across industries in the five largest Australian states: Queensland, New South Wales, Victoria, South Australia, and Western Australia. These companies were randomly assigned to three interventions and one control group.

Companies were located through the Kompass Australia electronic database of APN Business Information Group. Only private companies with 10 to 50 employees were used. This was done for three main reasons: to minimize the possibility of addressing companies with more than one hiring decision maker; to address those who would be more likely to hire (i.e., those with more than 10 employees) than family-oriented companies (i.e., up to 10 employees); and companies with up to 50 employees cover more than 50% of the Australian workforce.

At the final testing stage, responses were received from 267 companies. Of this sample of employers, the decision makers were 203 males and 64 females, with a mean age between 45 and 50 years. As for level of education, the sample reflected the demographic makeup of Australian employers: 23 respondents (8.6%) had a formal education level of up to Year 10; 46 (17.2%) had formal education up to Year 12; 183 (68.5%) had tertiary education; and 15 (5.6%) were postgraduates. There were 55 responses (20.6%) received from Queensland; 43 (16.1%) from New South Wales; 51 (19.1%) from Victoria; 63 (23.6%) from South Australia; and 55 (20.6%) from Western Australia.

Materials

In the intervention stage, three sets of intervention materials and one set of follow-up cards were used. The testing stage used questionnaires and follow-up cards. In addition, two cover letters were used across the two follow-ups.

There was concern that responses to questionnaires at the testing stage would be biased if both the intervention and testing materials were mailed from the same source. In order to minimize such demand characteristics, the materials of the intervention and testing stages were each posted from a different source so that they appeared as two independent studies. The intervention materials were posted from James Cook University (JCU) in Queensland, and the testing materials were posted from Edith Cowan University (ECU) in Western Australia. Each set of intervention materials used a different type of font, color cards, and the corresponding university letterhead. There were two different researchers (one from each university) available to answer respondents’ queries.
**Intervention stage.** There were three types of interventions. The first intervention was aimed at inducing cognitive dissonance (CD), the second provided information in the form of a fact sheet (FS), and the third combined these two (CDFS). All interventions consisted of written materials, reply cards, and postage-paid reply envelopes. Each reply card was coded to enable the researchers to track the companies that were addressed in the following testing stage and those that were not.

The CD intervention, a one-page letter incorporated the six factors relating to CD manipulations found in the literature: choice, knowledge of inappropriate past behavior, threat to the self-concept, publicity, commitment to appropriate behavior in the future, and preaching to others. Respondents replied voluntarily; hence, the issue of choice was addressed. The issues of population aging and the consequent need for older adults in the workforce were briefly introduced. This was done in order to point to the importance and relevance of the issue.

Drawing on information gathered in previous research and previous relevant studies (Gringart & Helmes, 2001; Gringart et al., 2005), past behavior of Australian employers in discriminating against older adults in hiring was stated. It was explained that age discrimination in hiring is against the very principle of giving each individual a fair go, which is held so dear in Australia. This was done in order to link discriminatory behavior with fundamental morals of Australian society and to posit such practice as being at odds with respondents’ self-concept.

Respondents were advised that a booklet with a list of names of hiring decision makers who oppose age discrimination in hiring and view it as immoral was being produced. Each respondent was asked to print his or her name on the reply card and to post it back so that the respondents could be included on a list that was to be published to show other hiring decision makers and the wider community that they feel that each older job seeker should be given a fair go. Further, it was explained that those on the list were committed to that feeling and belief. Thus, the factors of publicity, commitment to appropriate behavior in the future, and preaching to others were addressed.

The FS intervention comprised a one-page fact sheet based on the findings of Gringart et al.’s (2005) attitude survey. It listed the 12 most common and most extremely expressed stereotypes about older workers, and provided empirically based counter evidence. This was similar in form to the fact sheets produced by government bodies. Examples of fact sheet items are “Older workers are less adaptable,” which was contrasted with “Older workers adapt well to new working environments and circumstances”; and “Older workers are not interested in changes in the workplace,” which was contrasted with “Older workers are interested in their
career and in meeting new challenges.” Respondents were requested to check a box on the reply card acknowledging having read the fact sheet and to post it back.

The CDFS intervention materials combined both sets of the CD and FS sheets. Reply cards were the same as for the CD condition. Two sets of CDFS materials were produced to control for order effects: One presented the CD materials first and the FS materials second, while the other reversed this order.

Follow-up cards were used across all conditions in order to enhance the response rate. Postcards reminded respondents of the materials that were sent to them. Respondents were thanked for their cooperation in case they had already responded, and were urged to do so in case they had not responded. The cards explained to respondents that they were a part of a small, randomly selected representative sample of companies; therefore, their response was uniquely important.

Testing stage. The testing stage used Gringart et al.’s (2005) questionnaire plus one additional question that aimed to tap any differences in general hiring preferences as a function of intervention. That is, respondents were asked to rate their preference of hiring older or younger workers, regardless of a specific job description. This question was kept separate from the main body of the questionnaire, and respondents were asked to reply to it before going on to the questionnaire. Numbers were not shown on rating points in order to minimize responding bias in case favoritism was associated with numerical values.

The questionnaire was divided into four sections. Section A comprised 28 items that address stereotypical views found in the literature, and sought to assess the extent to which these views are held. Section B included two questions. The first question asks how relevant applicants’ age is in making hiring decisions, which provides a measure of the importance given to both age and the stereotypical view of older workers in hiring. The second question asks respondents to rate their likelihood of hiring an older worker, which provides a measure of hiring intentions in their employment context. All measures were continuous and were rated on 7-point Likert-type scales. Section C consisted of the one open-ended question “What other characteristics of older workers differentiate their performance from that of younger workers?” This allows exploration of issues that were not addressed by questionnaire items. Finally, Section D asked respondents for demographic data (age, gender, and educational level).

Cover letters introduced the issue of population aging and explained that the number of younger workers will decline and that the number of older job applicants will increase over the coming years. The cards of the first
follow-up reminded respondents of the questionnaire that was mailed to them initially. They were thanked in case they had replied already, and they were asked to reply if they had not yet done so. Respondents were advised that they could call the researcher and receive another copy of the questionnaire if they never received it or had misplaced it.

Procedure

Respondents were randomly allocated to one of four groups: CD, FS, CDFS, or control. There were 300 companies in each group. Based on response rates in Gringart et al.’s (2005) study, it was estimated that one follow-up at the intervention stage and two follow-ups in the testing stage would yield sufficient responses for analyses.

**Intervention stage.** Intervention materials were addressed to “the hiring decision maker” and were mailed from JCU simultaneously to 900 companies across the three intervention groups. Participants’ acknowledgments of receipt of the fact sheets in the FS condition and agreement with the cognitive-dissonance materials in both the CD and CDFS groups were gathered through the reply cards described previously. Follow-up cards were mailed to all potential respondents 1 week after the initial posting of interventions. We allowed 4 weeks to gather responses from the initial posting of interventions. Only those participants from whom reply cards were received were addressed at the following testing stage.

**Testing stage.** There were 556 employers who were addressed at the testing stage across the four groups: CD, FS, CDFS, and control. Questionnaires, cover letters, and prepaid reply envelopes were mailed simultaneously on a Tuesday, as recommended by De Vaus (1995).

Cover letters were addressed to “the hiring decision maker,” and each questionnaire was numbered to enable researchers to keep track of companies who replied and those who required follow-up. In order to enhance the response rate, two follow-ups were used.

- **The first follow-up was sent 1 week** after the initial posting and was mailed to all potential respondents. It was in the form of a postcard and reminded respondents of the questionnaire. Respondents were thanked for their cooperation if they had completed the questionnaire, and they were asked to do so in case they had not.

- **The second follow-up was posted 3 weeks** after the initial posting and was addressed only to those who had not yet responded by that time. It included a letter, linked to the initial cover letter but more insistent in tone, a questionnaire, and a postage-paid return envelope.
Response Rates

Out of the 556 companies that were addressed at the testing stage, 30 were returned to the sender as “address unknown.” Thus, the actual sample size for potential responses was 526. Of those 526 companies, 306 questionnaires were returned, yielding a response rate of 58.2% at this stage.

Results

Data Screening

Returned questionnaires were screened for missing data prior to data entry. There were 22 incomplete questionnaires, which were found and discarded. The fit between respondents’ names on the reply cards and reported gender in the questionnaires was assessed in the CD and CDFS groups. There was a fit of 97%, with 2 mismatches in the CD group. These two questionnaires were also discarded. This left 282 completed, usable questionnaires.

Prior to analyses, all 28 variables of the stereotype scale and the variables of age preference, sum of scale, likely to hire, and age relevant were examined through various SPSS (2001) programs for accuracy of data entry, missing values, and fit between their distributions and the assumptions of ANOVA analyses. The variables were examined separately in their groups for accuracy, univariate outliers, and normality. No missing values were detected, and normality was satisfactory.

Univariate outliers were defined as values that were more than 3 standard deviations away from their means. Depending on the direction of deviation, outlying values were replaced with values corresponding to 3 standard deviations above or below their means. There were 5 outlying values that were detected and adjusted in the CD group; 19 in the FS group; 3 in the CDFS group; and 9 in the control group.

Using Mahalanobis’s distance with \( p < .001 \), 15 cases (i.e., about 5%) were identified as multivariate outliers across all 32 variables and were deleted. After the deletion of the multivariate outliers, 267 cases remained for analysis: 30 cases in the CD group; 91 in the FS group; 28 in the CDFS group; and 118 in the control group. Each group had a ratio of about 1 female to 3 males, and a mean age between 45 and 50 years.

Internal consistency reliability of the stereotype scales was analyzed using SPSS to calculate Cronbach’s alpha in each group. Alpha values were .88, .90, .90, and .89 for the CD, FS, CDFS, and control groups, respectively. Stereotype scale item means and standard deviations across the four groups are shown in Table 1.
Table 1

**Stereotype Scale Item Means by Group**

<table>
<thead>
<tr>
<th>Scale item</th>
<th>CD</th>
<th>SD</th>
<th>FS</th>
<th>SD</th>
<th>CDFS</th>
<th>SD</th>
<th>Control</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adaptable</td>
<td>2.77</td>
<td>0.73</td>
<td>2.70</td>
<td>0.77</td>
<td>3.00</td>
<td>0.77</td>
<td>2.58</td>
<td>0.85</td>
</tr>
<tr>
<td>Interested</td>
<td>3.13</td>
<td>0.78</td>
<td>3.06</td>
<td>0.95</td>
<td>3.32</td>
<td>0.82</td>
<td>2.87</td>
<td>1.10</td>
</tr>
<tr>
<td>Trainable</td>
<td>3.40</td>
<td>1.38</td>
<td>3.32</td>
<td>0.94</td>
<td>4.11</td>
<td>1.26</td>
<td>3.20</td>
<td>1.11</td>
</tr>
<tr>
<td>Strong</td>
<td>2.90</td>
<td>0.84</td>
<td>3.08</td>
<td>0.80</td>
<td>3.36</td>
<td>1.03</td>
<td>3.07</td>
<td>0.92</td>
</tr>
<tr>
<td>Likely to be promoted</td>
<td>3.60</td>
<td>0.97</td>
<td>3.59</td>
<td>0.92</td>
<td>3.73</td>
<td>0.70</td>
<td>3.57</td>
<td>1.13</td>
</tr>
<tr>
<td>Ambitious</td>
<td>3.27</td>
<td>0.83</td>
<td>3.34</td>
<td>0.87</td>
<td>3.14</td>
<td>0.92</td>
<td>3.14</td>
<td>0.97</td>
</tr>
<tr>
<td>Energetic</td>
<td>3.30</td>
<td>0.79</td>
<td>3.46</td>
<td>0.82</td>
<td>3.78</td>
<td>0.92</td>
<td>3.26</td>
<td>0.95</td>
</tr>
<tr>
<td>Healthy</td>
<td>3.47</td>
<td>0.78</td>
<td>3.61</td>
<td>0.80</td>
<td>3.89</td>
<td>1.03</td>
<td>3.55</td>
<td>0.90</td>
</tr>
<tr>
<td>Creative</td>
<td>3.60</td>
<td>0.81</td>
<td>3.82</td>
<td>0.92</td>
<td>3.89</td>
<td>0.74</td>
<td>3.76</td>
<td>1.03</td>
</tr>
<tr>
<td>Functional memory</td>
<td>3.70</td>
<td>0.79</td>
<td>3.83</td>
<td>0.75</td>
<td>3.75</td>
<td>0.70</td>
<td>3.75</td>
<td>0.92</td>
</tr>
<tr>
<td>Mentally alert</td>
<td>3.57</td>
<td>0.73</td>
<td>3.80</td>
<td>0.79</td>
<td>3.78</td>
<td>0.66</td>
<td>3.72</td>
<td>0.86</td>
</tr>
<tr>
<td>Flexible</td>
<td>3.90</td>
<td>1.37</td>
<td>4.00</td>
<td>1.18</td>
<td>4.50</td>
<td>1.20</td>
<td>3.66</td>
<td>1.27</td>
</tr>
<tr>
<td>Fit in</td>
<td>3.90</td>
<td>0.96</td>
<td>4.10</td>
<td>0.88</td>
<td>4.39</td>
<td>0.87</td>
<td>3.84</td>
<td>0.87</td>
</tr>
<tr>
<td>Productive</td>
<td>3.93</td>
<td>1.17</td>
<td>4.10</td>
<td>1.03</td>
<td>4.78</td>
<td>1.07</td>
<td>4.19</td>
<td>1.19</td>
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<tr>
<td>Motivated</td>
<td>4.40</td>
<td>0.77</td>
<td>4.20</td>
<td>0.92</td>
<td>4.61</td>
<td>1.13</td>
<td>4.02</td>
<td>1.09</td>
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<td>Efficient</td>
<td>3.97</td>
<td>1.00</td>
<td>4.21</td>
<td>0.82</td>
<td>4.61</td>
<td>1.13</td>
<td>4.36</td>
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<tr>
<td>Satisfactory performance</td>
<td>4.37</td>
<td>0.93</td>
<td>4.32</td>
<td>0.95</td>
<td>4.86</td>
<td>0.97</td>
<td>4.39</td>
<td>0.95</td>
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<td>Cost effective</td>
<td>4.50</td>
<td>1.28</td>
<td>4.60</td>
<td>1.08</td>
<td>4.96</td>
<td>1.29</td>
<td>4.47</td>
<td>1.16</td>
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<tr>
<td>Cooperative</td>
<td>4.50</td>
<td>0.94</td>
<td>4.69</td>
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<td>4.86</td>
<td>0.89</td>
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<tr>
<td>Job quality</td>
<td>4.40</td>
<td>0.85</td>
<td>4.57</td>
<td>0.76</td>
<td>4.78</td>
<td>0.83</td>
<td>4.63</td>
<td>0.79</td>
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<tr>
<td>Hard working</td>
<td>4.63</td>
<td>0.76</td>
<td>4.52</td>
<td>0.87</td>
<td>4.96</td>
<td>1.00</td>
<td>4.50</td>
<td>1.02</td>
</tr>
<tr>
<td>Willing to work</td>
<td>5.17</td>
<td>0.95</td>
<td>4.84</td>
<td>1.10</td>
<td>5.07</td>
<td>1.15</td>
<td>4.86</td>
<td>1.14</td>
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<tr>
<td>Competent</td>
<td>4.60</td>
<td>0.80</td>
<td>4.77</td>
<td>0.79</td>
<td>5.36</td>
<td>0.83</td>
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<td>Skilled</td>
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<td>0.67</td>
<td>4.83</td>
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<td>1.09</td>
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<td>Cautious</td>
<td>5.20</td>
<td>0.80</td>
<td>5.23</td>
<td>0.74</td>
<td>5.36</td>
<td>0.91</td>
<td>5.14</td>
<td>1.08</td>
</tr>
<tr>
<td>Dependable</td>
<td>5.20</td>
<td>0.80</td>
<td>5.10</td>
<td>0.86</td>
<td>5.53</td>
<td>0.92</td>
<td>5.25</td>
<td>0.91</td>
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<tr>
<td>Loyal</td>
<td>5.40</td>
<td>0.81</td>
<td>5.35</td>
<td>0.90</td>
<td>5.68</td>
<td>0.86</td>
<td>5.33</td>
<td>0.84</td>
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<tr>
<td>Reliable</td>
<td>5.45</td>
<td>0.95</td>
<td>5.47</td>
<td>0.91</td>
<td>5.86</td>
<td>0.80</td>
<td>5.40</td>
<td>0.93</td>
</tr>
</tbody>
</table>

*Note.* CD = cognitive dissonance; FS = fact sheet.
As there were unequal numbers of cases across cells and because it was assumed that differences in cell sizes reflected real processes in the populations sampled, the SPSS regression approach was used. Hence, each cell mean was given equal weight, regardless of its sample size, and each main effect and interaction was assessed after adjustments were made for all other main effects and interactions. Descriptive statistics are presented in Table 2.

Univariate ANOVAs were conducted for the four DVs. They showed significant effects for age preference, sum of scale, and likely to hire, but not for age relevant.

A 2 (CD: yes or no) × 2 (FS: yes or no) between-subjects ANOVA was performed on age preference scores. With alpha set at .05, both main effects were found to be significant, but no significant interaction was detected: CD, \( F(1, 263) = 6.95, p < .05 \); FS, \( F(1, 263) = 4.28, p < .05 \). Hence, both CD and FS enhanced age preference scores. Descriptive statistics are shown in Table 2.

As the mean of the CDFS combination group was higher than that of the other three groups (see Table 2) and because it was of interest to assess the effects of the different interventions, post hoc pairwise comparisons using Tukey’s honestly significant difference (HSD) test were performed across the four groups. These revealed that mean age preference scores in the CDFS combination group were significantly higher than those of the FS group and the control group. No other pairwise comparisons achieved significance. In other words, employers who received the combined CDFS intervention showed a significantly greater preference for hiring older workers than did employers who received only the fact sheet and those who received no manipulation.

Table 2

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Age preference</th>
<th>Sum of scale</th>
<th>Age relevant</th>
<th>Likely to hire</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>( M )</td>
<td>( SD )</td>
<td>( M )</td>
<td>( SD )</td>
</tr>
<tr>
<td>CD</td>
<td>30</td>
<td>3.83</td>
<td>1.20</td>
<td>115.23</td>
<td>12.80</td>
</tr>
<tr>
<td>FS</td>
<td>91</td>
<td>3.74</td>
<td>1.07</td>
<td>116.48</td>
<td>12.99</td>
</tr>
<tr>
<td>CDFS</td>
<td>28</td>
<td>4.50</td>
<td>1.04</td>
<td>125.11</td>
<td>13.81</td>
</tr>
<tr>
<td>Control</td>
<td>118</td>
<td>3.69</td>
<td>1.22</td>
<td>115.01</td>
<td>14.39</td>
</tr>
</tbody>
</table>

*Note.* CD = cognitive dissonance; FS = fact sheet.
A 2 (CD: yes or no) × 2 (FS: yes or no) between-subjects ANOVA was performed on employers’ sum of scale scores. With alpha set at .05, both main effects and the interaction were found to be significant: CD, $F(1, 263) = 4.71, p < .05$; FS, $F(1, 263) = 7.75, p < .05$; CD × FS interaction, $F(1, 263) = 4.26, p < .05$. Post hoc pairwise comparisons were conducted among the four cell means using Tukey’s HSD test. These revealed that the mean sum of scale scores in the CDFS combination group was significantly higher than in any of the other groups. No other pairwise differences achieved significance. In other words, those respondents who received both the CD and FS reported significantly more favorable views of older workers than did any of the other groups. Descriptive statistics are presented in Table 2, and the interaction is shown in Figure 1.

A 2 (CD: yes or no) × 2 (FS: yes or no) between-subjects ANOVA was performed on employers’ likely to hire scores. With alpha set at .05, the only significant effect was a CD × FS interaction, $F(1, 263) = 4.69, p < .05$. Descriptive statistics are presented in Table 2, and the interaction is shown in Figure 2. Post hoc pairwise comparisons using Tukey’s HSD test did not reveal significant differences between groups. Thus, while the combination between CD and FS exerted the greatest effect on the DV likely to hire, this
effect was statistically observable only in the combination of all conditions.

The manipulation groups were too small to be examined further with breakdowns by demographic variables. Hence, the effects of respondents’ sex, age, educational level, and State of companies’ origin on the four DVs were each analyzed through a MANOVA using only the control group.

A between-subjects MANOVA was performed on control group scores for four DVs: age preference, sum of scale, age relevant, and likely to hire. The IV was respondents’ gender.

With the use of Pillai’s trace criterion, the combined DVs were significantly affected by respondents’ gender, \(F(4, 113) = 2.65, p = .037\). Univariate test results showed that only age relevant was significantly affected by respondents’ gender, \(F(1, 116) = 5.74, p = .018\). Male respondents had significantly higher age-relevant scores than did their female counterparts. In other words, male employers viewed age to be significantly more important in making hiring decisions than did female employers. Descriptive statistics are presented in Table 3.

*Figure 2.* Mean employer likely to hire score as a function of cognitive dissonance (CD) and fact sheet (FS).
As information regarding the age of respondents was collected in blocks of 5-year age groups, this variable was divided into three groups for analysis: those up to 40 years of age, those between 45 and 55 years, and those over 55 years. While no significant differences were found between the five states, age and sex of respondents showed significant effects.

A between-subjects MANOVA was performed on control group scores for four DVs: age preference, sum of scale, age relevant, and likely to hire. The IV was employer respondents’ age (up to 40 years, 40–55 years, or 55+ years). SPSS MANOVA was used for the analysis. The assumptions of MANOVA were met, and alpha was set at .05.

With the use of Pillai’s trace criterion, the combined DVs were significantly affected by age of respondents, $F(8, 226) = 2.58, p = .01$. Univariate test results showed that age preference, $F(2, 115) = 4.79, p = .01$; and sum of scale, $F(2, 115) = 5.43, p < .01$, were significantly affected by age of respondent. Pairwise comparisons using Tukey’s HSD test reveal that the 55+ group had significantly higher age preference and sum of scale scores than did either of the other two groups. No other pairwise differences achieved significance. In other words, employers who were older than 55 years expressed a significantly greater interest in hiring older workers than did younger employers. Further, the group of older employers had a significantly more positive view of older workers overall than did any of the younger groups. Descriptive statistics are presented in Table 4.

Section C of the questionnaire was comprised of the open-ended question “What other characteristics of older workers differentiate their performance from that of younger workers?” Responses to this section presented various attributes for which older workers were viewed as better or worse, compared with younger workers.

The CD, FS, and control groups all had about 3 times as many positive attributes related to older workers in their responses, compared to negative ones. The CDFS combination group, however, had 8 times more positive

Table 3

<table>
<thead>
<tr>
<th>Respondent sex</th>
<th>$n$</th>
<th>$M$</th>
<th>$SD$</th>
<th>$M$</th>
<th>$SD$</th>
<th>$M$</th>
<th>$SD$</th>
<th>$M$</th>
<th>$SD$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>83</td>
<td>3.72</td>
<td>1.29</td>
<td>14.53</td>
<td>14.54</td>
<td>3.52</td>
<td>1.49</td>
<td>3.64</td>
<td>1.11</td>
</tr>
<tr>
<td>Female</td>
<td>35</td>
<td>3.63</td>
<td>1.03</td>
<td>116.17</td>
<td>14.18</td>
<td>2.80</td>
<td>1.47</td>
<td>4.03</td>
<td>1.32</td>
</tr>
</tbody>
</table>

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The CD, FS, and control groups all had about 3 times as many positive attributes related to older workers in their responses, compared to negative ones. The CDFS combination group, however, had 8 times more positive
attributes than negative ones. This group also had the greatest number of positive attributes and the smallest number of negative ones. The CD group had about the same number of negative attributes as the combination group, but had the least number of positive attributes. The FS and control groups had about the same number of positive and negative attributes, with the former showing the greatest number of negative attributes overall.

The majority of participants in all four groups indicated that older workers have a better work ethic than do younger workers, have more appreciation of their jobs, have more common sense, and that they are more reliable. In addition, three out of four groups proposed that older workers are more experienced than younger workers, more proud of their jobs, more willing to do all kinds of jobs, more responsible, more loyal, and more honest.

Most of the respondents in the combination and the FS groups suggested that older workers are more knowledgeable than younger workers, better understand the company, and are better mentors. Both the combination and control groups responded that older workers are more likely to stay in the job, are more stable, and are wiser. The CDFS and CD groups both suggested that older workers are more dependable and mature than younger workers.

The majority of respondents in the CD and control groups responded that older workers are harder working, are better under pressure, and are friendlier than younger workers. The CD and FS groups both stated that older workers have more life experience.

Respondents in the FS and control groups mostly responded that older workers are more focused on their jobs, are better at following instructions, and are better problem solvers. They also indicated that older workers are more punctual, more accurate, more patient, and are intrinsically motivated.

As for negative attributes, the majority of respondents in all four groups suggested that older workers are set in their ways. In the FS and control
groups, most of the respondents commented that older workers are slower than younger workers, and that they have difficulties with new technology. Most respondents in the CD and FS groups suggested that older workers are resistant to change. The CD and control groups mostly indicated that older workers are weaker than younger workers, and the majority of respondents in the CDFS and CD groups suggested that older workers are not as good as younger workers in the area of information technology.

Discussion

The first hypothesis predicted that the fact sheet condition would have the least effect on respondents. This hypothesis was supported by the results. Results from the FS condition were not significantly different from the control condition on any of the DVs.

The second hypothesis predicted that respondents in the cognitive dissonance condition would show significantly greater effects, compared to those in the FS and control conditions. This hypothesis was not supported by the results, as the effects of the CD condition, although in the predicted direction, did not reach statistical significance. Power calculations that were conducted for the tests between controls and CD, and between controls and FS show that the CD intervention condition yielded a greater effect size on two of the three DVs.

The FS showed small effect sizes of .07 for the DV of age preference in hiring, and .02 for the DV of age relevant, while the CD produced an effect size of .20 for both DVs. This is in accord with both Dickerson et al. (1992) and Taylor (2001), who suggested that information-based interventions alone are unlikely to produce attitude change. It is also in accord with Monteith (1993), Macrae and Bodenhausen (2000), and Wood (2000), who have all proposed that CD-based interventions are more likely to succeed. Nevertheless, a larger sample would be required to determine whether the effect of the CD manipulation that was observed here is reliable.

As for the research question as to whether the CDFS combination would enhance the intervention’s effectiveness, the results show that it did. As measured by the DV sum of scale, respondents in the CDFS condition presented significantly more favorable attitudes toward older workers overall, compared to all other groups. The CDFS was the only condition in which employers’ mean likely to hire score was greater than 4, which is important because this indicates that they were more than likely to hire older workers, compared to all other groups.

Respondents in the CDFS condition had a significantly higher mean score on the dependent variable age preference compared to those in the FS
and control conditions. No statistically significant differences were detected for the DV age relevance. All four conditions indicate that age was relevant in making hiring decisions, as the mean scores were all between 3.07 and 3.30. Thus, the CDFS combination condition resulted in significantly more favorable attitudes toward older workers overall, and a significantly greater preference for hiring older workers, compared with all other conditions.

The CDFS was the only condition in which respondents viewed older workers as superior, compared to younger workers, on characteristics for which controls viewed them as inferior. Older workers were viewed in the CDFS group to be more trainable and more flexible, compared to younger workers. Thus, the CDFS condition showed positive attitudes toward older workers that are relevant to decision making in hiring. In the CD and FS conditions, however, despite some positive attitudes being evident, the overall negative stereotypical view of older workers remained. That is, in both CD and FS conditions, older workers were still viewed to be inferior and superior on the same characteristics as controls. The CDFS condition had higher mean ratings on all but four individual items, compared to any other group.

The results of the current study suggest that combining the CD and FS conditions is complementary. As stereotyping is natural and because stereotypes may play a survival role, be instrumental in making sense of reality as well as direct behavior, updating or amending the information they contain requires strong motivation (Devine, 1989; Hamilton & Sherman, 1994; Macrae & Bodenhausen, 2000; Macrae, Milne, & Bodenhausen, 1994). Significant effects in the CDFS condition suggest that the need to reduce CD provided the motivation for attitude change and stereotype amendment, which facilitated greater acceptance of the counterstereotypical information provided in the fact sheet. The counterstereotypical information provided by the fact sheet in the CDFS condition may have exacerbated the experience of CD and so contributed to the motivation for attitude change. Further, while respondents in the CD condition could have chosen to reduce dissonance by falling back on their stereotypical misconceptions, this path was blocked by the information provided in the fact sheet in the CDFS condition. Finally, as testing questionnaires were posted 4 weeks after the intervention, the effects appear to be long lasting.

Returns for the CDFS and CD conditions at the testing stage were about one third of those in the FS and control conditions. Considering this lower response rate in the CDFS may suggest that the significant results in this condition were a result of self-selection bias. That is, employers who responded to this condition already felt significantly more favorable toward older workers prior to the intervention. Considering the differences in the
demands made on respondents across conditions and the response rates (CD = 30; CDFS = 28), however, suggests this was not the case.

The FS condition simply asked respondents to check a box on a slip that had an identifying number on it and send it back. Respondents in the CD and CDFS conditions were asked to provide their names and to commit to refraining from hiring discrimination in the future. They were also made aware that their names would be published. Hence, the levels of personal involvement and accountability in the CD and CDFS conditions were far greater than those in the FS and control conditions. As for the almost identical response rates in the CD and CDFS conditions, had this been a result of self-selection bias, there should have been no significant differences between these groups. The attitudes of respondents in the CDFS condition, however, were significantly more favorable toward older workers. Considering the different demands made on participants across conditions and the differences between the CD and CDFS groups, it stands to reason that the significant results found were caused by the CDFS intervention, and not by self-selection bias.

Power and effect-size calculations were conducted for the DVs age preference and sum of scale between the scores of the FS and CDFS (for two-tailed tests with an alpha of .05). Both yielded power greater than .90, indicating that the results are reliable and are unlikely to have been found by chance. The effect sizes were .70 for age preference and .60 for sum of scale. According to Cohen (1988), such effect magnitudes are considered to be between medium and large. Thus, despite the comparatively modest number of respondents in the final survey (smallest group, n = 28) the statistically significant results of the current study seem to be reliable, and the effects of the CDFS intervention were clearly observed. It is important to note that the medium to large effects observed in the CDFS intervention came at a cost of relatively low response rates. Future studies wishing to use CDFS interventions should take this into consideration in determining their initial sample sizes.

Mean ratings of the control group in the current study (see Table 1) are virtually identical to mean ratings in Gringart et al.’s (2005) survey on all of the variables of the stereotype scale. This indicates that, at least in the samples measured, no differences in employers’ stereotyping of older workers occurred in the time period between the two studies (approximately 8 months). This is interesting because the issues of population aging and hiring discrimination against older adults were popular in the Australian mass media during that period. This suggests that the results of the current study were because of the interventions and not because of a general shift in attitudes caused by other sources.

Demographic analyses that were conducted on the control group found that age and sex of respondents were significant factors. Older respondents showed more favorable attitudes toward older workers overall and had
greater preference for hiring older workers, compared to younger respondents. This is in accord with previous research (e.g., Smith, 2001) that has found older respondents to be more favorable toward older workers, compared to younger respondents. This suggests that a strong sense of in-group versus out-group bias based on age differences is an important factor in hiring discrimination against older adults.

The attitudinal change in favor of older adults that occurs with advancing age also points to the uniqueness of ageism, compared to other forms of prejudice and discrimination (e.g., sexism, racism). While people are not likely to change their race or sex, the shift from being young to being old occurs naturally. It is likely, therefore, that as people advance in age, their sense of in-group versus out-group in relation to older adults subsides. Hence, their attitudes change accordingly. While this suggests that as the number of older employers increases, so will the hiring prospects of older adult job seekers, the results of the current study suggest otherwise. As can be seen in Table 4, the mean rating of employers 55 years and older on the DV likely to hire was lower than 4, which indicates that older employers were less than likely to hire older workers. Thus, interventions aimed at combating hiring discrimination against older workers are needed among employers of all ages.

The mean score on the DV age relevance in the control condition was significantly higher for male respondents than for females, indicating that males view age to be more important in making hiring decisions. This matches the direction of the nonsignificant differences on the DVs likely to hire and sum of scale. Taken together, these results suggest that female employers are more favorable toward older workers overall, compared with male employers. This is in accord with Smith (2001), who found that female respondents viewed older workers more favorably overall than did male respondents.

Because of budgetary and time constraints, the present study had several limitations. First, the results can only be generalized to the population of Australian companies with 10 to 50 employees that are registered with the Kompass electronic database. Second, using postal delivery to send the intervention and testing materials and to receive responses makes it difficult to be certain of respondents’ identities. Third, because of the source that was used for sampling, the data could not be analyzed in relation to type of industry. Finally, there was no measure of actual hiring behavior following interventions. The most realistic measure of such behavior would have been responding to vacant positions. Attempting to do so would have meant following companies for long periods of time. This could have compromised measurement in cases in which hiring decision makers change, and measuring different respondents at different times could confound measurements.

There are several strengths to the present study. First, a national sample of employers across industries was used. Second, the questionnaire, which
was tested in Gringart et al.'s (2005) study, was used as a measure of effectiveness of the interventions. The information-based intervention that was developed and used in the current study gathered its information from the same population of employers on which it was later tested; hence, the effectiveness of such interventions with relevant targets was measured. The cognitive-dissonance-inducing intervention that was developed and used in the present study is novel and unique, as it draws on significant factors that were identified across several studies in the area of cognitive-dissonance-based interventions. The CDFS combination is unique and shows promising results in the area of hiring discrimination against older adults. Future studies could investigate the relative contribution of each of the six factors that were incorporated in this combination intervention.

Based on the findings of this project, a five-stage model for assessing and changing attitudes and stereotype-based behaviors is suggested. The stages are as follows:

I. Assessment
II. Development of an information-based intervention
III. Development of a cognitive-dissonance-based intervention
IV. Combination of both interventions and implementation with target population
V. Testing

Once it is established that a particular behavior is stereotype-based, knowledge of the actual stereotypes underlying that behavior is needed (Stage I). Stage I might involve development of a specific measure and its piloting prior to gathering information. Once the information has been gathered, it should be viewed in light of relevant empirical evidence to enable the identification of misconceptions. An information-based intervention can then be developed in a similar fashion to that done in the current study (Stage II). Stage III involves development of a cognitive dissonance intervention. In order to minimize the difficulty encountered by people's different levels of prejudice, a value that is likely to be endorsed by people regardless of their level of prejudice and that is relevant to the behavior could be identified. Once such a value has been identified, it could be incorporated into a cognitive-dissonance-based intervention, employing the combination of the six factors and enhancing principles used in the current study, and presented as being at odds with the undesirable behavior. In Stage IV, the two interventions could be combined and distributed among a sample of the target population. Finally, using the measure that was employed in the first stage, Stage V could assess the effectiveness of the intervention. This stage could also utilize measures of actual behavior.
In conclusion, the results of the present study make a case for combining cognitive-dissonance-based and information-based interventions in combating hiring discrimination against older adults. Both quantitative and qualitative assessments found that respondents in the CDFS condition were significantly more favorable toward older workers. As testing was conducted 4 weeks after intervention, the effects appear to be relatively long lasting. The results further suggest that the combination of cognitive-dissonance-based interventions with the provision of relevant information could be used to promote individuals’ compliance with legislation. This is consistent with Aronson’s (1999) argument that the motivation to change one’s own behavior as a result of cognitive dissonance is internal, which is the opposite of laws, regulations, and policies that are external sources dictating one’s behavior. Thus, the results of the current study emphasize the potential of psychological interventions to bring about social change and to enhance compliance with legislation.

References


Smith, D. J. (2001). Old enough to know better: Age stereotypes in New Zealand. In I. Glover & M. Branine (Eds.), *Ageism in work and employment* (pp. 219–236). Burlington, VT: Ashgate.


