Improving Attitudes Regarding the Elderly Population: The Effects of Information and Reinforcement for Change

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Purpose: Altering negative attitudes associated with ageism may be possible by giving people accurate information about older people in conjunction with reinforcement for change. Design and Methods: Ninety-nine college students (35 men, 63 women; mean age = 20 years, SD = 2.78) participated in one of three groups: information only, information plus an innocuous discussion group, and information plus a reinforcement-to-change discussion group. The participants' attitudes toward elderly people were measured before, immediately after the intervention, and at a one-month follow-up. Changes in attitudes across groups and time were analyzed using analysis of variance (ANOVA) and t tests. Results: Information alone produced initial improvements in attitudes in all groups; however, only the group members who received additional reinforcement for change maintained positive attitude changes at one-month follow-up. Implications: This study supports the premise that negative attitudes toward older people are amendable; however, the new attitude may be lost without reinforcement for change.

Key Words: Ageism, Discrimination, Prejudice

The noted gerontologist Robert Butler introduced the term “ageism” more than 30 years ago. He referred to ageism as a kind of discrimination, similar to racism and sexism, directed toward elderly people (Butler, 1969). Ageism often results in the attitude that older people are unproductive, sickly, depressing, and that cognitive impairment is normative (Osgood, 1996; Palmore, 1999). A few of the most prevalent outcomes of ageism for older people are isolation from the community, inadequate housing and income, unnecessary institutionalization, untreated mental and physical illnesses, and suicide (Healy, 1993; Palmore, 1999). Ageism needs to be confronted and overcome, as the problems faced by elderly people are problems for our grandparents, parents, aunts, uncles, and other older people in our lives, as well as ourselves.

One dilemma in combating ageism is that many older people attribute age-related discrimination to other causes. For instance, many older people of ethnic minority backgrounds cite their ethnicity, before their age, as a probable cause for discrimination (McNeely & Cohen, 1983). Women are likely to attribute discriminatory behavior to sexism before ageism (Macdonald & Rich, 1991), and White males who have experienced ageism in the job market often attribute the discrimination to outdated skills (Atchley, 1994). Additionally, “elderly” is a relative term (Atchley, 1994), and Bernard M. Baruch once said, “to me, old age is always fifteen years older than I am” (Applewhite, Evans, & Frothingham, 1992, p. 182). This leaves few people willing to identify themselves as victims of ageism, which is possibly why it often goes unchecked in the American society (Butler, 1993). Because few people recognize ageism when confronted with it, and no one agency is responsible for keeping statistics on this form of discrimination, there is no reliable information regarding the frequency or prevalence of ageism (Butler, 1993).

Dychtwald and Flower (1990) assert that whatever phase of life the huge post World War II cohort, or baby boom generation, is currently in, the country becomes transfixed on the relevant issues to that age. They go on to state that this cohort is the least likely to accept ageism in their older age because of their previous success as a group with instituting sweeping policy changes. By researching ways to ameliorate ageism now, there is the possibility of having the knowledge necessary to influence attitude change when this cohort is confronted with ageism. Although not given a great deal of attention at this time (Butler, 1993), researching ageism as a form of discrimination resulting from negative attitudes allows for the exploration of related theories that may lead to solutions for the current elderly cohort and those who will be aged in the future.
Attitude change theorists offer insight into potential methods for improving attitudes toward minority groups. In the cognitive dissonance theory, Festinger (1957) proposes that correct information might create enough cognitive dissonance to warrant a reexamination of attitudes. Additionally, correct information about the elderly population may work with societal expectations that people are supposed to respect their elders and invoke considerable dissonance when people are confronted with their own ageism. The theory of reasoned action (Fishbein & Ajzen, 1975) offers insight into whether people will subsequently alter their behavior to be congruent with new attitudes. If a person expects positive outcomes and has social support for the new behavior, he or she will likely try acting differently. Maintenance of new attitudes and non-ageist behavior may then depend on whether the new attitude and behavior are met with positive or negative consequences per operant conditioning (Skinner, 1938).

**Purpose**

The purpose of this study was to explore the utility of providing correct information as a means to challenge negative attitudes toward elderly people. In addition, positive reinforcement was used to try to strengthen attitude change. In this study, there were three groups. All participants began the experiment by completing the first administration of the Aging Semantic Differential (ASD; to obtain baseline measurements of attitudes) and then receiving accurate information about older people through a videotape presentation. This was based on the idea that corrective information may cause significant cognitive dissonance requiring change. One group received the information as the sole intervention. This group is referred to as the “information-only” group. A second group, the “information-reinforcement” or I/RG group, discussed the videotape immediately after the presentation and again one week later. The facilitator used verbal reinforcers when participants demonstrated comprehension of accurate information as portrayed in the videotape. This was intended to incorporate operant conditioning as a means to strengthen the likelihood of attitude change. In an attempt to control for the attention received by the second group, the third group also participated in two discussion sessions that took place immediately after the presentation and again, one week later. This group did not receive any reinforcement for talking positively about elderly people. The topic of these discussions involved campus life, and the participants received verbal reinforcers for any appropriate comment. This group is referred to as the “information-campus-life” or I/CL group. Further discussion of the experimental intervention is in the Methods section.

**Hypotheses**

1. At baseline, participants will display negative attitudes about elderly people as evidenced by their low scores on the first administration of the ASD.

2. Following the experimental manipulation, participants’ attitudes will be more positive on the second ASD after receiving information about elderly people, as evidenced by higher scores.

3. Participants in the I/RG group will demonstrate the most positive attitudes immediately following intervention when compared to the other groups.

4. At one-month follow-up, participants in the I/RG group will maintain their attitude gains as evidenced by significant differences between their scores on the third ASD when compared to the first.

**Methods**

**Participants**

One hundred and twelve participants were from the University of Wyoming psychology department “subject pool” (n = 72), and 40 were volunteers from upper division psychology courses. Experimental group participants earned 2 hours of subject pool credit after the videotape and discussion sessions, and their names were placed in a cash drawing when they completed the follow-up questionnaire. Participants in the information-only group received $5.00 and food for participating in the first session and an additional $5.00 for completing the follow-up questionnaire.

**Measure**

**Aging Semantic Differential (ASD).—**The ASD (Rosencranz & McNevin, 1969) comprises 32-item adjective pairs from the 60-item Semantic Differential (Osgood, Suci, & Tannenbaum, 1957). The items are polar-opposite adjectives, scored from 1 (negative evaluation) to 7 (positive evaluation). Examples of the pairs include: Progressive–Old fashioned, Rich–Poor, Friendly–Unfriendly, and Happy–Sad. The measure was developed by having people who worked with elders or were noted to have extensive exposure to older adults rate elderly people on the 60-item Semantic Differential. Factor analysis resulted in retaining 32 pairs that represent three factors: Instrumental–Ineffective, Autonomous–Dependent, and Personal Acceptability–Unacceptability. The coefficient alphas were .89, .87, and .91, respectively.

**Interventions**

**Information Only.**—The information-only group completed the ASD pretest, watched the videotape The Myths and Realities of Aging (1993), and immediately completed the post-test. They were excused after watching the video and completing the post-test questionnaire with instructions to return in 4 weeks for the final follow-up. Four weeks later they completed the ASD a third time.

**Information/Reinforcement (I/RG) Group.**—The I/RG group completed a pretest, watched the videotape,
and then were told that they had entered the second phase of the experiment. During the first discussion session, participants in the I/RG group were encouraged to discuss any information presented in the videotape that challenged currently held beliefs. The facilitator offered verbal reinforcement for appropriate remarks and ignored any off-task comments. During the second session the following week, participants were encouraged and reinforced by the same facilitator for discussing what they remembered from the videotape and how this new information may have changed their attitudes. Each discussion continued for 25 minutes.

Information/Campus Life (I/CL).—Similar to the I/RG group, the I/CL participants completed the pretest, watched the videotape, and then began the second phase in which they were instructed to discuss their college classes and current events at the university. They received verbal reinforcement by the facilitator for comments related to these topics. The facilitator ignored any references to other issues, such as the videotape. The participants met for a second discussion one week later, engaged in a comparable discussion with the same facilitator, and received similar reinforcement for on-task comments. Each discussion session continued for 25 minutes.

Intervention Integrity

Group Process. — Two questions were used to ensure the intervention process. First, participants were asked to indicate the purpose of their group in a multiple-choice format. Then they rated the amount of information gained and how much they enjoyed the group. All participants correctly identified the purpose of their respective groups. A stepwise multiple regression was performed using group membership as the dependent variable, and the ratings of the information gained and enjoyment of the group as the independent variables. The regression indicated no significant differences in either the amount of information obtained or how much the groups were enjoyed by participants.

Video Worksheet. — The purpose of the worksheet was to ensure that participants gleaned important information from the videotape The Myths and Realities of Aging. The video worksheet is a content valid knowledge questionnaire based on the videotape. Ninety-six participants answered all questions correctly. The other three participants each missed only one question.

Procedure

The information-only group completed the consent form, the first ASD, and then watched the information videotape during a regularly scheduled class. After viewing the videotape, they completed the video worksheet, a second ASD, and the group process form. Four weeks later they completed the ASD a third time at the conclusion of a regular class period.

The participants composing the I/CL and I/RG groups assembled in one room and were randomly assigned to their groups. Assignment was based on whether they had a red or blue label on the folder they received containing the study forms. All participants completed the consent form, the first ASD, and then watched the videotape. Immediately after the presentation they completed the video worksheet. Participants in the I/CL group exited and regrouped in another room to discuss current issues on campus and met again one week later for a second discussion of campus issues. Participants in the I/RG group also engaged immediately after the videotape presentation and again one week later. After the second discussion session, participants from both groups completed the ASD and the group process questionnaire. Four weeks after the second discussion session, these two groups met again and completed the final ASD.

Results

Sample

Sixty-eight participants attended the videotape presentation and the first and second discussion sessions. Sixty-six of these participants completed the third ASD at 4-week follow-up. Thirty-three of 35 volunteers for the information-only group attended the 4-week follow-up session. Overall, four people failed to complete the experiment: three women and one man. All data collected from the remaining participants were usable, resulting in complete data from 96% of those who began the study.

The final sample included 35 men and 64 women, with a mean chronological age of 20 years (SD = 2.78). Eighty-five participants were Caucasian, 5 were Hispanic, 3 were African American, 2 were Asian, and 4 endorsed “other” or more than one category. Forty-nine of the participants were freshmen, 20 were sophomores, 21 were juniors, and 9 were seniors. There were 33 participants in each group who completed the study.

Intervention Integrity

The I/RG and I/CL groups were audiotape recorded and coded for facilitator behaviors. The I/CL group members were reinforced 37 times by the facilitator during the first session and 31 times during the second session for making comments about college life. Facilitator words such as “college/university,” “campus,” “student,” and “class” were used 43 times during the first session and 34 times during the second session. No instances of attending to comments about the videotape or about elderly people occurred. Students in the I/RG group were reinforced 42 times by the facilitator during the first discussion session in response to positive comments about elderly people or the videotape. No reinforcers were used in conjunction with comments about campus life. During the second session, the facilitator attended to 29 comments that revealed a positive attitude change by a participant. The facilitator also used target words of “elderly,” “older,” “aging,”

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and “ageism” 40 times to keep the discussion on the topic of ageism. These were referred to during the first session and 36 times during the second session. Two trained research assistants coded all tapes, and agreement was 96% for the four sessions. There were no significant differences (t test) in total occurrence of reinforcers or target words across the two groups.

**Overall Attitudes About Elders**

The mean scores for each group at the three assessment points are shown in Table 1. The maximum score on the ASD is 224; each group scored below the midpoint, supporting the hypothesis that participants would have generally negative attitudes about elders. There were no significant differences between groups at the pretest, \( F(2) = .94, p > .05 \).

Changes in participants’ attitudes toward elderly people by group over the course of the experiment were examined using a two-factor repeated measures ANOVA (Group \( \times \) Time) (Girden, 1992). The interaction between group and time was significant, \( F(2) = 9.05, p < .05 \), as were the main effects for group, \( F(2) = 5.23, p < .05 \), and time, \( F(1) = 5.40, p < .05 \). The information-only group’s attitudes were significantly more positive immediately after observing the videotape than their pretest score, \( t(32) = 4.17, p < .05 \), or their 4-week follow-up, \( t(32) = -.63, p < .05 \). There was no significant difference between their pretest and 4-week follow-up scores, \( t(32) = -0.88, p > .05 \). The I/CL group’s attitudes followed a similar pattern in that their post-test attitudes were significantly more positive than their pretest score, \( t(32) = 4.23, p < .05 \) or their 4-week follow-up, \( t(32) = -3.91, p < .05 \). Again, no differences were found between their pretest and 4-week follow-up attitudes, \( t(32) = -.06, p > .05 \). The interaction effect was evident in the attitude shifts of the I/RG group. Similar to the other two groups, their immediate post-test attitudes were significantly more positive than both their pretest attitudes, \( t(32) = 3.93, p < .05 \). On the other hand, there was no significant difference between the post-test and 4-week follow-up attitudes, \( t(32) = -.08, p > .05 \).

**Discussion**

The goal of this study was to examine whether providing corrective information about older people would change immediate attitudes toward elders (Butler, 1993; Harmetz, 1996; Healey 1993; MacDonald & Rich, 1991). This approach is supported by Festinger’s cognitive dissonance theory (1957), and our data support this hypothesis. Initially, most of the participants had negative attitudes about older people. Watching a 30-minute videotape was sufficient to significantly increase their overall attitudes above their initial scores and above the median ASD score of 112.

It was also hypothesized that attitude changes could be strengthened and maintained by reinforcement—talking about the new information (Skinner, 1938). Contrary to the first hypothesis, discussions of the information gained about elders did not lead to a further increase in positive attitude change over information alone, as seen by the lack of additional attitude change from post-test to follow-up in the I/RG group. On the other hand, the I/RG group was the only group that maintained their more positive attitudes. It seems that information alone plays the most important role in changing people’s attitudes, but reinforcement is necessary for maintenance of that change. This supports the notion that reinforcement encourages people to incorporate new information into their attitudes as predicted by Festinger (1957) and Petty and Cacioppo (1996). The lack of maintenance of attitude change by the other participants suggests that the dissonance alone was not salient enough to lead to permanent attitude change (Petty & Cacioppo, 1996).

A number of cognitive processes may have occurred to promote maintenance of attitude change. The participants were given reinforcement for their ability to display their understanding of the information during the first session. At the end of this session, the participants were told that at the second session they would be talking about how the video changed their attitude toward elderly people. The knowledge that they were returning for another session and would receive praise if they could offer an example of attitude change may have caused the participants to think about the information during the following week. Because participants had the opportunity to be individually recognized for their attitude change, Petty, Harkins, Williams, and Latané (1977) would predict that the participants would invest more cognitive effort into the task of change. The increased level of cognitive processing would likely be absent in the other two groups (Petty et al., 1977). The information-only group understood that their participation was complete after the videotape session; the I/CL group may have paid more attention to campus events so as to have a topic to raise and receive verbal reinforcement from the examiner. In sum, it seems that correct information caused dissonance, but the more in-depth cognitive processing conceivably experienced by the I/RG group may account for those participants’ maintained attitude change.

**Limitations**

The use of university students as participants may hamper the generalizability to older and non-White

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**Table 1. Scores Across the Three ASD Administrations by Group**

|                      | Pretest ASD Mean (SD) | Post-test ASD Mean (SD) | Follow-up ASD Mean (SD) |
|----------------------|-----------------------|-------------------------|------------------------|
| Information only     | 96.55 (19.62)         | 172.64 (7.25)           | 116.27 (22.38)         |
| Information– campus life | 101.15 (20.87)       | 170.32 (6.58)           | 120.42 (18.72)         |
| Information– reinforcement | 100.73 (22.63)       | 167.37 (4.98)           | 171.52 (19.91)         |

Note: ASD = Aging Semantic Differential.
samples. The majority of the participants were under 21 years old; these students likely feel that they have nothing in common with older people and therefore find it easier to treat them as the “other” and have negative attitudes (Atchley, 1994). Young participants may be more susceptible to social pressure in regard to change than people not in their late teens or early twenties. The participants’ attitudes toward older people may be more malleable as they likely have limited experience with elders and ageism (Atchley, 1994; Butler, 1993; Osgood, 1996; Palmore, 1999). In future studies, participants’ level of interaction with older people should be measured.

Another limitation of this study is the relatively short follow-up. Although the participants of the information-only and I/CL groups did have time to revert to their initial attitudes, it is unclear how lasting the effects will be for those in the I/RG group. This group had maintained their gains after 4 weeks, but may have reverted to old attitudes after an extended period of time, as the dissonance may not have been completely resolved in 4 weeks, and they may have had little direct contact with elderly people.

Finally, it is impossible to tease out whether the verbal reinforcement the I/RG group participants received accounts for the maintenance of their attitudes, or if the cognitive processing in the intervening week accounts for the maintenance of their attitudes. Additionally, the changing of attitudes will only prove useful if it ameliorates discriminatory behaviors that are detrimental to the physical and emotional health of older adults (Healy, 1993; Palmore, 1999). A more in-depth investigation into whether people alter their discriminatory practices will be the ultimate measure of the utility of this intervention. If the change is lasting and results in new behaviors, people could participate in this type of intervention during their school years, changing attitudes regarding aging in the United States. Finally, if this education and reinforcement proves helpful in reducing ageism, it may also translate into guidance for those looking to rectify other “isms” in the American culture.

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