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Resource Scarcity and Prescriptive Attitudes Generate Subtle, Intergenerational Older-Worker Exclusion

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Abstract

Prior work describes specific, prescriptive resource tensions between generations, comprising active Succession, passive Consumption, and symbolic Identity (SCI; North & Fiske, 2013a, 2013b). The current paper focuses on how these domains potentially drive intergenerational exclusion in work-related networking and training spheres. Studies 1a–1c—each focusing on a different SCI domain—manipulated perceived resource availability between generations, then introduced a professional networking opportunity. Across studies, scarcity reduced the likelihood of young participants’ networking engagement with older workers who violated SCI resource expectations. Study 2 impelled participants to allocate scarce training resources among three similarly qualified but different-aged employees (younger, middle-aged, and older). Older workers received the lowest such investment, particularly among younger participants—an effect driven by Succession beliefs, per mediation analyses. Overall, the findings emphasize resource tensions in driving older workers’ subtle exclusion by younger generations; minimizing such tensions will be critical for aging, increasingly intergenerational workplaces.

Keywords

Ageism; age prescriptions; intergenerational resources; subtle workplace exclusion; aging

The global older population is growing at an unprecedented rate, generating concerns about whether societies worldwide can accommodate all generations (Nelson, 2004; North & Fiske, 2012; Olshansky et al., 2011). In the United States specifically, generational equity challenges affect a variety of domains, including Social Security, health care, employment, and taxation (North & Fiske, 2013-c). Given the hot-button nature of these issues, especially in austere times, and genuine fears over whether an aging society can adequately manage the needs of multiple cohorts, increasingly common beliefs emphasize intergenerational warfare over scarce resources—pitting “Boomers versus Millennials,” or “canes versus kids” (Minkler, 2006; Winerip, 2012).

Such zero-sum concerns are perhaps nowhere more salient than in employment contexts, where recent demographic trends have strained both ends of the age spectrum. On the older side, rising rates of delayed retirement have corresponded with a significant rise in age discrimination charges, and disproportionately long unemployment duration (Kreamer, 2012; Tugend, 2013; Macdonald & Levy, in press). Meanwhile, younger workers currently face the highest unemployment rates overall (Bureau of Labor Statistics, 2013). Balancing the needs of these two large generations has thus become a labor priority, but not one that is easy to solve.

Despite apparent employment barriers, the modern workplace is nevertheless more intergenerational than ever. This unprecedented age diversity presents its own set of challenges. For instance, as older workers more commonly hold on to enviable positions of employment, younger generations may come to resent what they perceive as obstruction of their own outcomes, both practical (e.g., employment, health care, and Social Security dollars) and figurative (e.g., what is mainstream or popular; see North & Fiske, 2012, for a review). Exacerbating these step-aside expectations are outdated social policies, such as traditional retirement age, which do not adequately comprehend demographic realities of people working longer than ever (North & Fiske, 2013-c). Moreover, the inexperience of workplaces needing to consider accommodating multiple generations has coincided with a relative lack of scholarly knowledge of the subject, in organizational behavior and other management disciplines (Joshi, Dencker, & Franz, 2011). The psychological sciences, too, despite a history of resource-driven perspectives on prejudice (e.g., Realistic Group Conflict Theory; Sherif, Harvey, White, Hood, & Sherif, 1961), rarely cover intergenerational resource tensions (Levy & Macdonald, in press; North & Fiske, 2012).

An Uncharted Policy Issue: Intergenerational Workplace Interaction

The potential for intergenerational tension poses a significant problem for organizations, where generations co-exist more frequently than ever before. It is indeed not uncommon for modern workplaces to comprise four generations: The Silent Generation/Traditionalists (born roughly 1925–1945), Baby Boomers (roughly 1946–1964), Generation X (roughly 1965–1981), and Generation Y/Millennials (roughly after 1981) (Lieber, 2010; Twenge, 2010). As such, understanding the different needs, expectations, and motivations of multiple labor generations is a pressing issue, one that extends even to attitudes toward the nature of work and career per se (Dries, Pepermans, & De Kerpel, 2010).

Although research within this domain is as nascent as recent demographic trends would dictate, there is reason to believe that, like other forms of workplace diversity, the presence of different age groups is potentially beneficial. For instance, mixed-age teams maximize older workers' duration of employment, and at least one audit study has found that lower levels of an organization's age-discriminatory hiring practices correlate with higher levels of its overall success (Bendick et al., 1997; Centre for European Economic Research/ZEW, 2013). Nevertheless, approximately 60 percent of workplaces report intergenerational conflict (per a recent survey; Murphy, 2007), presenting managerial challenges for those attempting to reap the benefits of multiple-aged workplaces.

The current paper focuses on two specific domains of such potential benefits. The first is *professional networking*, the importance of which is well known (e.g., in occupational attainment, where some estimate as many as 80 percent of jobs are found through unpublished means; Kaufman, 2011). From an intergenerational perspective in particular, older workers have larger established professional networks than younger workers, and thus present a great deal of value (Pitt-Castoupes, Smyer, Matz-Costa, & Kane, 2007). Moreover, older adults (compared with younger ones) possess the kind of interpersonal skills that facilitate the creation of valuable interpersonal connections, including enhanced agreeableness, conscientiousness, and perspective taking (Grossmann et al., 2010; Helson, Kwan, John, & Jones, 2002). Naturally, inherent benefits of working a long time (particularly experience and savings) also render older workers excellent sources of intergenerational utility. However, factors such as the pervasive social separation of old and young may preclude younger workers from seeking such guidance (Hagestad & Uhlenberg, 2005), as well as the high potential for viewing older workers as competitors with younger workers, instead of allies (North & Fiske, 2013a).

A second domain with possible intergenerational boons is that of *older worker training*. Generally speaking, the growing number of people prolonging retirement is necessitating organizations to adapt and retrain older workers (Kooji & Zacher, in press; North & Hershfield, 2014). From an intergenerational perspective in particular, training between generations can minimize negative stereotypes and promote learning that is both reproductive (dealing with routine problems) and expansive (creative, knowledge-based problem solving; Ropes, 2013). Nevertheless, achieving a productive, mixed-age workplace is difficult if employers or other-aged co-workers exhibit covert bias toward older employees in hiring decisions, resource distribution, or training opportunities, (Abrams, Swift, & Drury, in press; Kooji & Zacher, in press; Maurer & Rafuse, 2001). Young workers may be particularly reluctant to help older generations if they perceive their own outcomes as potentially obstructed, as discussed next.

Succession, Consumption, and Identity: Domains of Intergenerational Resource Tension

One recent perspective, central to the current paper, identifies specific types of resource tensions between generations (North & Fiske, 2013a, 2013b). This frame identifies prescriptive expectations (“shoulds”), through which younger generations seek to limit resource use by older generations. Resembling other types of prescriptive stereotypes (most notably, gender; Fiske & Stevens, 1993; Prentice & Carranza, 2002; Rudman & Glick, 2001), the desire to control resource use by competitive outgroups (i.e., social groups with which one does not identify but may present some sort of obstructive threat) stems from a motivation to maximize benefits for the ingroup (i.e., the social group in which one does claim membership). However, age prescriptions are unique in deriving from an expected, turn-taking progression, dictating that old make way for new, largely sparing the middle (North & Fiske, 2012).

This standpoint on intergenerational relations identifies three specific domains of prescriptive age stereotypes: Succession, Consumption, and Identity (SCI). Prior work (North & Fiske, 2013a, 2013b) identifies each as uniquely intergenerational: That is, these expectations are harbored most strongly by younger generations—as measured by regression analyses treating rater age as a continuous variable, showing that rater age diminishes these expectations—and targeted most directly at older generations (as measured by targets concretely near or past retirement age, or in the general statement of “older people”).

Succession: Step aside and pass along

Succession encompasses attitudes toward active passing along of enviable resources. In a work context, Succession-based attitudes most notably concern the expectation that older generations should step aside and retire, thereby making way for younger generations. Sample Succession items, from a recent scale of prescriptive age-based resource beliefs, include: “Most older workers don’t know when it’s time to make way for the younger generation” and “Younger people are usually more productive than older people at their jobs” (North & Fiske, 2013b).

Consumption: Don’t be a passive burden

Unlike Succession’s emphasis on actively ceding enviable assets, Consumption prescribes avoiding passive over-use of shared resources. Because Consumption prescriptions concern over-depletion of the shared resource pool, such beliefs most notably manifest in the domain of health care, but really may involve any type of shared, allotted societal space, including highway driving. Sample Consumption scale items describing these passive, presumed inconveniences include: “Older people are too big a burden on the healthcare system” and “AARP (American Association of Retired Persons) wastes charity money” (North & Fiske, 2013b).

Identity: Act your own (old) age

In contrast to Succession and Consumption’s focus on practical assets, Identity prescribes avoidance of territory that is more symbolic in nature. This domain thus comprises expectations for older generations to avoid invading the figurative turf of younger generations. Sample scale items for Identity include: “Older people shouldn’t even try to act cool” and “Older people probably shouldn’t use Facebook” (North & Fiske, 2013b). However, other youth-centric activities, such as popular music, can also be implicated (North & Fiske, 2013a).

Prior SCI Findings and the Current Research

In contrast to various studies failing to find consistent age differences in endorsing ageism (e.g., some find older people themselves to be the strongest ageists; Kite, Stockdale, Whitley, & Johnson, 2005), prior SCI-based results find that younger generations are the greatest endorsers of such expectations, and older generations are the most targeted. For instance, the noted individual difference measure, comprising prescriptive, older age-focused statements, robustly yields the highest agreement scores from younger generations (North & Fiske, 2013b). Likewise, when confronted with targets of varying ages, younger (more than

other-aged) participants are the most polarized toward older (more than other-aged) targets, resenting them the most for prescription violations, but holding the greatest positive regard for prescription adherence (North & Fiske, 2013a).

Nevertheless, whether these patterns hold up in a work context per se is an open question. This might be the case, as each SCI domain reflects contemporary, intergenerational workforce tensions. For instance, as older workers stave off retirement at unprecedented rates, younger generations consequently worry about both the active (Succession) obstruction of potential job and promotion opportunities, as well as the passive (Consumption) cost that might use up pooled resources (Pew Charitable Trust, 2012; Sedensky, 2014). Moreover, as technology advances at break-neck pace, youth-driven, tech-related sectors appear to be excluding older generations entirely (Scheiber, 2014). If violations of SCI expectations provoke penalties in ordinary person perception, as the already noted prior research indicates, then such violations might likewise foster work-related demerits from younger generations.

Finally, the current research also explores whether perceived availability of resources between generations impacts intergenerational workplace inclusion. From a theoretical standpoint, although the SCI framework posits that resource tension underlies age-based prescriptions, direct empirical evidence of resource salience moderating these biases does not yet exist. The effect of resource perceptions on ageism is also worth addressing from a prejudice-reduction standpoint—an area on which researchers have called for more focused attention, and in which zero-sum competition continues to be implicated (Norton & Sommers, 2011; Paluck & Green, 2009). Understanding the impact of zero-sum narratives on intergenerational perceptions also has real-world relevance, as noted, because such messages have grown more frequent in the real world.

Research Overview

Four experiments investigated the impact of resource scarcity on intergenerational exclusion of older workers. Three studies (Studies 1a–1c), focusing respectively on key domains of Succession, Consumption, and Identity, manipulated broad, macro-level resource scarcity between generations, then examined the impact of prescriptive biases within a professional networking context. Exploring the potential for perceived competition to undermine intergenerational networking and mentoring is a relevant context, given well-documented organizational benefits of each (Wilson & Elman, 1990) and the already-cited, increasingly intergenerational nature of modern workplaces. In all three of these first studies, we hypothesized that resource scarcity (respectively S, C, and I) would result in negative intergenerational views of older workers who violate prescriptive expectations—but that perceived resource abundance would mitigate this prescriptive bias.

Meanwhile, a fourth study (Study 2) incorporated the three SCI domains simultaneously in a specific scarce-resource context pertaining to worker skills training. Participants were given the task of distributing limited training resources among three interested employees of varying ages. Skills training is another salient domain in which to examine the current subject matter, as older workers face frequent obstacles in receiving necessary such training,

stemming from managers' direct (often negative) comparisons with younger workers (Lee, Czaja, & Sharit, 2008). Similar to Study 1, we hypothesized that conditions of resource scarcity should result in the greatest withholding toward older workers, which, in this current study, we operationalized as the amount of new skills training investment allotted.

Notably, although participants across studies comprised both genders, all studies utilized an experimentally manipulated male *target* only, across conditions. Although age-gender intersectionality is an understudied topic in social psychology (and an increasingly relevant one, given the aging population), the current research stuck with the default of older male targets, per prior work (North & Fiske, 2013b).

Study 1a: Intergenerational Succession Attitudes toward Older-Worker Networking

Method

Participants—Responding to explicit requests for under-30 participants, a USA-only, young sample ($N = 60$; age = 18–30; mean age = 23.03, $SD = 3.72$, median = 22; 47 female) participated via Amazon Mechanical Turk (Mturk) and a university-wide paid-experiments website. The ethnic distribution of the participants was 68.3% White/European American, 13.3% East Asian/East Asian American, 5.0% Latino/Hispanic American, 1.7% Black/African American, 1.7% South Asian/South Asian American, and 10.0% identified as “Other” or mixed ethnicity.

Procedure—Participants agreed to participate in a “current events and professional profile study.” Participants first read a brief newspaper article concerning the growing older population in the United States and resulting implications for available jobs and assets. One of two possible frames appeared (see Appendix A): In the *scarce* condition, the article emphasized how the enlarged older population signifies that “there simply won’t be as much to go around” between generations. In the *abundant* condition, the article put a more positive spin on shifting age dynamics, stating that “there should be plenty to go around” even with a greater number of older people. After reading the article, as a manipulation check, participants summarized the article in a few sentences to ensure that they understood it and read it carefully. In order to motivate participants to read the article as carefully as possible, they were also told that a quiz on the article would appear at the end of the survey.

Afterward, participants completed an ostensibly separate part of the study, reading a “network member’s profile” from a professional database. The profile always concerned a 71-year-old man named “Max,” who acknowledges that his continued employment is preventing younger employees from getting hired, but two distinct conditions manipulated Max’s behavior concerning succession of enviable resources: In the *violating* condition, Max states that he’s “not retiring anytime soon” and is “not ready to step aside yet”; in the *adhering* condition, Max concedes that “it’s probably time to step aside.” Thus, the overall 2×2 design of the experiment manipulated resource salience via the newspaper article (scarce, abundant) and Succession-based behavior via the networking target (violating or adhering to Succession of enviable employment).

A 6-item behavioroid variable gauged participants' desire to get in touch with Max in the context of the professional networking profile ($\alpha = .86$): "Would you be willing to interact further with Max after the study is over?"; "Would you be willing to write and send Max a supportive message?"; "Would you prefer to ignore Max altogether?" (reverse-scored); "If you were to interact further, how likely would you be to say mean things to Max?" (reverse-scored); "Would you recommend other participants in this survey to interact with Max?"; "Would you suggest to other participants in this survey that they ignore Max" (reverse-scored). Participants responded using a 5-point Likert scale (1 = *very unlikely*; 5 = *very likely*). Participants were thoroughly debriefed, informed that the article had been edited and that no quiz would occur, and provided a payment code for compensation for an amount commensurate with typical MTurk standards.

Results

No significant main effect emerged for adhering/violating to Succession-based behavior on the dependent variable of networking appeal, $F < 1$. Additionally, no main effect of resource scarcity framing emerged, $F < 1$.

However, a significant 2 (scarcity) \times 2 (behavior) interaction emerged, $F(1, 60) = 4.79, p = .033, \eta_p^2 = .08$ (see Figure 1). When resources appeared scarce, participants' desire to network with refusing-to-retire Max was considerably lower ($M = 2.61, SD = 0.67$), compared with planning-to-retire Max ($M = 3.33, SD = 0.52$), $t(32) = 3.43, p = .002$. By contrast, resource abundance appeared to mitigate this difference, such that non-retiring Max ($M = 3.64, SD = 1.04$) did not differ from retiring Max ($M = 3.49, SD = 0.81$) in networking appeal, $t(24) < 1$.

Study 1b: Intergenerational Consumption Attitudes toward Older-Worker Networking

Method

Participants—A young-only sample from the USA ($N = 62$; age = 18–31, mean age = 25.21, $SD = 3.85$, median = 25.50; 29 female) again participated via either MTurk or an undergraduate participant pool. The ethnic distribution of the participants was 79.0% White/European American, 6.5% Black/African American, 3.2% East Asian/East Asian American, 3.2% Latino/Hispanic American, 3.2% Native American/American Indian, and 4.8% identified themselves as "Other" or of mixed ethnicity.

Procedure—The procedure was identical to the prior study, but concerning Consumption of shared resources. First, a brief newspaper article created a "scarce" versus an "abundant" condition (Appendix A). Then, as before, participants read a professional profile depicting Max, this time 74 years old and having come down with a "pretty serious illness" requiring a resource-intensive treatment. In the Consumption-violating condition, Max decides to go through with the burdensome, resource-consuming procedure anyway; in the adhering version, he decides it is best for everyone if he does not go through with the procedure.

Based upon this brief depiction, participants rated their networking inclination using the same 6-item variable ($\alpha = .90$ for this dataset) on a 5-point Likert scale as in Study 1a. At the end, participants were debriefed, thanked, and provided a payment code for compensation.

Results

As in Study 1a, no significant main effects emerged for prescription-based behavior or scarcity (both $F_s < 1$) on the dependent variable of networking appeal.

However, a significant 2 (scarcity) x 2 (behavior) interaction emerged, $F(1, 62) = 4.48, p = .039, \eta_p^2 = .07$ (see Figure 1). Under resource scarcity, participants' desire to network with Consumption-violating Max ($M = 3.22, SD = 0.97$) was lower than their desire to network with Consumption-adhering Max ($M = 3.85, SD = 0.70$), $t(34) = 2.27, p = .029$. However, under conditions of resource abundance, participants did not differ in their desire to network with violating Max ($M = 3.68, SD = 1.04$) versus adhering Max ($M = 3.35, SD = 0.82$), $t(23) < 1$.

Study 1c: Intergenerational Identity Attitudes toward Older-Worker

Networking

Method

Participants—As with Studies 1a and 1b, younger participants located in the USA ($N = 53$; age = 19–30, mean age = 23.19, $SD = 3.60$, median = 22; 33 female) were recruited from Amazon Mechanical Turk and a university-wide paid experiments website. The ethnic distribution of the participants was 71.7% White/European American, 7.5% East Asian/East Asian American, 5.7% Black/African American, 3.8% Latino/Hispanic American, 3.8% Middle Eastern, and 7.5% identified as “Other” or mixed ethnicity.

Procedure—The procedure of Study 1c mirrored that of Studies 1a and 1b, ostensibly asking participants to complete an online “current events and professional profile study,” which randomly assigned participants to a scarce resource versus abundant resource condition, via the same newspaper article (Appendix A).

The main difference was Max's profile, which focused on symbolic, Identity resources (rather than enviable Succession-based ones or shared Consumption ones). In the *violating* condition, Max conspicuously declared his affinity for the latest pop music, a threat to symbolic young territory. By contrast, the *adhering* version demonstrated his affinity for oldies music. Thus, like Studies 1a and 1b, Study 1c comprised a 2 (scarce versus abundant availability of Resources) x 2 (target violation versus adherence to Identity) design.

Dependent measures were also the same as those in Studies 1a and 1b. Participants rated their desire to network with Max using the same 6-item variable ($\alpha = .86$ for this dataset) on the same 5-point Likert scale. At the study's conclusion, participants were debriefed, thanked, and provided a payment code for compensation.

Results

As in Studies 1a and 1b, no significant main effects emerged for SCI-based behavior [$F(1, 53) = 1.32, p = .26$] or scarcity ($F < 1$) on the dependent variable of networking appeal.

However, a significant 2 (scarcity) \times 2 (behavior) interaction again emerged, $F(1, 53) = 4.88, p = .03$, partial $\eta^2 = .09$ (see Figure 1). Facing resource scarcity, participants' desire to network with Identity-violating, pop-music Max ($M = 3.11, SD = 1.02$) was marginally lower than that concerning Identity-adhering, oldies-music Max ($M = 3.90, SD = 0.84$), $t(19.99) = 1.99, p = .06$. In contrast, under conditions of resource abundance, participants did not differ in their desire to network with pop-music Max ($M = 3.60, SD = 0.90$) versus oldies-music Max ($M = 3.36, SD = 0.57$), $t(29) < 1$.

Study 2: Intergenerational Resource Attitudes toward Older-Worker Training

Although Studies 1a–1c consistently demonstrated resource scarcity's influence on younger resentment toward older violators of SCI resource expectations, Study 2 built upon these findings in two major ways. First, we widened the age range of both participants and targets, aiming to more closely show that these prescriptive biases uniquely exist between young and old, and to be able to conduct more sensitive age-based regressions. Both of these adjustments closely follow prior paradigms (North & Fiske, 2013a, 2013b). Second, this study created a more hands-on paradigm, in which participants actively controlled the allotment of scarce resources to older (and other-aged) workers.

Method

Participants—Study 2's wider age range of USA participants also composed a larger sample than Studies 1a–1c ($N = 392$; age = 18–75, mean age = 33.97, $SD = 11.84$, median = 30; 166 female). Recruited from MTurk, participants were 77.3% White/European American, 6.1% Black/African American, 4.6% East Asian/East Asian American, 4.1% Latino/Hispanic American, and 2.3% South Asian/South Asian American, whereas 5.6% identified as “Other” or mixed ethnicity.

Materials—In addition to the main measures (see Procedure), participants completed the noted individual-difference measure of resource-focused, prescriptive ageism (North & Fiske, 2013b). As indicated, the scale comprises 20 items centering on “should”-based beliefs about distribution of resources to older people, which together form the three distinct SCI prescriptive domains.

Procedure—Participants entered a two-part “Social Survey.” The first part of the study mirrored that of Studies 1a–1c, ostensibly asking participants to complete an online “current events task,” randomly assigning participants to a scarce-resource versus abundant-resource condition, via a newspaper article (see Appendix A).

Next, in an ostensibly separate task, participants were asked to assume the role of Manager of Training and Development at a small company, in charge of distributing company funds toward new skills training for current employees. Here, two further manipulations arose. First, a within-subjects variable manipulated the age of three employees interested in

training: In each case, these employees were 24, 43, and 64, respectively, all having 2 years' tenure with the company and similar educational backgrounds. Second, a between-subjects variable manipulated the industry in question: Participants were either managers at a small *tech company*, funding skills related to “coding, web design, [and] social media,” or else at a small *insurance company*, funding skills pertaining to “public speaking, persuasion, [and] effective presentations.” (A priori, we expected any ageism effects to be stronger in youth-centered tech than insurance.) Notably, a Latin Square design ensured that the repeated-measures order and combinations, of three employee ages and three individual names and credentials, was counterbalanced across conditions.

In order to manipulate resource scarcity in a manner pertinent to the current paradigm, participants had only \$2800 to spend on three interested employees, despite the full skill set's training cost of \$1200 for each individual. Thus, the overall $2 \times 2 \times 3$ mixed-factorial study design manipulated macro-level scarcity (scarce vs. abundant news frame, between-subjects), company industry (tech vs. insurance, between-subjects), and employee age (young, middle-aged, older, within-subjects)—all within a scarce-resource, workplace context.

After learning about the study task, participants used slider buttons to allocate training dollars among the three interested employees. After this, participants completed the resource-focused SCI Scale of Ageism. Finally, participants were debriefed and provided a payment code for compensation.

Results

Mixed-model $2 \times 2 \times 3$ ANOVA—A $2 \times 2 \times 3$ mixed-factorial ANOVA found a significant main effect of target age on training dollars invested. Collapsing across between-subjects conditions, older workers received significantly lower training investment ($M = 749.07$, $SD = 221.04$) than did the other-aged workers (middle-aged $M = 1005.79$, $SD = 130.90$; younger $M = 1045.14$, $SD = 177.46$), $F(2, 762) = 202.56$, $p < .001$, $\eta_p^2 = .35$; see Figure 2. However, no significant interaction emerged between target age and industry, target age and scarcity, nor among all three variables, all $F_s < 2$, all $p_s > .14$. Given these initial results, further analyses unpacked the older-target resource-denial effect only.

Between-subjects 2×2 ANOVA—Taking older worker investment as the dependent variable, a univariate 2 (scarce/abundant frame) $\times 2$ (tech/insurance industry) ANOVA found a marginally significant main effect of scarcity on funds invested in older worker training, such that older workers received less investment under scarce circumstances (scarce $M = 733.08$, $SD = 219.47$; abundant $M = 771.83$, $SD = 220.64$), $F(1, 392) = 3.04$, $p = .08$, $\eta_p^2 = .01$. The main effect of industry was nonsignificant, as was the scarcity \times industry interaction, both $F < 1$, $p_s > .62$.

Participant Age—Given results of prior work implicating younger people as resentful of older resource use (North & Fiske, 2013a, 2013b; Studies 1a–1c from the current paper), we then explored whether participant age predicted resource allocation toward the older target. Indeed, rater age predicted the amount of training dollars participants allotted the older target, $\beta = .11$, $t = 2.15$, $p = .03$. Moreover, when entering participant age as a covariate in

the mixed-factorial, $3 \times 2 \times 2$ ANOVA specified above, participant age emerged as a significant covariate, $F(2, 760) = 45.61, p < .001$ (all other effects remained the same).

Individual differences in resource-based prescriptive ageism—Using the North-Fiske (2013b) SCI ageism scale, we explored the potential role of individual differences in resource attitudes. First, 2×2 ANOVAs confirmed that each SCI subscale did not differ by between-subjects condition (all $F_s < 1$, all $p_s > .41$), thereby justifying the scale's treatment as an individual difference variable, rather than a dependent variable.

In line with prior findings (North & Fiske, 2013b), participant age significantly predicted people's level of prescriptive resource attitudes, such that younger people most strongly endorsed SCI statements (Succession $\beta = -.39, t = -8.15, p < .001$; Consumption $\beta = -.17, t = -3.27, p = .001$; total SCI $\beta = -.27, t = -5.45, p < .001$). Unexpectedly, participant age only trended toward predicting Identity subscale score ($\beta = -.08, t = -1.48, p = .14$), but perhaps taste in youth-centric activities is less relevant in this workplace context.

Using the current study's main DV of older-worker training investment, we found that Succession subscale score ($\beta = -.31, t = -6.27, p < .001$) and Consumption subscale score ($\beta = -.15, t = -2.87, p = .004$) both predicted money invested in older worker training, whereas symbolic Identity subscale again did so only marginally ($\beta = -.08, t = -1.65, p = .10$). However, in a multiple regression entering all three subscales simultaneously, only the Succession subscale (controlling for the other two subscales) predicted money invested in older worker training ($\beta = -.38, t = -5.80, p < .001$). This was not the case for other two subscales, each controlling for the others (both $\beta_s < .07, p_s > .26$).

Mediation model—With participant age and Succession attitudes both emerging as the strongest predictors of older-worker resource allocation, we then tested a mediation model, incorporating these variables and the DV of resources allocated to the older target.

A multiple regression including both predictor variables found that Succession subscale score, controlling for participant age, significantly predicted older-worker investment, $\beta = -.31, t = -5.93, p < .001$. By contrast, participant age no longer predicted older-worker investment when accounting for Succession attitudes, $\beta = -.01, t = -.17, p = .87$. Thus, mediation analyses first tested to see whether Succession attitude was a significant mediator between the participant-age \rightarrow money-to-older-worker relationship.

Mediation analyses utilized a bootstrapping method with bias-corrected confidence estimates (MacKinnon, Lockwood, & Williams, 2004; Preacher & Hayes, 2004). This procedure obtained a 95% confidence interval of the indirect (mediating) effect with 5000 bootstrap resamples (Preacher & Hayes, 2008). Results of the analysis confirmed the mediating role of Succession beliefs in the relationship between participant age and training money allotted to older participants, as the confidence interval for the intervening variable effect (the path through the mediator) fell outside of zero (CI = 1.40 to 3.27); see Figure 3. Bootstrap-based tests of the alternate indirect effect model—that is, participant age mediating the relationship between Succession beliefs and money allotted to older workers

—resulted in a zero-inclusive confidence interval (−8.83, 10.08), indicating participant age to be a nonsignificant mediator.

General Discussion

Four studies demonstrated the impact of resource scarcity and prescriptive resource attitudes in fostering intergenerational exclusion of older workers. The same general pattern emerged across studies: Conditions of resource scarcity exacerbated the tendency of younger participants to subtly disregard older workers, but particularly when prescriptive, resource-based attitudes were salient.

Recruiting younger participants only, Studies 1a–1c confirmed hypotheses that resource scarcity would exacerbate resentment toward older workers who violated prescriptive stereotypes, finding a polarized effect concerning willingness to connect professionally with them. Under a macro-level, intergenerational scarcity frame, older workers were avoided to a significantly greater extent when acting in ways contrary to prescriptive expectations (violating Succession by staving off retirement, violating Consumption by undergoing a resource-intensive healthcare procedure, and violating Identity by enjoying popular music) than when adhering to such prescriptions. However, macro-level resource abundance between generations mitigated this polarization effect. These results replicate prior findings that older people face the most extreme reactions for their prescription-based behaviors (North & Fiske, 2013a), but also suggest that resource abundance attenuates this bias.

Study 2's hypotheses were also supported. Indeed, under circumstances in which the very resources to be allocated were presented as scarce, Study 2 also found scarcity to drive subtle, punitive exclusion from young toward old. With a limited amount of worker training funds, older (compared with middle-aged and younger) workers received the lowest investment. Moreover, older worker investment per se was marginally exacerbated by macro-level resource scarcity, similar to Study 1's findings. Resembling prior research (North & Fiske, 2013a, 2013b), the subtle exclusion of older workers was most strongly driven by younger participants. Nevertheless, mediation analyses introduced an individual-difference mechanism underlying this intergenerational tension, implicating Succession attitudes in explaining this participant age effect.

Resource Scarcity and Intergenerational Interactions in the Workplace

Prior work (North & Fiske, 2013a) emphasizes how specific types of resource tensions can drive intergenerational resentment. The current work, centering on facilitating active Succession of enviable assets, limiting passive Consumption of shared assets, and avoidance of symbolic Identity activities, emphasizes that resource tensions can be exacerbated or minimized depending on perceived general availability of resources between generations. The findings mirror prior work showing that ageism arises under apparent intergenerational inequity (Garstka, Hummert, & Branscombe, 2005), albeit here from a prescriptive, work-specific standpoint. Moreover, the fact that resource abundance attenuates this prescriptive bias toward older adults (in addition to a lack of significant main effects for prescription violations versus adherences) suggests that older target prescriptions derive from default beliefs about resource scarcity between generations.

The current research also suggests that perceptions of intergenerational scarcity can manifest at multiple levels: specifically, via macro-level generational competition narratives as well as micro-level specific resource dynamics between older and younger workers. Consequently, getting generations to work together effectively may well require a multi-modal approach. For example, policies might work to change broad, institutionalized beliefs about generational competition, while individual organizations work to devise creative ways of accommodating different-aged workers under seemingly scarce circumstances (e.g., offering flexible and part-time opportunities for mature workers; North & Hershfield, 2014). Future research can aid the goal by focusing on factors underlying intergenerational tensions, which threaten to inhibit ever-necessary collaboration, networking, and mentoring across generations.

Succession Attitudes and Intergenerational Treatment of Older Workers

Prior work has identified age as a strong predictor of prescriptive attitudes toward older generations, such that younger people harbor the strongest such beliefs. However, the current findings identify an important mechanism that might explain this relationship within a work context: Succession-focused resource attitudes. This makes sense; in analyses of intergenerational tensions in the modern workplace, Succession attitudes are arguably the most salient, as they represent expectations for the older generation to actively make way for younger generations and cede enviable employment or influence, by retiring or stepping down (North & Fiske, 2013a, 2013b). Nevertheless, the current findings are the first to demonstrate the possibility of these attitudes translating into discriminatory workplace practices—that is, impacting the training opportunities of older workers.

The identification of a potential mechanism underlying intergenerational resentments also presents a hopeful message for future intervention work. Although changing one's chronological age (or correlates thereof, such as generational outlook or industry experience) is impractical, interventions geared toward changing prescriptive age-based expectations offer greater feasibility. As one example, social policies can work toward changing the default mindsets that workers should retire by age 65, a practice that is already becoming obsolete, due to demographic realities (North & Fiske, 2013-c). Whatever the eventual solution, with modern workplaces often comprising as many as four different generations, overcoming intergenerational tension is becoming a managerial imperative.

Social Policy Implications

A few other, specific social policy implications emerge from the current work.

Emphasizing generational competition is not constructive for accommodating the aging workforce—The increased frequency of older generations in the workplace necessitates more intergenerational collaboration and greater utilization of older workers. Nevertheless, the findings indicate that a major barrier to this aim is the perception that zero-sum competition exists between generations. Recent evidence actually goes against such “lump of labor” mentalities: From a macro-perspective, labor outcomes between young and old are actually *positively* correlated, and thus not directly oppositional (Pew Charitable Trust, 2012). That is, when older workers prosper, so do younger ones. From the micro,

workplace standpoint, too, worker outcomes tend to vary with the overall organizational performance; as older and younger workers tend to occupy different positions within companies, rises in wages for senior-level positions tend to predict commensurate rises for entry-level workers (Munnell & Wu, 2012). Thus, society should avoid institutionalized narratives of competition not only for purposes of being constructive, but also to be based on practical truths in accommodating multiple generations.

Policy initiatives should focus on connecting younger workers with older ones

—The first three studies of the current paper suggest that younger workers are not motivated to connect professionally with older ones who linger in ingroup spaces. At the same time, an increasingly intergenerational workforce necessitates a greater level of such interaction than ever before, and the organizational benefits of intergenerational interaction are becoming more clear (Ropes, 2013). Per the current work, a likely explanation for this barrier is the expectation among younger generations for older workers to step aside. Research-based policy initiatives should strive to unite generations, perhaps by emphasizing common goals of organizational productivity and fulfillment.

Recognize truths about age and organizational tenure—Meanwhile, Study 2's results suggest that managers may be reluctant to invest in older workers' skill training investment, presumably due to beliefs that older workers will sooner leave the company via retirement. Although it is true that older workers are closer to this stage, recent research indicates that younger workers may not be a better investment, because older workers are generally more loyal to their current company (Pitt-Catsoupes, 2007) and statistically likely to stay with their employer for a longer period of time (U.S. Bureau of Labor Statistics, 2014). Nevertheless, the current findings suggest that people's default beliefs are that training resources are best invested in younger workers, and future work should focus on how to change such attitudes so that they are more strongly rooted in truths. For instance, rather than chronological age per se, individual-difference variables such as work centrality and age identity are likely the more predictive of how long older workers will remain (Macdonald & Levy, in press).

Harnessing intergenerational productivity is a global issue—Finally, although the immediate context of the current research is the U.S., we note that workforce aging affects industrialized societies around the world. The current findings thus present considerations for countries worldwide that are grappling with how to utilize newly multigenerational workforces; these include India (Srinivasan, 2012), China (Dubberke, 2014) and much of Europe (Sabatini, Hartmann, & McNally, 2008). Cultural factors inevitably will play a part in the development of particular solutions, but the dynamics and hurdles of networking and training between generations are clearly relevant worldwide.

Limitations

Both Study 1a–1c's limited participant age range and Study 2's disproportionately scarce context might temper the strength of resulting conclusions. Future work aiming to disentangle the effects of scarcity versus abundance among different generations should rectify each of these limitations (e.g., for the latter, by providing ample resources to

distribute among differentially-aged employees). Moreover, all four studies used online surveys designed to foster simulated interaction in a workplace context; future work might utilize a more interactive context to gauge the strength of current effects.

Another potential limitation was the current studies' reliance on male targets. As indicated, this was by design, as males represent the default member of the older adult category (North & Fiske, 2012). Nevertheless, future work is needed to explore whether subtle exclusion might target older female workers to an even greater extent. From a theoretical standpoint, it remains largely unknown whether older women face more extreme "gendered ageism" treatment than men (Duncan & Loretto, 2004; Levy & Macdonald, in press). Understanding this issue is increasingly important from a workforce aging perspective as well, because dramatic increases in female, over-55 labor force participation from 1975–2010 have been a significant driver (Copeland, 2014).

Finally, the current research's reliance on work-related contexts might limit somewhat the scope of the findings. Although the SCI perspective would predict that resource scarcity should exacerbate intergenerational prescriptive age biases in general, future work is needed to know that this applies beyond work spheres per se.

Conclusion

This article identified two key factors fostering exclusion of older workers by younger generations: (1) intergenerational resource scarcity (both broad and context-specific) and (2) prescriptive beliefs about the older generation's resource use. Each significantly factored into younger people's receptiveness to intergenerational networking and investment in older worker skills training. Analyses on the training investment implicated turn-based Succession expectations to be an important mediator underlying intergenerational tensions, introducing avenues for future intervention work. More broadly, the findings hold practical relevance for developing a productive, ever-intergenerational workforce.

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Biographies

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Appendix A: Scarcity (News Article) Manipulation



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WASHINGTON, DC (AP) -- The proportion of people age 65 and up is steadily increasing in the United States, the U.S. Census Bureau said Wednesday.

There are now 40.3 million people 65 and older in the U.S., the bureau reported.

The figure accounts for 13 percent of the population and is larger than in any other decennial census, up from 31.2 million in 1990 and 35 million in 2000.

By 2030, the same age group is predicted to form a full 25 percent of the population. Projections also predict 88.5 million older Americans by 2050.

Though some experts are **optimistic / pessimistic** that a graying society will work smoothly, far more believe that there **won't / will** be enough resources to accommodate all generations.

“Unfortunately / fortunately, younger people should suffer the most / shouldn't suffer much from these demographic trends,” said Dr. Kenneth Fields, a research professor at Georgetown University's Center for Population and Health. **“With more assets going to older Americans, there simply won't be as much to go around.” / “Even with more assets going to older Americans, there should be plenty to go around.**

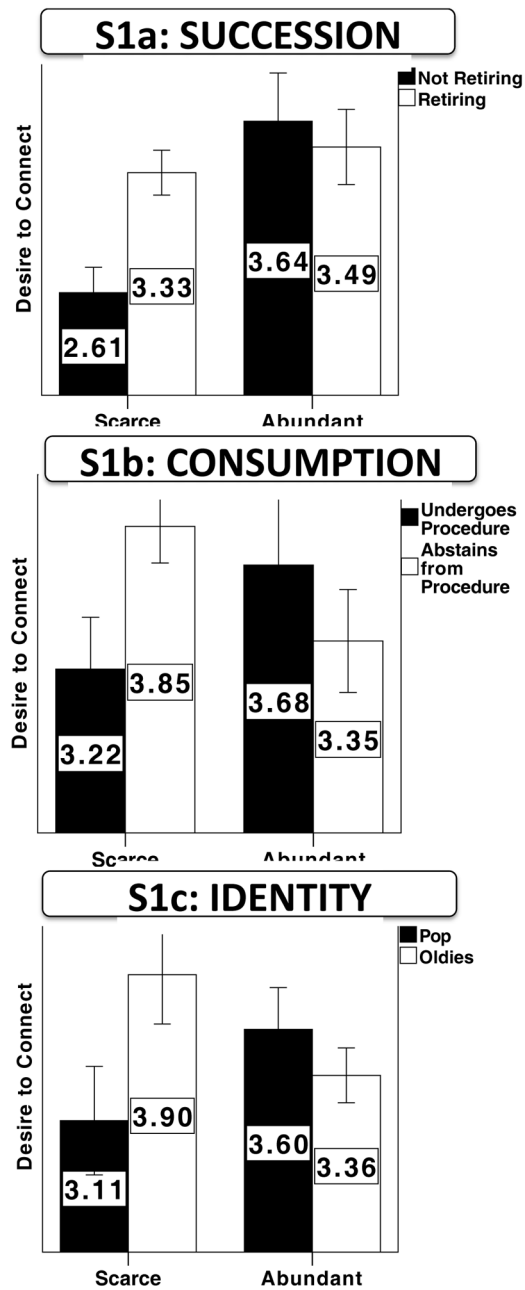


Figure 1. Willingness to connect with older members of a professional network database as a function of SCI adherence and macro-level resource framing (Studies 1a–1c).

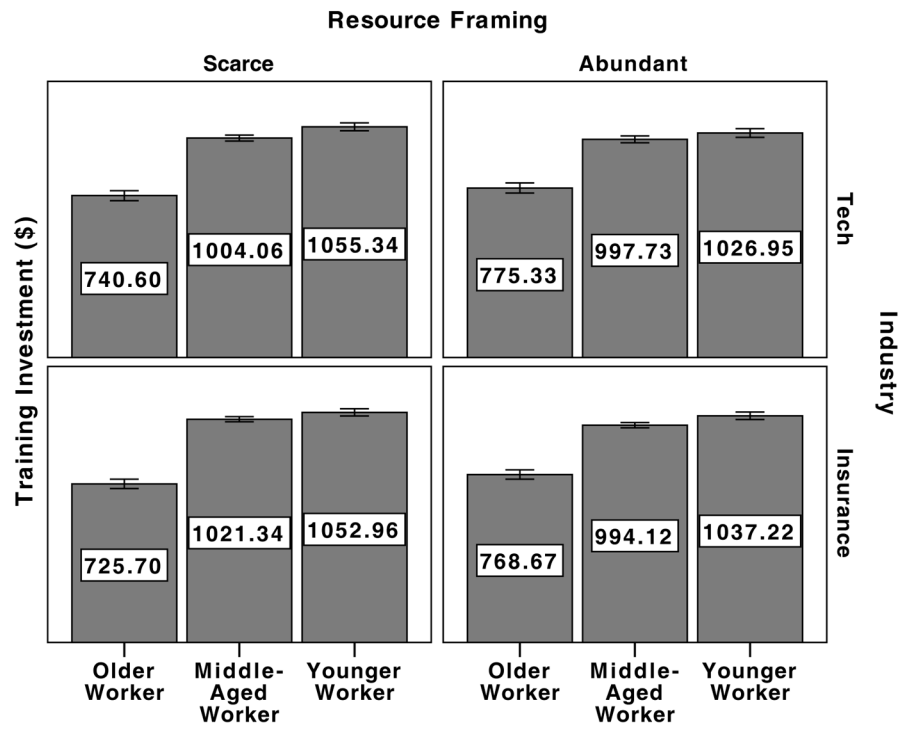


Figure 2. Training investment as a function of worker age, industry, and macro-level resource framing (Study 2).

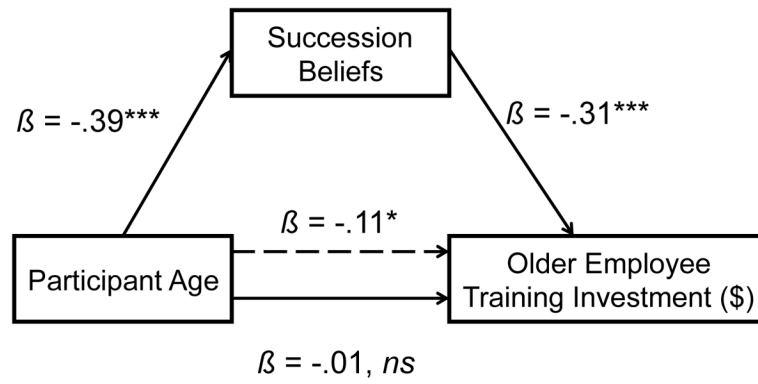


Figure 3. Prescriptive Succession attitudes mediate the relationship between participants' age and money allotted to older worker skills training (Study 2). $***p < .001$, $**p < .01$, $*p < .05$, ns = nonsignificant.