The Effect of Age Discrimination on Employee Silence:

The Role of Peer Age Similarity with Familiar Individuals

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Abstract

In this study, we investigate whether the experience of perceived discrimination at work of one person can result in another person they know well exhibiting ineffectual silence in their own workplace. We collected data using Study Response, an online panel, from focal employees and their paired participants who know them well (N = 296 paired sample). Data were analyzed using moderated hierarchical linear analysis in SPSS 26. We predicted and found that perceived age discrimination reported by someone you know well is positively associated with your own silence at work. Moreover, this relationship is stronger the closer you are in age to the person who reported the age discrimination. These findings are consistent with spiral of silence theory, which states that when people feel uncertain about the climate of opinion (i.e., public sentiments and views around them) and are unsure whether they will be supported by others in their own environment, they remain silent. We show that silence is contagious across organizations because knowing someone who has experienced age discrimination at work makes the paired person silent in their own job especially if they are of similar age.

Keywords: age discrimination, spiral of silence, ineffectual silence, age dissimilarity, diversity

The Effect of Age Discrimination on Employee Silence: The Role of Peer Age Similarity in the Workplace

Introduction

With five generations of employees currently in the workforce (SHRM, 2023), it is no wonder that employees perceive age discrimination at work (EEOC, 2023). Zacher and Steinvik (2015) define age discrimination at work, or the interchangeable term "ageism," as the unfair treatment of employees based on their age group. Duncan and Loretto (2004) define the term as treating employees differently depending on their age.

Ample research attention has been devoted to this topic, for many reasons. On the one hand, unlike sex or ethnic discrimination, age discrimination can affect any employee (Marchiondo et al., 2016; Sargeant, 2016), often in a relatively subtle manner (Kunze et al., 2013; Marchiondo et al., 2016). Further, in many Western countries, like sex and ethnic discrimination, age discrimination is illegal. For example, in the U.S., the Age Discrimination in Employment Act (ADEA) prohibits discrimination against employees 40 years of age or older (U.S. Equal Employment Opportunity Commission, 2023). In the UK, the Employment Equality (Age) Regulations 2006 forbid employers from discriminating against any employee based on age (National Archives, 2023).

Looking into age discrimination is further warranted given the myriad individual and organizational ramifications linked to ageism in the workplace. At the individual level, scholars have examined individual outcomes in relation to targets of age discrimination but less often in relation to employees "who hold ageist views" against older or younger workers (i.e., the perpetrators) (Paleari et al., 2019, p. 1). Targets of age discrimination experience less job

satisfaction, engagement, organizational commitment, job sustainability (especially older professionals), and increased work strain as well as greater intention to leave the organization or to retire if the target of discrimination is approaching retirement age (Yeung et al., 2021; Zhang and Gibney, 2020; Paleari et al., 2019; MacDonald & Levy, 2016; Rabl & Triana, 2013; Taylor et al., 2013). Bayl-Smith and Griffin (2017) also found that perceived age discrimination is linked to reduced person-environment fit and to the adaptability of targets of age discrimination to changes in the work environment, thus underlining the importance of a healthy age diverse environment in organizations. Further, age discrimination is connected to victims' health. Triana et al. (2017) showed that age discrimination by their supervisors was linked to increased somatic symptoms and withdrawal behaviors. Han and Richardson (2015) uncovered an association between perceived age discrimination and the development of depressive symptoms in older employees. Furthermore, ageist views in team settings are linked to increased intergroup anxiety and diminished intergroup contact quality (Paleari et al., 2019). In sum, perceived age discrimination leads to many harmful consequences.

Moreover, discrimination can impact both older and younger employees (Liebermann et al., 2013; Perry et al., 2013; Posthuma and Campion, 2009). In relation to older employees, as regards hiring decisions for example, Carlsson and Eriksson (2019) conducted a field experiment in which 6,000 fictitious resumes were sent to employers in Sweden. Fictitious candidates were assigned random ages between 35 and 70. The resulting call back rates were significantly fewer for candidates assigned an age in their early 40s and even more sharply for candidates approaching retirement age compared to younger applicants. Thus, it was evident that age discrimination impacts hiring decisions. Neumark (2021) also investigated the hiring procedures of recruiters in a restaurant chain located in several regions of the U.S. Older and younger

applicants received almost similar interview offers when recruiters were blind to the applicants' age. However, once age was revealed after applicants were called for interviews, older employees received far fewer job offers from hiring managers.

A steadily increasing stream of research has also revealed age discrimination toward younger employees (Blackham, 2019; Bratt et al., 2020; Meinich & Sang, 2018; Perry et al., 2013; Truxillo et al., 2015). For example, Blackham (2019) emphasized not only that age discrimination against younger professionals is ingrained in organizational practices but also that young professionals (below the age of 30) experience employment discrimination in the job market. Bratt et al. (2020) showed that compared to older adults, younger adults experienced relatively more age discrimination if located in countries with more structural support for older individuals. According to a Glassdoor Diversity and Inclusion study (2019) administered in the US, the UK, France, and Germany, more younger adults (18-34 of age) reported experiencing ageism compared to older employees (55+), especially in the UK. Gonzales et al. (2015) surveyed employees in three age groups: young (18-29), middle aged (30-49), and older (50+) and showed that younger and older employees were especially troubled by age discrimination. Results also showed that age discrimination at work was significantly associated with decreased mental health, and increased stress, job dissatisfaction, and turnover intentions in younger employees, while older employees expressed more interest in retirement.

In our study, we focus on age discrimination at work with a specific focus on its impact on silence behavior, particularly ineffectual silence (which means that speaking out would not make any difference; Brinsfield, 2013), on younger and older professionals.

Silence is a complex and multidimensional form of behavior (Dyne et al., 2003) that encompasses the deliberate curbing of information, ideas, and opinions by employees (Morrison

& Milliken, 2000; Pinder & Harlos, 2001). A substantial amount of research has been devoted to the conceptualization of this phenomenon (Johannesen, 1974; Scott, 1993; Dyne et al., 2003; Pacheco et al., 2015) and to the differentiation of silence from conceptually similar constructs such as pluralistic ignorance, diffusion of responsibility, loyalty, and the Minimizing Unpleasant Message (MUM) effect (i.e., the tendency of people to avoid sharing negative news in fear of negative consequences), to name a few (for a full list, see Brinsfield & Edwards, 2020).

We propose that when focal employees perceive age discrimination at work, others who know them well (here, a paired participant) and interact with them may exhibit more ineffectual silence behavior in their own workplace. We further propose that this relationship will be strengthened the closer the focal employee and the paired participant are in age (i.e., low age dissimilarity).

This study makes a theoretical contribution to spiral of silence theory (Noelle-Neumann, 1974, 1993) by demonstrating that perceptions of discrimination in the workplace impact not only the victim but also others who know them well. In this case, perceptions of age discrimination of a focal employee impact the silence behavior of a paired participant they know well. This has important theoretical implications because it means that silence is contagious and can spread from person to person. This study also has practical implications for employers because actions that are perceived as discriminatory can spread not only within but also beyond the boundaries of the organization. Moreover, it also implies that silence behavior among employees in an organization can be used as a defense mechanism to preserve needed relationships or resources (Hobfoll, 1989) and that silence may not have anything to do with the goings-on in the focal organization. Some employees may be silent at work because of

information they heard from others in their network, or in other social cues where they interact with others who experienced discrimination elsewhere.

Theory and Hypotheses

Developed by political psychologist Noelle-Neumann (1974; 1993), spiral of silence theory provides the overarching explanatory theory for our proposed hypotheses. This theory originated as a mass communication theory to explain how majority opinion can influence individual or minority opinion through the psychological mechanism of fear of isolation (Griffin, 2006). However, this mechanism was challenged by other scholars, who added other individual mechanisms or even categorically denied that fear of isolation was the reason behind the silence of individuals holding minority views (Griffin, 2006; Matthes et al., 2018). In essence, Noelle-Neumann believed that individuals' inclination to communicate their opinions is a function of their perception or reading of public opinion or macro climate given that individual behaviors and attitudes are typically impacted by one's perceptions of what other people think and do (Scheufle & Moy, 2000).

Note that throughout this theory development we refer to two people: the focal employee and the paired participant, which refers to another individual who knows the employee well.

The Relationship between Age Discrimination and Ineffectual Silence

Ineffectual silence is the withholding of information due to the belief that expressing it will have no impact or change (Brinsfield, 2013). The perceptions of age discrimination of a focal employee and the ineffectual silence of a paired participant who is well acquainted with the focal employee can be explained by examining the notions of spiral of silence theory.

One notion on which spiral of silence theory is based is that people are constantly scanning their environment and that they have the ability to understand public sentiments and

opinions around them. Hence, an employee in a certain organization will likely be aware of perceived age discrimination affecting a close acquaintance (Griffin, 2006). This is known as the "sixth sense" in Noelle-Neumann's terms, or learning about "what the society is thinking or feeling" (p. 373). While Noelle-Neumann was referring to conceiving public opinion as the macro climate, critics of the theory argued that the micro climate, or the reference group of family and friends (i.e., closer ties), had an even stronger influence on one's attitudes and behaviors (Scheufle & Moy, 2000). This critique has major relevance to our hypotheses since the reference in our proposed relationships involves a target of age discrimination the paired person knows well. Hence, realizing that a friend or family member is a target of age discrimination will have implications for the behavior of the person who knows that individual well, namely ineffectual silence.

In addition to the notion of spiral of silence theory, prior research shows that external influences beyond the organizational boundaries can explain the silence behavior of employees in the workplace (Knoll et al., 2016). This understanding is further enhanced by the notion of open systems as well as the idea that silence is a consequence of "complex social processes" (p. 173), which means that to understand silence behavior, one needs to understand the emergence of this behavior from the perspective of the employee who took the decision to be silent. This perspective involves the employee's observations and past experiences that triggered the emergence of the silence behavior rather than the mere moment of the ineffectual silence behavior observed. When employees notice that someone in their close network is discriminated against due to their age, that individual may take the decision to remain silent in their workplace. While silence helps employees cope with stressors (e.g., Pingel et al., 2019; Xu et al., 2015), it

also reduces organizational effectiveness because it has a negative effect on employees' attitudes and behaviors (e.g., Knoll & van Dick, 2013; Whiteside & Barclay, 2013).

The second notion of spiral of silence theory relates to ineffectual silence behavior itself. The theory is based on the notion that the expression of opinion (or its withholding) is motivated by perceived support for this opinion in the macro or micro social environment (Scheufle & Moy, 2000). If a person perceives support for an opinion, that person is more likely to express it; conversely, if the opinion is perceived not to be supported now or in the future, the person is more likely to withhold it (Matthes et al., 2018). Types of discrimination can manifest in different forms, including harassment (Equality and Human Rights Commission, 2020). If a person perceives that an opinion will be perceived as negligible or trivial and that expressing it will bring about no change in a given situation, that person is less likely to express the opinion and instead will favor silence. Hence, a paired person is less likely to express an opinion in their workplace if the threat of age discrimination, including disrespect for that opinion, is present. For example, when an employee learns of age discrimination against a person in that employee's network, this alerts them to the possibility of age discrimination toward themselves, which can make them more likely to perceive age discrimination in their workplace. When a focal employee experiences age discrimination, this can be understood through psychological or cognitive mechanisms or biases by a paired participant who knows that person well. An example of a cognitive bias could be the self-other overlap concept (Mashek et al., 2003) and self-expansion theory (Aron et al., 1991), which means that individuals in close relationships can engage the experiences of a close acquaintance into their own experiences and lives. In the context of our hypotheses and drawing from these concepts, employees who know a target of

discrimination well and are close to them may believe that they may encounter similar age discrimination at work.

Another example of cognitive bias that can be relevant is availability bias (Tversky & Kahneman, 1973), which is typically also associated with perceptions of risk by individuals (Pachur et al., 2012). Availability heuristics are mental shortcuts that draw from familiar situations or recent experiences and observations and are easily retrievable and can be prioritized to inform decisions over other, more relevant information. This bias is also associated with perceived risk of an event happening. Within the context of age discrimination, paired participants will likely associate higher risk of age discrimination if it also affects someone familiar to them in their network (i.e., the focal employee) as this information will be easily retrievable in their minds.

According to Mutz (2002), the type of target of opinion expression also matters. That is, a person is more likely to be silent when close ties similar to family, friends, or coworkers are perceived to be less supportive of an opinion, whereas a person may be less willing to be silent with strangers even if those strangers may disagree with the opinion (Matthes et al., 2018). Given the observation by the paired employee that someone in their network whom they know well is subject to age discrimination, the paired participant's behavior of ineffectual silence may be triggered, especially with coworkers in their workplace, given that silence is target sensitive (Rai & Agarwal, 2018).

The above arguments are particularly helpful in explaining ineffectual silence, for several reasons. First, prior empirical research relates discrimination to ineffectual silence specifically. For example, Gu et al. (2022) highlighted an association between sex discrimination and ineffectual silence. According to these authors, sex discrimination accentuates employees' lack

of power and thus their belief that speaking up will make no difference. Second, workplace bullying, a phenomenon that overlaps with discrimination in that the target is treated differently and unfavorably, has been identified as an antecedent of silence and particularly of ineffectual silence. For example, Rai and Agarwal (2018) reported a correlation between workplace bullying and ineffectual silence through psychological contract violation along with other types of silence (both defensive and relational). Harlos and Knoll (2021) also acknowledged that of six types of silence, one of the most relevant types of silence to workplace bullying was ineffectual silence.

Given the above, we propose the following:

Hypothesis 1: Perceptions of age discrimination by a focal employee will be positively associated with the amount of workplace ineffectual silence reported by a paired participant who knows the focal employee well.

The Moderating Role of Age Dissimilarity

We propose that the positive association between age discrimination against a focal employee and ineffectual silence on the part of a paired participant in their workplace will be stronger when the paired participant and focal employees are highly similar in age. Several individual and contextual factors relate to employee silence or to collective silence (i.e., organizational silence) in organizations. Morrison (2014) reviewed factors that inhibit voice behaviors in employees or "pull" them "toward silence" (p. 187). The list included individual prompts of silence, including: a) individual dispositions such as achievement orientation; b) job attitudes such as detachment and powerlessness; and c) emotions and beliefs such as fear, futility, and career risks. These inhibitors align with the findings of Sherf et al. (2021), who showed in their meta-analysis that a lack of psychological safety was a major antecedent to silence, with abusive leadership also listed as an inhibitor to speaking up. Other contextual

factors comprised organizational climates of fear and "instrumental climates, hierarchical structures, and change-resistant cultures" (p. 186).

Relational demography theory (Tsui et al.,1992; Tsui & O'Reilly, 1989) is particularly germane to this reasoning. According to this theory, individuals compare their salient demographic attributes (e.g., age) with those of others in their social environment or network. Based on this comparison, they evaluate their similarity (or dissimilarity) to others in the social environment, the level of which depends on demographic similarities (Tsui et al., 1992) and is deemed important in that it has implications for self-categorization (Turner, 1987). Typically, in-group categorization prompts further association with in-group members compared to out-group members (Tsui et al., 1992). In brief, we identify more with in-group members than with out-group members based on demographic similarities.

Further, the level of similarity to a reference person in a person's social environment or network has consequences for their attitudes and behaviors at work (e.g., Chatman & Spataro, 2005; Riordan & Shore, 1997). At the core, it is the relative rather than the absolute demographic variable and similarity (or dissimilarity) with a reference in one's network or social environment that has the stronger effect on one's behaviors and attitudes at work. Thus, when paired participants compare themselves to the focal employee target of age discrimination in their social network and when their age is similar, the paired participant identifies further with the focal employee target of age discrimination and thus may believe that the threat of age discrimination may also affect them at work given their demographic similarity in age. Therefore, ineffectual silence as a behavior in the paired participant's workplace becomes even stronger when the paired participant is age-similar to the focal employee who experienced age discrimination at work. This reasoning is consistent with research showing that employees use similar referent

others in order to determine how they can expect to be treated at work and assess the fairness of their treatment. The more similar the referent other, the more valid the information. However, if the referent other is too different from oneself, the information may not be considered valid (Adams, 1963, 1965). Based on the above, we propose that:

Hypothesis 2: The positive relationship between age discrimination against a focal employee and a paired participant's workplace ineffectual silence will be stronger when there is low age dissimilarity as opposed to high age dissimilarity between them.

Materials and Methods

Participants and Procedure

Data were collected from Study Response, an online panel that provides employed participants (i.e., the focal employees) and paired participants who know the focal employees well. Previous studies have used Study Response to collect paired data to study organizational topics (Piccolo & Colquitt, 2006). To be eligible for the study, participants had to be at least 18 years of age, employed full-time, and US residents. The study was conducted in two phases. In Phase 1, employees were invited to answer an online survey. Four weeks later, employees were invited to Phase 2 where they answered another online survey and provided information for their paired participants to be contacted. At that point, paired participants were invited to complete their survey. All participants received a $10 Amazon gift card in exchange for their participation in the study.

Study Response invited 359 employees who met the screening criteria to answer the study. The sample included 333 employees (93% response rate) and 299 paired participants (83% response rate). We lost a few observations due to missing data, and therefore, the final paired sample size was 294. Focal employees were 66% male and primarily White (73%), with

27% being from underrepresented groups (8% Asian, 7% African American, 7% Hispanic, 3% American Indian, and 2% Other). Focal employees were 37 years old on average and had an average of nine years of organizational tenure. On average, employees reported that their salary was in the $80,000 to $90,000 salary range. Regarding education, 68% of employees reported having a college degree, 21% reported having a graduate degree, 8% reported having some college, and 3% reported having a high school diploma. Paired participants were 70% male and 79% White, with 21% being from underrepresented groups (7% Hispanic, 6% Asian, 4% African American, 3% American Indian, and 1% Other). Paired participants were 39 years old on average, and they reported knowing the employee who invited them to the survey for an average of seven years. Paired employees consisted of 57% supervisors, 19% coworkers, 18% subordinates, 2% friends, 2% relatives or family, and 1% spouses. They reported knowing their focal participants very well (30%: extremely well; 45% very well; 11% well; and 5% somewhat well).

Measures – Independent Variables

Perceived Age Discrimination (focal employee-reported). We measured perceived age discrimination, the independent variable, in Phase 1 of the employee survey with a five-item measure (α = .72) created by James and colleagues (1994) to assess racial discrimination and used by Rabl and Triana (2014). We changed the wording from race to age. Employees answered the items on a seven-point Likert scale (1 = *strongly disagree* to 7 = *strongly agree*). A sample item (reverse-coded) is "In this organization, promotions and rewards are not influenced by a person's age." For a list of all the items, see the Appendix.

Age Dissimilarity. The age of both the employee and the paired participant were collected using one item "What is your age?" and measured as a continuous variable. Each

participant reported their own age. To compute our moderator variable, the age dissimilarity between the focal employee and the paired participant, we subtracted the paired participant's age from the focal employee's age.

Measures – Dependent Variable

Ineffectual Silence of the Paired Person (paired participant-reported). This was measured using a five-item scale (α = .95) taken from Brinsfield (2013). Following Brinsfield, we instructed paired participants to recall "important issues, events, or concerns at work to which they may desire to remain silent." Paired participants were asked: "I wanted to remain silent because…" and then they rated each silence item on a seven-point Likert scale from 1 = *not at all* to 7 = *to a very large extent.* A sample item is "I did not feel I would be taken seriously." For a list of all the items, see the Appendix.

Measures – Control Variables

While our main demographic variable of focus is age (specifically age dissimilarity between the focal employee and paired participant), we also control for gender dissimilarity and race dissimilarity because research shows that people have multiple identity groups at once (i.e., intersectionality; Crenshaw, 1989). If an employee is similar in age, gender, and race to a paired participant that they know well, they will likely assume that the paired participant is a very close representative to estimate how they personally may be treated in a workplace setting. That would not be so true if the employee was similar to the paired participant on age but not on gender or race. Therefore, we now control for gender dissimilarity and race dissimilarity between the focal employee and the paired participant in our analyses to account for multiple demographic influences due to intersectionality.

Gender Dissimilarity. The gender of both the employee and the paired participant were collected using one item on their respective surveys. Each participant reported their own gender as male or female. We coded gender dissimilarity as 1 if the employee and paired participant identified as being of different genders and 0 if they identified as being of the same gender.

Race Dissimilarity. The racial background of both the employee and the paired participant were collected using one item on their respective surveys. Each participant reported whether they were White, African American/Black, Hispanic/Latinx, Asian, Native American, or Other. We coded each of these categories into a dummy coded variable to capture whether the participant identified as being from a minority group racial background or a majority group racial background. This coding was done based on the U.S. Equal Employment Opportunity Commission which defines majority race as White while people of Black, Hispanic, Asian, and Native American racial backgrounds are considered minority groups (U.S. National Archives, 2024). This was coded as 1 = minority group member (i.e., any non-White identity) and 0 = majority group member (i.e., White identity). We then coded race dissimilarity as 1 if the employee and paired participant identified as being of a different racial majority/minority group status (one of them was minority and one of them was majority) and 0 if they identified as being of the same racial majority/minority group status.

Results

Table 1 presents means, standard deviations, and correlations. To test Hypotheses 1 and 2, we conducted moderated hierarchical linear regression analyses in SPSS 26. Variables in the interaction term were centered to reduce multicollinearity as recommended by Aiken and West (1991).

Insert Table 1 about here

Table 2 shows the results predicting paired participant ineffectual silence. Model 2 of Table 2 shows a significant positive relationship between perceived age discrimination by the focal employee and paired participant ineffectual silence (β = .33, b = 0.51, standard error = .09, t = 5.89, p < .001). This supports Hypothesis 1. Model 3 shows a significant moderating effect of age dissimilarity on the relationship between perceived age discrimination by the focal employee and paired participant ineffectual silence (β = -.11, b = -.03, standard error = .02, t = -1.97, p < .050). The interaction was plotted at +/- one standard deviation of the two variables as suggested by Aiken and West (1991). Figure 1 displays the plot of the interaction. The simple slopes analysis shows that perceived age discrimination by the focal employee is more strongly and positively related to paired participant ineffectual silence when there is lower age dissimilarity between the focal employee and the paired participant (b = 0.68, t = 7.41, p < .001) than when age dissimilarity is higher (b = 0.36, t = 4.10, p < .001). Therefore, Hypothesis 2 was supported.

Insert Figure 1 and Table 2 about here

Supplemental Analyses

In this study, we presume that the focal employee and the paired participant share information about matters at work, including perceived age discrimination. To verify this, we included a five-item measure of giving social support published by Shakespeare-Finch et al. (2011). A sample item is "I am there to listen to this person's problems." The items were measured on a 5-point Likert scale from 1 = *not at all*, 2 = *about once a week,* 3 = *several times a week*, 4 = *almost every day*, and 5 = *always*. The Cronbach alpha was α = .90 (Mean = 2.96; SD = 1.00). A mean answer of 3 corresponds to "several times a week" on the social support scale, which is significantly higher than the bottom end answer of 1 "not at all" on the scale –

$t(298) = 33.72$, $p < .001$. This supports our assumption that the paired participant is aware of the focal employee's problems at work, including perceived age discrimination.

Next, we conducted a three-way interaction using the continuous variable for focal employee age as well as paired participant age as a way to overcome limitations related to differences in scores (Edwards, 1994). This allows us to see how the age of each person influences paired participant silence rather than the difference between them. Table 3 shows the results of the hierarchical linear regression analyses. Model 4 of Table 3 shows the three-way interaction of focal employee age × paired participant age × perceived age discrimination by the focal employee is significant (β = .21, b = .002, standard error = .001, t = -2.24, $p < .026$). The interaction was plotted at +/- one standard deviation of the two variables as suggested by Aiken and West (1991). Figure 2 displays the plot of the interaction, which shows that the slope of Line 4 (younger focal employee and younger paired participant) is positive and significant (b = .72, t = 4.16, p = .000). Line 4 is marginally significantly different from Line 1 (older focal employees and older paired participants; t = -1.88, p = .061) and significantly different from line 2 (younger focal employees and older paired participants; t = -2.31, p = .021). The slope of Line 2 is not significantly different from zero (b = .04, t = .17, p = .867), and it is only significantly different from Line 4 (see above). Line 3 (younger focal employees and older paired participants) is significantly different from zero (b = .48, t = 2.24, p = .026) and so is Line 1 (older focal employee and older paired participant) (b = .27, t = 2.20, p = .029). For a complete table of the significance of the slopes and slope differences test for this model, see results presented below Figure 2.

Insert Figure 2 and Table 3 about here

Therefore, the relationship between focal employee perceived age discrimination at work and paired participant ineffectual silence is positive in all cases except when the focal employees are older and the paired participants are younger. Perhaps the younger paired participants acknowledge discrimination toward their older acquaintances but think that this will not happen to them since they are young. However, the strongest positive slope was observed when both focal employees and their paired participants were younger. This means that when younger employees hear from their younger acquaintances that they have been experiencing age discrimination, they associate the news with being more silent in their own workplace. The second strongest positive slope was that of younger focal employees with older paired participants. If their younger acquaintances report age discrimination, older workers may imagine that they would be experiencing the same (or more) and become more silent in their own workplace. Finally, the third most positive slope was that of older focal employees and older paired participants. If older employees tell their older acquaintances about age discrimination at work, those older paired participants would likely expect much the same treatment in their own workplace and become more silent at work.

Discussion

As predicted by spiral of silence theory (Noelle-Neumann, 1974; 1993), we found that focal employees' perceived age discrimination is positively related to paired participants' ineffectual silence. This relationship is positive for different combinations of ages except when focal employees are older and paired participants are younger. In addition, as predicted by relational demography, we found that this positive relationship is stronger when there is low age dissimilarity as opposed to high age dissimilarity between the parties.

Theoretical Implications

Our findings have implications for theory. From a spiral of silence perspective, our findings suggest a spillover of perceptions of age discrimination from focal employees to paired participants. This spiral of silence may contribute to the building of a negative diversity climate in work settings. In particular, the spiral of silence we found among focal employees and paired participants suggests the building of a diversity climate strength (Schneider et al., 2002), which in this situation, refers to the degree to which the pair comes to terms with the negative diversity climate quality. A positive correlation between a focal employee's perception of age discrimination and a paired participant's ineffectual silence points to the agreement of negative working conditions associated with perceptions of discrimination.

Another theoretical implication associated with our findings relates to how spiral of silence theory can inform resource availability (or resource loss) on the part of paired participants. If employees are able to scan the environment and understand public sentiments and opinions around them and this ultimately leads to ineffectual silence (Griffin, 2006), this may also affect perceptions of potential loss of key personal resources (Hobfoll, 2001), with ineffectual silence acting as a less-than-ideal coping mechanism. Our findings suggest that under conditions of age discrimination, many employees respond to this stressor with an optimization strategy of resource maintenance, minimizing the potential future loss of resources (Hobfoll, 1989, 2001).

Finally, theory and findings remind us of the stigma by prejudice transfer, which occurs when prejudice targeting a stigmatized group evokes identity threat to other stigmatized groups (Sanchez et al., 2017). For example, when confronted with racist evaluators, white women expect gender stigma; similarly when confronted with sexist evaluators, men of color expect racial stigma (Sanchez et al., 2017). The stigma by prejudice transfer and our findings have

similarities in which both are about transfer, however the content and that target of the transfer differs. For the stigma by prejudice transfer, transfer relates to the nature of the prejudice (e.g., from sexist to racist) occurring within the same target (transfer within target). Instead, in our theorizing and findings, we show that transfer occurs in situations of discriminatory treatment from the focal employee to a paired participant (transfer across targets). In both cases, the nature of the transfer has negative consequences in work environments enhancing the deleterious effect of prejudice and discrimination.

Practical Implications

Our findings also provide implications for practice. The key practical issue emerging from our results is how managers can avoid the spiral of silence and its negative potential consequences such as the building of a negative diversity climate in work settings. One path to minimizing employee perceptions of age discrimination is the provision of training and development on age discrimination, which should help in identifying and avoiding biases related to employees' age and in increasing the understanding of potential organizational liability in cases of age discrimination (Posthuma et al., 2012). Another path is the establishment of an organization ombudsman, i.e., a neutral party who listens to employees' problems and finds avenues for resolution, which is especially well-suited for discrimination complaints (McCabe & Lewin, 1992; Waxman, 1990). Finally, another path to reducing the spiral of silence is the use of employer-sponsored voice practices. Although facilitating voice may not be enough to eradicate silence in work settings, employer-sponsored voice practices can be adapted to specific organizational contexts to minimize the role of fear when using other alternative channels of communication (Knoll & Redman, 2016).

Another implication is that behavior in a particular work setting is only partially in response to the goings-on in that work setting. Employees are also reacting to things outside of the workplace or their work group. For instance, employee walk-outs from work in response to racial discrimination at the height of the Black Lives Matter movement are one example of this response (PBS, 2020). This means that managers may not always be able to control the source of an issue that is upsetting employees or that they may not know why employees remain silent or behave as they do.

Further, based on the results in this study and on prior research on age discrimination (Blackham, 2019; Bratt et al., 2020; Meinich & Sang, 2018; Perry et al., 2013), it is important to restate that contrary to popular belief, young employees can also be discriminated against. Age discrimination is not exclusive to older employees as typically stereotyped. Hence, positive diversity climate efforts in organizations as well as training interventions targeted at managers and other employees should address the harmful consequences of age discrimination against employees belonging to both age groups (i.e., young and old).

This reality can have social implications in that it may impact policy making. Age discrimination laws should be revisited in Western countries, and especially in the US, to include equal prohibition of age discrimination against young professionals below the age of 40. Under the current Age Discrimination in Employment Act, US employers are prohibited from discriminating against employees aged 40 and above, but younger employees below the age of 40 are not protected from acts of age discrimination at work (U.S. Equal Employment Opportunity Commission, n.d.). Yet there is enough research evidence to back up the need for more inclusive legislation to avoid the harmful consequences of age discrimination when young victims are involved, as we exemplified in this study.

Limitations and Future Research

One limitation of our work is that we focused mostly on micro climate as a source for scanning the environment and understanding public sentiments and opinions (Scheufle & Moy, 2000). Indeed, most of the paired participants were supervisors, coworkers, or subordinates. The sample we collected had a very low percentage of close ties such as family or friends. Future research should focus on how perceptions of age discrimination by an employee have spillover effects into family and friends and how this situation affects the overall well-being of employees' families.

Another limitation relates to potential common-method variance given that the independent variable, moderator, and dependent variable are self-reported. However, common method variance should not be a concern in this sample, for several reasons. First, perceptions of age discrimination (the independent variable) and ineffectual silence (the dependent variable) were collected from two different individuals: the focal employee and a paired participant, respectively. Second, the moderator (i.e., focal employee and paired participant age) is an objective indicator not subject to biases in reporting. Third, the operationalization of age dissimilarity used in the main analysis was an index composed of two different variables as reported by the focal employee and the paired participant. Finally, even when conducting the moderator analysis using actual age as reported by focal employees and paired participants in the supplemental analysis, we need not be concerned with common method variance because scholars have found that correlated errors do not affect the size of the interaction term (Evans, 1985).

Moreover, although we found that age dissimilarity moderates the relationship between a focal employee's age discrimination and a paired participant's ineffectual silence in their own

workplace, other potential moderators could theoretically be explored (e.g., organizational efforts to support diversity in work settings; Triana & García, 2009). Alternatively, future research could build multilevel models and examine how different organizational climates may affect the relationship between focal employees' perceptions of age discrimination and paired participants' ineffectual silence.

Another limitation of the present study is that we did not ascertain the exact nature of the relationship between the employee and the paired participant at the time of the survey. Future research with paired observations such as the ones used in this study should ascertain the exact nature of the relationship between the employee and the paired participant who is responding to the second survey. For example, knowing whether the paired participant works at the same organization at the time of the survey could have implications for the silence of a paired participant if they are working in the same organization and are therefore exposed to a similar content of norms regarding the acceptability of age discrimination in the workplace[1].

Conclusion

In conclusion, it is crucial to reiterate the far-reaching and serious impact of age discrimination in the workplace as it extends beyond organizational boundaries. With increasing age diversity in the workplace in the US and in several Western countries, age discrimination is a real threat that must be managed if modern organizations are to curb its many negative outcomes at the organizational and individual levels. Silence, on the other hand, is related to a variety of unfavorable organizational outcomes, and has been shown to undermine organizational effectiveness. By emphasizing this alarming finding, our study suggests that we should

[1] We are grateful to an anonymous reviewer for making this point.

encourage expanded actions by managers and other organizational actors to prevent age discrimination in the workplace.

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Table 1

Descriptive Statistics and Correlations [a]

Variables	Mean	*SD*	1	2	3	4
1. Focal employee perceived age discrimination (employee-reported)	3.19	.96				
2. Paired participant ineffectual silence (paired participant-reported)	3.24	1.50	.33**			
3. Age dissimilarity between focal employee and paired participant	4.98	5.51	-.08	-.09		
4. Gender dissimilarity between focal employee and paired participant	.25	.43	.06	.06	.13*	
5. Race dissimilarity between focal employee and paired participant	.10	.29	.03	-.06	.13*	.05

[a] $N = 294$ pairs of focal employees and paired participants
* $p < .05$, ** $p < .01$

Table 2

Results of Hierarchical Regression Analysis for Paired Participant Ineffectual Silence [a]

Variables	Paired Participant Ineffectual Silence		
	Model 1	Model 2	Model 3
Control variables			
Gender dissimilarity	.06	.05	.06
Race dissimilarity	-.06	-.06	-.05
Independent variables			
Focal employee perceived age discrimination		.32***	.33***
Age dissimilarity between focal employee and paired participant		-.06	-.08
2-way interaction			
Focal employee perceived age discrimination × Age dissimilarity between focal employee and paired participant			-.11*
R^2	.01	.12***	.13*
ΔR^2		.11***	.11*

[a] $N = 294$ pairs of focal employees and paired participants.
Note: We report standardized Beta coefficients.
* $p < .05$ ** $p < .01$ *** $p < .001$

Table 3

Results of Hierarchical Regression Analysis of Three-way Interaction (Focal Employee Perceived Age Discrimination, Focal Employee Age, Paired Participant Age) Predicting Paired Participant Ineffectual Silence [a]

Variables	Paired Participant Ineffectual Silence			
	Model 1	Model 2	Model 3	Model 4
Control variables				
Gender dissimilarity	.06	.06	.05	.06
Race dissimilarity	-.06	-.06	-.06	-.05
Independent variables				
Focal employee perceived age discrimination		.29***	.30***	.24***
Focal employee age		.04	.02	.04
Paired participant age		-.18**	-.17*	-.17*
2-way interaction				
Focal employee perceived age discrimination × Focal employee age			-.09	-.18*
Focal employee perceived age discrimination × Paired participant age			.06	.00
Focal employee perceived age discrimination × Focal employee age			.00	-.01
3-way interaction				
Focal employee perceived age discrimination × Focal employee age × Paired participant age				.21*
R^2	.01	.14***	.14	.16*
ΔR^2		.13***	.00	.02*

[a] $N = 294$ pairs of focal employees and paired participants.
Note: We report standardized Beta coefficients.
* $p < .05$ ** $p < .01$ *** $p < .001$

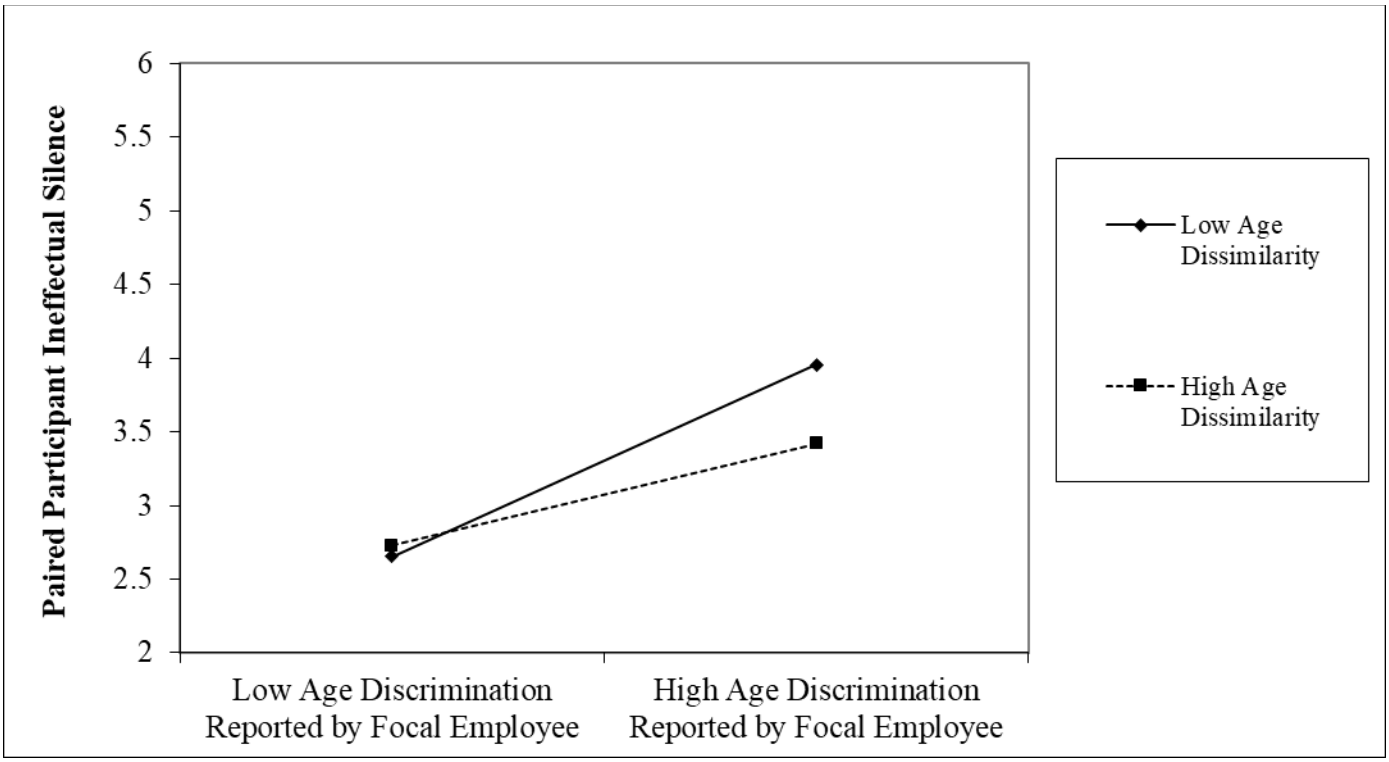
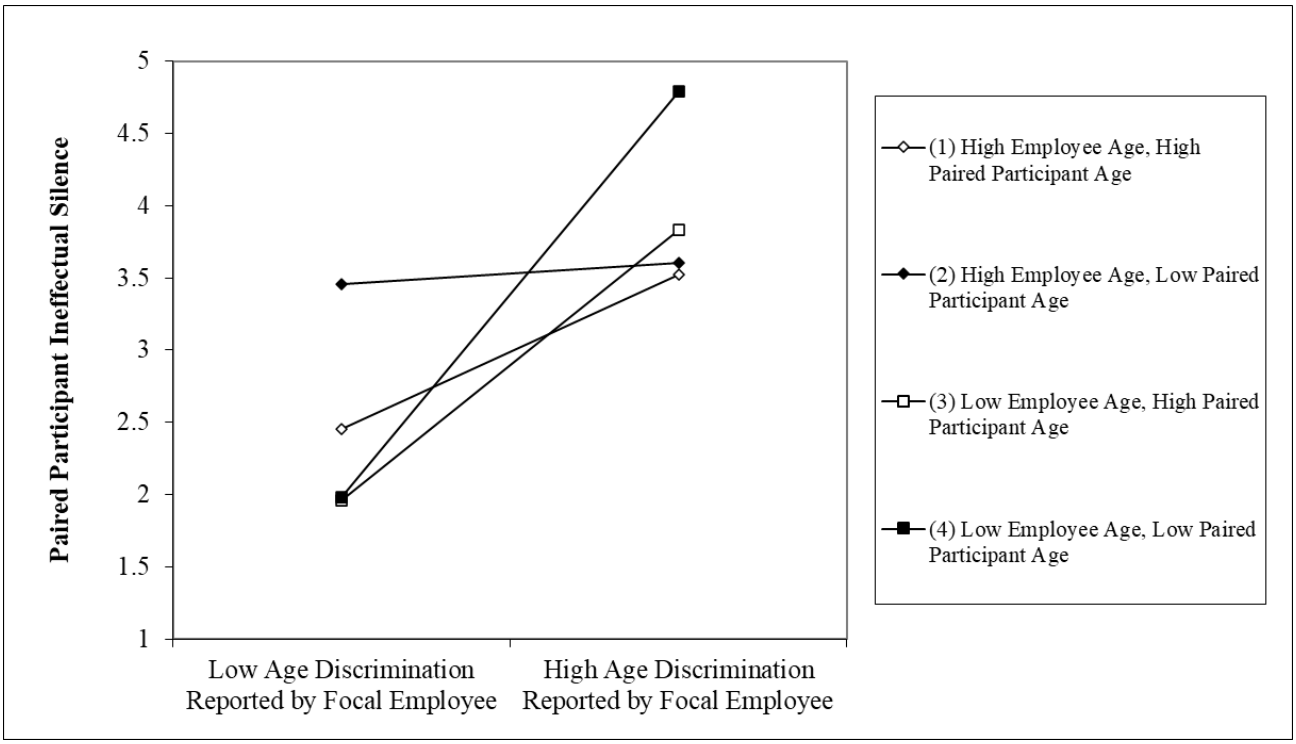


Figure 1. *Interaction between focal employee perceived age discrimination and age dissimilarity (between focal employee and paired participant) predicting paired participant ineffectual silence*



Pair of slopes	Slope difference	t-value	p-value
(1) and (2)	0.235	1.165	0.245
(1) and (3)	-0.205	-1.083	0.280
(1) and (4)	-0.443	-1.884	0.061
(2) and (3)	-0.440	-1.249	0.213
(2) and (4)	-0.679	-2.314	0.021
(3) and (4)	-0.239	-0.879	0.380

	Slope 1	Slope 2	Slope 3	Slope 4
Gradient of simple slope:	0.274	0.039	0.478	0.717
t-value of simple slope:	2.196	0.167	2.244	4.160
p-value of simple slope:	0.029	0.867	0.026	0.000

Figure 2. *Three-way interaction of focal employee perceived age discrimination, focal employee age, and paired participant age predicting paired participant ineffectual silence*

Appendix

List of items used in the survey.

Perceived Age Discrimination (focal employee-reported)

In this organization all people are treated the same, regardless of their age.

In this organization some people would feel socially isolated because of their age.

In this organization members of some age groups would receive fewer opportunities than employees of other age groups.

In this organization people of different ages get along well with each other.

In this organization, promotions and rewards are not influenced by a person's age

Ineffectual Silence of the Paired Person (paired participant-reported)

I did not believe my concerns would be addressed.

Management did not appear interested in hearing about these types of issues.

No one was interested in taking appropriate action.

I did not feel I would be taken seriously.

I did not think it would do any good to speak up.