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"Old age scares me": Exploring young adults' feelings about aging before and during COVID-19

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ABSTRACT

Negative messages about aging dominate public discourse about the COVID-19 pandemic as older adults have been classified as members of a "vulnerable" population due to their chronological age. To explore young adults' feelings about aging before and after the emergence of COVID-19, we collected 794 qualitative questionnaires during the fall of 2017 and another 463 responses during the fall of 2020. We drew on the concepts of age-based stereotypes and future selves to guide our thematic analysis of the data. Findings captured young adults' feelings about aging at two distinct points in time and demonstrate the complex ways the communication contributed to shifting feelings about aging. In doing so, we highlight the role that portrayals of aging play in shaping young adults' feelings about aging and their perception of their future selves. These findings offer conceptual contributions about communication, context, and aging.

"Old age scares me": exploring young adults' feelings about aging before and during COVID-19

The COVID-19 pandemic has upended the daily lives of all people, but especially older adults who are more likely to experience serious illness or death from coronavirus and increased levels of social isolation during it (Miller, 2020). The impact of the virus on the aged population has been widely covered in media outlets around the world. For example, a New York Times article titled, "How the Aging Immune System Makes Older People Vulnerable to COVID-19" begins "COVID-19 patients who are 80 or older are hundreds of times more likely to die than those under 40" (Greenwood, 2020, p. 1). Another article, focused on Italy, describes "how the virus concentrated its blow on a single, already-vulnerable age group, causing a historic spike in elderly mortality" as the nation witnesses "seniors...dying at a rate 400 percent above the norm" (Harlan & Pitrelli, 2021, p. 1). These kinds of messages have dominated public discourse about aging throughout the COVID-19 pandemic that began in 2020, often characterizing older adults as "helpless, frail, and unable to contribute to society" (Ayalon et al., 2020, p. 1; see also Nelson-Becker & Victor, 2020). Although the figures are scientifically accurate, such portrayals are potentially problematic because they perpetuate negative age-based stereotypes that guide assumptions about age/aging and seem to frame aging as something that only chronologically older people do (i.e., "80 or older," "elderly") rather than a more nuanced understanding of aging as a lifelong process in which we are all engaged.

Young adults (aged 18-30), for instance, are constantly developing, questioning, and refining their expectations for what aging looks like through communication (Anderson & Gettings, 2019; Gasiorek, Fowler, & Giles, 2016), yet we do not know how pandemic-related discourse about aging has influenced their perspectives of aging. Throughout the pandemic, the members of this demographic group have been in a unique position where they are aging (e.g., achieving traditionally agebased milestones such as graduating from high school and starting college), but may simultaneously view aging as largely irrelevant given that "old age" is perceived as a distant reality (Carr, 2016). This point is further complicated given that the milestone events look different than expected because they occurred during a pandemic (e.g., attending college classes from home), thus may contribute to a disconnect in perceptions of aging. Finally, the messages that portray (primarily) older people as aging and/or dying may challenge young adults' abilities to envision their future selves as members of this "vulnerable" population (Nelson-Becker & Victor, 2020).

By integrating the concepts of age-based stereotypes and future selves, this project seeks to explore young adults' feelings about aging before the emergence of COVID-19 and during the pandemic. To do so,

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we collected qualitative questionnaires at two points in time that asked young adults to explain how they felt about aging in 2017 (n=794) and posed the same questions to a new sample of participants in 2020 (n=463). Our findings not only capture young adults' feelings about aging at two distinct points in time, but also describe the complex ways the pandemic has contributed to shifting perceptions of aging. In doing so, we identify implications about how these feelings can shape young adults' perception of their future selves.

Literature review

Age-based stereotypes

Age-based stereotypes are "exaggerated views or conceptions" about older adults based on simple and overly generalized characteristics of the group (Ory, Hoffman, Hawkins, Sanner, & Mickenhaupt, 2003, p. 164). There are two key features of age-based stereotypes that are particularly relevant to this study. First, they can be both positive (e.g., wise) and negative (e.g., forgetful) and second, they are developed over the lifespan through communication (Chan, Au, & Lai, 2020; Hummert, Shaner, Garstka, & Henry, 1998).

Hummert, Garstka, Shaner, and Strahm (1994) delineate the positive and negative stereotypes about aging by developing a typology that includes five negative stereotypes and three positive stereotypical archetypes of older adults. These categories include: (1) severely impaired, (2) shrew/curmudgeon, (3) recluse, (4) despondent, and (5) vulnerable, as well as (6) John Wayne conservative, (7) liberal matriarch/patriarch, and (8) perfect grandparent.

Identifying how these age-based stereotypes are understood is a complex task since they are developed and refined throughout the life-span and, as such, are not a stagnant concept. Stereotypes about age are initially developed in childhood and young adulthood, and are reinforced/challenged during young adulthood. They are incredibly powerful as they can be internalized into self-stereotypes, which have been associated with negative aging outcomes (Hummert, 2003; Levy, 2003). Indeed, these age-based stereotypes and the communication that sustains them are important to the aging process as they set expectations for young adults in terms of what it means to age/reach old age. Adding to the complexity of age-based stereotypes is the fact that aging is an intersectional process that can be shaped by gender, culture, and/or nationality.

Future selves

Age-based stereotypes inform and in some ways complicate the concept of future selves. The term, "future self," is a psychological concept that describes the sense of connectedness people feel about who they will be in the future (Urminsky, 2017). These feelings, like the age-based stereotypes, can range from positive to negative based on chronological distance (Parfit, 1971) and perceived dissimilarities from older adults. In addition, the varied ways that young adults' conceptualizations of what "older" looks like can make it more difficult to envision an "old" version of themselves, especially if they are not regularly exposed to older adults who could reflect an accurate portrayal of aging. In all, it can be challenging for young adults to construct a realistic perception of aging since they tend to have difficulty envisioning themselves as older adults (see Gilbert, 2014).

The feelings of connectedness, or a psychological sense of oneness or sameness, that underlie the concept of future self can be enhanced through shared intentions, beliefs, and goals (Parfit, 1984). Low connectedness, on the other hand, draws on perceived differences between the self (younger versions of the self) and others (older adults). In other words, people identify less with distant versions of themselves as opposed to ones that are temporally closer (Hershfield, 2011) because the older self is viewed as dissimilar from the current self. For example, people tend to feel closer to and are better able to imagine themselves as

a year older rather than 25 or even 50 years older. In fact, young adults attempting to envision their future as an older adult may feel like they are imagining a completely different person (Pronin & Ross, 2006)—a person who is a member of a social outgroup (Nelson, 2005). Indeed, when attempting to picture their future self, according to Giles, Fortman, Honeycutt, and Ota (2003), young adults may resist the stereotypes they hold for older adults—seeing themselves as the exceptions to the outgroup markers (e.g., being healthy and active, enacting accommodative communicative behaviors). This perceptual disconnect is problematic since becoming a member of this outgroup is inevitable for those who live long enough to be classified as an older adult (see Snyder & Miene, 1994).

The tendency for young adults to draw upon stereotypes about aging makes envisioning themselves as "old" difficult to do (see Dixon, 2012). However, the act of being able to imagine their future self in a way that is informed could reduce ageism (Nelson, 2005) and lead to better choices that facilitate the aging experience (Zhang, Zhou, Xiaonan, & N., Zhang, J., 2019). This outcome would have implications for how younger adults prepare to become an older adult. For example, the concept of future self has been applied to research that examines retirement expectations (Anderson & Gettings, 2019) as well as to financial preparations (Hershfield et al., 2011).

Understanding how young adults feel about aging can yield a clearer picture of future selves and the age-based stereotypes that inform this concept. The timing of the present inquiry is especially important given the crucial role context plays in re-affirming and countering assumptions about age. In particular, young adults' perceptions of aging may be complicated by the COVID-19 pandemic and the corresponding messages they receive during this time. Indeed, the communication that surrounds aging has become "ubiquitous" and is, in general "not kind to older adulthood" (Gasiorek et al., 2016, p. 44).

The COVID-19 pandemic

The pandemic has been described as a "focusing event" that reified negative age-based stereotypes (Reynolds, 2020, p. 499). Indeed, it has been posited that the pandemic may not only reinforce negative stereotypes, but could also lead to increased levels of ageism due in part to the portrayal of older adults during this crisis (Previtali, Allen, & Varlamova, 2020). The coverage of the COVID-19 pandemic has tended to position older adults as a vulnerable, at-risk population (Rahman & Jahan, 2020). Even public responses (e.g., senior only shopping hours, pen pal programs) that were intended to "protect" older adults drew on and exacerbated negative assumptions about aging (Monahan, Macdonald, Lytle, Apriceno, & Levy, 2020).

Although there is a dearth of empirical work that investigates the influence of the pandemic on young adults' perceptions of aging, there are a handful of studies that are germane to the present research. Losada-Baltar et al. (2021) found, based on data collected from a Spanish sample early in the national COVID-19 lockdown (March 2020), that the highest distress was reported by participants who were younger, female, held negative self-perceptions of aging, and spent more time exposed to news about COVID-19. In a longitudinal study of Spanish adults, findings suggested that holding negative self-perceptions of aging (measured using items such as "As you get older, you are less useful"; see Liang & Bollen, 1983; Levy, Slade, Kunkel, & Kasl, 2002) resulted in increased loneliness and distress levels regardless of chronological age. Taken together, these associations hint at the idea that having negative perceptions of aging can have negative personal outcomes. Another study, albeit based on samples of older adults in Switzerland, provides evidence for the possibility of changing perceptions of aging due to the COVID-19 pandemic (Seifert, 2021). Data collected before and after the Swiss government called for the special protection of older adults revealed that negative self-perception of aging increased and positive self-perception of aging decreased. In an additional round of data collected after the Swiss government relaxed COVID-related restrictions,

negative self-perception of aging slightly decreased and positive self-perception of aging increased. This pattern indicates that the pandemic influences older adults' subjective views of their own aging experiences, and supports that possibility that this is the case for younger adults as well.

Research questions

Given the important role that context plays in informing young adults' understanding of aging and the corresponding implications for the future self, we sought to understand the feelings young adults held about aging before and during the COVID-19 pandemic. Specifically, we asked the following research questions. RQ1: How did young adults feel about aging in 2017?

RQ2: How did young adults feel about aging in 2020? RQ3: How, if at all, did the COVID-19 pandemic change young adults' reported feelings about aging?

Method

To address these research questions, we took a qualitative approach to data collection and analysis that sought to identify themes that emerged at two points in time—in Fall 2017 (before the emergence of COVID-19) and in Fall 2020 (months after COVID-19 emerged in the United States). We chose this approach because qualitative methods prioritize participants' voices and perceptions as they articulate their feelings about aging (see Tracy, 2020).

Data collection

Data was collected using an online qualitative questionnaire. This questionnaire took approximately 30 min to complete and featured questions that asked students to reflect on and describe how they felt about aging. Sample questions included: (1) What is "old age"?; (2) How do you know when someone has reached old age?; and (3) How do you feel about aging? Given the goals of this project, we focused our attention on the questionnaire items that had participants articulate their feelings about aging (2017 and 2020) as well as reflect on how their feelings about aging changed following the emergence of the COVID-19 pandemic (2020).

We collected data at two points in time—during Fall 2017 and Fall 2020—using the same questionnaire format. However, the 2020 version of the questionnaire included additional questions that asked students how, if at all, the pandemic impacted their views on aging. Both phases of data collection were IRB approved and available for undergraduate students to participate via a university research recruitment platform (SONA). Samples were drawn from undergraduate students who were enrolled at a United States (U.S.) university at both times, but the participant pools were different for each data collection phase. In other words, we did not ask the same participants who completed the questionnaire in 2017 to do so again in 2020.

Participants

The participants for both data collection phases included young adults who were between the ages of 18-30 at the time they completed the questionnaire (see Table 1 for demographic information for both samples). We selected a college-aged sample for this project given the overarching goals of the research—that is to understand how young adults feel about aging pre- and post-pandemic.

In all, we collected 794 questionnaire responses in 2017 and 463 questionnaire responses in 2020. Responses were then organized by

Table 1 Participants' demographic information.

	2017	2020
Sample n	794	463
Year in college		
Freshmen	50.9%	48.6%
Sophomore	22.7%	27.4%
Junior	11.8%	11.4%
Senior	13.6%	12.3%
Other	1.0%	0.2%
Age	M = 19.31	19.23
Gender		
Female	55.8%	64.2%
Male	43.8%	34.7%
Gender Nonconforming/Other	0.4%	1.1%
Race/Ethnicity		
American Indian	0.1%	0.4%**
Asian	18.1%	22.7%
Biracial	6.3%	2.6%
Black or African American	10.3%	7.8%
Hispanic or Latinx	5.5%	8.2%
Native Hawaiian	0.1%	0.6%
White/Caucasian or European	58.1%	60.5%
Other	1.4%	3.7%

Note. Participants in 2020 could choose all racial/ethnic identities that applied; thus percentages total to greater than 100.

question in order to prepare the data for analysis. During this step, we reviewed the responses and removed any that were not usable in terms of addressing the posed research questions (e.g., no, N/A,?). We also separated distinct ideas that appeared in individual responses, resulting in 660 units from the 2017 data and 835 units from the 2020 data (see Table 2).

Data analysis

We analyzed the units of data using a thematic approach that was structured via the step-by-step process outlined by Braun and Clarke (2006).

Feelings about Aging in 2017 (RQ1)

To begin, we individually read the entire 2017 dataset by question. This step familiarized us with the participants' responses. We then completed a round of open coding during which we labeled each of the participant responses to the question that asked, "how do you feel about aging?" using single words or short phrases (e.g., scary, terrifying, exciting, fine). Next, we met to discuss the codes and initial ideas. This step included problematizing and refining our individual codes. For example, the codes "scary" and "terrified" were collapsed under the heading "scared," which we classified as a negative feeling. This feeling was distinguished from other negative emotions, like sad, although they both fell under the negative feelings category. We then collaboratively organized the recurring codes and developed descriptions for each one. The first author then coded the entire 2017 dataset using the coconstructed coding scheme. Finally, we completed a frequency count of the codes and identified participant responses that exemplified each emergent idea. This process resulted in 660 categorized units of data.

Table 2Summary of positive, neutral, and negative feelings about aging.

Coding Category	Frequency (2017)	Percentage (2017)	Frequency (2020)	Percentage (2020)	Percent Change
Positive Codes	106	12.69%	36	5.45%	(7.24)
Neutral Codes	301	36.05%	220	33.33%	(2.72)
Negative Codes	428	51.26.%	404	61.21%	+9.95
Total	835 units	100%	660 units	100%	

 $[\]overline{}^1$ Responses from all questionnaire items are not reported in the present study.

Feelings about Aging in 2020 (RQ2)

We then followed the same procedures to analyze the question from the 2020 data that asked students to articulate their feelings about aging. This process was informed by the previous data analysis phases, but was flexible enough to allow pandemic-specific ideas to emerge that may not have been present in the previous data and resulted in 835 categorized units. See Table 3 for a relative breakdown of sub-themes.

Changing Reported Feelings about Aging in 2020 (RQ3)

We analyzed the responses to the question: "Did your feelings about aging change following the COVID-19 pandemic? If so, how?" To do so, we relied on an iterative process (Tracy, 2020) where we started by categorizing each response as *No, Yes,* or *No, but Yes.* The "no, but yes" category captured the responses when a participant indicated that their feelings did not change, but then described the ways that their views *did* change. We then completed a round of open coding for the "yes" and "no, but yes" responses. We again met to discuss our individual interpretations and identify the prevailing ideas that emerged through the participants' explanations of how the pandemic changed their feelings about aging.

Results and interpretations

In this section, we articulate young adults' perceptions of aging at two time points—in 2017 and in 2020. We structure our findings using the research questions and begin by detailing the positive, neutral, and negative feelings that young adults expressed in the 2017 data. We then describe the new ideas that emerged in 2020 responses. Finally, we highlight the ways that young adults reported the pandemic as a source that reinforced and exacerbated their feelings about aging.

Feelings about aging in 2017

Feelings about aging in 2017 (RQ1) reflected positive, neutral, and negative orientations. Participants' responses revealed a two-step

Table 3Percentage for sub-codes for positive, neutral, and negative codes.

Coding Category	Sub-code	Percentage (2017)	Percentage (2020)
Positive			
Codes			
	Looking forward to aging	11.38	2.33
	Benefits of aging	1.32	3.12
Neutral			
Codes			
	Inevitable	20.96	24.46
	Not worried/feel fine	12.46	6.25
	Ways to age well	2.63	2.62
Negative Codes			
	Scary/terrified	24.19	24.71
	Negative impacts	10.66 (general concern)	11.92 (specific health risks)
	Sad	9.94	2.62 (and lonely)
	Don't want to	6.47	10.91
	Decline & death	0	4.80
	Lost time	0	4.07
	Worried about others	0	1.45
	Explicit COVID mention	0	0.73

Note. This study took an interpretive approach to data collection and analysis. As such, the analysis process for 2020 data was informed by 2017 coding scheme, but was flexible in order to allow new ideas to emerge from the responses. The items in parenthesis indicate differences in how themes were framed in 2017 and 2020. Moreover, there were four additional codes that emerged in 2020 data.

process where young adults described their initial feelings and then provided a rationale for that sentiment. The two-step process that emerged through the responses was particularly interesting given that the articulation of a rationale for their feelings was not required by the posed question (How do you feel about aging?).

Positive feelings

The positive feelings the young adults articulated included looking forward to aging. To justify their positive outlook, participants offered reasons to explain the excitement they felt about aging.

Looking forward to aging. The idea of looking forward to aging and what the future holds was expressed by the young adults through responses such as "I am looking forward to growing older" and "I'm excited for the future." One participant expanded on the positive feelings they have about aging by stating, "I genuinely look forward to it. I feel that maybe I will find a sense of purpose as I grow older, and may find more things that I enjoy doing in my old age."

Benefits of aging. The previous quotation highlights the beneficial aspects of aging that are recognized by young adults (i.e., "find more things I enjoy doing"). Other participants echoed this idea. For example, one young adult said, "I think that with aging, there comes more knowledge and wisdom." Another benefit of aging that participants highlighted were life course events. These again served as reasons for looking forward to or being excited about aging. For instance, a student explained, "I feel confident and want a family and grandchildren."

Neutral feelings

The young adults also expressed neutral feelings about aging, sometimes simply articulating this sentiment by saying that they feel "fine" and are "not worried about it." When these neutral responses were expanded, they often featured the idea that aging is inevitable and/or highlighted ways that participants planned to age well.

Inevitable

Aging was often described as an inevitable part of life that happens to everyone. This awareness that aging is natural and normal characterized the view that aging is inevitable. For example, one participant claimed, "It's going to happen whether I want it or not."

Ways to age well

Strategies to remain young/youthful or facilitate successful aging were also presented as a way to justify neutral feelings about aging as they described ways young adults planned to age well. One young adult explained, "I feel indifferent towards growing old as I know it is a natural process." Another participant echoed this sentiment. They said, "it's not something that scares me, but I want to do everything I can to make sure my body, mind, and finances are in good enough order to keep me feeling young as long as I can."

Negative feelings

The young adults also shared negative feelings about aging in the 2017 data. These negative feelings centered on being scared or sad. Again, the feelings were explained by the young adults as they provided rationale for their feelings.

Scary and sad

The participants often simply articulated that they thought aging was a "scary" or "terrifying" concept. For instance, one respondent wrote, "I am terrified and never want to get older." Another student further explained, "I fear growing old and becoming physically weak. I am scared of the point in my life where I cannot take care of myself." A

similar idea was noted by another participant who indicated, "I am fearful of the negative effects that comes (sic) with aging."

The other prevailing negative feeling that emerged in the 2017 data was sadness. For example, one participant explained, "It's a grim future, being young is definitely better. Knowing my body and mind will deteriorate is certainly a sad thought." This point was echoed by another young adult who said that aging was "increasingly more sad or lonely as friends begin to go and you feel like you are not capable of doing the things you could when you were younger." This quote introduces reasons for feeling scared or viewing aging as sad, which were provided by young adults to justify their responses.

Feelings about aging in 2020

Similar feelings about aging appeared in the 2020 data (RQ2), but there were proportionally more references to the negative aspects of aging and fewer references to the neutral and positive feelings (see Table 2). In addition, ideas about age-related health risks, pending death, and lost time emerged through the responses. The responses also shifted from being focused on how the young adults felt about aging for just themselves to include others—especially parents and grandparents.

Age-related health risks

Rather than referencing decline in more abstract (e.g., "I won't be able to physically do the things that I am able to now") and surface ways (e.g., concern about "wrinkles" and "gray hair") as in 2017, many young adults expressed fear over potential age-related health risks. One participant exemplified this shift when they simply noted, "I'm honestly scared of aging, especially when it comes to the health risks and problems that can develop as a result of old age."

Death

References to death also emerged, with one young adult explaining that they think "old age is synonymous with 'close to death." This feeling of aging being associated with death was not unique to this participant—quite to the contrary—in the 2020 data it was referenced by several participants as a reason for being scared and/or sad. For instance, one young adult justified their fear of aging by stating, "the fact that the more I age, I am just one step closer to death scares me [sic] a lot" while another rationalized their sadness by writing, "it is a bit depressing because one is getting closer to death."

Time

The idea of passing time also emerged in the responses from 2020. Interestingly, it was used in an indirect way to reference death. For instance, a young adult explained, "I feel that I am on a timer" while another noted that they feel their youth "slipping away." When referring to time, the participants described it as something to be fearful of. This sentiment was noted by a participant who said, "It's terrifying. Even at my relatively young age I'm beginning to just realize and come to terms with the passage of time."

Worried about others

The data from 2020 also included a shift where the young adults extended their concerns about aging to others; most notably their parents and grandparents. Some were explicit in their expression of worry, for instance, "I am worried about my parents!" Others explained why they were concerned, as exemplified by a participant who wrote, "I am worried about my mom aging because I want her to always be her lively self." Through this response, the young adult provides a more specific reason for their worry—that is, age-based decline that could lead to their parent being less "lively."

The fear of death also served as a source of concern about others. This point was noted by a participant who explained, "I am extremely afraid, though, of dying, and of my parents and close friends and sister dying."

It was also echoed by a young adult who said, "I get very anxious when I think about any of my grandparents or relatives passing away."

The emergence of death, time, and worry over others were contextualized through references to the pandemic, sickness, and illness. One young adult described their experience with contracting COVID-19 to explain their feelings about aging. Here, they stated, "I realized how careful you have to be when reaching old age. This is because when I had COVID, I only had a little sniffle, but COVID is deathly [sic] to those of old age." Participants also explained how they witnessed the toll the virus took on older adults—"I am not in any rush to age. Especially due to the recent COVID-19 pandemic, I have seen what aging can do and how it can negatively affect one's lifestyle."

Changes in feelings about aging relative to COVID-19

When asked directly if their feelings about aging changed following the COVID-19 pandemic, some of the young adults said yes (n=176) whereas others said no (n=224). Interestingly, some of the respondents said no, and then explained how their feelings *have* changed. We classified these responses as "no, but yes" (n=41). The last column of Table 2 shows percentage change in each response type category from 2017 to 2020.

Reinforced/exacerbated negative feelings

While making sense of the responses, we noted that the pandemic reinforced and/or exacerbated the negative feelings about aging. The young adults explained that their negative feelings (e.g., "my fears and anxieties about aging") were "amplified due to the pandemic." Here, the young adults expressed that they were *more* scared, *more* worried, and *more* stressed about potential health declines that can accompany age and the well-being of loved ones. For example, a participant said,

It [the pandemic] made it [aging] scarier. There are so many otherwise healthy individuals who are of old age who have been taken so quickly and suddenly. It was quite literally out of their control that they died to a preventable global pandemic. It really puts things in perspective—as you age, you become more prone to things out of your control like that.

In fact, the young adults who indicated that the pandemic changed their feelings about aging characterized getting older in predominantly negative ways, such as being weak, fragile, vulnerable, and susceptible. One young adult simply stated that they are "afraid of becoming more vulnerable" while another said that they do not want to age "because that makes me more vulnerable".

The pandemic specifically was positioned as a factor that illuminated these perceptions of age. For instance, a young adult explained, "it [the pandemic] showed me how older people are more susceptible to becoming seriously sick." Similarly, a participant noted, "with Covid-19 aging got even scarier because I saw how it was the older population that was vulnerable and couldn't (sic) fight the disease as well." Interestingly, the immune system was referenced in these responses, as exemplified by a participant who said, "your immune system getting weak is scary" and "It [the pandemic] made me realize that as we get older, our immune systems weaken which makes us more susceptible to illness." In general, the participants' responses demonstrate how the pandemic amplified and exacerbated the feelings about and understandings of aging.

Worried about future self

As demonstrated through the quote above and identified in the 2020 dataset, the idea that as they age young adults would experience age-based health declines permeated their feelings about aging—especially as it applied to their future self. These negative feelings were informed by the COVID-19 pandemic and the communication that surrounded older adults. For instance, one participant explained that they "got more

 $^{^{2}\,}$ 22 participants did not respond to this questionnaire item.

nervous about old age following the pandemic because I realize I will be affected by viruses like COVID-19 more." This example underscored the assumption that health declines accompany aging. The participant also applied this assumption to their future self as they envisioned what they will experience when they reach "old age."

This application of the assumptions surrounding age-based health declines was further highlighted in other responses. For example, a young adult expressed, "If I could stop aging I would. I don't want to be more susceptible to the viruses because of old age." This sentiment was also echoed by a participant who noted "the COVID-19 pandemic made me more aware of the health risks that become more prevalent in old age. I heard from many sources that older people are more susceptible to the disease, so this has made me worried about being at risk to viruses when I am older." These examples highlighted the way young adults interpreted the portrayal of age/aging during the pandemic.

Worried about others

The concerns about age-based health declines also extended from the future self to include loved ones. This point emerged in the data as young adults expressed an increased concern for older family members. For example, one young adult said, "hearing about older people becoming infected the most scared me because I was worried about my parents and family" while another reiterated this concern, "my parents fall into the 'older age group', and I was fearful for them and their safety." This concern also informed how the participants described older adults.

Worried about the future self and others

Finally, through their responses, the young adults raised questions about how we, as a society, value older adults as instances of ageism/ageist communication were illuminated during the time of COVID. Sometimes this sentiment focused on others as they reconciled their feelings about aging. One participant simply asked, "Do we value our elders so little that we don't care if they live or die?" This question was pondered by other young adults as well. For example, one respondent reflected on the way that the pandemic shifted their feeling about aging when they said, "I guess I thought more about how people would value me as an old person. Seeing people talk about the virus like, 'don't worry, it only affects old people!' was just brutal."

Other times the questions raised about how society values old age were then applied to the participants' perceptions of their future selves as older adults. One participant noted that they were concerned that the expendable perception of older adults would extend to them as they age. Here, they wrote, "I guess it made me think more about how as an old person, I hope people don't just push me to the side and deem me and my fellow old-people unimportant just because we have less time left than others. We'll all be old people one day, and we'll all wish we realized that sooner." These responses reflect a realization that older adults are not always treated with respect and reverence and as such, highlighted a newfound appreciation for age for others and hopefully for themselves as they age.

Discussion

This study found that young adults expressed varied feelings about aging that ranged from positive to negative. However, following the emergence of the COVID-19 pandemic, these feelings became more negative, with young adults referencing age-related health risks, pending death, and lost time. The pandemic specifically was cited as a reason for the reinforcement or exacerbation of the negative feelings the young adults held about aging in some cases. These findings inform a set of conceptual implications that integrate the concepts of age-based stereotypes and the future self, while highlighting the role of context and communication.

Conceptual implications

Our findings further underscore the complex nature of age-based stereotypes—specifically highlighting the mixed feelings (positive, neutral, and negative) young adults hold about aging simultaneously. It also shows how contextual events, like a pandemic, can emphasize negative stereotypes, which would inform young adults' feelings about aging (see Previtali et al., 2020). In this case, the event, and corresponding communication, portray older adults in a predominately negative way (e.g., vulnerable), thus reinforcing some negative assumptions about age. It is worth emphasizing, though, that young adults still report many neutral and positive feelings—nearly the same number as negative feelings before the pandemic and close to 40% after the pandemic—which may reflect that many American young adults have generally optimistic attitudes toward aging. For example, McConatha, Schnell, Volkwein, Riley, and Leach (2003) found that German young adults tended to view aging much more negatively than their American counterparts across several domains (e.g., fear of old people, psychological concerns, fear of losses).

Common tropes associated with age can shift as they are challenged by communication. Thus, this research illuminates the need for a reexamination of commonly held age-based stereotypes that account for the possibility of changing discourses. This point is especially true for Hummert et al.'s (1994) archetypes of older adults. We believe that it may be a fruitful time to update the profiles originally developed almost 30 years ago and some of the terminology is outdated (e.g., John Wayne). Moreover, there have been a number of contextual events (e.g., pandemic), improved aging processes (e.g., longer, more active lifespans), and changing technology that may impact young adults' perceptions of old age. The corresponding communicative messages (e.g., older adults are vulnerable) and proliferation of communication mediums (e.g., social media, Zoom) could further shift stereotypes about age/aging in important ways that need to be captured (e.g., #OKBoomer).

Indeed, our findings reinforced the proposition that communication can inform feelings about aging (see Fowler et al., 2015) and would then challenge/reinforce the age-based stereotypes that young adults hold. In this case, the participants' feelings about aging were seemingly impacted by the communicative messages that they received during the pandemic. This point was most clearly expressed when the young adults explained that the communication surrounding COVID-19 reinforced and exacerbated their negative feelings about aging.

The findings also demonstrated how communication about aging within a specific context (COVID-19) was used to inform conceptualizations of the future self, or the strength with which people can envision who they will be when they are older (Urminsky, 2017). Indeed, enhancing the perceived similarities between younger adults and older adults is critical to being able to envision one's future self. This task is made more difficult if older adults are framed through social discourse as being substantially different from young adults in negative ways that exacerbate perceived dissimilarities and, in doing so, minimize closeness felt between the current and future self. Ultimately sources of communication could be used as ways to close the perceived gap between the selves (current and future) by communicating the positive aspects of aging and old age that highlight enduring elements of who someone is. In other words, emphasizing shared values and goals and building connections between perceived in-group and out-groups that would enhance feelings of closeness (see Parfit, 1984).

Limitations and future research directions

There are several limitations that need to be unpacked as we propose future research directions. First, the participants for this study were college students. However, not every young adult goes to college and may hold differing views about aging that were not captured here. In a similar vein, all of the participants came from one university located in

the mid-Atlantic region of the U.S. It would be interesting to examine the similarities and differences that emerge in feelings about aging with young adults in various regions of the U.S. as well as in other countries that may communicate about aging differently. Liang and Luo (2012) critiqued the "successful aging" literature, in part, because of its reliance on Western (specifically American) notions that may vary across other national/cultural groups.

Second, and related, since aging is an intersectional process that is impacted by multiple factors such as gender, ethnicity, race, and sexual orientation, it would be useful to understand how people who hold these different identities feel about aging. Doing so would illuminate advantages as well as disparities people from various backgrounds experience as they engage in the aging process. Rather than utilize the interpretive approach espoused here, a possibility for future scholarship would be to take a more mechanized approach to conducting textual analysis of larger data differences (e.g., LIWC, Linguistic Inquiry and Word Count software) sets that could further enable scholars to parse out identity-based such as gender (e.g., McConatha et al., 2003).

Finally, this study is a snapshot at two points in time. Although these are two important time periods in terms of aging research—pre-and during-COVID—future scholarship needs to explore the developing and shifting feelings about age/aging in a longitudinal way that tracks young adults over time and could account for different socio-historical events that inform perceptions of aging. This type of work could reveal why some of the young adults in this study did not report that their feelings about aging changed during the time of COVID as reported in the present study (e.g., their assumptions were confirmed, there was no perceptual change, there were other reasons for a change in feelings). In addition, other significant events occurred between 2017 and 2020 that could have contributed to the more negative feelings that some of the young adults held about aging, such as political divisiveness, increased reporting of police brutality, or the rise of the Black Lives Matter Movement. Future research needs to parse out these contexts to understand how significant and ongoing events influence feelings about the aging process. In a similar way, the extent to which people experience these events could be further delineated. For example, there may be differences in how young adults feel about aging depending on if they contracted the virus, if they were tested, if they received a vaccine, and/ or if they lost a family member to COVID-19.

Conclusion

By integrating the concepts of age-based stereotypes and future self, this project captured young adults' feelings about aging at two distinct points in time. In doing so, it showed how the discourse surrounding the pandemic and older adults contributed to shifting feelings about aging. Here, communication was positioned as a central component in the aging process as it informs understandings of, expectations for, and feelings about growing old. Changing how we communicate about this lifelong, shared process could contribute to the construction of positive perceptions of old age that would facilitate the aging process for future generations and improve quality of life for current elders alike.

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