

## Older Adults' Perceptions of Climate Change Annotated Bibliography

- Andor, M. A., Schmidt, C. M., & Sommer, S. (2018). Climate change, population ageing and public spending: Evidence on individual preferences. *Ecological Economics*, 151, 173–183. <https://doi.org/10.1016/j.ecolecon.2018.05.003>

Economic theory as well as empirical research suggest that elderly people prefer public spending on policies yielding short-term benefits. This might be bad news for policies aimed at combating climate change: while the unavoidable costs of these policies arise today, the expected benefits occur in the distant future. Drawing on data from over 12,000 households, the authors analyze whether attitudes towards climate change and climate policies as well as public spending preferences differ with respect to age. Their estimates show that elderly people are less concerned about climate change, but more concerned about other global challenges. Furthermore, they are less likely to support climate-friendly policies, such as the subsidization of renewables, allocate less public resources to and have lower willingness-to-pay for environmental policies. Thus, our results suggest that the ongoing demographic change in industrialized countries may undermine climate policies.

- Ayalon, L., Ulitsa, N., AboJabel, H., & Engdau, S. (2022). Older persons' perceptions concerning climate activism and pro-environmental behaviors: Results from a qualitative study of diverse population groups of older Israelis. *Sustainability*, 14(24), 16366. <https://www.mdpi.com/2071-1050/14/24/16366/pdf>

Older people are under-represented in the climate change movement yet are highly susceptible to the negative effects of climate change. This study's objectives were to identify possible barriers faced by older persons to increase their pro-environmental behaviors and participation in the climate movement. Relying on in-depth qualitative interviews and focus groups, the authors identified three themes: assigning responsibility for the current climate situation, actions taken by older persons to address the current situation, and viewing governments/municipalities, industry, and individuals as responsible for the changing climate. The findings highlight the need to increase environmental activism among older persons and the breadth of possible pro-environmental behaviors they can engage with.

- Ayalon, L., Ulitsa, N., AboJabel, H., & Engdau-Vanda, S. (2023). "We used to have four seasons, but now there is only one": Perceptions concerning the changing climate and environment in a diverse sample of Israeli older persons. *Journal of Applied Gerontology*, 43(5), 527–535. <https://doi.org/10.1177/07334648231212279>

Solastalgia, or the feeling of loss from environmental changes, has received little attention in older adult populations. Drawing on the related literature on nostalgia, this study examines solastalgia as a lens for understanding climate change's nuanced effects on mental health. Focus group interviews with four groups of Israeli older adults (veteran Jews, Arab Israelis, and immigrants from the former Soviet Union and Ethiopia) were thematically analyzed. All groups expressed grief and distress over environmental changes, though the

nature of that distress varied by cultural background. The authors argue for greater attention to older adults' emotional wellbeing in climate research and intervention.

Coyle, M. (2014). Understanding resistance to climate change resistance. *International Journal of Aging and Human Development*, 80(1), 76–86.  
<https://doi.org/10.1177/0091415015591111>

Fifty years after the emergence of warnings over the effects of the environmental impacts of industrialization and other conditions of a planet subjugated by humans, we are still entertaining discussions about the existence of the phenomena of climate change. Worse still, we have not checked the behaviors and conditions that exacerbate the rate of environmental destruction. Older people are among those most at risk in disasters, including events resulting from climate change. By applying the "epistemologies of ignorance" outlined by Nancy Tuana, the author attempts to understand the rooted ignorance that prevents acceptance of the environmental impact of human kind's unrepentant misuse of the world's natural resources and refusal to curb excesses. The article suggests an examination of climate change denial can provide guidance for a better counter-narrative.

Degen, C., Kettner, S. E., Fischer, H., Lohse, J., Funke, J., Schwierer, C., Goeschl, T., & Schröder, J. (2014). Comprehension of climate change and environmental attitudes across the lifespan. *Zeitschrift für Gerontologie und Geriatrie*, 47(6), 490–494.  
<https://doi.org/10.1007/s00391-014-0675-0>

It is generally assumed that information status and comprehension of complex processes underlying climate change are prerequisites for adopting pro-environmental attitudes and taking pro-environmental actions. In this cross-sectional study, the authors investigated environmental knowledge and comprehension of feedback processes underlying climate change, and pro-environmental attitudes change as a function of age. The authors found that age was negatively related to comprehension of system structures inherent to climate change, but positively associated with level of fear of consequences and anxiousness towards climate change. No significant relations were found between environmental knowledge and pro-environmental attitude. These results indicate that age is not a limiting factor for being engaged in the complex dilemma of climate change.

Elliott, R. (2022). The 'Boomer remover': Intergenerational discounting, the coronavirus and climate change. *Sociological Review*, 70(1), 74–91.  
<https://doi.org/10.1177/00380261211049023>

Based on an analysis of Twitter data, this article examines the appearance of generational ideas in the ways that people have defined the experience and significance of the coronavirus and climate change, as well as related them to each other. The author characterizes the narrative frame as one of intergenerational discounting: a description of breakdown in reciprocal obligations of care, giving rise to accusations of hypocrisy, expressions of resentment and rage, and the description of the virus as the 'Boomer remover'. This frame normatively licenses withdrawal from intergenerational action in pursuit of collective objectives, as well as erases the disproportionate negative effects of crisis conditions on those facing intersecting intragenerational disadvantages. The article

demonstrates how generational ideas work to morally link different conditions to each other.

Gray, S. G., Raimi, K. T., Wilson, R., & Árvai, J. (2019). Will millennials save the world? The effect of age and generational differences on environmental concern. *Journal of Environmental Management*, 242, 394–402. <https://doi.org/10.1016/j.jenvman.2019.04.071>

Are younger people or younger generations more concerned about declines in environmental health when compared to their older counterparts within the United States? Prior research offers conflicting answers. In an attempt to disentangle these contradictory viewpoints, the authors undertook a study in which respondents were presented with small and large hypothetical losses due to climate change. These same participants were then asked to indicate their support for future policy actions aimed at stemming these environmental losses. Overall, the data does not indicate that younger generations experience potential losses as more acute than older generations; neither age nor generational cohort correlated with the perceived severity of environmental losses nor support for future actions to prevent them. More robust predictors of both dependent variables were environmental value orientations and self-reported political orientation.

Ham, C. D., Chung, U. C., Kim, W. J., Lee, S. Y., & Oh, S. H. (2022). Greener than others? Exploring generational differences in green purchase intent. *International Journal of Market Research*, 64(3), 376–396. <https://doi.org/10.1177/14707853211034108>

This study explored the generation gap in American consumers' green perceptions and purchase intentions across four generations (Gen Z, Y, X, and Baby Boomers) from the perspectives of consumer socialization and social intelligence. Analyzing a nationally representative sample of adults in the U.S., the survey results revealed that the American consumer's green norms and beliefs varied by generation. A series of multiple regression analyses showed that each generation had similar but idiosyncratic beliefs in purchasing products from green companies. Theoretical and practical implications are discussed.

Haq, G. (2021). The forgotten generation: Older people and climate change. In *Diversity and Inclusion in Environmentalism* (pp. 118-131). Routledge. <https://doi.org/10.4324/9781003099185>

Young climate activists have sometimes portrayed older people as not caring about climate change. While older people have contributed to greenhouse gas emissions across their lifetime, they will be among the groups most affected by the impacts of a changing climate. This chapter examines the intersection of an ageing population and climate change. It will challenge the assumption that older people are not concerned about climate change and that climate action is just for the young. The discussion concludes by making recommendations for the greater engagement of older people in initiatives to tackle climate change.

Herman-Mercer, N. M., Matkin, E., Laituri, M. J., Toohey, R. C., Massey, M., Elder, K., Schuster, P. F., & Mutter, E. A. (2016). Changing times, changing stories: Generational differences in climate change perspectives from four remote indigenous communities in Subarctic Alaska. *Ecology and Society*, 21(3), 28. <https://doi.org/10.5751/ES-08463-210328>

Indigenous Arctic and Subarctic communities currently are facing a myriad of social and environmental changes. Studies concerning indigenous knowledge (IK) and climate change vulnerability, resiliency, and adaptation have increased dramatically. Risks to lives and livelihoods are often the focus of adaptation research; however, the cultural dimensions of climate change are equally important because cultural dimensions inform perceptions of risk. Observations by elders and older generations form a historical baseline record of weather and climate observations in these regions. However, many indigenous Arctic and Subarctic communities are composed of primarily younger residents. The authors focused on the differences in the cultural dimensions of climate change found between young adults and elders. They outlined the findings from interviews conducted in four indigenous communities. Understanding the differences in generational observations and perceptions of change are key issues in the development of climate change adaptation strategies.

Hersch, J., & Viscusi, W. K. (2006). The generational divide in support for environmental policies: European evidence. *Climatic Change*, 77(1–2), 121–136. <https://doi.org/10.1007/s10584-006-9074-x>

This article examines age variations in support for environmental protection policies that affect climate change. The results indicated there is a steady decline with age in whether respondents are willing to incur higher gasoline prices to protect the environment. This relationship remains after controlling for socioeconomic characteristics. There are also age-related differences in information about environmental risks, information sources about the environment, perceived health risks from climate change, and degree of worry about climate change. However, these factors do not eliminate the age variation in willingness to pay more for gasoline to protect the environment.

Johnson, E. W., & Schwadel, P. (2018). It is not a cohort thing: Interrogating the relationship between age, cohort, and support for the environment. *Environment and Behavior*, 51(7), 1–23. <https://doi.org/10.1177/0013916518780483>

Cohort replacement is one widely implicated, but seldom studied, mechanism of long-term change in public opinion toward environmental protection. A key difficulty in extant research has been empirically distinguishing cohort effects from those of age. Applying recent methodological advances in age–period–cohort models, the authors examine the disaggregated effects of age, time period, and birth cohort on changes in Americans' support of federal spending for environmental protection from 1973–2016. Results suggest that cohort replacement provides little explanatory power. Instead, the authors found large age effects, with the young more likely to be pro-environmental in their views, and substantial changes across time periods without steady rising support. This suggests that there is no inexorable march toward greater environmentalism as younger cohorts replace older ones, and highlight the relative lack of explicit theorizing about the relationship between age and the environment.

Kafková, M. (2019). Environmental attitudes in an intergenerational perspective. *Slovenský národopis/Slovak Ethnology*, 67(2), 201–215. <https://doi.org/10.2478/se-2019-0011>

Environmentally oriented attitudes and values can be one of the sources of intergenerational tension or consent. Considering that climate change has become one of the major societal themes today, the issue of intergenerational tension or consent in approach to the environment is crucial. This issue could bring about a generational gap. Questions about intergenerational tensions bring us to age influence on environmental values. The influence of age on environmental values has been researched using the European Values Study 1991–2017 in six countries. The cohort/age period effect is differentiated using cross-country comparison, comparison of age groups and cohorts. The results showed that the differences in environmental values are not affected by the cohort effect; age has only a weak influence. The period effect, the change in societies seems to be the major explaining factor. Great differences among European countries were found and this diversity is much higher than the effect of age.

Lee, J. H., & Burns, R. C. (2022). Older adults' preferences for natural environment and rural life: Intergenerational transmission of pro-environmental motivation. *Journal of Outdoor Recreation and Tourism*, 39, 100556. <https://doi.org/10.1016/j.jort.2022.100556>

This study was conducted to investigate the factors that attract rural elderly retirees to experience nature. This was accomplished by questioning the common thought that the closeness between the elderly and nature is always positive, that the increase in age is typically proportional to the preference to experience nature, and that aging leads people to return to nature. The study results showed that preferring a natural environment in elderly years was found to be related to nature experience during childhood, especially where the effects of outdoor activities enjoyed with parents were transmitted intergenerationally.

Lowry, D. (2009). Age, the life course, and environmental justice. *Environmental Justice*, 2(3), 109–116. <https://doi.org/10.1089/env.2009.0002>

A large body of research demonstrates that race, class, and gender are key factors influencing the conditions, resources, and risks that groups and individuals experience and perceive within both “green” and built environments. However, at least one dimension remains relatively absent from the literature: age. The main argument of this article is that environmental sociology and justice studies would benefit from further consideration of how age-relations, birth cohort identities, and life course conditions relate to variations in environmental health, environmental conditions, and perceptions thereof. The authors seek to encourage such explorations by providing an introduction to major concepts and definitions from critical aging theory and by offering suggestions as to how these concepts could be explored within an environmental justice framework.

Mahmoud, S. F., Kulintang, M. B. M., Ngo, A. D., Bassam, S. E. A., Elezaby, H. H., Ahmed, M. A. E. S., & Salama, T. R. A. (2025). Impact of climate change education on older adults' knowledge, attitudes, practices, and health outcomes: A quasi-experimental study. *Educational Gerontology*, 51(11), 1–14. <https://doi.org/10.1080/03601277.2025.2584317>

Older adults are among the most vulnerable to the impacts of climate change, but climate education to mitigate these risks remains understudies. This study evaluates the efficacy of a

curriculum on knowledge, practices, and attitudes around climate change targeted towards older adults. Pre-curriculum levels of knowledge were poor and improved substantially after finishing the course. Attitudes and environmentally friendly practices also improved, especially for those with pre-existing health issues. The findings suggest that climate literacy among older adults can be improved through targeted climate education interventions.

Marlon, J., Neyens, L., Everett-Lane, B., Rosenthal, S. A., Maibach, E., & Leiserowitz, A. (2022). How do climate change views differ by generation? *Generations*, 46(2), 1–11. <https://www.jstor.org/stable/48697105>

It is often assumed that younger Americans are more engaged with the issue of climate change than older Americans. Nationally representative survey data, however, indicate that differences in partisanship and race are more pronounced than differences in age. A notable exception is younger Republicans. Younger Republicans, including Gen Z, Millennials, and Gen X, are more likely than Boomers and older Republicans to think that global warming is happening and caused by human activities, that there is a strong scientific consensus, and to support policies to address it.

Milfont, T. L., Zubielevitch, E., Milojev, P., & Sibley, C. G. (2021). Ten-year panel data confirm generation gap but climate beliefs increase at similar rates across ages. *Nature Communications*, 12(1), 4038. <https://doi.org/10.1038/s41467-021-24245-y>

Accumulating evidence indicates that climate change awareness and concern has increased globally, but commentators suggest a climate change generation gap whereby younger people care more about climate change than older people. This study used a decade of panel data from New Zealanders to test whether belief that “Climate change is real” and “Climate change is caused by humans” increased from 2009–2018; and whether changes are uniform across age-cohorts. Results confirm a generation gap in mean climate change beliefs but not in over-time increase. The generation gap occurs because older cohorts started from a lower initial belief level in 2009, but all age cohorts increased their belief level at a similar rate over the last decade; and these results were not qualified by respondents’ gender. The findings offer hope for collective action that bridges efforts across generations.

Moody, H. R. (2014). Overcoming objections by elders to action on climate change. *International Journal of Aging and Human Development*, 80(1), 64–75. <https://doi.org/10.1177/0091415015591110>

There’s an old joke asking why the American people don’t act in response to a big challenge: Are they ignorant or apathetic? The answer is “I don’t know and I don’t care.” Joking aside, there is a serious question about why people resist truths about climate change. The massive threat of climate change has been described as the greatest moral challenge of our age. Environmentalism has clearly been identified as an issue for the aging population, yet it is almost never discussed at meetings of groups advocating for older people. Is that because they are ignorant or apathetic?

Moser, S. C. (2017). Never too old to care: Reaching an untapped cohort of climate action

champions. *Public Policy & Aging Report*, 27(1), 33–36. <https://doi.org/10.1093/ppar/prw029>

Numerous studies of U.S. audiences have examined people’s opinions about anthropogenic climate change and possible response options. Typically, they find that younger adults tend to be more interested in climate change than older people, on average are more concerned, and want to see actions to reduce greenhouse gas emissions and prepare for the impacts of climate change. These insights have led some to either deliberately or unconsciously write off older Americans in terms of targeted engagement. Concern is lower, and due to a shorter remaining lifespan, motivation to fight for a livable future may also be lower. On the other hand, many members of the older age groups are said to hold firm values about civic engagement, vote in greater numbers than younger Americans, and have more time to give to climate activism. So, is it really justified to ignore older Americans when it comes to engaging people on climate change?

Murphy, S. (2021). Climate change and political (in)action: An intergenerational epistemic divide? *Sustainable Environment*, 7(1), 1951509. <https://doi.org/10.1080/27658511.2021.1951509>

This article examines the constructed narrative that there is an epistemic intergenerational divide on the topic of climate change, climate science, and the political actions necessary to address the most urgent threats. Analyzing publicly available social media data, it traces the amplification of youth voice during 2019 and the emergence of this narrative. Through a process of critical analysis, it argues that the constructed narrative of an intergenerational epistemic divide is misleading, and youth voices are subject to structural forms of epistemic injustice and exclusion in climate action deliberations and policy making. However, it finds that voters and older generations are also subject to similar forms of exclusion. This analysis points to the political-economy climate justice factors influencing the debate, with the real points of contention resting at the science-policy interface and what happens when scientific evidence is refracted through dominant political ideologies and translated into policy.

Ni, Q., Dong, H., Kaniadakis, A., Wang, Z., & Ge, C. (2025). Investigating older adults’ response to climate change. *International Journal of Environmental Research and Public Health*, 22(2), 154–154. <https://doi.org/10.3390/ijerph22020154>

With the rise in youth-led climate advocacy, older adults have had less opportunities to feel a sense of inclusion in the climate movement. Focus groups in West London showed that when it comes to climate education and encouraging environmentally-friendly behavior, considering the specific audience of older persons is crucial. Older adults generally preferred simple language over specialized terms like ‘net-zero.’ Communicating real, lived experiences and intergenerational perspectives also emerged as key talking points in building climate awareness and encouraging action. Elders reported some of their own low-carbon habits, such as using public transport, but acknowledged financial and mobility limitations as barriers to further decreasing their footprint. They felt frustrated by a lack of clear climate policy that assists individuals and businesses in becoming more sustainable. These findings highlight the importance of clear communication of climate risks and policy through traditional media channels.

Otto, S., & Kaiser, F. G. (2014). Ecological behavior across the lifespan: Why environmentalism increases as people grow older. *Journal of Environmental Psychology*, 40, 331–338. <https://doi.org/10.1016/j.jenvp.2014.08.004>

The positive relation between age and ecological behavior is virtually unchallenged and widely corroborated. Nevertheless, there is no theoretical account in the literature to explain why people engage in environmental protection at higher levels as their lives progress. However, knowing the origins of behavior change is crucial. The authors compared two alternative theoretical explanations: maturation versus learning. They found that learning rather than maturation explained the relation between age and self-reported ecological behavior. The more exposed people are to information that deals with environmental-conservation-relevant topics, the more pronounced their ecological engagement.

Pillemer, K. A., Nolte, J., & Tillema Cope, M. (2022). Promoting climate change activism among older people. *Generations*, 46(2), 1–16. <https://www.jstor.org/stable/48697100>

Older adults are vulnerable to the effects of climate change, but they represent an enormous resource in efforts to prevent and mitigate its impact. This article summarizes the benefits and barriers associated with environmental activism by older adults. Benefits include enhancing older adults' health, self-efficacy, and generativity, and providing volunteers for environmental organizations and communities. Barriers to widespread engagement of older adults include their lower levels of support for pro-environmental policies and less concern about climate change, and their systematic lack of access to environmental volunteer opportunities. It also outlines efforts to mobilize climate change activism targeted to elders, and addresses barriers grounded in ageism.

Ross, A. D., Rouse, S. M., & Mobley, W. (2019). Polarization of climate change beliefs: The role of the millennial generation identity. *Social Science Quarterly*, 100(7), 2625–2640. <https://doi.org/10.1111/ssqu.12640>

This article explores how the Millennial generation identity affects political polarization of climate change belief, specifically how it mediates the relationship between party affiliation and educational attainment. The authors found that Millennials are more likely to believe in the evidence of climate change and its anthropogenic causes than older adults of their same party affiliation. Unlike older adults, the most educated Millennials are not the most likely to adhere to political party stance; rather, it is among the least educated Millennials that party sorting is most evident. This indicates that important distinctions exist between Millennials and older adults in the evaluation of climate change opinion and related policies.

Salma, J., Ali, S. A., Tilstra, M. H., Tiwari, I., Nielsen, C. C., Whitfield, K., Jones, A., Vargas, A.O., Bulut, O., & Yamamoto, S. S. (2022). Listening to older adults' perspectives on climate change: Focus group study. *International Health Trends and Perspectives*, 2(3), 1–15. <https://doi.org/10.32920/ihtp.v2i3.1697>

This study explores climate change knowledge, attitudes, and experiences of community-dwelling older adults in Alberta, Canada who participated in six focus groups. A thematic

data analysis helped identify three key themes synthesized from participants' narratives: making sense of climate change; lack of leadership in managing climate change; and actions to address climate change that include an emphasis on individual responsibility and valuing the contributions of older adults. The results indicated that older adults vary in their climate change literacy and levels of concern about climate change but share a commitment to environmental stewardship and community wellbeing. Expanding opportunities for older Canadians to learn about climate change and engage in climate initiatives would benefit this population and the climate change movement.

Squires, S. (2019). Do generations differ when it comes to green values and products? *Electronic Green Journal*, 1(42). <https://doi.org/10.5070/G314239436>

This study investigates the environmental beliefs of three generations (Millennials, Generation Xers, and Baby Boomers) to discover whether their stated beliefs match their actions in regards to green purchases. Results from the study indicate that Baby Boomers were the most environmentally friendly generation. However, there was no statistically significant difference in the types of items purchased by the three generations, and Baby Boomers only slightly outpaced the other two generations in the quantity of green items purchased. This research expands on existing work in the areas of generational cohorts and green products.

Swim, J. K., Aviste, R., Lengieza, M. L., & Fasano, C. J. (2022). OK Boomer: A decade of generational differences in feelings about climate change. *Global Environmental Change*, 73, 102479. <https://doi.org/10.1016/j.gloenvcha.2022.102479>

The emergence of concern about and evidence of climate change has been argued to create a cultural milieu unique to the Millennial generation. The present research tested: claims of unique angst about climate change among younger versus older generations; growing generational discrepancies over time in emotions about climate change; generational differences for several emotions about climate change; and the implications of these emotions for motivating people to discuss climate change with others. Survey data document greater increases in worry about climate change and, to a lesser degree, anger and guilt about climate change, within the two youngest generations relative to changes among Generation X, Baby Boomers, and the Silent and Greatest Generations. Over ten years, these differential shifts in emotions explain more substantial increases in the frequency of discussing climate in the youngest generations.

Wiernik, B. M., Ones, D. S., & Dilchert, S. (2013). Age and environmental sustainability: A meta-analysis. *Journal of Managerial Psychology*, 28(7–8), 826–856. <https://doi.org/10.1108/JMP-07-2013-0221>

Research has shown that individuals of different ages hold different environmental attitudes and perform environmental behaviors of different kinds and to varying degrees. The strength and direction of age-effects observed across studies has been inconsistent, however. This study aims to examine the relationship between age and a variety of environmental sustainability-related psychological variables using meta-analytic techniques. Small but generalizable relationships indicated that older individuals appear to be more likely to

engage with nature, avoid environmental harm, and conserve raw materials and natural resources. The present study helps to dispel erroneous stereotypes and guide organizations to implement effective environmental interventions.

Wright, S. D., Caserta, M., & Lund, D. A. (2003). Older adults' attitudes, concerns, and support for environmental issues in the “new West”. *International Journal of Aging and Human Development*, 57(2), 151–179. <https://doi.org/10.2190/y73y-0rk9-rp0j-e7hh>

The natural environment has been a missing topic from education and public policy forums concerning an aging society. This study examines demographic trends and several socio-demographic influences on attitudes, concerns, and active support for environmental issues among older adults in a retirement “hot spot” in the New West. A sample of older adults in southwestern Utah. The authors found a high degree of variability among respondents in regard to environmental attitudes and concerns. Despite a personal attitudinal desire to protect the environment, most older adults did not want to become involved in protective actions for the environment. The authors found that residency status and religious affiliation emerged as the strongest relationships with measures of attitudes and concerns, and willingness to support the environment. The most influential factors associated with willingness to take action in support of the environment were having higher levels of active/social concerns, and higher levels of awareness of environmental consequences.