

WHO IS SCARED OF THE CLIMATE CRISIS – AND WHO JUST DOESN'T CARE?

Climate Emotions and Their Significance
for Environmental Attitudes and Behaviour in Japan



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Japan: Carbon- neutral in 2050?

Goal for 2030:
Cut GHG emissions by
46% compared to 2013.



On October 26, 2020, then-Prime Minister Yoshihide Suga announces Japan's adjusted climate goal in parliament. | TBS News Youtube Channel

Climate Change Performance Index (CCPI 2026)

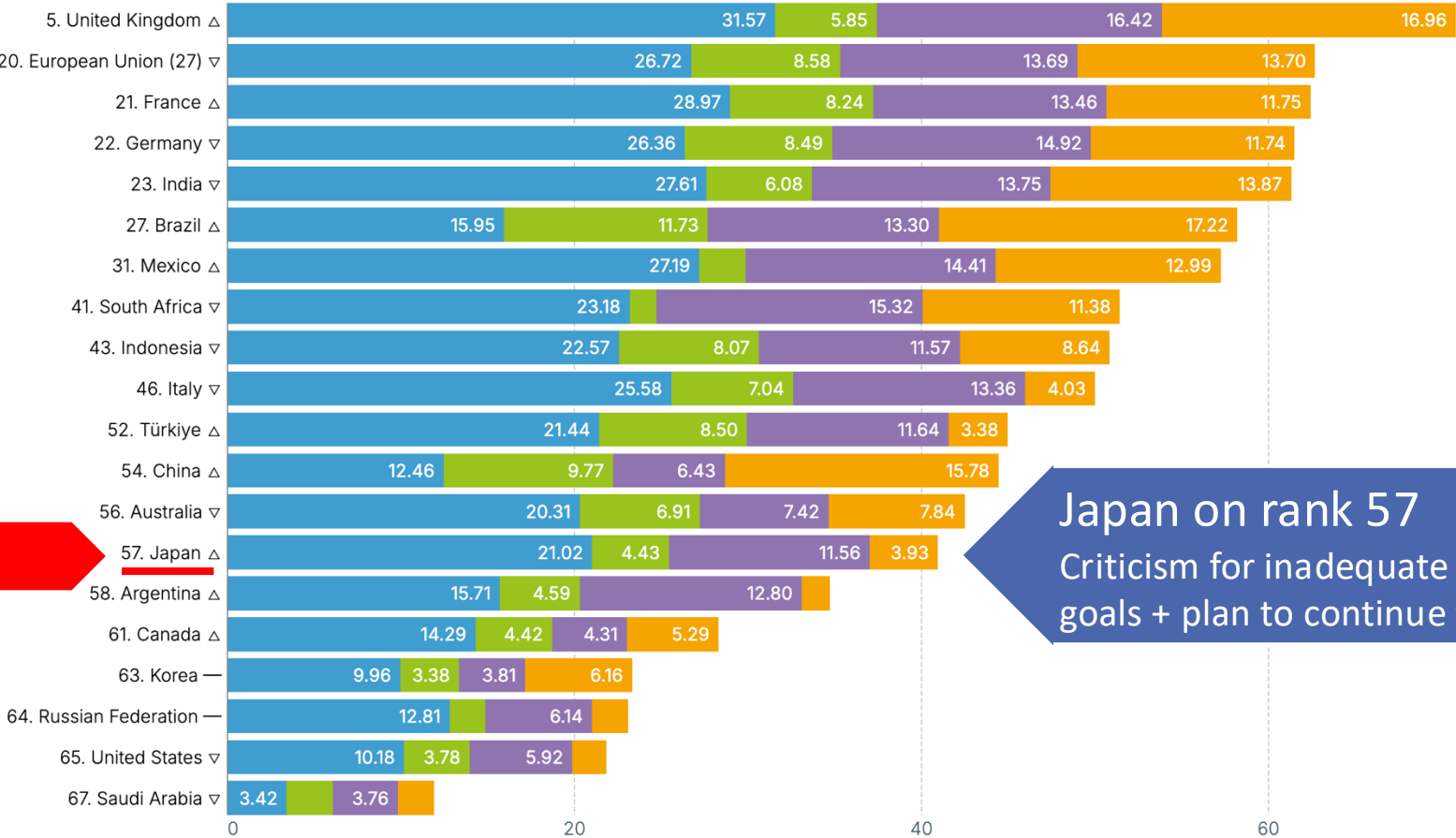
CCPI Ranking 2026

made with 23° | reuse statistic

Select Country Group ▾

Select Category ▾

GHG Emissions - 40% weighting Renewable Energy - 20% weighting Energy Use - 20% weighting Climate Policy - 20% weighting



Japan on rank 57
Criticism for inadequate policy roadmap to achieve climate goals + plan to continue the use of fossil fuels (coal).

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Impact of climate change increasingly tangible

Recent spate of wildfires in Japan and South Korea linked to climate change



Smoke and flames rise from a wildfire in Andong, South Korea, on Tuesday. | YONHAP / VIA REUTERS

BY TOMOKO OTAKE
STAFF WRITER

SHARE/SAVE Mar 26, 2025

Source: Japan Times, March 26, 2025:

<https://www.japantimes.co.jp/news/2025/03/26/japan/science-health/wildfire-climate-change/>

Japan suffers through its hottest summer on record

THE ASAHI SHIMBUN

September 1, 2025 at 18:28 JST

Source: Asahi Shimbun, Sept 1, 2025:

<https://www.asahi.com/ajw/articles/16000901>

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Pedestrians battle the heat in Tokyo's Chuo Ward on Aug. 31. (Minori Oshita)



Japan just experienced its hottest summer on record.

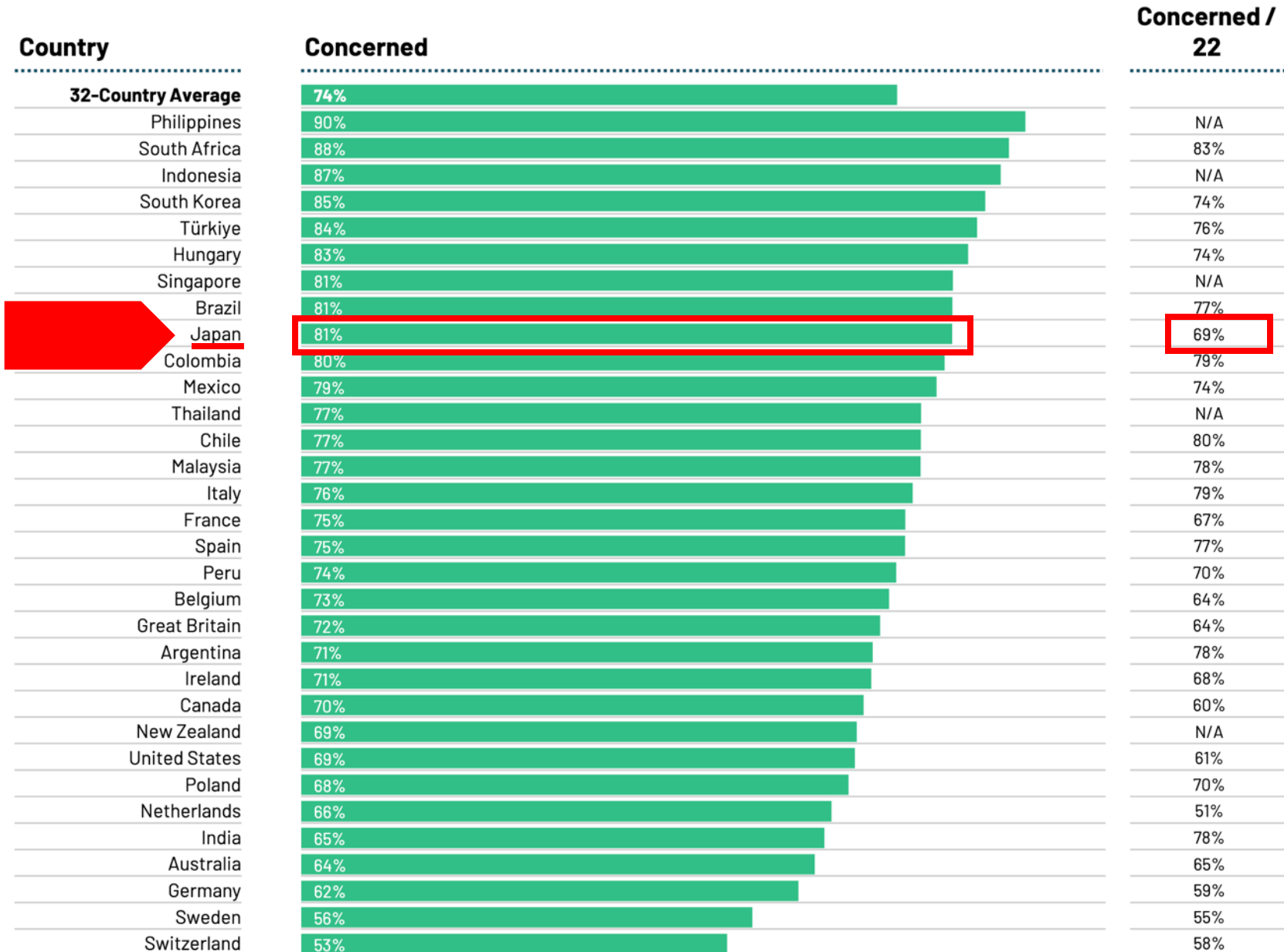
The record high national average temperature from June to August was 2.36 degrees hotter than average, the Japan Meteorological Agency said Sept. 1, without providing the figure.

It was the third straight record for summer heat, but it also indicated that the rise in temperatures could be speeding up.

Hommerich & Neckel, Nov 20, 2025

How concerned are you about the impact of climate change that are already being seen in Japan?

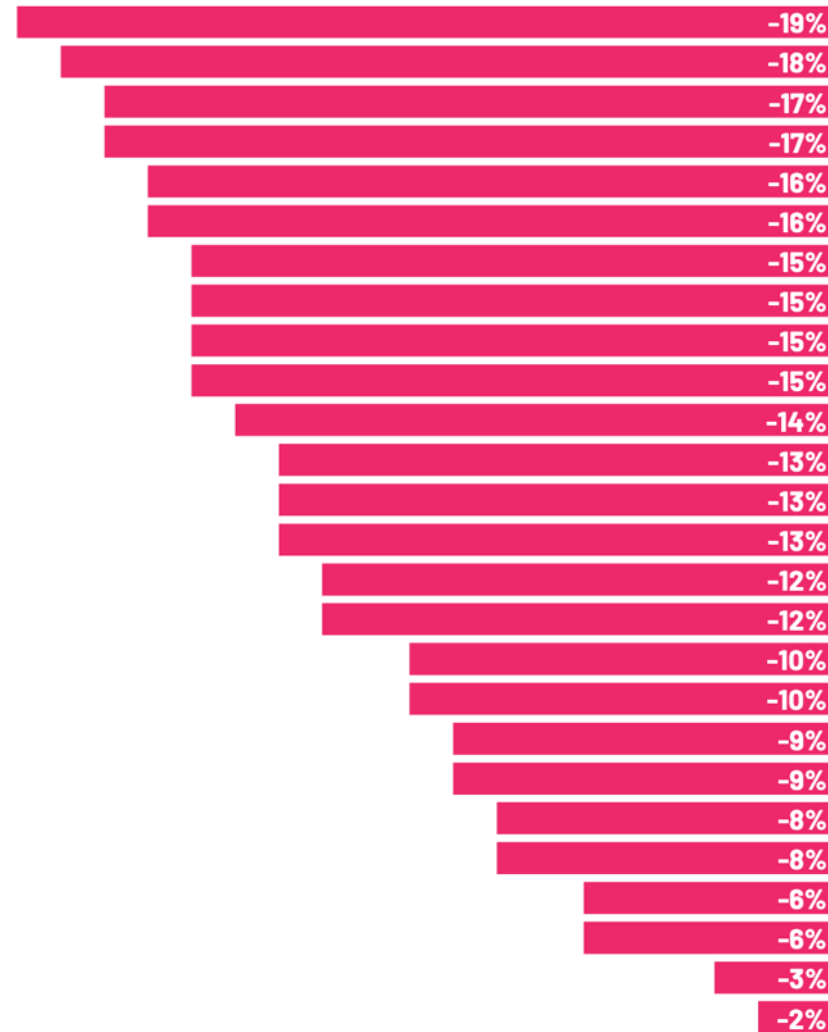
81% (2025)
69% (2022)



Perceived
urgency to
combat climate
change is
waning

Q: If individuals like me do not act now to combat climate change, we will be failing future generations. Change in net agree between 2021 and 2025

% decline in those who agree in 2025

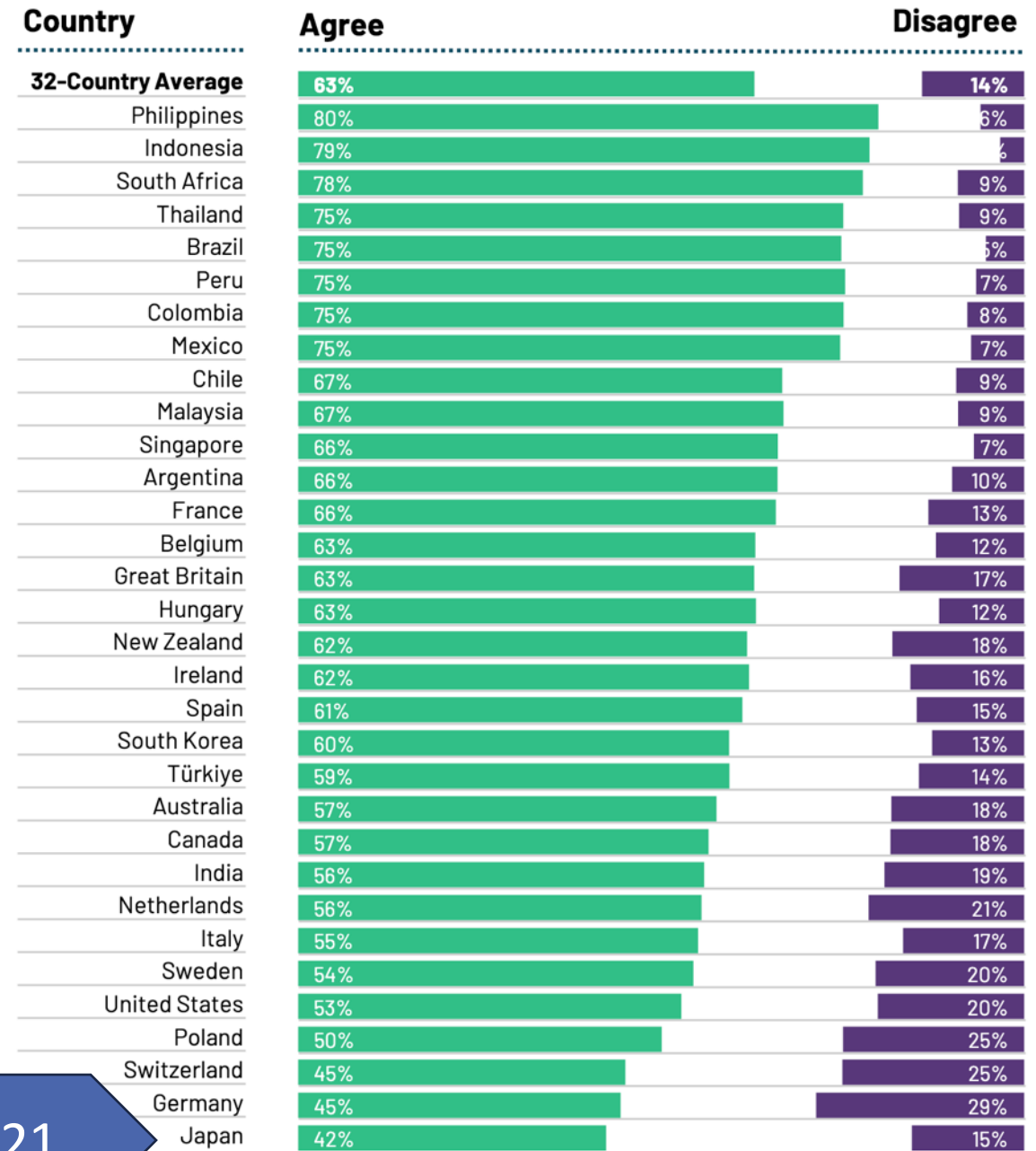


Country

Japan
Poland
Türkiye
United States
Chile
Germany
France
Spain
Sweden
India
Belgium
Peru
Hungary
Australia
South Africa
Great Britain
Colombia
Switzerland
South Korea
Italy
Argentina
Malaysia
Canada
Netherlands
Mexico
Brazil

40% agree
(lowest of all surveyed
countries)

If Japan's government does not act now to combat climate change, it will be failing the people of Japan.



Down from 70% in 2021

Data: Sophia University Climate Survey 2025

Mode = Online survey

Sample size = 5,000 respondents

Population = Members of an online survey panel (Neo Marketing), aged 15 to 74.

Sampling method = Quota for age, gender, prefecture, proportional to the Basic Resident Register (as of Jan 1, 2024).

Survey period = Aug 27 – Sep 1, 2025

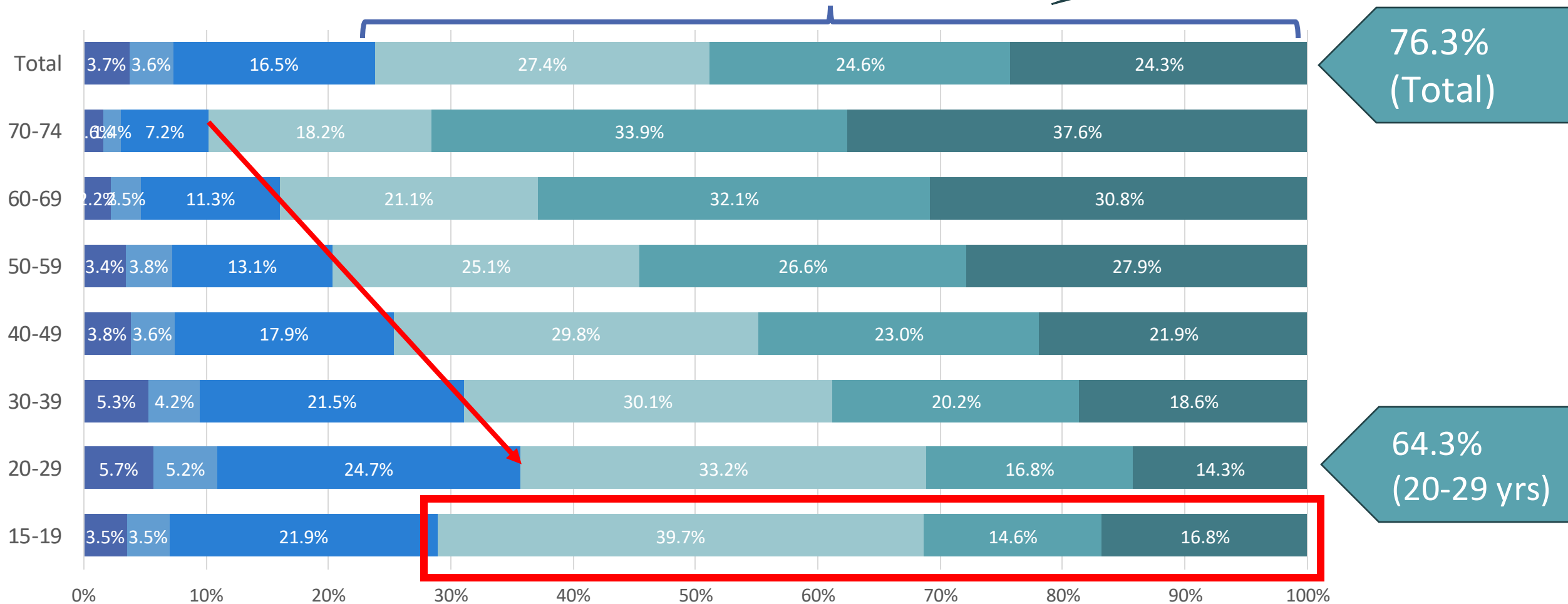
Carried out as part of research project *“The Individual as Driver of the Green Shift. An Analysis of Environmental Attitudes and Willingness to Support Climate Change Mitigation Measures in Japan”*, funded by Sophia University.

We will shortly publish a data report.

Please get in touch, in case you would like to be notified of its publication: hommerich@sophia.ac.jp

How concerned are you about climate change?

1 (not concerned at all) 2 3 4 5 6 (very concerned)



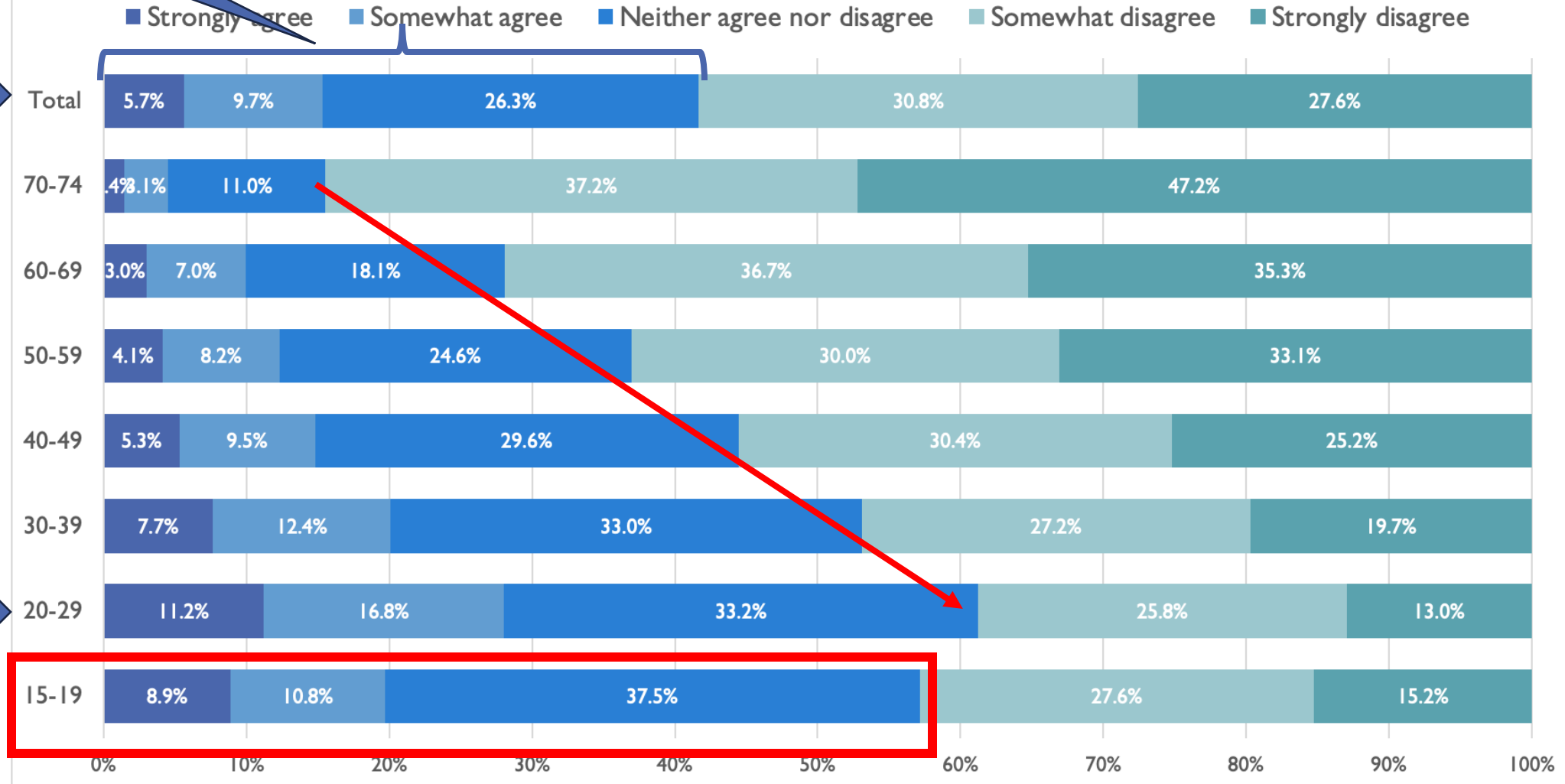
Notes: Age-group differences significant ($p < .001$).

Not interested

I am not very interested in climate change.

Total = 41.7%

20-29 yrs =
61.2%



A satellite image of Japan, showing the main islands and surrounding waters, positioned on the left side of the slide.

Research questions

- What explains these seemingly paradoxical reactions?
- Which parts of the population care about climate change (and which do not)?
- How are cognitive and emotional perceptions of the climate crisis related to pro-climate behaviours?

‘Concern’ and ‘interest’ – different concepts

Interest

- Calls for information and knowledge
- Cognitive category
- Necessary but not sufficient condition for climate-friendly behavior
- Environmental knowledge important, but only partially translated into conduct

Concern

- Expression of a personally felt sense of being affected
- Emotion category
- Increasing likelihood of environmental awareness
- ‘Signaling function’ (Sigmund Freud) of emotions
- Indicate personal significance – motivate human behavior

Climate emotions

- Personal access to realization of climate crisis and ecological emergency
- Anchor abstract insights into personal consciousness
- Affective impulse for willingness to behavioral change
- Emotionality of climate discourses no indication of their irrationality
- Fear and anxiety, guilt and shame, grief and mourning

Based on:

Neckel, S. & M. Hasenfratz. 2021. Climate emotions and emotional climates: The emotional map of ecological crises and the blind spots on our sociological landscapes. *Social Science Information* 60(2): 253-271.



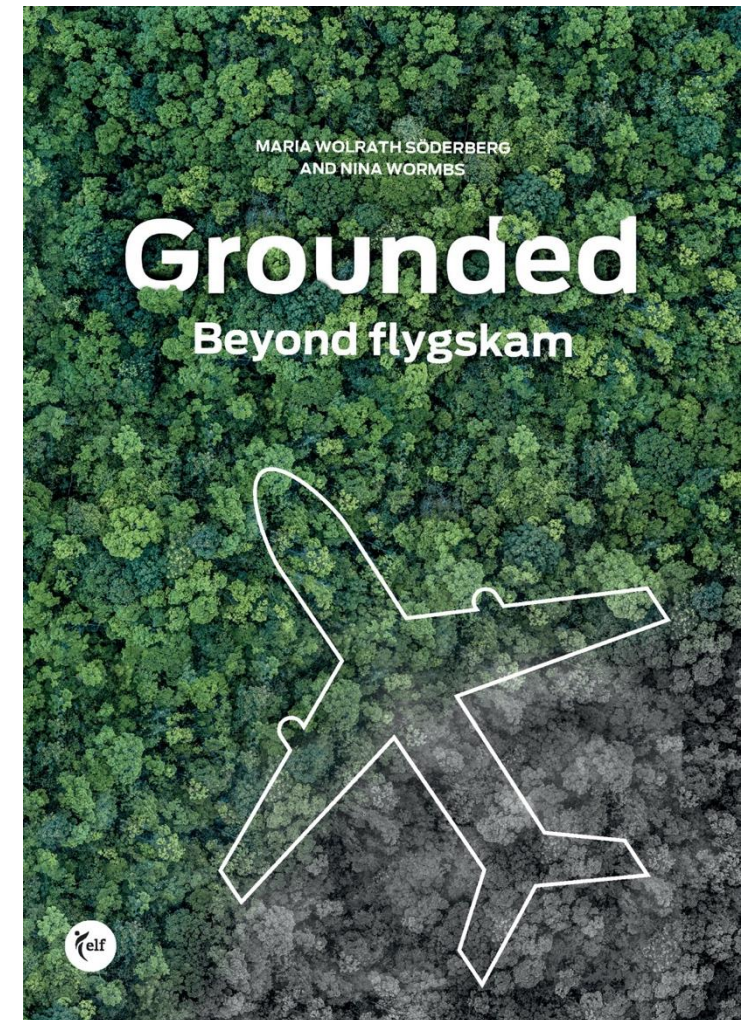
Fear and anxiety

- Anticipation of dangers to which actors feel helpless against
- Bearing anxiety – facing reality
- Heat waves, droughts, bushfires, floods, hurricanes
- Trigger inner compulsion to realize dangers of climate change
- Encourage engagement with issue of global warming



Shame and guilt

- Violations of norms become known to relevant others
- ‘Fear of being shamed’ (David Riesman): danger of losing respect and social bonds with peers
- ‘Flight shame’ – triggered by consequences of air travel for third parties
- Desire to behave consistent with own demands
- Spread of ecological norms among peers impact reasoning about flying



Grief and mourning

- Pain over the loss of the irreplaceable
- Not only directed to loss of loved ones but also to losses of natural habitats
- Landscapes, forests, lakes, glaciers, animal life, plants, seasons
- Feelings of loss of cultural identity and 'ecological homelessness'
- Melancholic moods and nostalgia



DISPATCH HOW TO MOURN A GLACIER

In Iceland, a memorial ceremony suggests new ways to think about climate change.

By Lacy M. Johnson
October 20, 2019

Along the western edge of Iceland's central highland plateau, in the far east of the Borgarfjörður district, the Kaldidalur, or "cold valley," stretches twenty-five miles between two barren volcanic ridges: the Prestahnúkur system to the east and the Ok volcano to the west. These volcanoes form part of the



Analysis

Research question

Which parts of the population care about climate change (and which do not)?

How are cognitive and emotional perceptions of the climate crisis related to climate-friendly behaviours?

OLS regressions (mediation model)

Dependent variable: **climate-friendly behaviours**

Independent variables: **climate knowledge, climate emotions**

Controls: gender, age, marital status, having children, education, urban-rural residence, subjective social status

Climate-friendly behaviour

Composite index of seven climate-friendly behaviours

- I refuse excessive packaging and bring my own shopping bags when I shop.
- I separate bottles, metals, plastics, newspapers, etc. for recycling (resource reuse) through waste collection and similar activities.
- I carry my own reusable bottle or cup.
- I make a conscious effort to eat less meat.
- I avoid buying fast fashion (e.g. Uniqlo, GU, Shein).
- I turn off lights and gas frequently to save energy.
- I try to reduce water waste.

5-point scale, 1 = “never”, 5 = “always”

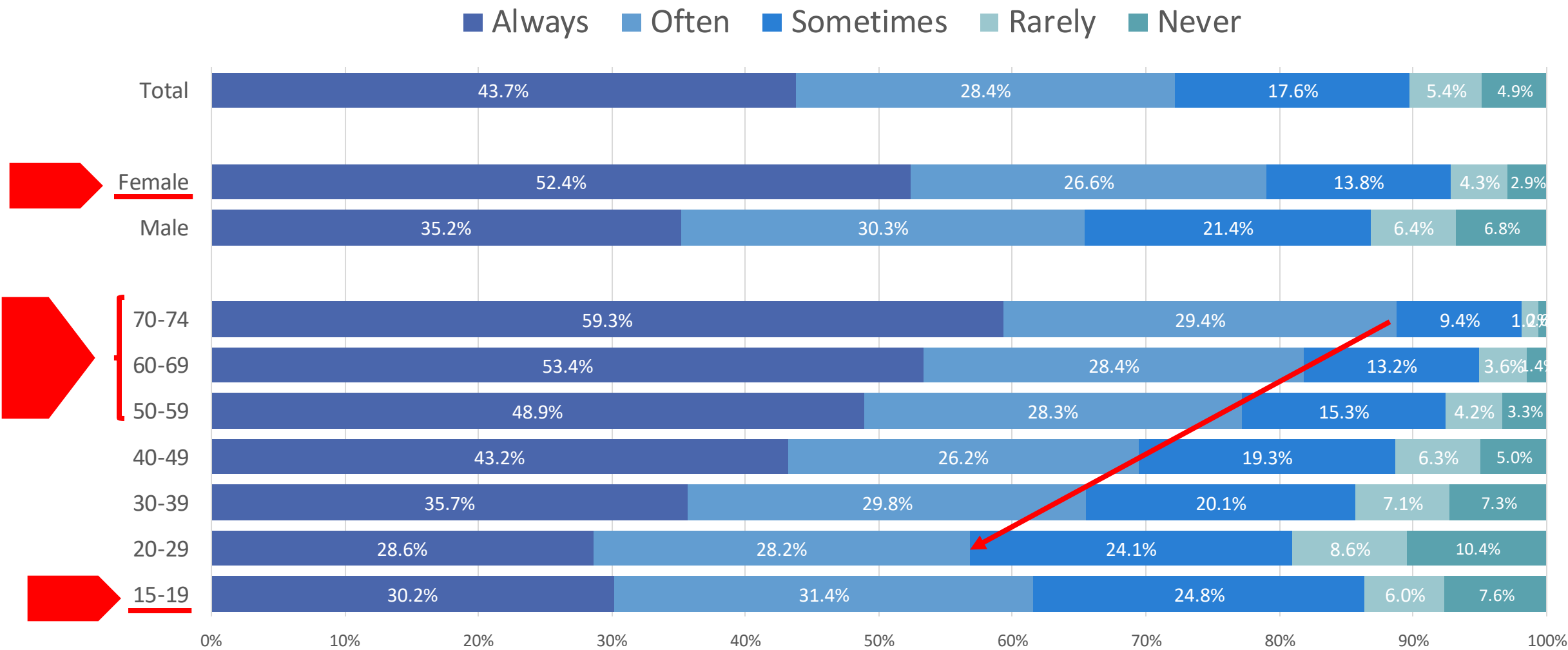
More likely to engage in climate-friendly behaviour:

- Women
- Older age groups
- Post-secondary education

Least likely:

- Age group 20-39 years
- Very rural residence area

I refuse excessive packaging and bring my own shopping bags when I shop.

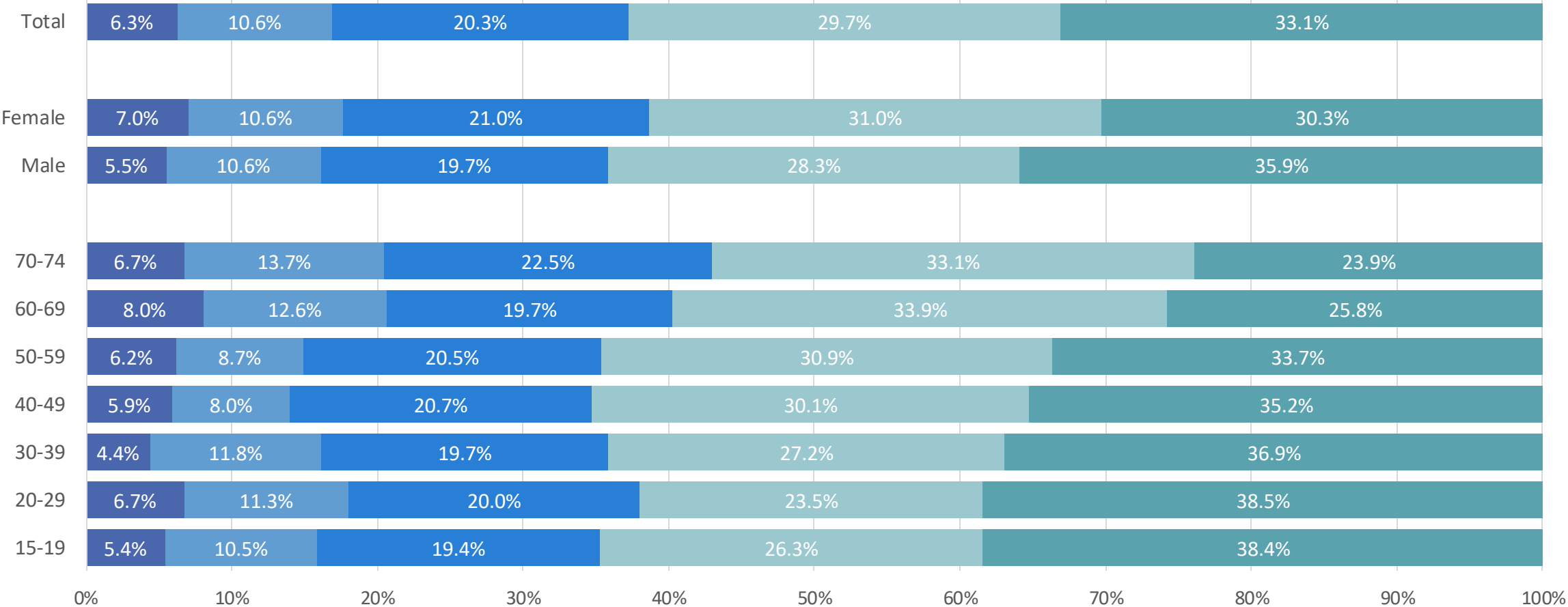


Notes: Gender + age-group differences significant (p < .001).

Differences less pronounced + not linear by age. Probably less relevant for older respondents.

I avoid buying fast fashion (e.g. Uniqlo, GU, Shein).

Always Often Sometimes Rarely Never



Climate knowledge

Composite index of climate knowledge (0-1)

1. Most of the current climate change is due to greenhouse gases generated by human activity. (True)
2. Rise in sea levels and droughts increase as a consequence of climate change. (True)
3. Because of climate change, certain plants and animals will become extinct. (True)

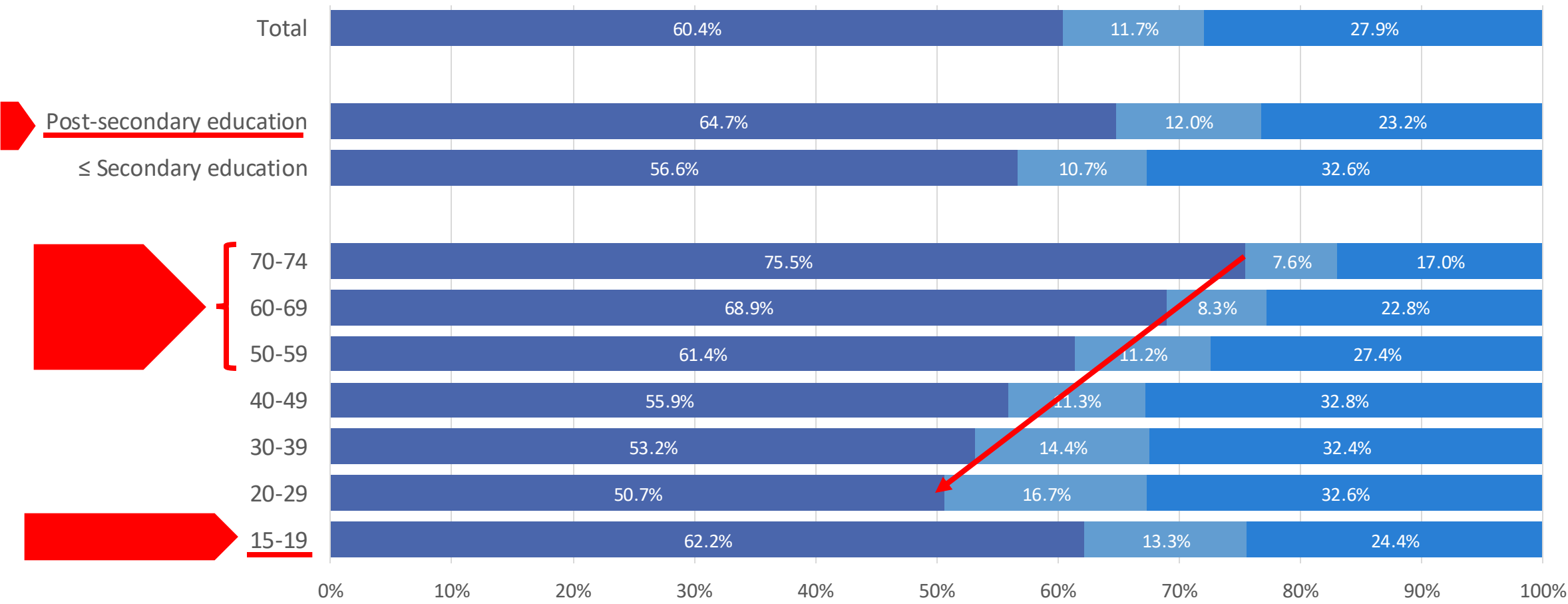
Answer options: "True", "False", "Don't know"

Likely to have more climate knowledge:

- Youngest (15-19 year-olds) + older age groups
- Post-secondary education

Most of the current climate change is due to greenhouse gases generated by human activity.

■ true (correct answer) ■ false ■ don't know



Notes: Education + age-group differences significant (p < .001).Hommerich & Neckel, Nov 20, 2025

Climate emotions

Composite index of nine climate emotions

1. I worry about the next generation because they will be drastically affected by climate change.
2. I am terrified by how many things have changed in just a few years because of climate change.
3. I feel a sense of loss because of climate change impacts that are becoming apparent in my local area.
4. I feel guilty about the fact that my lifestyle is in part responsible for climate change.

5-point scale: 1 = “strongly disagree”, 5 = “strongly agree”

5. How anxious do you feel about the impact of climate change on life in Japan?

5-point scale: 1 = not anxious at all, 5 = very anxious

Climate emotions (continued)

Climate nostalgia (Japan-specific items)

6. Due to climate change, I feel that landscapes and natural sounds (such as the sound of cicadas or the murmuring of rivers) are being lost.
7. I feel sad when I think that, due to changes in nature, future generations may never be able to see 'the seasonal landscapes' that appear in old stories and traditions.
8. I feel heartache when I think future generations might not know the Japan I grew up in.
9. I feel sad thinking about the loss of cultural practices rooted in the seasons.

5-point scale: 1 = “strongly disagree”, 5 = “strongly agree”

Who is more worried about climate change:

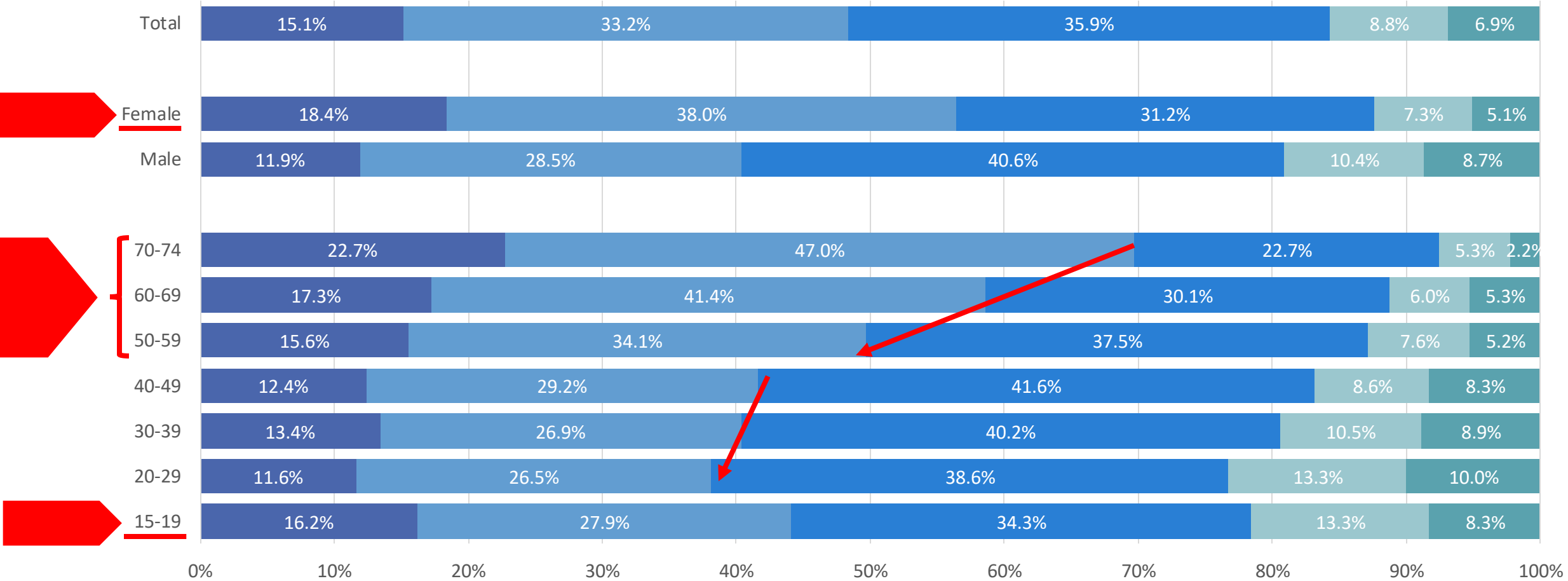
- Women
- Youngest (15-19) + older age groups (50+)

Slightly more worried:

Higher education + parents

I worry about the next generation
because they will be drastically affected by climate change.

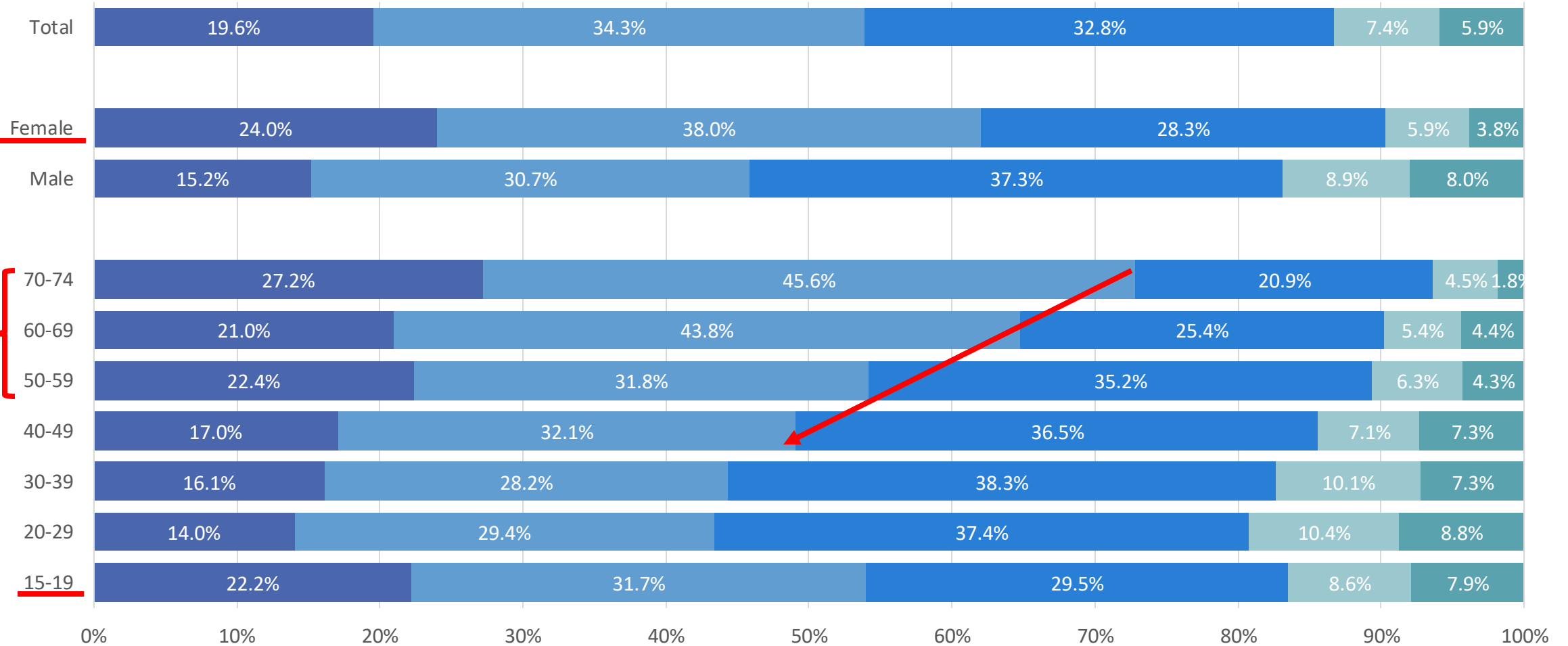
Strongly agree Somewhat agree Neither agree nor disagree Somewhat disagree Strongly disagree



Notes: Gender + age-group differences significant ($p < .001$).

I am terrified by how many things have changed in just a few years because of climate change.

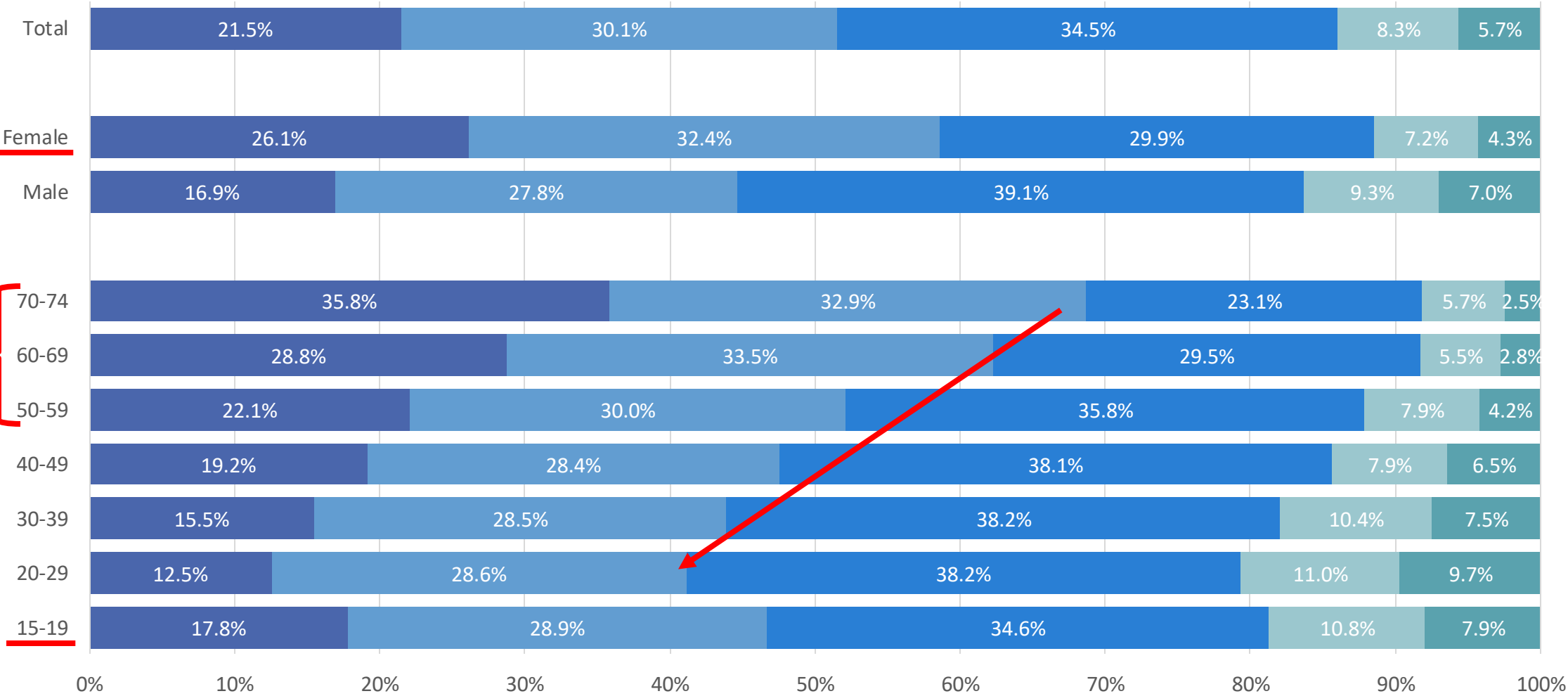
Strongly agree Somewhat agree Neither agree nor disagree Somewhat disagree Strongly disagree



Notes: Gender + age-group differences significant ($p < .001$).

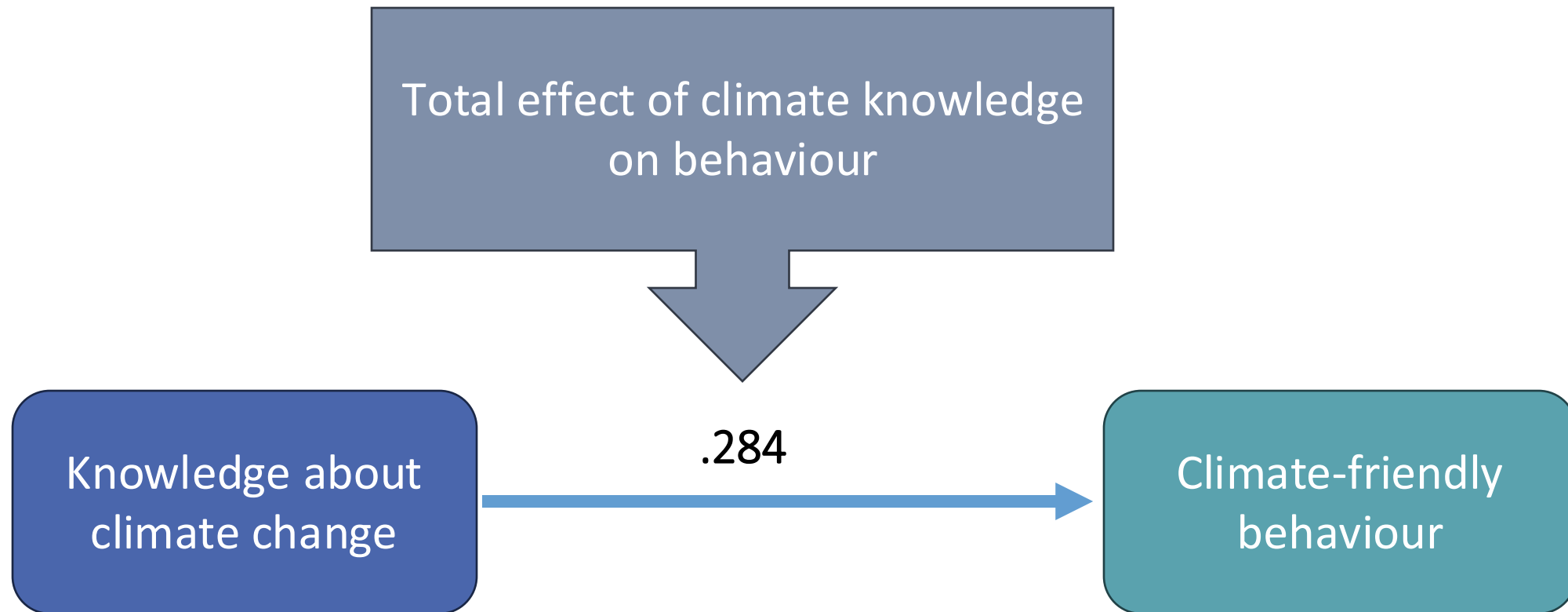
Due to climate change, I feel that landscapes and natural sounds
(such as the sound of cicadas or the murmuring of rivers) are being lost.

Strongly agree Somewhat agree Neither agree nor disagree Somewhat disagree Strongly disagree



Notes: Gender + age-group differences significant ($p < .001$).

Effect of climate knowledge on climate-friendly action

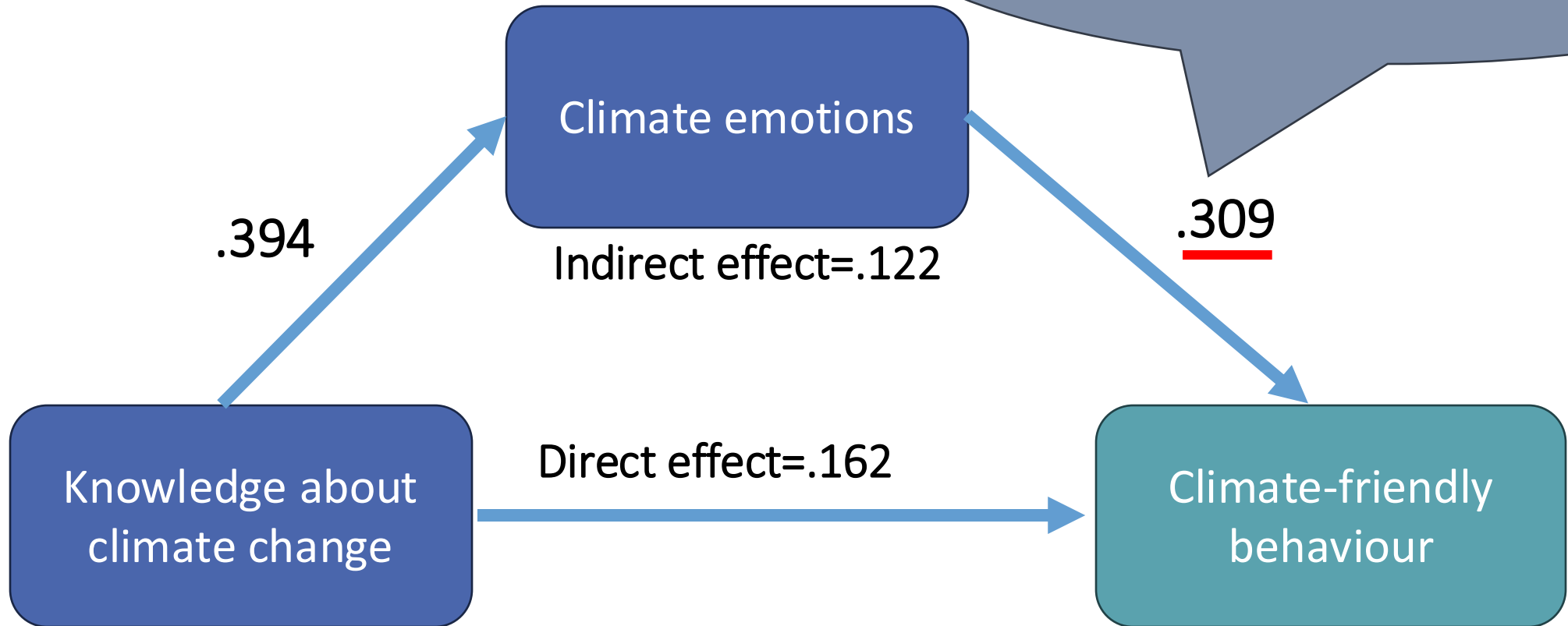


Standardized coefficients (β) are shown.

$n = 4,910$; adj. $R^2 = 19.7$; $F(21, 4,888) = 58.21$, $p < .001$.

Controls: Gender, age, education, marital status, having children, urban-rural residence, subjective social status

Adding Climate Emotions: Mediation Model



Standardized coefficients (β) are shown.

$n = 4,910$; $\text{adj. } R^2 = 27.2$; $F(22, 4,887) = 84.19$, $p < .001$.

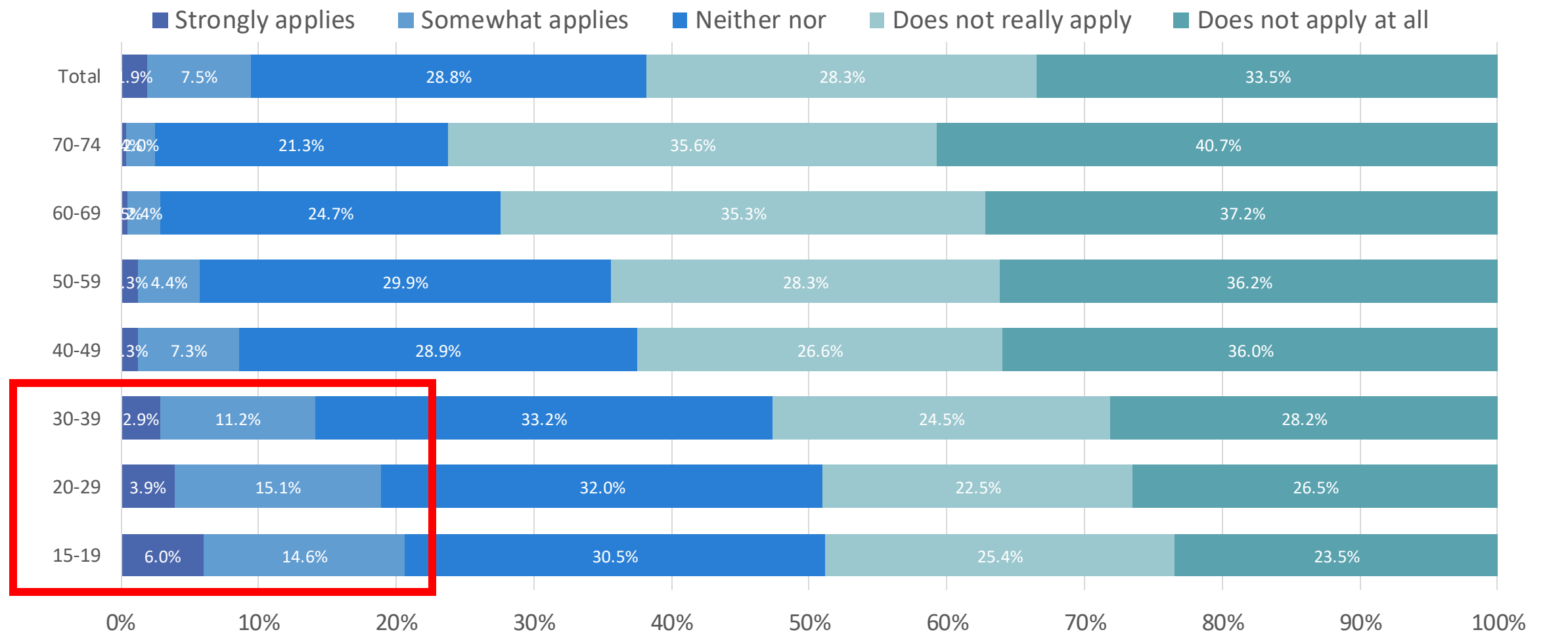
Controls: Gender, age, education, marital status, having children, urban-rural residence, subjective social status

Climate-friendly behaviour as embarrassment?

- The same emotions, which in some sociocultural contexts may encourage climate-friendly behaviour – like shame – can be a hindrance in others.
- Especially young respondents named “feeling embarrassed” as a reason for not engaging in climate-friendly behaviour. They did not want to be seen as “someone overly conscious or radical”.
- Climate-friendly behaviour perceived as norm-violation among peers?

To what extent do the following reasons prevent you from making climate-friendly choices?

I would feel embarrassed if others around me would find out about doing such activities.



Notes: Age-group differences significant ($p < .001$).

Conclusion

Who does/does not care about the climate crisis?

- A large majority is concerned about climate change (76%), but interest has weakened over the past few years.
- **Climate knowledge:** Higher among older adults (50+) and youngest (15-19), those with post-secondary education.
- **Climate emotions:** Higher among women, older adults (50+) and youngest (15-19), those with post-secondary education, those who have children.
- **Interest in climate change** is lower among people with lower interest in politics, who don't like to spend time in nature, choose entertainment over news, who use and trust SNS more.
- **Young adults (20–39):** Lowest concern and the lowest interest, lower climate knowledge and emotions, are less likely to engage in climate-friendly behaviour.

→ **The youngest group (15-19) may be profiting from more focus on climate change in schools?**

Conclusion

What role do climate emotions play?

Both **climate knowledge** and **climate emotions** are linked to climate-friendly behaviour.

- Knowledge matters, and part of its impact is activated through climate emotions.
- Climate emotions have a strong independent effect — people who feel more emotional engagement take more action, even when they have the same level of climate knowledge.

Japan-specific findings

Some emotions (shame, embarrassment) can discourage climate-friendly behaviour.

Climate emotions are deeply tied to cultural identity, including feelings of loss and nostalgia about landscapes, seasons, and traditions

High concern – low interest: the puzzle revisited

- People in Japan are highly concerned about climate change, yet many are not truly interested or engaged.
- Our data show that knowledge matters, but emotional engagement transforms understanding into action.
- Climate change as a threat to something deeply meaningful — the landscapes, seasonal rhythms, and cultural identity tied to nature.
- If communication could tap into these emotional connections, could we turn concern into genuine interest, and interest into climate action?
- We would love to hear your thoughts on this.

Thank you for your attention!

Comments and suggestions are very welcome.

We will shortly publish a data report. Please get in touch, in case you would like to receive it:
hommerich@sophia.ac.jp

Acknowledgments

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