

Propelling Climate Action:

Illuminating the Climate Era Mindset



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The most urgent problems of our world today are the problems we have made for ourselves ... They are human problems whose solutions will require us to change our behavior and our social institutions.

Dr. George Miller, Psychologist For over a century, the combustion of fossil fuels along with unsustainable energy and land practices have contributed to a global warming of at least one degree Celsius above pre-industrial levels.

This has led to a rise in the occurrence and severity of extreme weather events, causing detrimental effects on both the environment and individuals across every region of the world.

Accelerated action is urgently needed to face this crisis.

To reach the collective target of limiting global warming to 1.5 degrees or lower, **unprecedented changes are required of governments, industry, and citizens.**

The Intergovernmental Panel on Climate Change (IPCC) has made clear that in order to achieve this, technological advancement will not be enough:

Deep demand reductions require parallel pursuit of behavioral change and advanced energy efficient technology deployment; neither is sufficient on its own.¹

The Scope of the Challenge

Cut greenhouse emissions by 45% by 2030

_ Reach carbon neutrality by 2050

Limit the temperature rise to 1.5 degrees by the end of the century

As humans are required to catalyze these changes, we need to understand the human side of this planetary problem.

Creutzig, F., J. Roy, P. Devine-Wright, J. Díaz-José, F.W. Geels, A. Grubler, N. Maïzi, E. Masanet, Y. Mulugetta, C.D. Onyige, P.E. Perkins, A. Sanches-Pereira, E.U. Weber, 2022: Demand, services and social aspects of mitigation. In IPCC, 2022: Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [P.R. Shukla, J. Skea, R. Slade, A. Al Khourdajie, R. van Diemen, D. McCollum, M. Pathak, S. Some, P. Vyas, R. Fradera, M. Belkacemi, A. Hasija, G. Lisboa, S. Luz, J. Malley, (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA.

Our Goal

BEworks is committed to illuminating the unseen factors that influence the decisions people make. We are one of the leading applied behavioral science firms, using our knowledge of human decision-making to generate impactful solutions to complex behavioral challenges.

Our goal is to **uncover insights** into the individuals with hope for humanity and motivation to tackle the climate crisis.

We offer a roadmap for leaders to foster an organizational culture that will allow these individuals to flourish. Human action is critical. This research set out to understand the mindsets of those willing to act, where to find them, and how to empower them in the workplace.

Questions we *explored*:

- 1. Across the globe, what do people think about the climate crisis?
 - 2. Who is ready and willing to act?
 - 3. What kind of organizational culture supports these individuals?

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Respondent Age Range: 18-79 years old

Study Parameters

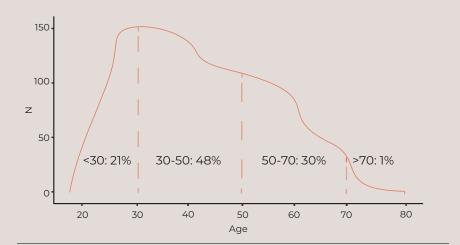
To answer these questions, we conducted a global online survey, fielded in September 2023, to explore associations between:

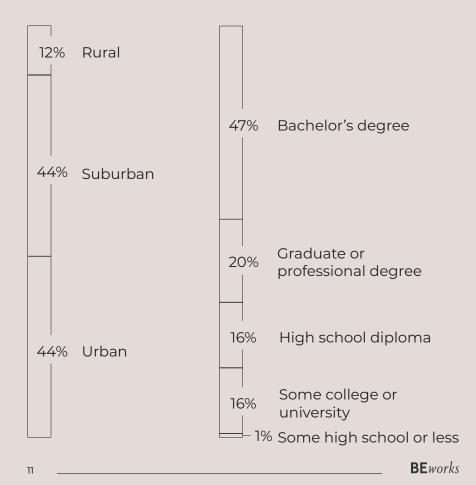
- psychological components of how people think and approach problems (e.g., creativity, open-mindedness, future-oriented thinking),
- 2. the nature of people's work environment, and
- 3. an **orientation towards sustainable action** (e.g., motivation, effort, sense of helpfulness).

Study Population

N=2290 United States708 United Kingdom586 United Arab Emirates501 Japan500	55% WOMEN 45% MEN
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As our goal was to provide insight into the role of organizational culture, we focused our sample on **individuals working full time in an office-related job.**





Chapter 1

What do people think about the climate crisis?

What do people think about the climate crisis?

INSIGHT 01

People's confidence and optimism in our ability to address the climate crisis is low. Globally, **nearly half of individuals feel helpless and overwhelmed** by the climate crisis and their ability to take action.

When thinking about climate change,

6 feel helpless

51%

feel there are so many environmental actions, they don't know where to start

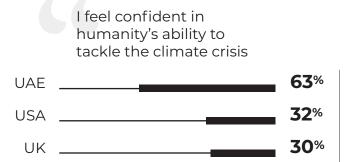
Propelling Climate Action: Illuminating the Climate Era Mindset (2023), BEworks. To what extent do you feel the following when thinking about climate change? 7-point Likert scale (1 = Not at All, 7 = Extremely) Shown here: average proportion rating 5 to 7 across countries

For the statement, please rate how much you feel it applies to you personally. 7-point Likert scale (1 = Not at All, 7 = Extremely) Shown here: average proportion rating 5 to 7 across countries

While countries vary, overall confidence and optimism in humanity's ability to mitigate the effects of climate change is low.

> I feel optimistic that the effects of climate change can be slowed/reversed





Japan _____

Propelling Climate Action: Illuminating the Climate Era Mindset (2023), BEworks. Please rate your agreement with the statement. 7-point Likert scale (1 = Strongly Disagree, 4 = Neither agree nor disagree, 7 = Strongly Agree) Shown here: proportion rating 6 (agree) or 7 (strongly agree)

While there is a worldwide aspiration towards mitigating the climate crisis, **country-level differences emerged** in how people think about the issue—most notably, the **significant divergence between perspectives in the UAE and Japan.**

UAE's higher confidence and optimism may arise from:

Current high visibility of climate initiatives

As hosts of COP28 and being the UAE's Year of Sustainability, UAE residents are seeing the reported efforts being put into mitigating the climate crisis. This visibility and positive messaging may lead to an enhanced sense of confidence.

History of rapid innovation

As a relatively young country, UAE residents have witnessed massive infrastructure development and rapid transformation, which may have fostered optimism in their country's ability to deploy climatemitigating solutions with speed and scale. Japan's lower confidence and optimism may arise from:

An attitude of acceptance

Japan's history of frequent natural disasters, such as earthquakes and tsunamis, may have resulted in an increased sense of helplessness and acceptance of natural change, lowering their confidence in humanity's ability to have a substantive impact.

Aversion to response extremity

Research has found cultural differences in how people respond to surveys, with East Asian cultures demonstrating a tendency to avoid ratings at the extremes of a scale (e.g. agree or strongly agree), which may reflect a desire to appear modest and nonjudgmental.

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Agree

19%

Our global data surfaced people's varied perspectives; thus, demand for research-driven, contextualized policy and strategy stands as imperative.

Put simply, while climate change is a global challenge, **communications and strategies to take it on must be reflective of the specific beliefs within nations** to win hearts and minds and engender action from citizens.

These negative emotions and beliefs pose a significant barrier to climate action.

Our judgments and decision-making are fundamentally influenced by our emotions and beliefs.

Hope and efficacy (our belief in our ability to have a meaningful impact) have been found to be key drivers of proenvironmental behaviors. As such, low confidence and a heightened sense of helplessness may be demotivating.

Weber, E. U. & Constantino, S. M. (2023). All Hearts and Minds on Deck: Hope Motivates Climate Action by Linking the Present and the Future. Emotion Review, 15(4).

Hamann, K. R. S. & Reese, G. (2020). My Influence on the World (of Others): Goal Efficacy Beliefs and Efficacy Affect Predict Private, Public, and Activist Pro-Environmental Behavior. Journal of Social Issues, 76(1), 35-53.

What do people think about the climate crisis?

INSIGHT 02

People believe not enough is being done by corporations, government, and citizens.

Few people believe their own companies are taking major climate action

> To what degree do you feel your company is taking action to combat climate change?

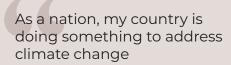


Very Much

Propelling Climate Action: Illuminating the Climate Era Mindset (2023), BEworks. 7 point Likert scale (1 = Not at all, 4 = Neutral, 7 = Very much) Shown here: proportion rating 6 or 7

What do people think about the climate crisis?

People largely feel that their **country's public policies and efforts are falling short**





There are adequate public policies in place to address climate change



Propelling Climate Action: Illuminating the Climate Era Mindset (2023), BEworks. Please rate your agreement with the statement. 7-point Likert scale (1 = Strongly Disagree, 4 = Neither agree nor disagree, 7 = Strongly Agree) Shown here: proportion rating 6 (agree) or 7 (strongly agree)

Across countries, people believe that everyone is **not doing enough**



People recognize that there is an urgent, collective need for action and believe that no single entity (government, corporations, citizens) holds sole responsibility for what needs to happen. Everyone needs to do more. The challenge with this perspective is one of a **diffusion of responsibility.** Because everyone needs to do more, there is a risk that people will defer taking action to others.

Propelling Climate Action: Illuminating the Climate Era Mindset (2023), BEworks. Do you think the following should be doing more or less to address climate change? For each level (government, corporations, citizens), 5 point Likert scale (1 = Much less, 3 = Enough, 5 = Much More) Shown here: average proportion across countries rating 4 (more) or 5 (much more)

Given the overall low confidence and optimism across the globe, who then...

Has hope for humanity and

Is motivated to work on the most difficult challenge we have faced?

People are at the core of progress in the climate era. Uncovering the individuals who are our beacons of hope and are eager to make a difference will be essential for change.

Wardah Malik, CEO, BEworks



Chapter 2

Who is ready and willing to act?

INSIGHT 03



of the Climate Era mindset, predicting people's level of motivation and effort in taking on the climate challenge.

Our imaginations are the key the key to solving climate change

Dr. Simon Donner,

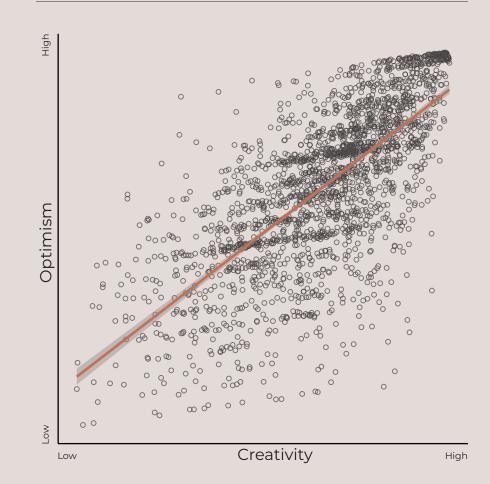
Climate scientist, University of British Columbia, Co-author on the IPCC Sixth Assessment

Hope can be a catalyst for change.

Where can we find hope?

We found a strong relationship between optimism and a **creative mindset:**

- ——— higher creative self-efficacy
 - higher creative identity
 - higher likelihood to engage in creative problem-solving at work
 - higher engagement in creative pursuits outside of work



Propelling Climate Action: Illuminating the Climate Era Mindset (2023), BEworks. Significant positive relationship between latent variable for optimism and a second order latent variable of creativity (being composed of latent variables from 4 creativity scales). r = .71, p < .0001

Reflections:

What does it mean to have a creative mindset?

I trust my creative abilities

I promote and champion ideas to others

I often have a fresh approach to problems

Creativity is an important part of myself

solving complicated problems

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Expanding our beliefs about what it means to be "creative"

We often have preconceptions about what we consider "creativity" that it is restricted to artistic expression such as painting or music or that it is related to only specific departments in an organisation like graphic design or advertising.

This is a myth.

Creativity includes our **ability to flexibly and imaginatively approach problems** how we see connections and patterns and identify new possibilities.

Benedek, M.,et al. (2021). Creativity myths: Prevalence and correlates of misconceptions on creativity. Personality and Individual Differences, 182, 111068.

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Barr, N. (2018). Intuition, reason, and creativity: An integrative dual-process perspective. The new reflectionism in cognitive psychology, 93-118.

How did we measure a creative mindset?

Karwowski, M., Lebuda, I., & Wiśniewska, E. (2018). Measuring creative self-efficacy and creative personal identity. The International Journal of Creativity & Problem Solving.

Zhou, J., & George, J. M. (2001). When job dissatisfaction leads to creativity: Encouraging the expression of voice. Academy of Management Journal, 44(4), 682–696.

We looked at 4 dimensions:

Creative 01 identity	Creative problem- 02 solving at work
How creative people believe they are	The extent to which people feel they use creativity and creative problem solving in the workplace
e.g. "Creativity is an important part of myself" "I trust my creative abilities"	e.g. "I promote and champion ideas to others" "I search out new technologies, processes, techniques, and /or product ideas"
Creative self-efficacy How capable people think they are at achieving creative goals	Creativity in other domains The extent to which people engage in creative efforts outside of work and how
	important it is to them

;

What else does a creative mindset predict?

Future-oriented thinking

being able to anticipate future consequences and plan ahead

Open-mindedness

being able to let go or suspend old patterns of thought

Perseverance

continuing to do something, even if it is difficult or takes a long time

Opportunity spotting

being sensitive to potential opportunities in their work

> These attributes will be **important in overcoming key barriers to climate action,** such as our tendency to prioritize immediate needs and desires over future goals (present bias) and our inclination to stick with how we have always done things (status quo bias).

Propelling Climate Action: Illuminating the Climate Era Mindset (2023), BEworks. Significant positive relationships found for correlations conducted between latent variables created for each attribute and the second order latent creativity composed of latent variables for all 4 creativity scales. rs = .48-.89, ps < .0001

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When it comes to climate, the science is everything. But when science is married with story – well, that's when facts can take flight, and impact the collective imagination.

Solitaire Townsend,

Co-Founder and Chief Solutionist, FUTERRA



A *creative mindset* will be key to taking on the climate challenge

The creative mindset is associated with an orientation towards sustainable action, including:



Greater effort

put into being sustainable

Higher climate optmism

that humanity can tackle theclimate crisis

- Higher motivation

to address the climate crisis

Propelling Climate Action: Illuminating the Climate Era Mindset (2023), BEworks. A structural equation model showed that creativity had a positive relationship with sustainability efforts and confidence in ability to contribute to sustainability initiatives in the workplace. These effects were mediated by creativity's positive relationships with motivation to address climate change and optimism about addressing climate change. Ps for all pathways < .0001

Fostering a creative mindset can be a pathway to building climate optimism and confidence and thus engagement in building climate solutions.

> What does that culture look like?

Our organizational culture can enhance or inhibit our creativity and thus our likelihood of making change. Leaders have a responsibility to foster a culture that enables creative mindsets to thrive.

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Chapter 3

What kind of organizational culture *fosters* a creative mindset?



Individuals with a creative mindset

tend to be found in organizations that foster collaboration, innovation, and risk-taking.

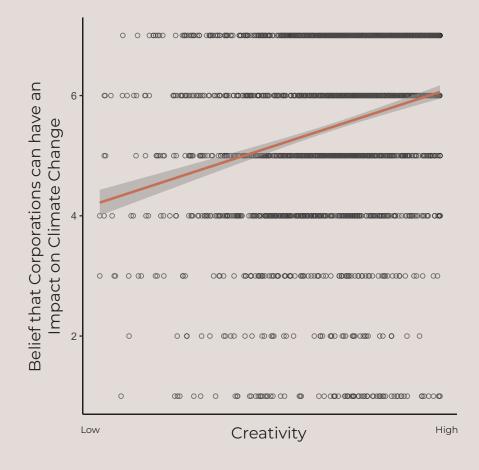
Creatively-minded individuals can be found across disciplines-from artists and designers to engineers, scientists, and CEOs. In our sample, we see that creativity was overall high across sectors. MANAGEMENT OF COMPANIES AND ENTERPRISES ACCOMODATION AND FOOD SERVICES CONSTRUCTION MINING, OUARRYING, AND OIL AND GAS EXTRACTION REAL ESTATE AND RENTAL AND LEASING FINANCE AND INSURANCE INFORMATION PROFESSIONAL, SCIENTIFIC, AND TECHNICAL SERVICES ARTS, ENTERTAINMENT, AND RECREATION RETAIL TRADE HEALTH CARE AND SOCIAL ASSISTANCE PUBLIC ADMINISTRATION WHOLESALE TRADE EDUCATIONAL SERVICES MANUFACTURING TRANSPORTATION AND WAREHOUSING OTHER SERVICES (EXCEPT PUBLIC ADMINISTRATION) UTILITIES ADMINISTRATIVE AND SUPPORT AND WASTE MANAGEMENT AND REMEDIATION SERVICES AGRICULTURE, FORESTRY FISHING, AND HUNTING High Low Creativity

Propelling Climate Action: Illuminating the Climate Era Mindset (2023), BEworks. An exploratory factor analysis identified 4 creativity factors: creative self-efficacy, creative personal identity, creative problemsolving at work, and creativity in other domains. These were used to create a second order latent variable for creativity. Shown here: distribution of the creativity variable by sector.

4C

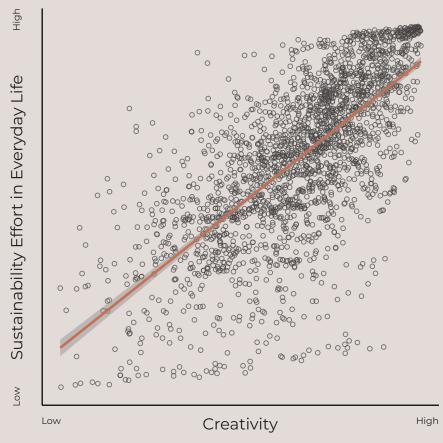
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Individuals with a higher degree of creativity are more inclined to believe that **corporations can have a greater impact** in addressing climate change.



Propelling Climate Action: Illuminating the Climate Era Mindset (2023), BEworks. Correlation between the second-order latent creativity variable and respondents' beliefs about the potential impact of corporations. How much impact do you think each of the following could have in addressing climate change? Corporations. 7 point Likert scale (1 = No impact, 7 = A great deal of impact). r = .25, p < .0001 More creatively-minded individuals report exerting **greater effort to act sustainably** in their everyday life.

This is especially the case when they feel that their workplace is collaborative and supports creativity.



Propelling Climate Action: Illuminating the Climate Era Mindset (2023), BEworks. Linear regression predicting effort to act sustainably found significant interactions between creativity and organizational support for collaboration and creativity. These interactions were all such that there was a stronger positive relationship between creativity and sustainability efforts when there was greater organizational support for collaboration and creativity. ps < .01. Shown here: correlation between second-order latent creativity variable and latent variable for sustainability efforts. r = .70, p < .0001

We found that individuals with a creative mindset were more likely to report working for organizations with a supportive culture.

Characteristics of that culture include:

Organizations can establish a culture that can attract and empower creatively-minded individuals who are motivated to take sustainable action.

 Collaboration between co-workers — Willingness to share expertise — Help others with work-related challenges
 Risk taking Employees and leadership not afraid to take risks
 Innovation Employees encouraged to try new things Employees rewarded for creativity and innovation
 Supportive Hierarchy Process for employees to pitch novel ideas to senior leaders Leaders actively solicit feedback from employees
 Organizational Support Time to be creative and explore new work-related challenges Support for new ways of doing things

Propelling Climate Action: Illuminating the Climate Era Mindset (2023), BEworks. Correlations between second-order latent creativity variable and workplace collaboration, risk-taking, innovation, supportive hierarchy, and organizational support. rs > .43, ps < .0001

Individuals with a creative mindset tend to be found in organizations where **sustainability is important**

Creatively-minded individuals were more likely to perceive their workplace as:

Taking action to combat climate change

Prioritizing sustainability

Exemplifying proenvironmental behaviors at the leadership level

As such, it is not only crucial that organizations make clear climate commitments, but it is also imperative that they demonstrate how they are making good on these promises. Doing so necessitates a tight coupling between organizational priorities, leadership behaviors, and (external and internal) communications.

Propelling Climate Action: Illuminating the Climate Era Mindset (2023), BEworks. Correlations between creativity and perceptions of organizational support for sustainability. rs > 0.41, ps < .01

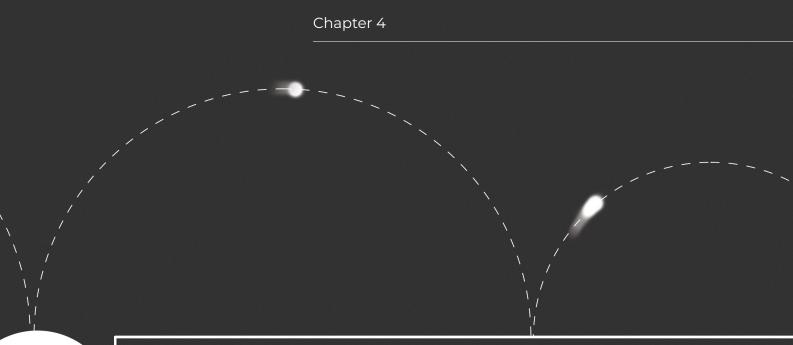
Blocks to *workplace creativity* demotivates individual action

When they experience **blocks** to creativity in the workplace, the more creatively-minded individuals are **less likely to believe in the power of individual action** to address climate change. These blocks can include the imposition of **tight deadlines** as well as **organizational policies that impede spontaneity** in the workplace.

Propelling Climate Action: Illuminating the Climate Era Mindset (2023), BEworks. Linear regression predicting the belief that no amount of individual action could help to address climate change found that more creative employees were more pessimistic about the power of individual action when they experienced blocks to creativity in the workplace. However, creative employees had greater belief in the power of individual action when they experienced fewer creativity blocks. p < .001

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What actions can leaders take to cultivate a supportive culture? To drive creativity, collaboration, and risk-taking in the workplace, start by focusing on three key questions:



Team Composition

Who is on your work team?



Team Dynamics

How do team members interact?



Leadership

How can leaders help (and not hinder) the process?

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What actions can leaders take to cultivate a supportive culture?



Team Composition

Who is on your work team?

Build Diversity

Cultivating a team that has **a diverse range of backgrounds, perspectives, skills, and identities** can lead to more creative and innovative ideas.

Consider:

Introducing diversity carries the risk of subgroups and divisions forming.

To mitigate that risk, ensure that the team is united around a common goal and also believes in the value of diversity.

Brewer, M. B. (1991). The social self: On being the same and different at the same time. Personality and Social Psychology Bulletin, 17(5), 475-482.



Team Dynamics

How do team members interact?

Foster a Sense of Belonging

Ensuring team members experience a strong **sense of belonging within the group is crucial for fostering the bonds needed for risk-taking.**

Feeling a sense of belonging in a group can, somewhat paradoxically, also motivate individuals to express their uniqueness, thereby leveraging the team's diversity.

Consider:

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In diverse teams, people speak different languages in terms of how they think about things.

- Thinking about problems in terms of analogies can help bridge communication divides.
- It has also been shown that analogies help facilitate creative, imaginative leaps in problem solving.

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Hornsey, M. J. & Jetten, J. (2004). The Individual Within the Group: Balancing the Need to Belong with the Need to be Different. Personality and Social Psychology Review, 8(3), 248-264.

What actions can leaders take to cultivate a supportive culture?



Team Dynamics

How do team members interact?

Create Dynamic Team Interactions

Creativity can benefit from different types of team interactions:

Well-Connected

Disconnected

More disconnected

teams can produce a

wider variety of ideas.

Having well-connected team members (e.g., frequently in communication) can facilitate learning and bonding.

- It can also lead to a reduction in the range of ideas that are developed because people will imitate or conform to others' work.
- ____ These types of teams have a hard time learning key insights

from each other.

To leverage the best of both worlds, create a dynamic where team members come together, break apart, and reorganize over time.

Alberti, F. G., Belfanti, F., & Giusti, J.D. (2021). Knowledge exchange and innovation in clusters: A dynamic social network analysis. Industry and Innovation, 28(7), 888—901. Lorenz, J., Rauhut, H., Schweizer, F., & Helbing, D. (2011). How social influence can undermine the wisdom of crowd effect. Proceedings of the National Academy of Sciences, 108(22), 9020-9025.



Leadership

How can leaders help (and not hinder) the process?

Establish Psychological Safety

Leadership plays a pivotal role, as it can either enhance or impede a team's collaboration and its capacity to undertake risks that propel creativity and innovation.

To help foster creativity, it is critical to create psychological safety so that people **feel free and comfortable taking risks and are not preoccupied with inhibiting innovative thoughts.**

What Can That Look Like:

Avoid punishing risks, critiques, and creative thinking

 Provide opportunities to be creative free of social evaluation (e.g., anonymous)

Ensure leaders themselves demonstrate genuine curiosity

 Use humor that relieves tension (but that is not aggressive or critical)

Newman, A. Donohue, R., & Eva, N. (2017). Psychological safety: A systematic review of the literature. Human Resource Management Review, 27(3), 521-535.

I believe we are at a tipping point where an increasing number of leaders see the opportunity to drive toward climate goals through innovation and not only through compliance.

Tim Brown,

Chair of IDEO and Vice-Chair of kyu





Across the globe, what do people think about the climate crisis?

People's *confidence and optimism in our ability to address the climate crisis is low*. There is also a diffusion of responsibility, in that people feel more is needed from everyone: governments, corporations, and citizens.

Who is ready and willing to act?

Creativity is a key building block of the Climate Era mindset, predicting higher motivation, optimism, and greater effort in taking on the climate challenge.

What culture best supports these people?

Individuals with a creative mindset tend to be found in *organizations that foster collaboration, innovation, and risktaking.* Leaders can cultivate a supportive organizational culture by building diversity, fostering belonging, and establishing psychological safety.



People are at the core of this global challenge



Understanding people is key to making the kind of impact needed within organizations, nations, and the world

The science of human decision-making and behavior provides a powerful lens through which to view this challenge.

> Insight into how people think and behave, and how our environment and culture can influence that, will help sustainability experts, design thinkers, policymakers and beyond unlock solutions that propel more impactful climate action.

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About BEworks

BEworks is a global management consulting firm specialized in applying behavioral science to business and policy challenges.

Our multidisciplinary team of behavioral scientists and psychologists illuminate the unseen factors influencing the decisions people make. We use our knowledge of human decisionmaking to generate more impactful solutions to age-old problems using behavioral science as our foundation.

We conduct behavior change projects all over the world, for a range of clients looking to make people healthier, wealthier, and greener.

Acknowledgments

This research report stands as a testament to the collaborative efforts and dedication of numerous scientists, designers, climate researchers, and innovative and creative thinkers who contributed their expertise and passion. Their collective commitment and imaginative contributions were instrumental in shaping this work. We extend our deepest gratitude to each individual involved, whose collaboration and visionary spirit propelled this endeavor forward.

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