Embedding Fairness

Boosting Efficacy and Innovation in the Nuclear Weapons Space

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Fairness – meaning equal access to opportunities and decision-making – is a smarter way of doing what we already do, a way to enhance work processes for better results. This is one of the key messages coming out of the new book *Make Work Fair*, published by Harvard researchers Iris Bohnet and Siri Chilazi in January 2025.[2] With a focus on empirical data, this latest lesson in behavioural science holds important lessons for the nuclear weapons space, which has tried to grapple with issues related to diversity and inclusion, but is still characterized by unequal access, illustrated by a lack of demographic diversity.

Especially pronounced among those involved in arsenal development, nuclear posture and deterrence strategy in nuclear-armed States,[3] this lack of diversity and fair-minded structures and processes has contributed to the reproduction of traditional nuclear-weapons thinking with little innovation, despite significant criticism that such thinking is ineffective at reducing nuclear risk and incentivizing arms control and disarmament.[4]

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[1] Some sections of this policy brief have appeared in a previous article by the author, "The scientific case for diversity in nuclear weapons policymaking" by Louis Reitmann In: *From the Margins to the Mainstream: Advancing Intersectional Gender Analysis of Nuclear Non-Proliferation and Disarmament*, edited by Renata Hessmann Dalaqua, Geneva: UNIDIR, 2024. Available at: https://unidir.org/publication/from-the-margins-to-the-mainstream-advancing-intersectional-gender-analysis-of-nuclear-non-proliferation-and-disarmament

[2] Iris Bohnet and Siri Chilazi, *Make Work Fair: Data-Driven Design for Real Results*, 2025.

[3] Heather Hurlburt et al., "The 'Consensual Straitjacket': Four decades of women in nuclear security", *New America*, 5 March 2019, https://www.newamerica.org/political-reform/reports/the-consensual-straitjacket-four-decades-of-women-in-nuclear-security

[4] Peter Rudolf, "US Nuclear Deterrence Policy and Its Problems", *Stiftung Wissenschaft und Politik*, 6 November 2018, https://www.swp-berlin.org/publikation/us-nuclear-deterrence-policy-and-its-problems; Ward Wilson, "Reconsidering Nuclear Deterrence", *European Leadership Network*, 1 March 2022, https://europeanleadershipnetwork.org/commentary/

A similar lack of diversity can be observed in the arms control, non-proliferation and disarmament community, where women are still underrepresented on all levels. The latest data available (2022) shows that, on average, women comprise 34 per cent of the diplomats accredited to arms control, disarmament and non-proliferation forums.[5] This represents a small increase from 32 per cent in 2018. At that rate, it would take another 25 years to reach gender parity among arms control, non-proliferation and disarmament delegates.

Challenges are even greater at the leadership level where men outnumber women four to one as heads of delegations to non-proliferation and disarmament negotiations.[6] It is also rare to see a woman chairing multilateral processes on nuclear weapons, be it those of the Treaty on the Non-Proliferation of Nuclear Weapons, the Treaty on the Prohibition of Nuclear Weapons, or the Conference on Disarmament.

Studies in psychology and behavioural science show that a lack of diversity can leave policy communities vulnerable to 'groupthink', inhibit innovation and prevent the critical questioning of assumptions. People in homogenous teams are less likely to exchange new information and dissenting opinions, they work less hard on the arguments and evidence they share with colleagues and have less fact-based discussions compared to diverse teams.[7] This underlines that who makes nuclear weapons policy and how is key for policy outcomes.

Considering the high stakes of decisions on nuclear weapons, scientific findings about the deficits of homogenous teams raise concerns about their ability to develop innovative strategies to reduce nuclear risk and make progress on arms control, non-proliferation and disarmament. To help address these shortcomings, the nuclear weapons space must tackle its diversity and fairness deficit.

While there has been a growing recognition of diversity's benefits among arms control, non-proliferation and disarmament practitioners, more work is needed to embed fairness, meaning to change the composition and organization of teams across nuclear policymaking, especially in the deterrence community. To achieve this, the arguments made for diversity must evolve.

Arguments based on the social justice of boosting participation may be dismissed by sceptics as liberal politics; they often do not reach the policy communities with the biggest diversity deficits. At the same time, the often-cited 'business case' for diversity, an idea that emerged from the consulting sector and that has been oversimplified to

reconsidering-nuclear-deterrence; John Gower, "The Dangerous Illogic of Twenty-First-Century Deterrence through Planning for Nuclear Warfighting", *Carnegie Endowment for International Peace*, 6 March 2018, https://carnegieendowment.org/2018/03/06/dangerous-il-logic-of-twenty-first-century-deterrence-through-planning-for-nuclear-warfighting-pub-75717; Sico van der Meer, "Reducing Nuclear Weapons Risks: A menu of 11 policy options", *Clingendael*, June 2018, https://www.clingendael.org/sites/default/files/2018-06/PB_Reducing_nuclear_weapons_risks.pdf; Tytti Erästö, "Revisiting 'Minimal Nuclear Deterrence': Laying the groundwork for multilateral nuclear disarmament", *SIPRI*, June 2022, https://www.sipri.org/sites/default/files/2022-06/sipriinsight2206_minimal_nuclear_deterrence_1.pdf

[5]   UNIDIR, "Gender and Disarmament Hub", 2022, https://unidir.org/tools/gender-disarmament-hub/

[6]   Renata Hessmann Dalaqua, Kjølv Egeland and Torbjorn Graff Hugo, *Still Behind the Curve: Gender balance in arms control, non-proliferation and disarmament diplomacy* (UNIDIR, 2019), https://unidir.org/publication/still-behind-the-curve

[7]   Sylvia Ann Hewlett, Melinda Marshall and Laura Sherbin, "How Diversity Can Drive Innovation", *Harvard Business Review*, December 2013, https://hbr.org/2013/12/how-diversity-can-drive-innovation; Catarina Fernandes and Jeffrey Polzer, "Diversity in Groups", in *Emerging Trends in the Social and Behavioral Sciences*, ed. Robert Scott and Stephan Kosslyn (Hoboken: Wiley, 2015); David Rock and Heidi Grant, "Why Diverse Teams Are Smarter", *Harvard Business Review*, 4 November 2016, https://hbr.org/2016/11/why-diverse-teams-are-smarter

suggest that higher demographic diversity automatically leads to performance gains, has critical weaknesses and incentivizes counterproductive measures.[8]

More evidence-based and persuasive arguments are needed to promote the benefits of equal access and opportunities across the nuclear weapons space. Especially in today's contested environment, these arguments should be based on strong empirical findings about diversity's complex effects on how individuals think and collaborate, demonstrating how embedding fairness can contribute to more effective, more innovative nuclear weapons policymaking.

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[8]   Vivian Hunt, Dennis Layton and Sara Prince, "Why Diversity Matters", McKinsey & Company, 1 January 2015, https://www.mckinsey.com/capabilities/people-and-organizational-performance/our-insights/why-diversity-matters

Delegates attend a high-level meeting to commemorate and promote the International Day for the Total Elimination of Nuclear Weapons in 2022. Credit: UN Photo/Ariana Lindquist.

1. How to make the case for fairness

Follow the science

A simplistic framing of diversity, as in the business case, is counterproductive.[9] The suggestion that simply increasing the diversity of staff in an organization automatically results in better performance is not empirically supported.[10] Moreover, surveys have found that diversity messaging that emphasizes performance benefits alienates talent from underrepresented groups.[11] Crucially, the business case cannot explain how diverse teams work differently from homogenous teams.

Instead, we should look towards the detailed, consistent findings from psychology and behavioural science on the positive potential of diversity. These findings suggest that, when implemented along with changes to embed fairness in work structures, diversity can make decision-making processes more resistant to superficial assumptions and systemic fallacies and more open to innovation, thus encouraging more effective solutions to policy challenges. For example:

▶ Diverse teams are less likely to misunderstand tasks because they discuss them more extensively, developing a shared task interpretation.[12]

▶ Diversity increases the exchange of new information and ideas because of the subconscious assumption that someone who looks different also holds different information than we do.[13]

▶ Members of diverse teams work harder to present arguments and evidence in discussions, helping to 'screen out' false information. Indeed, discussions in diverse teams have been shown to feature more facts than those in homogenous teams.[14] This is because we judge it more likely that someone who looks different will disagree with us, prompting more diligence in arguing our own case.[15]

▶ Diverse teams make fewer mistakes because they frequently re-examine assumptions and evidence due to team members' increased accountability. Where errors happen, they are more likely to be addressed in discussion.[16]

▶ Diverse teams have been shown to be better problem solvers and to identify the correct solutions to puzzles more consistently.[17] This is because we tend to take information and views shared by others more seriously when

9   Robin Ely and David Thomas, "Getting Serious about Diversity: Enough already with the business case", *Harvard Business Review*, November/December 2020, https://hbr.org/2020/11/getting-serious-about-diversity-enough-already-with-the-business-case

10 Alex Edmans, "Is There Really a Business Case for Diversity?", *Medium*, 30 October 2021, https://medium.com/@alex.edmans/is-there-really-a-business-case-for-diversity-c58ef67ebffa

11 Oriance Georgeac and Aneeta Rattan, "Stop Making the Business Case for Diversity", *Harvard Business Review*, 15 June 2022, https://hbr.org/2022/06/stop-making-the-business-case-for-diversity

12 Katherine Phillips, Gregory Northcraft and Margaret Neale, "Surface-Level Diversity and Decision-Making in Groups: When does deep-level similarity help?", *Group Processes and Intergroup Relations* 9, no. 4 (2006): 467–482, https://doi.org/10.1177/1368430206067557

13 Ibid.

14 Jasmine Linabary, "Working in Diverse Teams", University of Kansas, 2021, https://opentext.ku.edu/teams/

15 Katherine Phillips, "How Diversity Makes Us Smarter", University of California, Berkeley, 18 September 2017, https://greatergood.berkeley.edu/article/item/how_diversity_makes_us_smarter

16 David Rock and Heidi Grant, "Why Diverse Teams Are Smarter", *Harvard Business Review*, 4 November 2016, https://hbr.org/2016/11/why-diverse-teams-are-smarter

17 Katherine Phillips, "How Diversity Makes Us Smarter", University of California, Berkeley, 18 September 2017, https://greatergood.berkeley.edu/article/item/how_diversity_makes_us_smarter

Mr. Rafael Mariano Grossi, IAEA Director General together with Ms. Sama Bilbao y Leon, Director General of the World Nuclear Association at the IAEA 68th General Conference in 2024. Photo Credit: Dean Calma / IAEA.

they are different from us, in turn, provoking critical thinking and debate.[18]

▸ Because of their ability to consider and evaluate a larger pool of information, diverse teams have been shown to be especially suited for solving complex tasks compared to homogenous teams, which may be better adapted to solving simpler tasks.[19]

As such, research has demonstrated that for innovative proposals to be made, heard and considered, it is important to have capable individuals who can contribute smart ideas, but it is even more important that these individuals are grouped into diverse teams.

Demographics matter

There is evidence to suggest that men and women have different attitudes towards nuclear weapons. This underlines the importance of demographics for nuclear weapons policymaking. A study published by UNIDIR examining academic articles and opinion polls from 1990 to 2023 and covering 47 countries showed that women tend to be more opposed to nuclear proliferation than men and to express greater discomfort about the existence of nuclear weapons, though this can vary geographically. Women also tend to view nuclear weapons as hazardous and have more concerns about the consequences of use when compared with men, who view them more as a security guarantee.[20]

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[18] Anthony Lising Antonio et al., "Effects of Racial Diversity on Complex Thinking in College Students", *Psychological Science* 15, no. 8, 2004, **https://doi.org/10.1111/j.0956-7976.2004.00710.x**

[19] Astrid Homan and Lindred Greer, "Considering Diversity: The positive effects of considerate leadership in diverse teams", *Group Processes & Intergroup Relations* 16, no. 1 (2013): 105–121, **https://doi.org/10.1177/1368430212437798**, 120; Jose Fontanari, "When more of the same is better", *Europhysics Letters* 113 (2016), **https://doi.org/10.48550/arXiv.1601.00313**

[20] Ellen Willio and Michal Onderco, "Public Opinion on Nuclear Weapons: Is there a gender gap?". In Dalaqua, Renata H. (Ed) *From*

Those who oppose demographic diversity often argue that only a person's skills and credentials should decide whether they enter or rise within nuclear weapons policymaking; their gender, race, etc., should not matter. This ignores the reality that women, people of colour, and others have long been denied access to nuclear weapons policymaking *because* of their outer characteristics or structural disadvantages (e.g. a lack of mentorship or personal connections).

Siri Chilazi, co-author of *Make Work Fair*, underlines this point when addressing the purported incompatibility of fairness and meritocracy. Embedding fairness is not about undermining merit but about giving more people the opportunity to demonstrate their skills and to participate in meritocracy; "having someone see and recognize your potential, and then having a system in place for nurturing it, is a big piece of the puzzle".[21]

Rejecting demographic diversity not only deprives decision-making bodies of the effectiveness and innovation benefits offered by diverse teams but also excludes a wide range of views from consideration by limiting access to the nuclear community. This further increases the risk of groupthink and systemic fallacies.

An account of the benefits of diversity for nuclear weapons policymaking was shared by Julianne Smith in 2016, former director of European and NATO policy in the US Department of Defense: "You could feel the impact of diversity on the nature of the conversation. It was a breath of fresh air when you had people of colour, you had women, you had young people, you had older people around the table; it was always a richer set of discussions in terms of looking at your options, questioning your core assumptions, asking the hard questions, getting outside of groupthink."[22]

These experiences were shared by other women in the US nuclear policy field in the 2019 study by Hurlburt et al.[23] Interviewees noted that more equal access to decision-making for women influenced policy outcomes, leading to improved processes, greater collaboration, and enhanced innovation through thinking outside the box.

Connecting the dots

Sometimes, arguments for diversity in the nuclear weapons space can lack a sense of direction. Broadening participation is a worthy goal in itself; it supports equitable access to decision-making about nuclear weapons, which affect all people worldwide.

However, as Bohnet and Chilazi suggest, fairness works effectively only when embedded into tasks, functions, processes, and thereby outcomes. 'Connecting the dots' between the benefits of diversity and the positive outcomes they can help to achieve, or between the lack of diversity and the negative consequences thereof, strengthens the argument that, far from being just a 'nice to have' human resources policy, increasing diversity can support efforts to address security challenges, including nuclear risk.

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the Margins to the Mainstream: Advancing Intersectional Gender Analysis of Nuclear Non-Proliferation and Disarmament, UNIDIR, https://unidir.org/publication/from-the-margins-to-the-mainstream-advancing-intersectional-gender-analysis-of-nuclear-non-proliferation-and-disarmament/

[21] Siri Chilazi, "Make Work Fair Introduction and the Myths We Need to Debunk with Iris Bohnet & Siri Chilazi", Harvard Women and Public Policy Program, 5 February 2025, https://www.youtube.com/watch?v=e78t50LbUWI

[22] Heather Hurlburt et al., "The 'Consensual Straitjacket': Four decades of women in nuclear security", *New America*, 5 March 2019, https://www.newamerica.org/political-reform/reports/the-consensual-straitjacket-four-decades-of-women-in-nuclear-security, 32.

[23] Ibid.

Ms. Izumi Nakamitsu, United Nations Under-Secretary-General of Disarmament Affairs, addresses the 2023 Preparatory Committee for the 2026 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons. Credit: Dean Calma / IAEA.

Eirini Lemos-Maniati, a senior NATO official, stressed, "We need to get better at communicating to what end we want to increase diversity in the nuclear weapons field. We need to be clear about what we want to achieve through diversity rather than focusing on diversity as an end in itself".[24] Being specific about the change that increasing diversity is intended to bring underlines that it is a policy tool that leaders should use, like others, to achieve their strategic objectives.

Stories from the field

There is still very little information available about the state of diversity in the nuclear weapons establishment and about how this affects nuclear weapons policy. Comprehensive studies involving officials will likely not be possible due to the degree of secrecy involved. This makes personal stories from those who work, or have worked, on nuclear weapons policy essential, especially where direct lines between diversity and policy decisions can be drawn.

Eirini Lemos-Maniati recalls the update of NATO's Chemical, Biological, Radiological and Nuclear Defence Policy in 2022 as one example.[25] The demographic diversity among staff ensured that this policy included gender considerations for the first time. By recognizing and addressing gender-based differences in requirements for equipment, medical management, protection and capacity-building, the policy makes an important contribution to increasing military readiness and supporting national resilience against chemical, biological, radiological and nuclear threats.

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[24]   Interview with the author, 21 November 2023.

[25]   Ibid.

2. Doing what works

Studies have shown that, next to its positive potential for collaboration and outcomes, diversity can have negative effects if implemented poorly. This is rooted in individuals' inherent preference for working with people they can identify with and a tendency to distrust those who are different.[26] We tend to categorize others into subgroups by outer differences like skin colour and gender expression.[27] If we become set in our perception of others in subgroups, the same demographic diversity that helps teams to avoid mistakes and generate innovative ideas can create distrust, conflict and poor communication.[28]

Since diverse teams discuss more extensively, examining evidence and assumptions presented in the group more critically, their confidence in joint decisions may be weaker because decisions may not align with the preferences and experiences of some team members. In short, diverse teams may produce more effective solutions and make fewer mistakes, but they may feel less certain that their decisions are indeed more robust.[29]

To reap diversity's benefits, leaders have to create conditions that release its positive effects while reducing stereotyping and conflict among team members. As we learn from the fairness approach, this is largely about creating structures and processes that help to reduce the influence of inherent biases and provide equal opportunities for applying our skills. How can leaders do this? Here are six concrete good practices to help leaders do what works.

Embedding fairness

The benefits of diversity become accessible when all team members can openly discuss hierarchies and work processes, shape the agenda, influence strategy and policy, exercise leadership, and receive recognition and reward.[30]

Emphasizing that equality in numbers is not sufficient for a work environment that thrives on diversity, Mexico's Coordinator for Disarmament and Non-Proliferation, Maria Antonieta Jaquez, adds that, while the share of women in nuclear weapons policymaking has grown, barriers to meaningful inclusion remain: "It's not just about being able to speak up or contribute, but also about the weight or authority your contributions carry. The work of most women in the field, even in senior positions, is often subject to review or approval by men at the same seniority level".[31]

The tendency to underestimate or question women's expertise and leadership potential is well-documented. A primary reason are socialized expectations of the roles and tasks that men and women are 'suited' to excel at.[32] Structural

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[26] Catarina Fernandes and Jeffrey Polzer, "Diversity in Groups", in *Emerging Trends in the Social and Behavioral Sciences*, ed. Robert Scott and Stephan Kosslyn (Hoboken: Wiley, 2015), 2.

[27] Ibid.

[28] Astrid Homan and Lindred Greer, "Considering Diversity: The positive effects of considerate leadership in diverse teams", *Group Processes & Intergroup Relations* 16, no. 1 (2013): 105–121, **https://doi.org/10.1177/1368430212437798**

[29] David Rock and Heidi Grant, "Why Diverse Teams Are Smarter", *Harvard Business Review*, 4 November 2016, **https://hbr.org/2016/11/why-diverse-teams-are-smarter**

[30] Sylvia Ann Hewlett, Melinda Marshall and Laura Sherbin, "How Diversity Can Drive Innovation", *Harvard Business Review*, December 2013, **https://hbr.org/2013/12/how-diversity-can-drive-innovation**

[31] Interview with the author, 23 October 2023.

[32] Laura Jones, "Women's Progression in the Workplace", *UK Government Equalities Office*, 2019, **https://www.gov.uk/government/**

inequities like the underappreciation of women's skills undermine teams' innovation potential because they limit the critical examination of assumptions and the exchange of new ideas and information.

A key step in addressing these entrenched power imbalances is to investigate how the allocation of opportunities, influence and rewards in a team may be biased. Due to inherent affinity bias, leaders tend to recognize talented staff better when they can identify with them. This leads others to miss out on the experience they need to be promoted and leaves significant innovation potential untapped.[33]

The key message of the fairness approach is that we can rely on structures and processes to help us to reduce our biases' influence on outcomes; fairness is not about eliminating our natural biases or striving for personal perfection. An emphasis on data and transparency is important in this as it helps to activate social accountability, the desire to be perceived as fair-minded. Once people know that their decisions may be compared against data, they tend to base those decisions more closely on available evidence.

In a case from the consulting sector, a task force was created at the senior leadership level, mandating offices to gather data about the career progress of women and define individual goals to address local challenges. The existence of the task force, showing leadership's close attention to diversity among staff, helped to triple the share of senior women staff over a few years because of increased accountability to base promotion decisions on evidence.[34]

Leading for change

Decision makers have significant influence on embedding fairness. Having analysed barriers to equal opportunities, leadership should communicate a plan for change, motivate and guide its implementation, and ensure continual monitoring and adjustments.

Recent studies underline the crucial role of effective leadership for harnessing diversity's benefits. When and how leaders intervene to prevent stereotyping and how they respond to backlash against diversity measures can mean the difference between a thriving and a struggling team.[35]
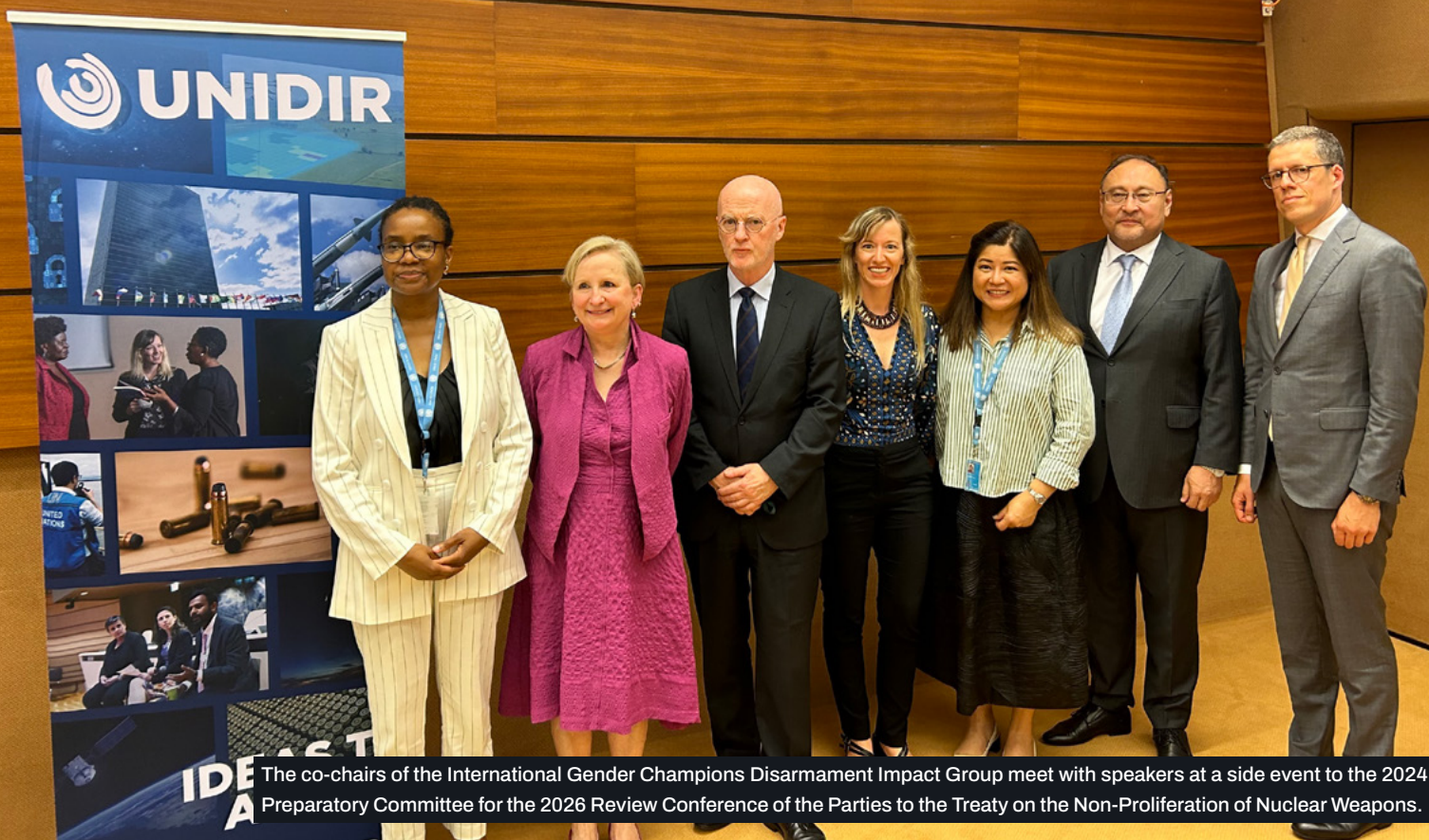
A key leadership initiative is the International Gender Champions, a network that brings together decision makers determined to break down gender barriers and make gender equality a working reality in their spheres of influence. The network is active in multilateral hubs like Geneva, New York and Vienna, and includes leaders of organizations active in nuclear non-proliferation and disarmament. Its Disarmament Impact Group promotes dialogue, shared knowledge and the pursuit of concrete opportunities to advance gender-responsive action within disarmament processes.

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publications/womens-progression-in-the-workplace/main-report; Alan Benson, Danielle Li, and Kelly Shue, "'Potential' and the Gender Promotion Gap", *Academy of Management*, https://doi.org/10.5465/AMPROC.2023.19580abstract; Ronit Kark et al., "Catty, Bitchy, Queen Bee or Sister? A review of competition among women in organizations from a paradoxical-coopetition perspective", *Journal of Organizational Behavior* 45 (2024), https://doi.org/10.1002/job.2691

[33] Ely and Thomas, "Getting Serious about Diversity"; Zoleikha Abbasi, Jon Billsberry and Mathew Todres, "Empirical Studies of the 'Similarity Leads to Attraction' Hypothesis in Workplace Interactions: A systematic review", *Management Review Quarterly* 74 (2024), https://doi.org/10.1007/s11301-022-00313-5

[34] Frank Dobbin and Alexandra Kalev, "Why Diversity Programs Fail", *Harvard Business Review*, July/August 2016, https://hbr.org/2016/07/why-diversity-programs-fail

[35] Frederick Herbert and Paris Will, "The Effects of Diversity on Teams Change over Time", LSE Business Review, 23 November 2021, https://blogs.lse.ac.uk/businessreview/2021/11/23/the-effects-of-diversity-on-teams-change-over-time

The co-chairs of the International Gender Champions Disarmament Impact Group meet with speakers at a side event to the 2024 Preparatory Committee for the 2026 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons.

The Impact Group has produced guidance for reducing bias and promoting diversity in multilateral settings that is particularly relevant for multilateral processes related to nuclear weapons. Measures include implementing language that gives fair visibility to men and women while avoiding stereotypes, tracking and publishing disaggregated data on the diversity of delegations, ensuring fair representation on panels and ensuring that there is a fair distribution of more basic and higher-profile tasks between men and women on conference presidency teams, among other strategies.[36]

In *Make Work Fair*, Bohnet and Chilazi present real-life examples, including representative studies with thousands of participants, showing that small changes in the way we work, such as fair representation in language, are effective at enhancing demographic diversity and the benefits outlined above.[37]

Investing in workplace culture

Diversity is more likely to increase effectiveness in teams with a culture that emphasizes shared objectives, equality between interests, and commonalities among members, instead of individuals' traits and achievements.[38] This helps colleagues to base their sense of belonging on being members of the team rather than being members of a particular subgroup within the team (e.g., men, women), preventing the us–them thinking that inhibits collaboration and innovation.

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[36] International Gender Champions, "Gender & Disarmament Resource Pack for Multilateral Practitioners", rev. July 2024, **https://s3.eu-west-2.amazonaws.com/igc-production/1nSU0x7Ba5nxwUcywvuTW4fgI4VWT1By.pdf**

[37] Iris Bohnet and Siri Chilazi, *Make Work Fair: Data-Driven Design for Real Results*, 2025.

[38] Catarina Fernandes and Jeffrey Polzer, "Diversity in Groups", in *Emerging Trends in the Social and Behavioral Sciences, ed. Robert Scott and Stephan Kosslyn* (Hoboken: Wiley, 2015), 3.

A community workplace culture increases creativity, reduces conflict and makes debate productive rather than obstructive.[39]

From his experience as a mediator between different perspectives within the US government, especially between the deterrence and the arms control and non-proliferation communities, Richard Johnson highlighted that a participatory culture that promotes open discussion can enhance the procedural justice of policymaking and ensure that decisions are more widely accepted because they were reached through an inclusive process.[40] This may also help to remedy the reduced confidence in decisions that diverse teams may have a higher risk of experiencing.

A South African government official reflected on their experience of working in a demographically diverse team, saying, "With the right culture, you might have intense discussions, but there is a trust factor. We are aware that we are a cohesive unit and when we disagree, we disagree on positions, not personality".[41] These experiences echo findings about collaboration and the team identity of diverse groups, in which initial friction caused by the presence of differences is either ameliorated or exacerbated, largely depending on interventions by leadership.[42]

Integration and learning

Too strong an emphasis on equality risks undermining the distinctive skills and approaches that diverse teams bring to the table.[43] When differences are valued as a learning resource, work processes and outcomes are more closely examined and improved; staff become more effective because they are more confident in bringing the full breadth of their qualities to bear, including those that set them apart from the majority.[44]

A crucial finding is that the social process of learning in a team is inherently positive for performance and morale across demographics.[45] When people with different identities show vulnerability by asking for help and are met with support, this strengthens relationships and trust, thereby working against the risk of stereotyping and subgroup formation that can lead to poor communication and low morale. Therefore, creating workplace cultures that promote learning and openness to change has attractive payoffs for collaboration.

The benefits of integration and learning have been demonstrated in nuclear weapons decision-making. Michèle Flournoy, former US Under Secretary of Defense for Policy, reported that performance

[39] Jennifer Chatman et al., "Being Different yet Feeling Similar: The influence of demographic composition and organizational culture and work processes and outcomes", *Administrative Science Quarterly* 43, no. 4 (1998): 749–780, **https://doi.org/10.2307/2393615**

[40] Interview with the author, 9 November 2023.

[41] Interview with the author, 31 October 2023.

[42] Frederick Herbert and Paris Will, "The Effects of Diversity on Teams Change over Time", LSE Business Review, 23 November 2021, **https://blogs.lse.ac.uk/businessreview/2021/11/23/the-effects-of-diversity-on-teams-change-over-time**

[43] Robin Ely and David Thomas, "Getting Serious about Diversity: Enough already with the business case", *Harvard Business Review*, November/December 2020, **https://hbr.org/2020/11/getting-serious-about-diversity-enough-already-with-the-business-case**

[44] Jeffrey Polzer, Laurie Milton and William Swann, Jr., "Capitalizing on Diversity: Interpersonal congruence in small work groups", *Administrative Science Quarterly* 47, no. 2 (2002): 296–324, **http://www.jstor.org/stable/3094807**

[45] Robin Ely and David Thomas, "Getting Serious about Diversity: Enough already with the business case", *Harvard Business Review*, November/December 2020, **https://hbr.org/2020/11/getting-serious-about-diversity-enough-already-with-the-business-case**; Ashley Groggins and Ann Marie Ryan, "Embracing Uniqueness: The underpinnings of a positive climate for diversity", *Journal of Occupational and Organizational Psychology* 86, no. 2 (2013): 264–282, **https://doi.org/10.1111/joop.12008**

in her team improved significantly once a human capital strategy, providing mentoring, training and constructive feedback, was implemented.[46] The positive impact of such measures was echoed by a South African official, who attributed the positive work culture of their team to a leadership style that prioritized openness to new proposals, active mentorship, and constructive rather than dismissive feedback.[47]

Other senior US officials from the nuclear community corroborate that greater team diversity broadens the range of perspectives and challenges previously unquestioned assumptions. This outside-the-box thinking led to better-informed policy decisions, but only when leadership encouraged innovative ideas.[48]

Accept resistance

Studies have found that white men – the demographic group most active in the nuclear weapons field – tend to expect unfair treatment at organizations that emphasize diversity, regardless of their personal politics.[49] A zero-sum game mentality, in which more fairness towards others is equated with less fairness towards oneself, seems to be at play. If left unaddressed, such attitudes can prevent the embedding of fairness across functions and processes, increasing the risk of biased decision-making.

Resisting challenges to our biases is natural. Biases are cognitive rules that help us to make decisions more quickly and confidently. As default reactions, they are, by their nature, resistant to change.[50] However, if challenged correctly, their influence can be mitigated.

Accepting resistance enables engagement with the change process. Stigmatizing resistance, instead, allows the resistor to perceive the change process, rather than their own bias, as the problem.[51] Leaders should address resistors' psychological needs for acceptance, positive self-image and inclusion. Confrontation or punishment over concerns regarding diversity measures have been shown to reinforce resistance.[52] Participation in embedding fairness, instead, helps resistors to shift their source of validation from acting in line with their bias to acting in line with a culture that emphasizes fairness, equal opportunities and community.[53]

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[46] Heather Hurlburt et al., "The 'Consensual Straitjacket': Four decades of women in nuclear security", *New America*, 5 March 2019, https://www.newamerica.org/political-reform/reports/the-consensual-straitjacket-four-decades-of-women-in-nuclear-security, 32.

[47] Interview with the author, 31 October 20.

[48] Heather Hurlburt et al., "The 'Consensual Straitjacket': Four decades of women in nuclear security", *New America*, 5 March 2019, https://www.newamerica.org/political-reform/reports/the-consensual-straitjacket-four-decades-of-women-in-nuclear-security, 32.

[49] Tessa Dover, Brenda Major and Cheryl Kaiser, "Diversity Policies Rarely Make Companies Fairer, and They Feel Threatening to White Men", *Harvard Business Review*, 4 January 2016, https://hbr.org/2016/01/diversity-policies-dont-help-women-or-minorities-and-they-make-white-men-feel-threatened; Miriam K. Zehnter and Christa Nater, "Beyond Being Beneficiaries: Two mechanisms explain why women have more favourable attitudes towards gender quotas than men", *European Journal of Social Psychology* 55, no. 1 (2024), https://doi.org/10.1002/ejsp.3113

[50] Christine Wiggins-Romesburg and Rod Githens, "The Psychology of Diversity Resistance and Integration", *Human Resources Development Review* 17, no. 2 (2018): 179–198, https://doi.org/10.1177/1534484318765843

[51] Ibid.

[52] Pam Grossmann et al., "Preparing Practitioners to Respond to Resistance: A cross-professional view", *Teachers and Teaching* 13, no. 1 (2007): 109–123.

[53] Christine Wiggins-Romesburg and Rod Githens, "The Psychology of Diversity Resistance and Integration", *Human Resources Development Review* 17, no. 2 (2018): 179–198, https://doi.org/10.1177/1534484318765843, 189–191.

Secretary-General António Guterres (at left) delivers remarks to the Annual Conversation of the Group of Friends on Gender Parity in March 2025. Credit: UN Photo/Mark Garten.

Avoid boilerplate measures

Traditional measures like compulsory training and complaint procedures are often not effective at creating diverse and fair workplaces.[54] 'Outlawing' bias does not work. Instead, it often fuels resistance to change and disadvantages women and people of colour; for example, managers are more likely to dismiss allegations of discrimination when an organization prescribes diversity training.[55] A long-term study of over 700 US companies demonstrated that traditional diversity training had little to no positive effect on demographic diversity.[56]

Instead, leaders should define their organization's lack of diversity and equal opportunities as a challenge and invite staff to help find effective solutions, just as they would for other challenges facing their organization. Evidence shows that, if prompted to actively participate, even sceptics start to think of themselves as champions for fairness and diversity. Effective measures are those that promote individuals' responsibility for addressing an organization's deficit in fairness and diversity, for example, by implementing blind recruitment and mentoring programmes.[57]

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[54] Frank Dobbin and Alexandra Kalev, "Why Diversity Programs Fail", *Harvard Business Review*, July/August 2016, **https://hbr.org/2016/07/why-diversity-programs-fail**

[55] Ibid.

[56] Tessa Dover, Brenda Major and Cheryl Kaiser, "Diversity Policies Rarely Make Companies Fairer, and They Feel Threatening to White Men", *Harvard Business Review*, 4 January 2016, **https://hbr.org/2016/01/diversity-policies-dont-help-women-or-minorities-and-they-make-white-men-feel-threatened**

[57] Frank Dobbin and Alexandra Kalev, "Why Diversity Programs Fail", *Harvard Business Review*, July/August 2016, **https://hbr.org/2016/07/why-diversity-programs-fail**

Conclusions

The embedded fairness approach presented in *Make Work Fair* offers valuable lessons for boosting policy efficacy and innovation in the nuclear weapons space at a time when the importance of equal opportunities and fairness is called into question. Fairness is not the opposite of meritocracy; rather, it enables the full participation in meritocracy, unlocking benefits for all involved.

These benefits are demonstrated in clear, consistent evidence showing that demographic diversity – our outer differences in skin colour, gender expression, age, etc. – has a strong impact on the quality of collaboration and decision-making. Diverse teams are better at understanding tasks, solving complex problems, avoiding and addressing errors, exchanging new information and opinions and challenging false assumptions. Therefore, fairness and diversity offer valuable benefits for developing more effective and innovative policies to reduce nuclear risk and to promote arms control, non-proliferation and disarmament.

Arguments for changing the composition and structures of the nuclear weapons space should incorporate these learnings to become more nuanced and persuasive to a broader audience. Following the recommendations in this paper, more emphasis should be placed on the policy benefits of diversity, instead of focusing only on the inherent value of broader inclusion. More work is needed to collect case studies from the field that illustrate these benefits.

The nuclear weapons field should move beyond the 'add diversity and stir' approach. Far from being a quick fix, diversity can introduce friction, stereotyping and conflict, leading teams to communicate and perform poorly. Increasing diversity should be understood as a long-term strategy that requires integrating fairness across work processes and functions to become an embedded practice rather than a separate discussion, disconnected from everyday tasks. As Bohnet and Chilazi conclude, "fairness is not a program, but a way of doing things".[58]

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[58] Keti Lazova, "Make Work Fair: Data-driven design for real results", WomenTech Network, 28 January 2025, **https://www.womentech.net/blog/make-work-fair-data-driven-design-real-results**

About UNIDIR's Gender and Disarmament Programme

About the author

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Notes

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