Polar Record

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Commentary

Cite this article: Seag M, Badhe R, and Choudhry I. Intersectionality and international polar research. *Polar Record* **56**(e14): 1–5. doi: https://doi.org/10.1017/S0032247419000585

Received: 28 February 2019
Accepted: 25 August 2019

Keywords:
Intersectionality; Polar research; Arctic; Antarctic; Women

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Intersectionality and international polar research

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Abstract

Recent initiatives in polar research like Women in Polar Science and Women of the Arctic have shone a light on the strengths of female polar researchers and the struggles they have faced in their respective careers. These initiatives have started and contributed to ongoing conversations in the polar research community about increasing diversity and making the field more inclusive. In this commentary, we discuss the need to focus on intersectionality in diversity, equality and inclusion initiatives in polar research, and to address intersecting barriers faced by members and would-be members of our fields. These barriers are varied, often overlapping, and include, but are not limited to: gender identity; sexuality; socio-economic status; language; disability; and race. Polar research is poised to benefit from a tremendous diversity of ideas and approaches if we as a community can fully commit ourselves to understanding and addressing overlapping, interconnected barriers to equality and progress in polar research.

The publication of this special issue arrives at an important moment for the polar research community. We are in the midst of conversations about diversity, inclusion and equity, which are pushing us to acknowledge that our fields have not welcomed all equally and that our communities have been made weaker by the barriers that have been constructed around them. As many contributions in this issue undoubtedly discuss, the marginalisation of women has been among the most damaging and visible of dynamics within polar research. At the same time, our communities must also address the marginalisation of individuals across the gender and sexuality spectrums; individuals from ethic minority backgrounds; individuals from the Global South; individuals with caring responsibilities; and those with disabilities. This commentary highlights an important framework for addressing these overlapping aspects of our identities, taking gender as a starting point.

Gender bias and discrimination have been pervasive in both the Arctic and the Antarctic since the earliest polar expeditions, whose gendered and colonial roots laid the foundation for polar science as we know it today (Bloom, 1993; Glasberg, 2012; Rosner, 2009). It is well documented that gender barriers persist. In some cases, formal discrimination against women has only recently begun to be addressed. Women in many countries were barred from research opportunities in the polar regions through most of the 20th century – in some cases, into the 1990s (Carey, Jackson, Antonello, & Rushing, 2016; Chipman, 1986; Seag, 2017). Formal barriers persist for some women, for example, LGBTQ women may be unable to access research fora in certain countries unless they hide their sexual identity (Mizzi, 2013; Yoder & Mattheis, 2016), and women with disabilities may be barred from fieldwork (Sukhai & Mohler, 2016).

Even more prevalent are informal barriers to gender equality. A recent study on women in the Australian Antarctic Program identified gendered barriers to women's participation including: physical barriers; caring responsibilities and unpaid work; cultural sexism/gender bias; a lack of opportunities and recognition; and unwanted attention and harassment (Nash et al., 2019). These apply to women in many institutions across the world, working in both Antarctica and the Arctic, as has been made clear by a range of scholarly work, events, webinars and op-eds in recent years (e.g. Association of Polar Early Career Scientists [APECS], 2019; Bell & Koenig, 2017; Smieszek & Prior, 2019; Starkweather, Seag, Lee, & Pope, 2018). Studies from cognate fields also put numbers on previously unquantified issues like harassment: the groundbreaking Survey of Academic Field Experiences revealed that 71% of women had experienced harassment while conducting scientific fieldwork, while 26% had experienced sexual assault (Clancy, Nelson, Rutherford, & Hinde, 2014).

As members of the polar research community, we wish to focus on a gap that remains insufficiently addressed in research and practice. We cannot succeed in creating an inclusive polar research community unless we confront the barriers faced by women, and also other, overlapping forms of inequality. For this, we need to understand the concept of intersectionality.

Our aim with this commentary is not to produce a theoretical contribution to intersectionality research, though we recognise the importance of work like this (e.g. Vladimirova & Habeck, 2018 and others in the Gender in the Arctic Research Network). We also do not claim this as an all-encompassing account of intersectionality in polar research, although we have endeavoured to be inclusive of a variety of sources and perspectives. We emphasise that the underlying point of this commentary – that efforts to improve inclusivity in polar research require attention to overlapping processes of marginalisation – is broadly applicable, and essential to creating a fully inclusive international polar research community. As such, we aim to increase awareness of the concept of intersectionality, and to encourage embedding it within discourses on inclusion and equity in polar research institutions.

What is intersectionality?

Efforts to improve gender equality in polar research have evolved in varying ways across the world. A common feature of efforts to improve gender equality in most fields – not just polar research – has been a de facto homogenisation of the category "women". Efforts to address challenges experienced by women as a group have often failed to acknowledge diversity *within* that group, or the varying types and degrees of challenges that are faced by different groups of women. The assumption has been that women are defined only by gender, when our identities are multiple and overlapping, reflecting ethnicities, nationalities, religions, languages, sexualities, ages, appearances, physical abilities and more. We experience unique opportunities and challenges on the basis of those categories – or more likely, at the *intersections* of those categories.

The term "intersectionality" was coined in 1989 by American scholar Kimberlé Crenshaw, who found that because anti-discrimination legislation in the US treated race and gender as separate, mutually exclusive categories, black women suffered from discrimination without recourse (Crenshaw, 1989). Black women had the options of identifying solely as "women" or as "black" under the law, when the discrimination they faced was compounded by both sexism and racism – neither civil rights protections nor sexual equality protections would be sufficient alone. Crenshaw gives the example of a woman who was unable to gain employment at a factory that hired women in administrative positions, but only *white* women; the company had black employees in trades positions, but only black *men*. At the time, the company was not legally discriminating against anyone, because the employer demonstrably hired both women and black people in some capacity (Crenshaw, 2016). Black women had no recourse.

While this example may seem remote to some polar researchers, it clearly illustrates the broad principle of intersecting identities and disadvantages. Since Crenshaw coined the term, intersectional approaches have been widely adopted as powerful tools for understanding how multiple forms of disadvantage – including and beyond gender and race – can be compounded, creating unique obstacles that are otherwise overlooked or misunderstood (Cho, Crenshaw, & McCall, 2013). While we focus our intersectional lens on women in this commentary, in line with this special issue of *Polar Record*, it is important to note that intersectionality does not only apply to women: we all experience overlapping challenges and opportunities on the basis of our multiple identities.

Intersectionality and polar research

Intersectionality is, at its foundation, an issue of justice: it is about understanding how some of us have been spared obstacles that others face and creating a system that is fair for everyone. Attention to intersectionality is essential to ensuring communities like polar research can take advantage of diverse perspectives and talents, which leads to more creative and robust research outcomes (Campbell, Mehtani, Dozier, & Rinehart, 2013; Nielsen et al., 2017; Powell, 2018).

We are not the first polar researchers to identify a pressing need for intersectionality in polar research agendas, communities and institutions. Hoogensen Gjørv (2017) and Vladimirova and Habeck (2018) have issued targeted calls for intersectional approaches to the study of gender in the Arctic. Nash et al. (2019) have identified the crucial need for intersectional research in an Antarctic context. Starkweather, Seag, et al. (2018) highlighted the need for intersectional approaches to inclusivity in polar research institutions, pointing to calls for intersectional awareness at the international panel discussion "From Entering the Field to Taking the Helm: Perspectives of Women in Polar Research", held at the Polar2018 Open Science Conference.

As these voices and others have made clear, polar research benefits not only from more women, but also from a diversity *among* women, as well as a wide range of other, overlapping minority groups. Members of our global community come from many different backgrounds, in which gender and womanhood are constructed, positioned and expressed in countless ways. For some, the challenges we experience as women in polar research are compounded by the effects of other marginalised groups we are part of, whether based on language, religion, sexual orientation, ethnicity, nationality, race, skin colour, age, familial and caregiving responsibilities, socio-economic status, career stage, disability, or other factors. We might also experience benefits from some of these aspects of our identities, while others do not.

These overlapping aspects of our identities also have different implications in different contexts (for discussion from another international STEM field, see Geissler & Okwaro, 2014). Within a particular local or national context, a woman's race or class might impact her ability to access opportunities in polar research and thrive in the field. At the international level, language or nationality might present a more immediate barrier to full participation for some women (e.g. because of visa and/or mobility issues). Moreover, our diversity is such that for some, the above list of identity axes will inevitably be partial, leaving out important categories; while for others, some categories will be confusing or meaningless, as the constructs or terminology fail to translate cross-culturally. These categories are messy, and their interactions are conditional and varied – and that is precisely why we need to understand intersectionality as we strive for inclusion. Our international community is diverse in countless ways, and attention solely to "women", or even to "gender", can only get us so far.

Putting intersectionality to work

Once we understand intersectionality, we can put our awareness to work. Our task is to make sure that all feel welcomed, supported and equipped to contribute to polar research, and that our work on behalf of women does not privilege some and disadvantage others. Intersectionality should inform our approach to questions like:

https://doi.org/10.1017/S0032247419000585 Published online by Cambridge University Press

- How can we better look at the diversity data collected about our research institutes, funding agencies and professional networks? When demographic data are disaggregated with intersectionality in mind, important trends can become visible. For example, a major study by the US National Academies of Science, Engineering, and Medicine recently found that women of colour and LGBTQ women are disproportionately affected by harassment compared to other women (National Academies of Sciences, Engineering, and Medicine, 2018).
- What policies have we put in place to protect members of our community from bullying, harassment and assault? Do our diversity and inclusion initiatives centre intersectionality? Resources on these issues may not translate across languages and cultures, and good advice for women in one context may not be good advice for women in another. Input from people of different backgrounds is crucial (e.g. for research on harassment in the Australian Antarctic context, see Nash et al., 2019, and in the Brazilian Antarctic context, see Delben et al., 2019).
- What are we doing to inspire the next generation? Outreach should be sensitive to diversity among broad target groups like "girls", lest we overlook girls who may not be able to access our interventions or identify with the role models provided.
- How are we working to recognise excellence? As we call for more women to be nominated for polar awards (International Arctic Science Committee, 2018), organisations like the Scientific Committee on Antarctic Research have found that simple changes in wording requirements can result in a substantial increase in award applications from women (APECS, 2019). We should also be aware of disparities in recognition among women from different backgrounds (500 Women Scientists, 2019).
- How are we recruiting people to ensure we have a diverse applicant pool? Assembling teams with inclusion in mind yields better professional development and research outcomes (Campbell et al., 2013; Starkweather, Derry, & Crain, 2018). Once new members are on board, are events planned keeping in mind that not all environments, such as pubs or after-hours events, are accessible or welcoming to all?
- How are we working to retain researchers? Many organisations work to address the points along the "leaky pipeline" where we tend to lose women from the field; have we thought about which women are lost, and when? A recent study revealed that nearly half of US female scientists leave full-time science after having their first child, highlighting societal and organisational obstacles faced by new parents (Cech & Blair-Loy, 2019). There also is growing concern about the casualisation of the academic workforce: do our efforts to combat precarity address the fact that precarious work can pose particular problems for women (Trades Union Congress, 2014) or that women and people of colour are generally underrepresented in academia overall, but overrepresented in precarious positions (Zheng, 2018)? What does this mean for women from minority backgrounds?
- How are we organising our conferences? Decisions about when and where to host them can disadvantage certain groups of people (APECS, 2019). For example, disabled participants will need physical access to all relevant spaces (Sukhai & Mohler, 2016), and parents will benefit from support with childcare, such as a private room for nursing mothers (Calisi & a Working Group of Mothers in Science, 2018). Moreover, the more remote or expensive the venues are, the harder it will be for people in remote areas and/or with fewer resources to participate. What financial and logistical support are we offering? Are we making use of available technology to provide remote access for those who are unable to attend in person? One way to increase participation in conferences is to live stream lectures and use multimedia tools, such as Twitter and Slido, to enable a diverse worldwide audience to interact with speakers.
- What do our collaborations look like? Including diverse perspectives from the start of a collaboration strengthens research (European Polar Board, 2017; Nielsen et al., 2017; Powell, 2018), and inclusive practices enable all to contribute to the fullest, for example, in establishing mutually agreed upon norms, like how to achieve privacy in the field (Starkweather, Derry, et al., 2018); and in planning logistics that account for requirements and preferences that might not be experienced by the group leader, like clothing/gear that suits all bodies comfortably (Nash et al., 2019) and food that meets cultural/religious requirements.

This list of questions is inevitably partial, but we hope it serves as a starting point for discussion and action.

Fortunately, a growing number of international initiatives can help point us towards better understanding of lingering barriers, as well as solutions. Women in Polar Science, Women of the Arctic, and Women in the Arctic and Antarctic are all addressing gender equality with a focus on women (though not exclusively on researchers). The Pride in Polar Research network is addressing issues concerning the LGBTQ+ community. Minorities in Polar Research connects and highlights the work of black and minority ethnic individuals in polar research. The Association of Polar Early Career Scientists (APECS), including more than two dozen APECS National Committees, supports researchers at the start of their careers. Organisations like UArctic are working towards more inclusive collaboration between indigenous communities and non-indigenous polar researchers in the Arctic. Many organisations at national and local levels are also working in this space. Foregrounding intersectionality across our networks is an important step as we move forward.

These organisations can learn from one another as we develop an intersectional approach to inclusion in polar research. For example, the work of the Pride in Polar Research Network serves as an important reminder to women's networks that some of our members are impacted by homophobia and transphobia, and that the challenges faced by women, non-binary individuals and sexual minorities have been bound up with one another's throughout history. The work of indigenous and Northern organisations highlights a need for global women's networks to be consciously inclusive of indigenous women. In addition, we need to be cautious about who we centre in conversations among and about women in the Arctic, as many researchers are only temporary visitors. Women of the Arctic offers one such model for incorporating diverse worldviews and experiences among indigenous and non-indigenous women into change-oriented dialogue.

Just as there are many initiatives to support equality in polar research, there are many ways intersectionality matters in our communities. We cannot address them all in this commentary. The important thing is the underlying concept: that women are a diverse group, and we need to be aware that women face diverse challenges. Although there is no one-size-fits-all solution, we can begin by listening to women from diverse backgrounds and examining the work done on intersectionality by specialist researchers from the social sciences and the humanities.

https://doi.org/10.1017/S0032247419000585 Published online by Cambridge University Press

Conclusion

This brief discussion has likely raised more questions than we have been able to answer. We also note that because of our own language barriers, we have been unable to integrate resources and literature on intersectionality from non-English-speaking countries. This is one example of the work still left to do. We encourage future research to continue collecting data and enriching our understanding of the polar research community through an intersectional lens, and we hope all community members will consider intersectionality as they approach leadership, mentorship, team-building, collaborations and other aspects of their work.

Together, we have a unique opportunity to build a more inclusive polar research community. We already benefit from global frameworks centred on international collaboration, and from progress towards greater inclusion of a number of historically marginalised groups. From here, polar research will become stronger if we address intersecting barriers faced by members and would-be members of our fields. Polar research is poised to benefit from a tremendous diversity of ideas and approaches – but only if we commit ourselves to understanding and addressing overlapping, interconnected barriers to equality. We hope this commentary has offered a starting point to broaden and enrich this conversation.

Acknowledgements. The authors wish to thank an anonymous reviewer whose helpful suggestions have strengthened this commentary.

Financial support. This work was supported by the Gates Cambridge Trust (M.S.) and the Economic and Social Research Council (I.C.). MS's PhD research is supported by a Gates Cambridge Scholarship. IC's PhD research is supported by an ESRC Case Studentship, Grant Number ES/P000665/1, in partnership with the Scientific Committee on Antarctic Research.

Conflict of interest. None

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