

International Women's Day 2022: An interview with Professor Anna Scaife

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An Introduction

Policy@Manchester is proud to have three exceptional academic co-directors – Professors Anna Scaife, Arpana Verma and Francesca Gains. In addition to being experts in their respective fields, Policy@Manchester's co-directors are staunch advocates for platforming academic expertise in policy conversations.

This year to celebrate International Women's Day, and to reflect on the specific role of women's voices in policy, we were fortunate enough to sit down with Professor Anna Scaife to get her views on this important topic and some of the issues that still require attention.



An Interview with Professor Anna Scaife

Anna is a Professor of Astronomy and an astrophysicist. Her career has mainly been focused on the development of new radio instrumentation and software. Currently, her research focuses on the how to quantify the uncertainty and bias in the predictions that artificial intelligence makes when looking at scientific data.

When you think of the words 'astrophysicist' or 'astronomer' you might imagine big, universal problems that need to be solved. To do that day in and day out, you have to have a lot of passion. Did you always know that that was something that you wanted to do from a young age?

No, it was never something that I even thought of when I was young. When I was in school, I wanted to be an archaeologist because I was heavily influenced by Indiana Jones films. Later on, I had a really good physics teacher so I went ahead and I did a degree in physics.

It never occurred to me that women didn't do physics because I went to an all-girls school where everyone in my physics class was a girl. I guess I had a bit of a shuttered view of the world. I was almost surprised when I got to university and discovered how few women there were in my lectures. But again, I think I never went in with any preconception that I was an outlier. Someone once told me that some women just don't see it and that's why they get by, because they literally don't notice that people are discriminating against them. I suspect I may have just fallen into that category of not noticing which something I'm not particularly proud of.

The first time I really noticed that people behaved differently towards women in physics than they did towards men was when I started supervising my own students and I noticed that people treated my female students differently. There were really small things like not taking on suggestions or not acknowledging who had made the suggestion - all these really stereotypical things that you become more and more aware of over time. As a supervisor, it's

your job to step in and make sure that that doesn't happen or happens as little as possible. So I think for me I sort of just embarrassingly sailed along not really noticing these tiny things until I was an academic staff member and had my own students. The point at which I started noticing it for myself again is when I got to be above a certain level of seniority where I was often the only woman in the room.

I've just followed what interested me throughout my career and I've been fortunate enough for that to work because it doesn't always work for everyone.

From your perspective, why do you think policy engagement is important? And do we need more women's voices in policy in order to bring about changes both within academia more generally and specifically in STEM subjects as well?

Yes. Something that I think about, similarly to how I consider bias in my datasets, is the uncertainty in policy, academia and management more generally. If you don't have particular voices then they get ignored, and that's not specific to women, it's a wider diversity issue. If you're not presented with the specific point of view or a perspective from a given experience, there's no guarantee that the needs of that community will be met by any kind of organisation whether it be government, university or corporate. If you're not including those voices then you're missing part of the conversation, which generally leads to bias. I think that every conversation in all of these arenas should be as balanced as possible and policy engagement, the societal implications of policy engagement are so huge that if you're not doing that then you're creating a problem.

The theme for International Women's Day this year is 'break the bias' which seems to be very on topic for some of the things that you're researching as well! In your view, does bias hold women back from achieving leadership positions in policy and academia, or even act as a barrier for getting started in those careers to begin with?

I think people are reluctant to make structural changes because they are difficult, expensive or simply change the status quo. **Structural problems embedded in our organisations for a long time hold us back - because those issues lead, not to the reduced recruitment of women, but certainly to the reduced retention of women.** If you're talking about women going into leadership that means creating a pipeline where women don't leave or are forced out by those structural problems. For example, things like childcare which in principle is not gender-specific but we all know that the burden of care falls disproportionately on women. A lack of child care, flexible working and those kinds of things that aren't directed at women but still disproportionately affect women.

The way a lot of our structures are set up at the moment especially in academia make the assumption that most academics are part of a family group where they have a spouse at home who takes care of their children, the house, and potentially cooks all their meals. These structures enable the old model of academia where an academic can really completely focus on their field of research because they have all of this external support. But the reality these days is that both women and men have less of that external support because that sort of atomic family doesn't exist in the same way that it did historically. Society has moved on yet some of the structures that we use haven't.

That's a really hard one to navigate and there are probably no easy answers. Childcare, like you mentioned, is a massive barrier – do you think there's a duty to provide universal free childcare? Do you have any other recommendations for what policymakers should do to mitigate gendered impacts?

Well, universal free childcare would be great. I also think that there are wider policy implications for these things because one of the things that the government in particular is very bad at doing is joining up the dots between the implications of different policies. So if you look at, for example, productivity you imagine the impact that universal free childcare would have on productivity because effectively you're enabling a whole swathe of the workforce that previously hasn't been able to work because it's just not financially viable.

There are other smaller policy implications as well or should I say less directly visible implications. Things like public transport. If you think about the impact on productivity of public transport, there are gendered aspects even to that because of the way that public transport works. I was reading an article recently on the different ways in which men and women make journeys. Because of caring responsibilities, a woman's transport needs for a day will include dropping off children at childcare, going to the supermarket, going to a doctor's appointment, and so on. Again, these caring responsibilities are not specific to women but it's a burden that falls disproportionately on them. If you're trying to do that by public transport, it's incredibly inefficient to do multi-stop journeys whereas if your public transport need for the day is home to work and back home then that's fine. Hence, public transport policies affect men and women differently, and they also affect productivity because of the inefficiencies.

Policy decisions have gendered implications that are often not considered. Taking a much more holistic view of how policy decisions impact people based on gender would be very useful. That comes back kind of full circle to some of the other things we were talking about, the more voices you have in the room when you're making those decisions, the less likely you are to have policies with biases inherently built into them.

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