thoughts about equity & diversity

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This is a brain dump of thoughts after attending a diversity/equity training workshop at McMaster.

functional vs. ethical reasons for promoting equity and diversity

I got the impression that one of the main motivations for promoting equity and diversity at the university was a functional one, i.e. diverse groups perform better. (I may have been mistaken; the Universities Canada principles, for example, are definitely values-based.) Using these functional arguments lets us avoid arguing over values, but I worry about them. What happens to the argument for equity if we later find out that the functional arguments are weaker than we thought? While I imagine that there's a strong evidence base for (e.g.) "diverse groups function better" (I haven't dug into it myself), I'm concerned about the possibility for confirmation bias in this literature - people want it to be true, so it's subject to all of the usual file-drawer/QRP/etc. problems with research that has a normative message. I strongly prefer the *ethical* argument for equity; everyone ought to be given a fair chance.

equity and ecology

On a more abstract level, I'm interested in the analogies between the functional arguments for diversity in hiring and the diversity-productivity and diversity-stability literatures in ecology (theoretical and empirical studies of whether ecological communities that contain more species are more productive *or* more stable/less variable in their productivity over time). In parallel with the ecological literature, we can think of various mechanisms for increased community-level (i.e. university-level) performance in the presence of more diversity:

- more equitable hiring finds better candidates on average (because it draws from a larger pool of previously underappreciated candidates) ["sampling effect"]
- equitable/diverse hiring results in a broader range of approaches, which have a better chance of finding innovative research areas ["portfolio effect"/"niche differentiation"]
- diverse *groups* work better together (I have the impression that this is the main focus of the research in business/organizational studies; I'm not sure how strongly it applies in university setting, where a great deal of work is still done individually rather than in groups). This mechanism doesn't actually have a direct analogue that I know of in the ecological literature - it would have something to do with mutualistic interspecific interactions ...

blinded applications

Would it be possible to set up a system making the first stage (at least) of applicant review blinded (i.e. redact names, pronouns, other obvious clues)? This would obviously be logistically challenging, but it would at one stroke remove a huge fraction of the racial/gender cues that are subject to implicit bias at this early stage. (A colleague comments that this might work for gender, could be a problem if there are credentials that are associated with dominant groups - I'm not sure. What might the pitfalls be?)

role of bias

I would expect biases to have the strongest effects both early in the hiring process (e.g. rapid review/filtering of applications, subject to implicit biases) and late in the hiring process (interviews/personal contact; subject to in-group bias).

ensuring equality of opportunity vs. addressing historic inequities

(or, individual-level vs. population-level equity)

If we had a truly equitable search process (maybe impossible, but a worthwhile thought experiment), and if we only cared about equality of opportunity for individuals, then justifications for hiring members of underrepresented groups such as "to ensure that students have adequate role models" or "to improve parity with their labour market representation" or "to redress historical inequities" may no longer be valid, as they apply at the population rather than the individual level. (Diversity should be an *outcome* of an equitable hiring process, but according to strict individual equity criteria it would not be its *goal* ...) I was struck by an example given by the presenter - suppose one discovers that one of two remaining excellent candidates is a "cryptic" member of an underrepresented group, e.g. a Métis person who doesn't present as such. Should this membership be given any consideration? Since their membership in an underrepresented group is invisible, it's hard to see how they could have been handicapped by bias earlier in the search process. Therefore, if we're only concerned about individual-level equity, it's not obvious that we should take their minority status into account at this point ...

If individual-level equity is our only goal, should "contributes to diversity" be part of our assessment rubrics at all? Wouldn't it be sufficient to strive for a fair recruitment and assessment process? Or do we value diversity for its own sake, and not just as the outcome of an equitable hiring process? (If so, we face the controversial scenario of favoring a candidate *because of their group identity*, not just the more neutral goal of equality of opportunity.)

equity meets departmental politics

Department members often have strongly held preferences for particular disciplines within their field - this is particularly contentious when a job ad is broadly targeted. In arguments over hiring decisions, they are likely to bring forward whatever characteristics of a candidate support their goal of supporting a discipline. For example, if I think my department needs strength in ecosystem ecology, I will evaluate the strong points of the ecosystem ecologists in the candidate pool (strong teaching; strong research; enhances diversity; etc.) and argue for the importance of those criteria, downweighting the importance of other criteria. This can work for or against diversity, depending on whether the ecosystem ecologists in the candidate pool happen to be members of under-represented groups.

recruitment

Can McMaster offer assistance in finding appropriate avenues for outreach? In the US I would think about making contact with SACNAS, minority-serving institutions, etc. ... I don't know as much about the landscape in Canada. U of T's document mentions "using your networks"; "asking colleagues to draw on their networks"; "advertising to diverse audiences"; "connecting with fellowship programs". More concrete advice would be useful (obviously it will be field-specific), especially when a department is not very diverse to start with ...

other dimensions of diversity

Grounds for discrimination according to the Canadian human rights commission include race, color, religion/creed, national origin/ancestry, colour, gender identity or expression, age, disability, veteran status, marital/family status, genetic characteristics, pardoned/suspended conviction. This doesn't include some common classes that are socially relevant, e.g. weight/BMI, socioeconomic status (sometimes encoded/detected as "first-generation college/university"), political orientation. Is it important to take these into account? How?

IATs

I found an interesting article on implicit association tests. It's in The Cut, "the premier destination for women with stylish minds" (!), which seems like an odd venue[1], but it seems thoughtful.

- overall test-retest reliability of IAT = 0.55 (maybe ≈ 0.4 for the race IAT?)
- meta-analysis of race IAT scores: probably can't/shouldn't be used to predict *individual* behavior.
- proponents of IAT state that it's useful "[1] as a means of estimating the level of implicit bias in society, and [2] as an educational tool" ? I think these arguments have some validity, but there's a reasonable counter-argument that IATs are more useful for their shock value (waking people up to the idea that they *may* suffer from implicit bias), rather than for their actual, quantitative meaning.

The studies about bias in resume screening etc. (differential treatment of equivalent candidates with racialized/gendered/etc. identification) are **much** more convincing, because they speak directly to the context of hiring and evaluation. It would be much more work than trying out a canned IAT, but it would be *really* interesting to have people perform such an exercise - e.g., "in the next 30 minutes, rate the following 30 applicants on a scale of 1 to 5". Some challenges: (1) much more time-consuming per sample than an IAT, thus it might be difficult to get a reasonable estimate per person within a reasonable amount of time (while even population-level measures would be interesting - it would hit close to home to know e.g. that Faculty of Science professors were biased by (X)% in evaluating racialized/gendered/etc. applicants); (2) not clear whether the results would be valid if subjects know what kind of a test they're taking ... maybe they'd be extra-cautious (although of course the hope would be that they'd be even *more* cautious when evaluating real applicants). (This is one of the reasons the IAT is so attractive - measuring unconscious bias means that in principle you don't need to control the subject's awareness ...)

[1] although when Teen Vogue is reporting on politics...

evidence for bias against women in tenure-track faculty hiring, and efficacy of interventions.

I am happy to accept that academia is biased against women in many, many ways. I have the following specific questions:

- what is the evidence for how bias affects hiring *at the tenure-track level in academia*? Ideally I'd like information across many categories of concern [race, body mass, gender, political views, etc.], but male/female gender bias is the case for which we're most likely to have a reasonable body of evidence ...
- what is the evidence for the efficacy of different kinds of interventions? How do rubrics/diversity training/implicit bias testing/etc. change hiring outcomes?

So far what I've found is mixed. I have **not** searched widely, nor systematically, nor dug into the details of studies, but most of the experimental bias studies (e.g. based on having subjects score equivalent CVs with differently gendered names) I've come across focus on non-academic or medical contexts (e.g. the systematic review by Isaac, Lee, and Carnes (2009)). The only study on the effects of interventions in academia that I've looked at (OK, glanced at) so far was about changes in *climate* (i.e., measures of perception and satisfaction rather than changes in hiring behaviour) (Carnes et al. 2015). Surprisingly, Williams and Ceci (2015) found empirically that female-gendered names had an *advantage* over equivalent male-gendered names in a blind study (Ceci and Williams (2015) found that this advantage did not overcome an actual difference in qualifications).

Ceci (2018) concludes:

> I conclude that the most important causes of underrepresentation appear to occur before women matriculate in college and are concerned with ability-related beliefs, stereotypes, and preferences starting in early elementary school, which by the end of high school have reduced the size of the potential pool. By the time women reach graduate school, there is evidence that they are as successful as their male counterparts in being interviewed and hired for tenure-track positions, funded, and published.

There's obviously a lot to read here, and before forming a conclusion one should read stuff by a bunch of different researchers, but in any case this raises some questions about how much we should focus on overcoming gender bias in hiring, and what we should do about it ...

References

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