RESEARCH

Towards the good profession: improving the status of women in political science

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Although women have made considerable inroads into political science, they still comprise only about one third of the profession. Women political scientists are concentrated at lower ranks and less prestigious institutions, less likely to be published in the discipline's top journals, and cited less frequently than men. There are indicators that women's marginalisation is related to exclusion from predominantly male networks in the discipline; thus, I propose a research agenda to map the extent of women's marginalisation in political science. In turn, I hope that this body of knowledge will push political scientists to address the structural inequalities embedded in the field.

Key messages
- Women's status in political science continues to lag men's status.
- Disparities are likely related to women's lack of access to predominantly male academic networks.
- Research on networks in political science will map the current gendered structure of the discipline.

Introduction

Due to women's late entry into the professoriate, higher education remains a masculinised environment in which women are under-represented relative to their completion of terminal degrees (De Welde and Stepnick, 2015). Academia has proven itself highly resistant to initiatives intended to improve the status of academic women (Dobele et al, 2014). This resistance is powerful, persisting despite existing research that demonstrates three dimensions of academic life that contribute to women's

underrepresentation in academia: work–life balance, gender bias/harassment and marginalisation within their disciplines.

Studies of work–life balance show that academia is particularly inhospitable to mothers (De Welde and Stepnick, 2015). Overlap between the childbearing and junior faculty years makes it less likely that women with small children with receive tenure and/or promotion (Mason and Goulden, 2004: 88). Studies also show that gender bias undermines women's progress and promotion. Common biases include gendered stereotypes about the jobs that women are expected to do (caring and support), students' gendered ideas of how a professor should look/act and the continued prevalence of sexual harassment in academic workplaces (Ilies et al, 2003; Britton, 2017; Sapiro and Campbell, 2018). Gender biases also result in the perception that women are less competent than men, even when women are performing at similar levels to their male colleagues (Kadera, 2013; Monroe, 2013). Finally, studies of career trajectories show that women remain marginalised in political science. They are concentrated at lower ranks and less prestigious institutions, less likely to be published in the discipline's top journals, and cited less frequently than their male counterparts (APSA, 2011; Mitchell et al, 2013).

In this article, I focus on the marginalisation of women in political science, specifically, women's relative exclusion from professional networks within the discipline. Research indicates that many disparities in academic success are likely related to women's lack of access to predominantly male academic networks (Belle et al, 2014). While work–life balance and bias issues certainly have negative effects on women in political science, rectifying them requires structural change at the level of the university/institution. Structural change is largely out of our control as political science faculty, while the inclusion of women in political science networks is the exclusive purview of political scientists.

An intersectional analysis of marginalisation in political science, addressing the combined salience of race-ethnicity, sexuality and other social identities, would be preferable to my focus on gender. However, the data are not available to support a cross-national, intersectional study. The data I draw upon in this article come from Anglo-American and European research, wherein the data are rarely disaggregated into subgroups of women in political science. More broadly, very few states and/or state-level political science associations (PSAs) regularly collect systematic data on the multiple and overlapping identities of political scientists, and the available cross-national data are not strictly comparable.[1] Thus, this article focuses on gender.

In the following, I first review recent research on the status of women in the political science professoriate, as well as gendered publication and citation patterns in the discipline. This overview establishes the urgency of understanding the gendered nature of political science academic networks. I turn next to the importance of networks in academic success and review the extant research that contributes to our limited understanding of gendered and elite professional networks in political science. In the final section, I propose a research agenda for examining the extent and influence of gendered professional networks in political science.
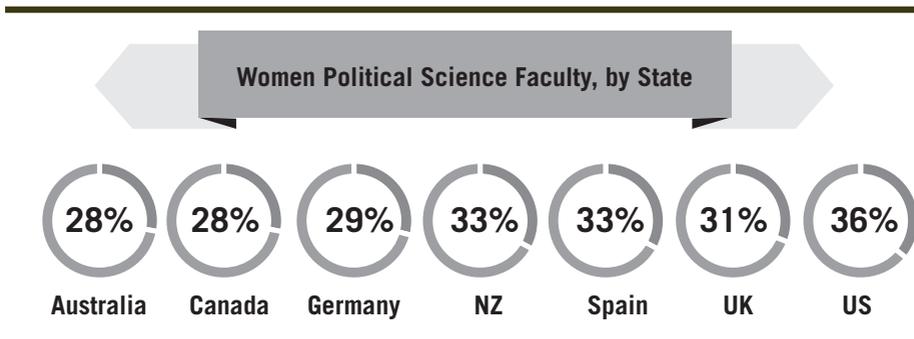
Marginalisation of women in political science

Cross-nationally, there is a steady loss of women at each progressively higher rank in the academy; this phenomenon is known as the leaky pipeline (Monroe and

Chiu, 2012). Throughout the Global North, women make up the largest share of the contingent faculty ranks (Wilson et al, 2010; AAUP, 2014; Acker et al, 2016; McKenzie, 2017) while occupying the smallest share of upper-level higher education administrators (Dunn et al, 2014; McKenzie, 2017).

Evidence of gender imbalances in the academy has led researchers in Europe and the Anglo-American states to evaluate the position of women faculty in political science (APSA, 2011; Vickers, 2015; Bates and Savigny, 2015b; Sawer and Curtin, 2016). As shown in Figure 1, women political scientists comprise approximately one third of political scientists across Western countries (Lindroos et al, 2014). Women political scientists are less likely than men to make a career in academia (Briggs and Harrison, 2015); those who do enter the academy are less likely to achieve tenure than men (Hesli et al, 2012) and less likely to be full professors of political science (Abels and Woods, 2015; Kantola, 2015).[2] In contrast, women political scientists are more likely than men to be employed in precarious adjunct/contingent faculty positions (Abels and Woods, 2015; Elizondo, 2015). The result of these cross-national patterns is that women are disproportionately concentrated in lower ranks, as well as in non-research-oriented and/or less prestigious research institutions (APSA, 2005). There is evidence that this concentration at lower levels may spill over into professional associations; Gethen and Sauer (2016: 5) report that in the European Consortium for Political Research (ECPR), 'At the higher levels of the organisation, [women's] participation is lower still when it comes to editing a publication, delivering a plenary lecture, acting as an [official representative] or being elected to the Executive Committee'.

Figure 1: Women faculty, by state

Women Political Science Faculty, by State

28%	28%	29%	33%	33%	31%	36%
Australia	**Canada**	**Germany**	**NZ**	**Spain**	**UK**	**US**

Sources: For Australia, Canada and New Zealand, data from Curtin (2013: 72); for Germany, data from Abels and Woods (2015: 93); for Spain, data from Elizondo (2015: 100); for the UK, data from Briggs and Harrison (2015: 109); and for the US, data from APSA (2017). Graphic generated using visme.co.

Women are also underpaid relative to their male colleagues. Recent research indicates that while male and female political scientists in the US start at similar salaries, a statistically significant wage gap occurs as women political scientists move up the career ladder (Claypool et al, 2017). A report by the Dutch Network of Women Professors indicates that while there are gender wage gaps across all disciplines, the wage gap in the social sciences – where there are larger numbers of women – is particularly high (De Goede et al, 2016). Given the reported wage gaps in academia in many countries, it is likely that women political scientists throughout Europe and the Anglo-American states are similarly underpaid (Bailey et al, 2016; EU, 2016). As

Bates and Savigny (2015a) argue: 'a persistent pay gap exists in [European academia] because equal pay legislation is not strictly enforced'.

Women and publications in political science

Although women make up roughly one third of the political science professoriate, women's articles only comprise about 19% of all political science articles from 1991 to 2011 stored in the JSTOR database (West et al, 2013: 2). Moreover, articles in top journals are disproportionately quantitative studies authored by men or teams of men from research institutions (Breuning et al, 2005; Smith and Cornut, 2016; Teele and Thelen, 2017). In North America, qualitative work is more likely to be undertaken by women and is less likely to be published in many of the most prestigious journals (Breuning and Sanders, 2007).

The fact that male-authored articles dominate top journals is important to gendered citation patterns in the discipline since the evidence suggests that men are less likely than women to cite female-authored articles (Mitchell et al, 2013). Although Mitchell et al's (2013) study references same-sex citation patterns in just two international relations (IR) journals, the findings are consistent with research which indicates that women are more likely than men to include female authors in political science graduate syllabi and reading lists (Colgan, 2017; Hardt et al, 2017).

Another gendered pattern is that women are not cited at rates proportional to their presence in the discipline and male-authored articles in the top journals receive more citations than female-authored articles (Masuoka et al, 2007; Atchison, 2017a). Additionally, Maliniak et al (2013: 907) find both that women in IR are cited at significantly lower rates than men, and that '[a]rticles written by female authors are not only being cited less, but authors of the most influential articles are citing them less often'.

Interestingly, evidence from three top British journals indicates that although women are less likely to be lead or solo authors, women's work is not under-cited compared to men's (Williams et al, 2015). Similarly, in their study of the Norwegian *Journal of Peace Research*, Østby et al (2013) find no evidence of gendered citation patterns. Kadera (2013) attributes the latter's findings to higher levels of gender equity in the Scandinavian states. However, the high levels of gender equity in Scandinavian society do not seem to have penetrated the Scandinavian academy. For example, Kantola (2008, 2015) documents a lack of gender equity in Finnish political science, while Hydén et al (2002) detail the slow pace of women's progress in Swedish political science, and Saghaug Broderstad et al (2018) present findings indicating that Norwegian women remain under-represented in political science publications.

Editor gender may affect women's article submission decisions; Gethen and Sauer (2016) report that the percentage of women authors submitting to the ECPR's journals was higher when there was at least one female co-editor. Overall, Stegmaier et al (2011) find that women are not under-represented in journal leadership positions; however, there is considerable variation among journals. For example, between 2008 and 2015, 30% of editors of *European Political Science* were women, while that figure was over 40% at the *European Political Science Review*; in contrast, the *European Journal of Political Research* had zero female editors but 54% of its editorial board were women (Gethen and Sauer, 2016: 2).

Colgan (2017), Hardt et al (2017), Kadera (2013) and Lake (2013) all attribute women's inclusion (or lack thereof) to gendered networks. As Lake (2013) puts it, there is a high likelihood that women's isolation in 'gender-segregated networks [will] likely produce fewer readers and fewer citations of their research – for reasons entirely independent of quality'. Lake's comment was made in the context of his personal experience in political science, but there is considerable empirical evidence that academic networks are gendered in ways that disadvantage women.

Academic networks: birds of a feather flock together

Expertise and networks are each necessary – but not sufficient – components of success in academia. As Bagilhole and Goode (2001: 170) note: 'Academia values reputation above all, which is heavily dependent upon integration into formal and informal networks in the research community'. In particular, citations are heavily dependent on professional networks, and since citations are a measure of research impact, citation counts are often a key factor in promotion/tenure decisions (Barnes and Beaulieu, 2017). The challenge for academic women is that they have the expertise but often lack the robust professional networks of their male colleagues (Bagilhole and Goode, 2001), which leads to diminished access to information and fewer professional opportunities (Christakis and Fowler, 2009).

In general, human networks tend to be homophilous, meaning that like associate with like; in gendered terms, it means that people tend to have same-gender networks (Fowler et al, 2011). Since men have dominated the academy for centuries, male networks are well entrenched in higher education (Van den Brink and Benschop, 2012).

Both men and women enter the academy as relative outsiders to the profession, having not yet built the social capital that leads to a strong academic reputation (Burt, 1998). The difference is that junior men enter the academy with pre-established patriarchal support systems to which women, regardless of rank, have little access (Bagilhole and Goode, 2001). Thus, men come in as outsiders but are able to 'borrow' social capital from insider members (senior men) of the patriarchal support network (Burt, 1998). Junior men's borrowed social capital – resulting from association with senior men – allows them to expand their personal networks and transition to insider status. In contrast, women remain comparative outsiders even after they achieve senior ranks in the profession (Burt, 1998; Van den Brink and Benschop, 2012).

Women's networks tend to be formed not for self-promotion, but for support (Forret and Dougherty, 2004). Even if women do build homophilous networks in search of professional success, the paucity of senior women and their relative outsider status in most disciplines mean that women's networks cannot do for women what the patriarchal support network does for men. Indeed, women often need to pursue ties to well-connected men to successfully establish themselves in a discipline. Unfortunately, well-connected men may have no need to network with junior/lower-status women; thus, women's two-pronged networking strategies may be, as Steffen-Fluhr et al (2011: 6) put it, 'more costly and less effective than the strategies men adopt'.

Women's less influential networks have long-term consequences for scholarly productivity, particularly in fields in which team-based/co-authored research is the norm and/or co-author networks develop via transitivity – meaning that people find opportunities for future collaboration by mining the networks of their current

collaborators (Zhang et al, 2018). Transitivity is compounded by the academic version of the rich–get–richer 'Matthew Effect'; in the academic version, it means that the closer researchers are to the centre of the network, the more opportunities they will have to collaborate (Zhang et al, 2018). Furthermore, some research indicates that men have greater network reach, associated with a higher likelihood of tenure and promotion, while women tend to have lower network reach and higher levels of attrition (Warner et al, 2016).

Finally, institutional prestige seems to factor into the development of academic networks. Research on hyperlink and URL connections among universities shows that top-ranked universities are closely networked (Seeber et al, 2012; Barnett et al, 2014). Those results are partially driven by email addresses in co-authored papers, indicating a high level of connectivity among researchers at top universities. Gender does not seem to have been factored into the university links research, but elite linkages become interesting as I turn to what is known about the effects of academic networks in political science.

What do we know about political science networks?

We know relatively little about gendered or elite networks in political science.[3] As noted earlier, there is speculation that gendered citation patterns are related to gendered networks. There are some empirical studies from which it can be inferred that the speculation is likely accurate, but there are no studies that specifically test for homophily. One can also use extant research to speculate about elite networks in the discipline.

First, evidence of homophily can be found in a feminist network analysis of IR, which indicates that feminist IR scholarship has not grown appreciably since 1988; this implies that feminist IR scholars (mostly women) remain clustered together (Soreanu and Hudson, 2008). Additionally, a recent report from the Society for Political Methodology indicates that the Political Methodology (PolMeth) section has the lowest percentage of women among all organised sections of the American Political Science Association (APSA) (Hidalgo et al, 2018). PolMeth is the section that is typically credited with setting the rules for 'good' political science, and, as Shames and Wise (2017: 811) argue, 'political methodology … informs the work done in most other subfields'. The fact that PolMeth is both heavily male-dominated and influential across sub-fields suggests male homophily.

Second, we know that political science is moving towards more team/co-authored research (Wuchty et al, 2007; Henriksen, 2016). Results presented by Atchison (2017a: 451) indicate that 55% of the articles in her data set were authored by teams; of those, just 4% were female-only teams, while 59% were male-only teams, with mixed-gender teams rounding out the remaining 37%. Teele and Thelen (2017: 438) find that between 2000 and 2015, there was an overall increase in co-authorship in most of the top political science journals and a significant increase in mixed-gender teams, but that all–male teams still made up about 57% of the team-authored articles. The fact that all–male teams authored the bulk of co-authored articles in both studies provides limited evidence of homophilous networks in political science.

More importantly, as Teele and Thelen (2017) ask, do women have the same opportunities to co-author as men? Their results indicate that despite women's apparent willingness to collaborate, women are under-represented in team-authored

articles in top political science journals. Furthermore, Maliniak et al (2008: 129) report that women are:

> disproportionately likely to coauthor with men, rather than with other women. They are considerably less likely, however, to be listed as the first author on these articles: 17% of second or subsequent authors are women, but women comprise only 13% of first authors.

This provides circumstantial evidence that women may be forming heterophilous networks, but that they tend to be junior partners in those networks.

A related question is whether or not women benefit from their co-authoring networks in the same ways that men do; the available evidence indicates that it is unlikely (Kadera, 2013). Women in the academy are often viewed as less competent than men (Monroe, 2013), which leads to the perception that women who co-author with men are 'coasting' on their male colleagues' work (Kadera, 2013: 468). This may be why Sarsons (2015) finds that the more that women co-author, the less likely they are to achieve tenure. Another possible explanation for Sarsons's findings comes from an as-yet-unpublished study by Djupe et al (2018), which indicates that co-authoring has a much stronger effect on the number of submissions and publications for men than for women.

Third, as noted earlier, while women tend to be at less prestigious institutions, university networks are at least partially driven by interconnections among co-authors based at elite universities. One of the few analyses of political science networks finds that elite American universities dominate the top IR journals and that London-based institutions form the bulk of connections between European authors and the rest of the world (Kristensen, 2015). Furthermore, although IR scholars from China, India and Brazil are at the margins of 'mainstream' IR journals, the field of IR in each of those countries is dominated by a small number of elite domestic universities (Kristensen, 2015: 263–4).

Tangential evidence of elite networks in Europe comes from Bunea and Baumgartner (2014: 1419–20), who find that there are just two main universities that produce scholars of European Union (EU) interest groups and that fully 50% of the research in this area is produced at a handful of universities in the UK and Germany. Other recent research indicates that US-based political science is likely elite-dominated. For example, Atchison (2017b) demonstrates that appointees to the governing body of the APSA – the APSA Council – are disproportionately political scientists from highly ranked doctoral institutions. Additionally, graduates of more prestigious departments tend to fill the majority of tenure-track research university (R1) and post-doc jobs in the US, which indicates strong linkages among R1 departments (Oprisko, 2013; Jackson and Super, 2018). A final possible indicator of elite networking comes from Reingewertz and Lutmar (2018), who find that some editors of top IR journals are biased towards accepting articles from authors at their home institutions.

Finally, returning to the assertion that gendered citation patterns in political science are likely attributable to gendered networks, we have very little evidence to support that contention. To be clear, I think the assertion is accurate; however, we lack large-scale studies and empirical evidence. The EU interest groups study by Bunea and Baumgartner (2014: 1418–19) indicates that while women authored 37% of the 196 articles in the study, just 25% of all articles in the data set have even one citation to

female-authored work. This can be interpreted as evidence of gendered networks, but that evidence would be stronger had they tested whether women authors disproportionately cite other women and had they mapped the citation network.

While the preceding evidence is circumstantial, it indicates that social network analysis has the potential to be enlightening for political science. In the following, I provide a brief introduction to academic social network analysis; I then propose a network analysis research agenda for political science.

A brief introduction to social network analysis

Academia is one of the few human social networks that is easily quantifiable – researchers typically choose with whom they wish to collaborate and whose work they cite; they then publish their collaborations and bibliographies, all of which are tracked by entities such as Web of Science or Google Scholar (Kumar, 2015). The resulting quantitative measures, such as article and citation counts (ie bibliometrics), are now regularly used in social network analysis (hereafter, 'network analysis') research. Network analysis is a methodological tool that allows researchers to map the properties of a network, including mapping the nodes and ties that comprise the network (Forno, 2011). The maps indicate the size, direction and strength of relationships in a network, displaying a node's centrality to the network and the strength of the ties among different nodes.

Bibliometric researchers are taking advantage of advances in technology to do very sophisticated network analysis of both co-authorship and citation patterns. In co-authorship studies, the node is the individual researcher and the tie connects two researchers who have published together; co-author analysis can reveal patterns of collaboration such as how often individual researchers collaborate or which types of authors regularly collaborate (Martin et al, 2013). Co-authorship studies are often used to map patterns in specific topic areas, particular geographic regions or in a subset of journals in a field; they are also used to demonstrate the level of fragmentation in a field, the interconnectedness of institutions in a country and the international connections among institutions (Ding, 2011; Kumar, 2015).

In a citation network analysis, the nodes are individual papers and the ties are citations; analyses reveal not just direct connections among articles, but also 'bibliographically coupled' works that cite one or more common articles (Kumar, 2015). Citation network analysis is also used to demonstrate the strength of ties among researchers, and reveals what Ding (2011: 192) calls 'the flow of influence in scholarly communications'. We see the latter in Sillanpää and Koivula's (2010) analysis, which demonstrates the influence of democratic peace theory in the conflict research sub-field in IR.

When done together, co-authorship and citation network analyses can answer 'questions such as how much researchers cite their collaborators relative to others in their field, or whether a researcher is more likely to cite others from whom they previously received a citation' (Martin et al, 2013: 1). Theoretically, a combined network analysis can map the entirety of a scholarly community, connecting researchers with their collaborators, showing who cites whom, determining the institutional connections in the network and revealing which nodes are most central and influential in the network.

A research agenda for political science network analysis

I propose exploring four academic networks in political science: elites, co–authorship, citation and scholarly communities (a combination of co–authorship and citation networks). The questions posed in the following only scratch the surface of what network analyses could tell us, but they provide a useful starting point.

Elite networks

As noted earlier, women tend to be disproportionately concentrated in contingent employment, lower ranks and less prestigious institutions. Is this a function of where women tend to go to graduate school – have women historically attended lower-ranked PhD programmes? APSA recently began to collect data on programme rank for incoming PhD students and doctoral students on the job market. These data indicate that today's women graduate students are not disproportionately pursuing PhDs at lower-ranked PhD programmes; however, we have no historical data to look at change over time. Network analysis of an evolving network would tell us if there is a relationship between where women enter the profession (via graduate school) and where they are employed. On a related but ungendered note, elite network analysis would also map the flow of influence in the discipline and might help to determine if the Internet and increased access to knowledge is diffusing influence throughout the discipline.

Co-author networks

The extant research on political science co–authorship indicates that co–authoring is growing in the discipline, but that most teams are all-male. Co–authorship network analysis could illuminate the factors that make cross-gender collaboration more likely, such as:

- Is there a difference in the size, density or structure of men's and women's networks?
- Are there institutional connections (eg are the authors in the same department, or did they attend graduate school together)?
- Is transitivity a factor – are people finding new co-authors in their collaborators' networks?

Additionally, thinking back to the earlier discussion of the heavily gendered membership of APSA's PolMeth section, co-author analysis could illuminate not just who co-authors with whom, but also gendered ties within/between organised sections of national PSAs (Does membership in organised sections help women to build author networks in the same way that it helps men?). Network analysis could also examine potential ties between authors, sections and top journals. In other words, network analysis could tell us if co-author networks from specific sub-fields are (1) gendered and (2) over-represented in top political science journals.

Citation networks

As noted earlier, women's work is cited less frequently than men's, and women are more likely than men to cite women. However, that does not mean that all women systematically cite other women in their research or in their syllabi. We cite what we know, and women's research is often missing from graduate syllabi/reading lists – unless the class is taught by an older female professor (Hardt et al, 2017); the implication is that younger women are still teaching mostly what they learned in graduate school, while older women have branched out. That begs the question of exactly how different men's and women's citation networks are and if the gender distribution within those networks changes over time. Relatedly, women's research is less frequently included among the 'great readings' or 'canonical cites' in political science (Lake, 2013; Curtin, 2015); when people are asked to name experts, men's names are what most often come to mind (Beaulieu et al, 2017). Network analysis could reveal that there are woman-authored works that should be considered canonical based on the size and connectivity of the node.

Scholarly communities

Examining co-author and citation networks in their totality is necessary if we are to understand the many facets of the larger political science community. Network analysis of both types of networks will tell us not just who cites and co-authors with whom, but which sub-fields are most central in the discipline. For example, does PolMeth influence all sub-fields, or is that outdated conventional wisdom? Also, what is the role of individuals in the larger network? Who are the large-node individuals? Soreanu and Hudson's (2008) network analysis indicates that feminist IR forms bridges to fields such as sociology and anthropology; are there individuals who form such bridges *within* political science? Finally, network analysis often finds that a given discipline is a small world in which nodes are not widely separated (Kumar, 2015). However, political science has a comparatively fragmented structure (Fourcade et al, 2015), so is it a 'small world'? As Kristensen (2012: 34) argues, the fact that IR is fragmented 'makes it all the more relevant to study the entire discipline, not only its subfields'. Indeed, he finds that the IR field is actually highly centralised around just a few journals (Kristensen, 2012: 47). What would an analysis of political science more broadly reveal?

Caveats

There are three caveats to the research agenda presented here. First, most bibliometric analysis is done on the top journals and departments in a field. Top journals and programmes can be a starting point, but women are often at less prestigious institutions in which there are likely fewer incentives and less pressure to publish in top journals. Additionally, women are more likely than men to use qualitative methodologies, which many leading political science journals rarely accept. Thus, elite-focused analyses will give a skewed picture of the gendered networks in the discipline.

Second, bibliographic network analyses can tell us what the networks look like; they cannot tell us why some connections exist and others do not. Network analysis also cannot discern if homophilous networks exist by active choice or by circumstance.

To truly understand how to reshape political science networks into inclusive spaces, we must understand not just the degree of exclusivity in our networks, but why our networks exclude particular groups. A network analysis research agenda should be accompanied by qualitative analysis that helps contextualise the network results and suggest a path forward.

Finally, much of what has been said of women's marginalisation in political science is also applicable to under-represented minorities. Unfortunately, as noted earlier, there is very little cross-national data on race, ethnicity or sexual orientation in the discipline – and only a few national PSAs make their data publicly available. Disaggregation of political scientists by race *and* gender is likely to demonstrate different network patterns than political scientists by race *or* gender. For instance, I suspect that network analysis by race and gender will indicate that women scholars of colour must employ not simply a two-pronged networking strategy, but a multi-pronged networking strategy. An additional concern comes from recent APSA data which indicates that African-American (66%) and Middle Eastern/Arab-American (71%) doctoral job candidates are disproportionately concentrated in PhD programmes that are either unranked or in the third to fifth quintiles (APSA 2016–17 graduate placement survey data).[4] Social network analysis would allow us to determine if this is a long-term pattern, if graduate school ranking is affecting the placement of minority faculty and if there are similar patterns cross-nationally.

Ongoing initiatives

Although we know few specifics about political science networks, women's marginalisation has been well documented. As a result, there are several networking initiatives in the discipline. The oldest of these includes the founding of women's organisations within national PSAs. The International Political Science Association reports that about 37% of the responding national PSAs have a women's caucus, a politics and gender research section, or both (Lindroos et al, 2014: 10).

In particular, women's caucuses have been loci for networking and advancing the status of women in the profession; pressure from women's caucuses resulted in initiatives from national PSAs to include sexual harassment policies, alternation of men and women in association leadership, and reporting on the status of women (Monroe, 2003; Matonyte et al, 2012; Monroe et al, 2014). Women have also organised within sub-fields, forming groups and conferences such as the Gender and Political Psychology conference, Visions in Methodology for women in PolMeth, the Journeys in World Politics conference for women in IR, and the Women in Conflict Studies association for women in international conflict and cooperation (Mitchell, 2013; Cassese and Holman, 2018). Women's groups and caucuses in political science have also been instrumental in the development of disciplinary mentoring programmes.

Mentoring by a senior scholar has been shown to have considerable benefits for junior scholars' career progression, including tenure, promotion, salary and scholarly productivity (Kirchmeyer, 2005; Monroe et al, 2014). Although there is mixed evidence about the relative benefits of homophilous versus heterophilous mentoring, people tend to be more comfortable in gender homophilous mentoring relationships (Meschitti and Smith, 2017). Unfortunately, even if we simply factor in the dearth of senior women in the discipline, junior women are at a disadvantage in finding a same-sex mentor (Cassese and Holman, 2018). Moreover, evidence indicates that

implicit biases among male *and* female senior faculty result in a higher willingness of both to mentor junior men (Moss-Racusin et al, 2012). Due to the scarcity of senior female mentors, junior women are encouraged to form peer-mentoring relationships (Bennion, 2004). A recent example comes from Cassese and Holman (2018), who provide a writing-circle model of peer mentoring, noting that this model provides junior women support for increasing scholarly productivity and also a network for exchanging professional advice and moral support.

The most significant new women-focused initiative in the discipline is the Women Also Know Stuff (#WomenAlsoKnow) project.[5] The goals of the #WomenAlsoKnow project are 'to counter the implicit bias that leads to women's underrepresentation, to ensure that women's expertise is included and shared, and to improve the visibility of women in political science' (Beaulieu et al, 2017: 779). #WomenAlsoKnow combines a website and searchable database of women political scientists, which allows political scientists and journalists to diversify their pool of experts, with an active presence on Twitter to amplify women's research. The #WomenAlsoKnow database contains more than 1,300 registrants from 44 different countries of residence.[6]

The @WomenAlsoKnow Twitter feed, with almost 15,000 followers, quickly became an integral part of the political science social media network, as evidenced by Vorst's real-time analysis of social media connectivity during both the 2016 and 2017 APSA Annual Meetings (see Figure 2).[7] Vorst's work indicates that @WomenAlsoKnow is not only a large node in the political science social media network, but one of a handful of 'strong, interconnected, and influential' nodes in the network (with @monkeycageblog in 2016, @poli_com in 2017 and @apsatweets in both years) (Vorst, 2016, 2018). He finds a similar pattern of @WomenAlsoKnow network reach during the 2017 Midwest Political Science Association Annual Meeting. In addition to connecting multiple nodes in the political science social media network, @WomenAlsoKnow allows individual women to connect with each other; the Twitter feed is now an important source of professional news, advice and support for women in the profession (Beaulieu et al, 2017).

Figure 2: The centrality of @WomenAlsoKnow in the political science social media network

APSA Annual Meeting, 2017   MPSA Annual Meeting, 2017
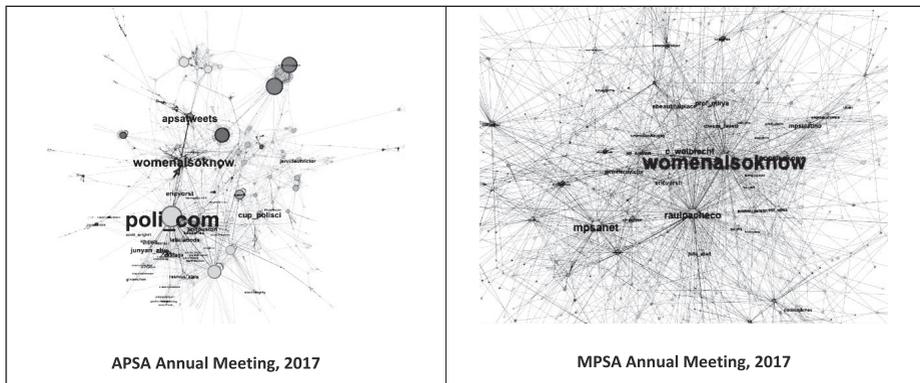
Source: Eric Vorst, reprinted with permission.

Conclusion

Women's outsider status in political science has significant effects on what the discipline knows about politics. Women ask different questions and bring a different perspective to the field (Baldez, 2010). Exclusion of women's research from the 'mainstream' of political science results in an incomplete and inaccurate understanding of political processes. Not only that, but the absence of women's work in graduate syllabi and undergraduate textbooks sends a message to students that women are not valid creators of knowledge in political science (Atchison, 2017c; Hardt et al, 2017). As the #WomenAlsoKnow leadership team puts it: 'The absence of women also reinforces stereotypes about who is an expert. If we could increase the volume of voices of women in our discipline, we could diversify and strengthen our science' (Beaulieu et al, 2017). #WomenAlsoKnow's efforts have made considerable progress towards that goal.

In addition to the website and database, #WomenAlsoKnow introduced the wider political science community to Sumner's Gender Balance Assessment Tool (GBAT). The GBAT allows scholars to quickly and easily assess the gender balance in their syllabi and reference lists (Sumner, 2018). Suspecting that women might be *over*-represented in the references of this article, I used to GBAT to assess the gender balance of my citations in this article. The GBAT results confirmed my suspicions; the tool estimates that 65.4% of the authors cited are women. When I examine only the gender-focused articles, the share of women rises to more than 74%. A manual examination of the references indicates that in the citations that include a male author, the male is often second or third author.

The gender breakdown of the citations in this article is reflective of one of the biggest challenges that women face in improving their position in political science: the status of women in political science remains largely a women's issue. The vast majority of research about women in political science is done by women and initiatives to improve the status of women in the profession are most frequently conceived of and led by women. This is likely the case because women's marginalisation is not an everyday experience of male political scientists. Indeed, men may not even see the factors that combine to marginalise women (Kantola, 2008), and the men who do acknowledge the problem are sometimes surprised by the extent of it (Lake, 2013). As Macartan Humphries notes in a recent blog post (2018):

> We have a problem with gender-based discrimination in political science. I know that not because I see it, but because I keep on not seeing it, even as so many of my women students and faculty colleagues are acutely aware of it. It works through a multitude of everyday behaviors that add up to unequal treatment and unequal recognition.

All of this is not to say that men are indifferent to women's status in the discipline; there are many male political scientists who regularly and loudly champion women. However, I am reminded of the Wahlke Report (Wahlke, 1991: 53), in which the Task Force on the Political Science Major noted that gender should *not* be 'treated as a separate and unique problem to be dealt with in a particular course or two or by a particular faculty member'. Nevertheless, 25 years later, women's marginalisation in political science remains a 'separate and unique problem' that is generally left to

women to solve. The research agenda proposed in this article aims to support a wider acknowledgement of the extent of women's marginalisation. In turn, I hope that this body of knowledge will push us to address the structural inequalities embedded in the field.

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Notes
1. Particularly data by rank as academic ranks are not standard across states. Also, where percentages of women in political science are reported, often what is being reported is women members as a percentage of the membership in a national political science association (PSA). There is likely a small difference in the actual numbers, but women's PSA membership is a fair proxy for women in the discipline.
2. Hesli et al (2012) find that US women who achieve tenure are no less likely than men to later be promoted to full professor. Nonetheless, women remain under-represented at the ranks of full professor.
3. Some European scholars have made significant inroads in geographic and conceptual network analysis in IR (see, eg, Soreanu and Hudson, 2008; Sillanpää and Koivula, 2010; Kristensen, 2012, 2015).
4. The numbers indicate that African-Americans (77%) and Middle Eastern/Arab-Americans (63%) are also disproportionately represented among incoming PhD student in lower-quintile graduate programmes (personal communication with principal investigators Rory Jackson and Betsy Super, APSA research division).
5. I use #WomenAlsoKnow to refer to the project in its entirety, while @WomenAlsoKnow refers to the project's Twitter feed.
6. Statistics on #WomenAlsoKnow were provided on 12 February 2018 by the administrators of www.womenalsoknowstuff.com
7. For context, @APSAtweets has nearly 20,000 followers and @poli_com has 2,395.

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