United Kingdom Gender Pay Gap Reporting: A Qualitative Case Study of its Impact to Women in Technology Careers

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The U.K. faces a digital skills crisis, with 93% of technology companies reporting a gap in skills, and only 70% of computer science teaching roles filled in state schools (House of Commons Science and Technology Committee, HCSTC, 2016). Yet, women are underrepresented in the technology labour market, accounting for only 17% of technical positions. The HCSTC (2016) state strategic necessity to increase representation of women to address this skills gap, however, this has remained stubbornly flat despite campaigns over the past decade (BCS, 2016). Moreover, in higher education the percentage of women has dropped by 4% since 2008 (BCS, 2016). Stephan and Levin (2005) also found women leaving technology in greater proportions than men, and many leaving the labour force altogether.

This phenomenon is now well documented, with a wealth of research seeking to understand the "chilly climate" and "leaky pipeline" in STEM careers that create an unappealing environment for women (Blickenstaff, 2005). Much research is based upon theory of stereotypes, prejudice, and discrimination (Fiske, 2000; Heilman & Eagly, 2008), with a number focused on the impact of STEM specific stereotypes to assessment of "fit" to these career paths, both by other professionals and in self-assessments (e.g. Ehrlinger et al., 2017).

Research grounded in attitudes paints a bleak picture of bias impacting decisions across the whole career: Beginning with recruitment, career fairs (Wynn & Correll, 2018) and role advertising (Gaucher, Friesen, & Kay, 2011) portray a non-inviting climate, and bias is found towards male names in assessment of resumes (Moss-Racusin, Dovidio, Brescoll, Graham, & Handelsman, 2012). In the workplace, women suffer from performance evaluation bias (Foschi, 1996), are held to higher standards for pay and promotions (Castilla,

2008; Lyness & Heilman, 2006), and are often excluded from networks that can aid career progression (Forret & Dougherty, 2004; Xu & Martin, 2011). Upon becoming parents, women trade perceived competence for warmth, with detrimental effect (Cuddy, Fiske, & Glick 2004).

Women's own perceptions of this "chilly climate" have received less research, although there are notable exceptions. Hunt (2016) examined the women leaving STEM careers, finding lack of pay and promotion opportunities to account for half the gap. Perhaps surprisingly, working conditions were found to be secondary, although this is consistent with Cundiff, Zawadzki, Danube, and Shields' (2014) assertion sexism can be subtle, and harm tends to be minimised. A gap in women's ambition is often noted during their career progression (e.g. EgonZehnder, 2017). Contrary to popular expectation, Abouzahr et al. (2017) found explanation not due to parenthood, rather to workplace culture, demonstrating its impact to women's attitudes. A survey of alumnae of Cambridge University's Murray Edwards College (2016) similarly found workplace culture to be women's largest perceived barrier to progression.

The theory of planned behaviour suggests that attitudes, subjective norm, and perceived control will be key factors in women's intended behaviour in their career (Ajzen,1991; 2001). However, women are becoming increasingly aware of their own disadvantage, with the #MeToo twitter campaign (for examples, see New York Times, n. d.), and particularly the recent UK Government mandate to businesses with over 250 employees to publish their gender pay gap by April 2018 (GOV.UK, n.d.). As expected, this has attracted much media attention (e.g. Guibourg, 2018) including several resignations by high profile women (e.g. Montague, 2018).

In their meta-analysis of attitudes that predict future behaviour, Glasman and Albarracín (2006) found correlation with attitudes that are often thought about, easily recollected, and based on direct experience. Given the probable salience of the gender pay gap to women, attitudes are likely to be influenced by this event, perhaps in ego-defence (Wood, 2000). There is a risk that increased awareness of the harm of bias may have a further negative effect on their career decisions (Cundiff, Zawadzki, Danube & Shields, 2014).

Although the aforementioned research regarding women in STEM careers illuminates important findings, I have found no research that has examined the impact to career attitudes and intentions of technical women following events that make salient existing gender-biases. Given this, and in the wake of the gender pay gap reporting (GOV.UK, n. d.), further research is warranted that could examine the impact of such events. This is needed in an effort to address the documented problem of underrepresentation of women, and the digital skills crisis faced by the UK (HCSTC, 2016).

The purpose of this qualitative study is to identify themes in the career accounts, attitudes and intentions of mid-career women working in technology, using semi-structured interviews (Barbour, 2008). It asks the question, what impact do events that make gender bias salient, such as the U.K. gender pay gap reporting, have to the perceptions, attitudes and intentions of women working in male-dominated technology industries?

This may be used to direct future research across a greater number of women, and it is hoped this knowledge will contribute towards targeted and prioritised intervention strategies.

Method

Participants

Participants were two professional women, aged between 35 and 45, working in technical roles in a technology industry. They were selected as they are known to the student researcher, with each having multiple years' experience working in a STEM based career. Both are parents.

Procedure

Semi-structured interviews with each participant were carried out in a private meeting room in their respective places of work. Upon beginning the session, participants were informed about the nature of the student research and asked to provide written consent (Barbour, 2008).

Data Analysis

Interviews were recorded and subsequently transcribed. The data was analysed using a thematic analysis approach (Braun & Clarke, 2006; Ryan & Bernard, 2003). Themes were iteratively deduced and chosen based on both theoretical and inductive considerations (Ryan and Bernard, 2003) to enable alignment and comparison to theory, as well as identifying commonalities and differences in the participants' accounts. Analysis broke down the research question into parts and addressed each in turn, being mindful to also identify prominent but unanticipated features in the participants' accounts. Before priming the topic of the gender pay gap report, a baseline was established through questions identifying significant features of the participants' descriptions of their career paths, perception of norms in their industry, attitudes to their career, perceived career control, and stated intentions about progression. Participants were also asked to share stories of events that made gender-bias

salient and their perceived impacts. These accounts added to the baseline, enabling comparison with their accounts regarding the gender pay gap.

Results

The results of the thematic analysis, along with with illustrative examples, are shown in Table 1.

Pay Gap Report

Themes in this category relate to the participants' evaluation of the pay gap report, and its perceived impact to their feelings, motivations and plans about their career.

As expected, the report publication was salient for both participants, as evidenced by the analytical approach both took to recounting their reaction to it. One participant belonged to a large organisation whose result was published, and she was aware it was "about 27%". For both, the report raised questions about causality, and both used analytical skills and knowledge of statistics, ultimately deciding information to be too sparse to draw conclusions. Unprompted, one participant explored ideas of next steps, again concluding there was not enough information. However, both welcomed publication of the report, seeing this as a positive step.

Not anticipated was the unemotional nature of the reaction that both shared. Neither saw it as an event that impacted their own feelings or career decisions, although their accounts may suggest that it has strengthened some existing attitudes towards their industry's culture. One participant commented that "it was already *really* very obvious that that was going to be the case".

This differed significantly from the accounts they gave regarding events that had made gender bias salient for them, which prompted greater personal reaction.

Notable Events and Influences

When asked about events that made gender bias apparent, both participants recounted stories of feeling subjected to bias, and both had witnessed possible bias against a respected peer. In each situation the participants took action, either by seeking a new job or by raising the issues with their organisation. However, bias often appeared ambiguous to the participants. One commented, "It may not actually be about that but it's really hard not to frame it like that, especially when you see no women having been successful".

Despite these difficulties, both participants presented extremely positive attitudes about their chosen domain and intentions for further progression. The interviews gave rise to discussion of many positive influences, most notably from their peer groups, friends and respected colleagues. For both, it was influence of their in-groups who first led them into science, maths and technology. Finally, personal and family needs were also seen to influence the participants' career decisions.

Career attitudes and beliefs

Both participants, unsurprisingly, had a positive attitude to maths, science and technology, and technology features in their plans for progression. Both describe being motivated by analytical thinking, and one drew comparison with (undesirable) emotional thinking. They differed in other career attitudes, although both had a positive attitude to being female in their work environment and described advantages this had brought.

Attitudes to those they work with were ambivalent, with both participants recounting a range of positive and less positive relationships and encounters. Others' evaluations of them can provoke negative reaction, with the participants feeling frustration when they perceived bias, and confusion in ambiguous cases. One participant reported frustration at seeing others offered opportunities when she missed out. However, both participants

describe positive attitudes to helping others, either through mentoring or action in their organisation to create a good environment.

Perceived norms

The participants had similar perception of qualities required for success in their industry. Ambition, confidence and technical merit were mentioned by both, and others included networking and determination. Both talked about scarcity of other women and having encountered male-dominated, biased cultures. However, this was not perceived as uniform across the industry, and one did not perceive any bias in her current organisation.

Gender differences in roles were highly visible to the participants, with men most often in sales and management jobs, and the few women who attempt to achieve seniority in these failing. The participants describe women generally as less confident and less confrontational than men. Both participants described events where they believed others were unaware of their own biases. One participant expressed frustration at others' apparent bias, having been labelled as pushy, aggressive and strident. The other gave a more positively framed self-description as "forthright", this also being a quality she perceived successful others as holding.

Career progression

Both participants felt that job changes were events that gave good control over their career progression. However, their attitudes differed regarding the times between changes. One participant framed learning as a key facet of progression, so through acquiring new skills and knowledge she continually progresses. However, the other was more alert to opportunities offered to others and perceived barriers with her current employer. She attributed this both to possible bias (although she wasn't certain) and to her own decisions regarding balance with her family life.

Both participants remain motivated to stay working in technology and to develop their skills. One stated intention to deepen her technical skills, while the other wishes to add a new dimension of social-responsibility into her technical work. New jobs are features of their strategies for future progression. While both had found their gender to be an advantage in some situations, one participant actively plans to seek organisations who are working to increase female representation.

Identity

Topics relating to identity featured strongly in the accounts of both participants and is included primarily for inductive rather than theoretical reasons. However, this theme does carry theoretical implications which will be discussed.

Both participants narrated how they came to their careers. As may be expected, the role of their in-group in shaping their attitudes was dominant. However, striking in both was the nature of the in-group. Neither mentioned gender, rather describing a group of scientists, mathematicians and computer scientists with whom they identified strongly. Their technical identities seem to have emerged following influence and encouragement from their friendship group.

In their accounts, both participants employed various strategies for managing their identities. Both aligned themselves with valued traits and traits they see in successful others. One participant, after referring to her “forthright” behaviour in asking for responsibility, then presented justification that her requests were “measured” and “reasonable”. Both participants made comparison to other professions in ways that served to distance themselves from these out-groups.

One participant described how, over time, she has become part of a group of senior women in her company, brought together across disciplines in their frustration to reach higher

levels. This is a change from earlier in her career when she did not belong to a female group. She described a “common cause” bringing together the group, yet coming with it is unwanted choice: either they can “do something socially responsible” to address the situation, or they can pursue their desired career. This also presents an unwanted identity, as “putting yourself out there as like the woman’s advocate is one of those things that nobody wants to be”.

Table 1 *Summary of themes with illustrative evidence*

Category	Theme	Illustrative evidence
Identity	Individual identity	"I've just always been quite, um, forthright"
	Group identity	"You could do this like specialisation […] And, like, the people I was hanging out with were all doing the science themed one"
	Managing identity	"I think I've always felt (laughs) yeah, 'but I'm different, it's not going to be…'"
Career attitudes and beliefs	About traits and behaviours	"…learning things all the time, I like learning"
	About objects and concepts	"I really loved, er, maths, I thought it was really great"
	About other people	"that has also made me feel really *un*supported by our own HR organisation"
Perceived norms	Qualities for success	"they promoted people who were very ambitious, very hardworking, very driven, very outspoken"
	Gender norms	"maybe it wasn't seen to be a kind of female's role to go to the rugby or football"
	Culture norms	"It was a very male dominated culture and it was definitely biased"
Career progression	Perceived control	"I did feel like I had control because I had credibility in that organisation"
	Actions	"the coding isn't quite enough so now I'm moving to a different team shortly to do more coding"
	Stated strategy	"[…] they're looking for women, so try and take advantage of opportunities where they actually are trying to reach out"
Notable events and influences	Happened to participant	"they gave me a pink flowery mug saying 'this is for [redacted] because she's a girl'"
	Happened to others	"I think the female was better qualified, had more experience, […] but the man still got it"
	Influence of respected others	"I like *these* people, it was about getting drawn in on that and not just my interest but like the people doing it"
	Own and family needs	"the [redacted] move was […] about me trying to be in a family friendly situation"
Pay gap report	Evaluation	"it's good they are publishing those stats"
	Attribution	"it highlighted the problem, but it didn't […] give enough information"
	Way forwards	"for a company, knowing what it can really do about that, […] I don't think any of the reporting gave any hints to that"
	Perceived impact	"I certainly didn't take anything like I'm excluded from this any more than I already had"

Discussion

Key findings are that the U.K. gender pay gap report, as expected, has saliency to women working in male-dominated technology industries. However, it does not have the bite of the gender-salient events the women raised themselves and has not consciously impacted their feelings or plans about their careers. Themes and analysis were guided by the theory of planned behaviour (Ajzen,1991; 2001; 2011), attitudes that predict future behaviour (Glasman & Albarracin, 2006), theory of influence and attitude change (Petty & Cacioppo, 1986; Wood, 2000), and prejudice and stereotypes (Fiske, 2000; Wright & Taylor, 2007).

Motivating this research was a potential risk that increased awareness of the harm of bias arising from the pay gap report may have a negative effect on women's attitudes, perception of control, and career decisions (Cundiff et al., 2014; Myers & Twenge, 2013). However, this was not observed. Both participants reported positive attitudes to the report publication, with possible indications of a small effect of strengthening attitude and identification with other women. One participant led on to discuss considering collective action with female colleagues, a strategy noted by Wright & Taylor (2007) as effective in increasing intergroup equality.

The theory of planned behaviour explains behavioural intentions as arising from attitudes about the behaviour, beliefs about norms, and perceived control (Ajzen, 2011). Consistent with this theory, regarding career progression both participants held positive attitudes and intention to seek new jobs as a means to progress, while remaining in the technology industry. They described good control of their career from job changes. Coincidentally, at the time of interview both had recently accepted offers of new roles, demonstrating consistency in their actions with intentions.

In describing their perceived norms for success, both participants listed qualities found to be common masculine stereotypes (e.g. “confident”, “ambitious”), and also some stereotypical communal descriptions of women (Eagly & Sczesney, 2009). However, in describing themselves they tended to align to the male characteristics. Social role theory is relevant here, proposing that these stereotypical beliefs stem from perceivers’ observation of typical sex-roles (Eagly & Steffen, 1984; Eagly & Wood, 1999), and that these are systemic in a culture (Fiske, 2000). Both participants described a male-dominated culture, with men most successful in leadership positions, and women often frustrated in their attempts. Despite both women being parents and balancing demands of family and working life, their accounts align with findings of Abouzahr et al. (2017) and Murray Edwards College (2016) that company-culture is the greatest perceived barrier to progression. According to Eagly, & Sczesney (2009), mismatch of gender and leadership stereotypes can lead to negative evaluation and reduce promotion opportunities, a finding also in other research (Foschi, 1996; Lyness and Heilman, 2006). One participant, a senior manager perceiving cultural barriers to further progression, was aware of the likely presentation of bias and was sensitive to performance evaluation that described her in stereotypical terms (Wright & Taylor, 2007). Both participants also showed the other extreme, being unware of bias in some situations despite contrary evidence (e.g. the 27% pay gap), echoing other research finding that although women are aware of disadvantage generally they do not perceive it directed at themselves (Fiske, 2000; Wright & Taylor, 2007).

Zhang, Schmader & Forbes (2009) discuss influence of gender stereotypes on career choice, with those making atypical choices likely to face stereotype threat. This can cause rejection of female characteristics (Pronin, Steele, and Ross, 2004) in distancing from the disadvantaged group (Wright & Taylor, 2007). Both participants showed some evidence of this behaviour, with one actively defending against negative female stereotypes, and the other

stating that she has always felt "different". However, in rejecting the role of "women's advocate" she also showed hints of attitude change towards collective action with other women.

Consistent with Glasman and Albarracín's (2006) finding that strongest attitudes are often thought about, easily recollected, and based on direct experience, both participants recounted salient events with these characteristics that had impacted their career decisions. This highlights the difference with the pay gap report, which lacked the quality of direct experience. However, the participants were both motivated to consciously process this event (Petty & Cacioppo, 1986), but were able to analyse this away, reaching a conclusion of ambiguity. It is possible this demonstrated a form of ego-defence (Wood, 2000).

Unexpected findings were the striking accounts given by both participants of belonging to a university in-group of technically minded friends, it being this in-group rather than a gender-defined group influencing their sense of identity and career decisions (Rink & Ellmers, 2009). Social identity theory and self-categorization theory have relevance here (Hornsey, 2008), with all events and influences confirming or challenging identity in some regards. Previous research appears to have only considered the in-group for STEM women as their gender identity.

Implications, Limitations and Further Research

There has been little previous research regarding technical women's career experiences (Amon, 2017), particularly of mid-career women. This research characterises events and influences that are significant to two women in their career decisions, including events that make gender-biases salient. Due to the small number of participants, only tentative conclusions are possible. Further research is therefore needed. Outcomes may inform intervention strategies designed to anticipate and mitigate impact from similar events

in addressing the "leaky pipeline" (Blickenstaff, 2005; Stephan and Levin, 2005). Further research is also needed to identify any conditions that make the gender-pay gap report personally significant due to potential negative impact, for example in smaller organisations where personal implications are more apparent, or if future policy demands more revealing figures.

The finding about participants' primary identification with a STEM in-group may inform interventions to increase participation and retention in technology careers, and further research should seek to develop this.

Conclusions

The theory of planned behaviour (Ajzen, 2001) proved to be a useful framework to analyse women's career perceptions, attitudes and intentions. It was found that, despite its saliency, the gender pay gap was not perceived as a strong influence, which can be explained in terms of its impersonal nature (Glasman & Albarracín, 2006). Findings about group identity may open new avenues of research for how to encourage more women to enter and remain in technology careers.

References

Amon, M. J. (2017). Looking through the glass ceiling: A qualitative study of STEM women's career narratives. *Frontiers in Psychology, 8,* 236-246. doi: 10.3389/fpsyg.2017.00236

Abouzahr, K., Krentz, M., Brooks Taplett, F., Tracey, C., & Tsusaka, M. (2017, April 5). Dispelling the myths of the gender "ambition gap". *The Boston Consulting Group*. Retrieved from https://www.bcg.com/publications/2017/people-organization-leadership-change-dispelling-the-myths-of-the-gender-ambition-gap.aspx

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*, 179–211.

Ajzen, I. (2001). Nature and operation of attitudes. Annual Review of Psychology, 52(1), 27–58.

Ajzen, I. (2011). The theory of planned behaviour: Reactions and reflections [Editorial]. *Psychology and Health, 26*(9), 1113-1127. doi: 10.1080/08870446.2011.613995

Barbour, R. S. (2008). *Introducing qualitative research: A student's guide to the craft of doing qualitative research*. London: SAGE

BCS, the chartered institute for IT. (2016). *Women in IT Scorecard 2016*. Retrieved from http://www.bcs.org/upload/pdf/women-scorecard-2016.pdf

Becker, J., & Wagner, U. (2009). Doing gender differently - the interplay of strength of gender identification and content of gender identity in predicting women's endorsement of sexist beliefs. *European Journal Of Social Psychology, 39(*4), 487-508.

Blickenstaff, J. C. (2005). Women and science careers: leaky pipeline or gender filter? *Gender and Education, 17*(4), 369-386. doi: 10.1080/09540250500145072

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101.

Castilla, E. J. (2008). Gender, race, and meritocracy in organizational careers. *American Journal of Sociology, 113*(6), 1479-1526.

Cuddy, A. J., Fiske, S. T., & Glick P. (2004). When Professionals Become Mothers, Warmth Doesn't Cut the Ice. Journal of Social Issues, 60(4),701—718.

Cundiff, J. L., Zawadzki, M., J., Danube, C. L. & Shields, S. A. (2014). Using experiential learning to increase the recognition of everyday sexism as harmful: The WAGES intervention. *Journal of Social Issues, 70*(4), 703-721. doi: 10.1111/josi.12087

Eagly, A. H. & Sczesney. (2009). Stereotypes about women, men and leaders: Have times changed? In Barreto, M., Ryan, M. K., & Schmitt, M. T. (Eds.), *The glass ceiling in the 21st century: Understanding barriers to gender equality* (pp. 21-48). Washington, DC: American Psychological Association.

Eagly, A. H., & Steffen, V. J. (1984). Gender stereotypes stem from the distribution of women and men into social roles. *Journal of Personality and Social Psychology, 46*(4), 735-754. doi: 10.1037/0022-3514.46.4.735

Eagly, A. H., & Wood, W. (1999). The origins of sex differences in human behavior: Evolved dispositions versus social roles. *American Psychologist, 54*, 408–423.

EgonZehnder. (2017). Leaders & Daughters Global Survey 2017. Retrieved from https://s3-eu-west-1.amazonaws.com/public-gbda/Leaders_Daughters_Final.pdf

Ehrlinger, J., Plant, E. A., Hartwig, M. K., Vossen, J. J., Columb, C. J., Brewer, L. E. (2017). Do gender differences in perceived prototypical computer scientists and engineers

contribute to gender gaps in computer science and engineering? *Sex Roles, 78*, 40-51. doi: 10.1007/s11199-017-0763-x

Fiske, S. K. (2000). Stereotyping, prejudice and discrimination at the seam between the centuries: evolution, culture, mind and brain. *European Journal of Social Psychology, 30*, 299-322.

Forret, M. L. & Dougherty, T. W. (2004). Networking behaviours and career outcomes: differences for men and women? *Journal of Organizational Behavior, 25*, 419-437. doi:10.1002/job.253

Foschi, M. (1996). Double standards in the evaluations of men and women. *Social Psychology Quarterly 59*(3), 237-254.

Fuesting, M. A. & Diekman, A. B. (2017). Not by success alone: Role models provide pathways to communal opportunities in STEM. *Personality and Psychology Bulletin, 43*(2), 163-176. doi: 10.1177/0146167216678857

Gaucher, D., Friesen, J., & Kay, A. C. (2011). Evidence that gendered wording in job advertisements exists and sustains gender inequality. *Journal of Personality and Social Psychology*, 101(1), 109-128. doi: 10.1037/a0022530

Glasman, L. R., & Albarracín, D. (2006). Forming attitudes that predict future behavior: A meta–analysis of the attitude–behavior relation. *Psychological Bulletin, 132*(5), 778–822.

GOV.UK. (n. d.). *The Gender Pay Gap Explained*. Retrieved from https://gender-pay-gap.service.gov.uk/

Guibourg, C. (2018, April 7). Gender pay gap: Six things we've learnt. *BBC News*. Retrieved from http://www.bbc.co.uk/news/business-43668187

Heilman, M. E. & Eagly, A. H. (2008). Gender stereotypes are alive, well, and busy producing workplace discrimination. *Industrial & Organisational Psychology, 1*, 393–398.

Hornsey, M. J. (2008). Social identity theory and self-categorization theory: A historical review. *Social and Personality Psychology Compass, 2*(1), 204–222, doi:10.1111/j.1751-9004.2007.00066.x

House of Commons Science and Technology Committee. (2016). *Digital skills crisis: Second report of session 2016-17* (HC 270). Retrieved from https://publications.parliament.uk/pa/cm201617/cmselect/cmsctech/270/270.pdf

Hunt, J. (2016). Why do women leave science and engineering? *ILR Review, 69*(1), 199-226. doi: 10.1177/0019793915594597

Leech, N. L., & Onwuegbuzie, A. J. (2011). Beyond constant comparison data analysis: Using NVivo. *Social Psychology Quarterly, 26*(1), 70–84.

Lyness, K. S. & Heilman, M. E. (2006). When fit is fundamental: Performance evaluations and promotions of upper-level female and male managers. *Journal of Applied Psychology, 91*(4), 777-785. doi: 10.1037/0021-9010.91.4.777

Montague, S. (2018, April 8). Sarah Montague on her gender pay gap: I'm furious about being paid less than men at the BBC. *The Times*. Retrieved from https://www.thetimes.co.uk/article/sarah-montague-on-her-gender-pay-gap-im-furious-about-being-paid-less-than-men-at-the-bbc-t9vkfjqk0

Moss-Racusin, C., A., Dovidio, J. F., Brescoll, V. L., Graham, M. J., & Handelsman, J. (2012). Science faculty's subtle gender biases favor male students. *Proceedings Of The National Academy Of Sciences Of The United States Of America, 41*, 16474.

Murray Edwards College. (2016). Collaborating with men: Changing workplace culture to be more inclusive for women. Retrieved from Murray Edwards College website: https://www.murrayedwards.cam.ac.uk/news/collaborating-with-men-report-talks-about-changing-workplace-culture

Myers, D. G., & Twenge, J. M. (2013). *Social psychology* (11th ed.). New York, NY: McGraw–Hill.

New York Times (n. d.). *The #MeToo moment*. Retrieved from https://www.nytimes.com/series/metoo-moment

Petty, R. E. & Cacioppo, J. T. (1989). The elaboration likelihood model of persuasion. *Advances in Experimental Social Psychology, 19*, 123-205.

Pronin, E., Steele, C. M., & Ross, L. (2004). Identity bifurcation in response to stereotype threat: Women and mathematics. *Journal of Experimental Social Psychology,* 40, 152-168.

Rink, F. & Ellmers, N. (2009). Managing diversity in work groups: How identity processes affect diverse work groups. In Barreto, M., Ryan, M. K., & Schmitt, M. T. (Eds.), *The glass ceiling in the 21st century: Understanding barriers to gender equality* (pp. 281-304). Washington, DC: American Psychological Association.

Ryan, G., & Bernard, H. R. (2003). Techniques to identify themes. *Field Methods, 15*(1), 85-109.

St. John, W., & Johnson, P. (2000). The pros and cons of data analysis software for qualitative research. *Journal of Nursing Scholarship, 32*(4), 393–397.

Stephan, P. E. & Levin, S. G. (2005). Leaving careers in IT: Differences in retention. *Journal of Technology Transfer, 30*, 383-396.

Turban, S., Freeman, L., & Waber, B. (2017, October 26). A Study Used Sensors to Show That Men and Women Are Treated Differently at Work. *Harvard Business Review*. Retrieved from: https://hbr.org/2017/10/a-study-used-sensors-to-show-that-men-and-women-are-treated-differently-at-work

Wood, W. (2000). Attitude change: Persuasion and social influence. *Annual Review of Psychology, 51*, 539–570.

Wright, S. C., & Taylor, D. M. (2007). The social psychology of cultural diversity: Social stereotyping, prejudice, and discrimination. In M. A. Hogg & J. Cooper (Eds.), *The Sage handbook of social psychology* (pp. 432–457). London, England: Sage.

Wynn, A. T. & Correll, S. J. (2018). Puncturing the pipeline: Do technology companies alienate women in recruiting sessions? *Social Studies of Science, 48*(1), 149-164. doi: 10.1177/0306312718756766

Xu, Y. J. & Martin, C. L. (2011). Gender differences in STEM disciplines: From the aspects of informal processional networking and faculty career development. *Gender Issues, 28*, 134-154. doi: 10.1007/s12147-011-9104-5

Zang, S., Schmader, T., & Forbes, T. (2009). The effects of gender stereotypes on women's career choice: opening the glass door. In Barreto, M., Ryan, M. K., & Schmitt, M. T. (Eds.), *The glass ceiling in the 21st century: Understanding barriers to gender equality* (pp. 153-170). Washington, DC: American Psychological Association.