Retaining talent in organizations
Masculinity, Inclusion and Norms

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Abstract

Despite persistent efforts to promote gender equality, women remain underrepresented in academia, especially at the more senior levels. In this paper, we use survey data from six business schools to examine how perceptions of the workplace climate relate to well-being and turnover intentions among faculty and staff and thus potentially contribute to the leaky pipeline. We focus on three dimensions of workplace climate: perceptions of masculinity-contest culture, organizational efforts to promote inclusion, and support for gender equality. We find that women perceive their environments as being more stereotypically masculine, less inclusive and less supportive of gender equality than men. Similarly, faculty perceive their work environment as more masculine, less inclusive and less supportive of gender equality. Moreover, we find that women and faculty have a higher turnover intention on average. However, both gaps disappear when controlling for perceptions of norms in the workplace. Importantly, we find that a masculinity contest culture generates no beneficial outcomes for anyone; it consistently lowers well-being and increase turnover intentions for both men and women. Similarly, perceptions of inclusion increases well-being and lowers turnover intentions for both men and women, suggesting that there are no trade-offs for promoting a less masculine and more inclusive workplace climate. Our findings suggest, however, that promoting equality might have unintended consequences: the focus on gender equality benefits men more than women in terms of their workplace well-being. Using a bounding approach, we show that these main results are robust to the potential influence of respondents' unobservables characteristics.

1 – Introduction

Academia is a man's world. Despite persistent efforts to recruit more women into academia, many fields remain male-dominated, especially at the top ranks. The culture in academia is stereotypically male and views stereotypically masculine behaviors like aggressiveness, ambition, and competitiveness as keys to success. The cutthroat climate and the up-or-out tenure system is thought to encourage scholars to put forward their best work and rise to the next level. But it also incentivizes hostile behaviors and attitudes – often directed towards women. In the field of economics, women are asked more patronizing or even hostile questions in seminars (Dupas et al., 2021). And when people are given the opportunity to hide behind anonymity, female economists are often sexualized and their work is trivialized (Wu, 2020). Not surprisingly, female economists feel less included socially or intellectually within their field (AEA Climate Survey 2019). Given the cultural and structural challenges female academics face, it is hardly surprising that they are more likely to leave academia than their male colleagues.

It thus makes sense that to increase attraction and retention of women, and fix the leaky pipeline, organizations should direct their efforts to promoting a workplace climate that is less masculine and more inclusive. Women should appreciate such efforts, but it is less clear that male academics would be equally welcoming. We know that most efforts to promote gender equality are either inefficient or in some cases, even backfire (Dobbin & Kalev, 2016; Boring & Philippe, 2021; Bertrand, 2020). There are many reasons why this may be the case. Diversity training programs and hiring guidelines do not work since they don't address the root issue of fixing masculine norms but also because men feel threatened by initiatives that are designed to reduce their privileged positions and potentially dilute the prestige of the occupation by increasing the number of women in it. Thus, men are less likely to support such initiatives or even react in a sexist manner (Goldin, 2002; Joshi et al., 2015; Leslie et al., 2017). Thus, making the environment more welcoming to women might be risky if it makes men feel threatened and encourages them to behave in ways in which to protect their privileged position.

Against this backdrop, we examine whether improving the workplace climate in ways in which that are expected to benefit women have negative consequences for men, so that there is an inherent trade-off to promoting the position of a disadvantaged group. In this paper, we focus on three dimensions of how individuals perceive their workplace climate: perceptions of a masculinity-contest culture, of organizational efforts to promote inclusion, and of support for gender equality. Using survey data from six academic institutions, and validated scales we

examine how perceptions of the workplace climate relate to well-being and turnover intentions among faculty, whether there is a gender gap in these perceptions and most importantly, if the relationship between workplace climate perception and well-being and turnover intentions is different for women and men. This will allow us to assess whether there is a trade-off between making the environment more attractive to women and men's retention and well-being. Further, to parse out how much the workplace climate is driven by the climate in academia versus the organizational climate, we compare the perceptions of faculty and staff working in the same institutions. While women remain underrepresented in academia, the staff in academic institutions is predominantly female. Thus, an interesting comparison will be how women working in same institutions differ in their workplace climate perceptions depending on whether they are staff or faculty. In other words, do the masculine norms of academia affect the climate of the entire workplace or are they limited to faculty?

We find that on average females perceive their environment to be significantly more masculine, less inclusive and less supportive of equality. The same is true for staff relative to faculty. But specifically female faculty are those with a highest perception of the existence of masculine contest culture, relative to male faculty and all staff in the same institution. We next explore how perceptions of the workplace culture and norms correlate with turnover intentions and workplace well-being. While we cannot ascribe a causal meaning to these correlations, they are useful in explaining how individuals weigh different dimensions of workplace norms in their reported well-being and attachment to the organization, which is a first step in the causal chain that goes from beliefs/perceptions to intentions to outcomes. However, to provide further validity to our results and to address possible selection into the survey or unobserved heterogeneity that might bias our results we use Oster's (2019) bounding methodology which assesses the extent of selection on unobservable characteristics.

On average we find that faculty report lower levels of workplace well-being than staff, but there are no significant gender differences. Moreover, both masculinity contest culture and climate for inclusion predict workplace well-being. Once we control for them, we find that women and faculty report higher levels of well-being: this suggests that in a more supportive environment, female academics might be happier in the workplace than their male colleagues. In terms of turnover intentions, women and faculty report higher turnover intentions than men and staff. However, once we control for perceptions of inclusion and masculinity contest culture, we find no significant differences. As such, our paper suggests that there is no trade-off between men and women in creating a more inclusive and less stereotypically masculine

environment: both men and women benefit from it. This suggests a more promising avenue than focusing on gender equality to promote women well-being and retention, especially given this also benefits men.

2 – Data description

2.1 Data

Survey

Our analysis draws on survey data collected from staff and faculty across six European business schools.[1] As show in Table 1, our sample includes 731 staff and 317 faculty. Of staff, 77% are female and of faculty, 55% are female. Table A1 in the Annexes presents response rates by gender and occupation, considering total number of staff, faculty, men, and women at the time of the survey: response rates are similar by genders for faculty (around 40%), but higher for females (46%) than for males (36%) among staff. To address possible biases for survey sample selection by gender, we estimate bounds to assess by how much unobserved characteristics may be affecting our main estimations (see Table 8 below).

TABLE 1 here

Outcome Variables

The two main outcomes throughout the analysis are turnover intentions and workplace well-being. They capture overall commitment to and satisfaction within the organization. These also predict actual turnover and retention and employee's performance (Wright & Bonett, 2007).

Turnover intentions. We measured turnover intensions using two items rated on a five-point scale (Bothma & Roodt, 2013). First, we asked whether a respondent has considered leaving their institution in the past year. Second, we asked whether a respondent would leave their institution for similar compensation elsewhere should they be offered this. We first average and then standardize the items to produce one measure of turnover intentions.

[1] The E4E consortium consists of 6 European business schools: ESADE (Spain), ESMT (Germany), EUR-RSM (The Netherlands), INSEAD (France), IEDC (Slovenia) and UNIBA (Slovakia). The project addresses barriers to the recruitment, retention and career progression of female researchers, targets gender imbalances in decision making processes and promotes the integration of gender in research and innovation content. The project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no GA872499.

Workplace well-being. To measure workplace well-being, we used four items on a five-point eudaimonic workplace well-being scale developed by Bartels et al. (2019). The scale captures both intrapersonal and interpersonal dimensions of well-being. The items we used were: "I am emotionally energized at work", "I feel that I have a purpose at my work", "I feel I am able to continually develop as a person in my job", and "I have a strong sense of belonging towards my institution". We conducted an exploratory factor analysis to check that the items correlated as expected in our sample (See Appendix 1 for details)[2]. We then aggregate and standardize the items into a single variable.

Main Independent Variables

Masculinity Contest Culture. For the masculinity contest culture (MCC), four items were selected from Glick et al.'s (2018) scale. The MCC scale includes three themes that capture a sense of, loosely speaking, stereotypical, competitive masculinity at the workplace: "Show no weakness", "Strength and Stamina" and "Put work first" (they constitute the three thematical factors of a second order MCC construct). We select items from the scale in each theme and include "if you don't stand up for yourself people will step on you", "admitting you don't know the answer looks weak", "taking days off is frowned upon" and "it's important to be in good physical shape to be respected", all measured from 1 (Strongly disagree) to 5 (Strongly agree). We then aggregate them into a single standardized variable.

Climate for inclusion. For climate for inclusion (CFI), three items were selected from Nishii's (2013) 18 item scale. The full scale is composed of the three following themes: "foundation of equitable employment practices", "integration of differences" and "inclusion in decision-making". This scale is particularly insightful since it is validated as capturing diversity issues at large, as opposed to focused solely on gender diversity. We use "my institution is characterized by a non-threatening environment in which people can reveal their "true" selves", "my institution commits resources to ensuring that employees are able to resolve conflicts effectively" and "in my institution, employees' insights are used to rethink or redefine work practices". These are also measured from 1 (Strongly disagree) to 5 (Strongly agree) and aggregated to form an average measure of climate for inclusion perception, which we then standardize.

[2] Although we originally measured interpersonal well-being with Bartels et al.'s (2019) item "Among the people I work with, I feel there is a sense of brotherhood/sisterhood", this item does not correlate uniquely with the other well-being measures in our analysis. For further details on the results of the exploratory factor analysis, see Appendix 1.

Gender equality support. We measure gender equality support by asking respondents the extent to which "My institution is committed to promoting gender equality". This is a question developed for this survey and measured from 1 (Strongly disagree) to 5 (Strongly agree).

The three main independent variables are correlated as shown in Table 2, with significant correlation coefficients between 0.26 and 0.43: individuals who perceive the environment as more masculine (higher MCC) also perceive less inclusion and less support for equality. Given these significant correlations, we conduct a Harman test to assess for common method variance (CMV). The results indicate that a single factor does not explain sufficient variation to suggest CMV, nor does a single factor structure explain variation in our data better than do the separate factors described above (Podsakoff et al., 2003)

Controls. We control for a range of demographic and workplace related measures, including institution and department fixed effects, respondents' minority status, marital status, household structure (being the main breadwinner and having care responsibilities) which are all detailed in the Annex Table A2.

TABLE 2 here

3 – Results

3.1 Perceptions of the workplace

We first aim to establish whether there are differences in how the work environment is perceived by gender and occupation (faculty/staff). For this, in Table 3 we present regressions of each of the 3 perception variables on a female dummy variable, a faculty dummy variable, and we progressively include controls to assess how much of the raw variation is explained by observable factors that may be correlated with gender and occupation.

TABLE 3 here

Table 3 shows that, on average, female respondents in the sample have worse perceptions of norms and behaviors in the workplace than their male counterparts. These average differences between genders in columns 1 to 3 are somewhat reduced but remain large when controlling for Institution and Department fixed effects, the faculty indicator as well as demographic and household structure control variables. This suggests that it is individual differences in perceptions, or individual experiences that explains perception differences, rather than features

of the workplace, departments or correlates of household structure that would be perceived similarly by both genders.

Table 3 also shows that faculty's perceptions of their environment is much worse than those of staff members: they perceive it as more masculine, less inclusive and less supportive of gender equality (see columns 4 to 6). On average, the differences between staff and faculty are larger than those between males and females for inclusion and masculine culture: women's perception of inclusion climate is 17.2 percent of a standard deviation lower than their male counterparts, while faculty's is a 36.3 percent lower. For masculine culture, women have a 17 percent higher perception and faculty a 28.9 percent higher perception. For gender equality support, females have a 42.5 percent lower perception and faculty a 34.8 percent lower perception. This means that for all 3 variables, the group with the best perceptions of their climate is male staff and the group with the worst perceptions is female faculty.

Columns 7 to 9 interact the gender and faculty dummies to see whether, beyond the average differences explained by gender and occupation separately, there is an interaction effect. There could be significant differences for, say, female faculty that cannot be explained by their gender and occupation separately. We find that for inclusion and gender equality perceptions, the interaction is not significant: i.e. female faculty are the group with the worst perceptions, but this is explained but the fact they are women and that they are faculty, and each of these is associated with more negative perceptions, rather than being both at the same time gives them an even worse perception (the interaction is small and not statistically significant).

In contrast, female faculty (column 8) are the group with the most negative perceptions of masculine contest culture: more than female staff and more than male faculty. In fact, almost a third of the higher perception of masculinity among faculty (in column 5) is explained by the perceptions of female faculty, with male faculty not seeing their environment as much more masculine than male staff. In some ways, this is in line current literature on masculinity contest culture. Berdahl et al. (2018) highlight that environments with the highest masculinity contest culture are those where the gender distribution is most skewed in favor of men. As such, we do not expect there to be an additive effect whereby female staff equally have worse perceptions of masculinity contest culture. This is important since it would suggest that pervasive masculinity can be related to unbalanced gender distributions.

Note that while our three variables are quite correlated within the sample, they display different patterns for gender and females and for faculty and staff, suggesting that they do capture

different constructs and perceptions. In addition, differences in masculinity perceptions are quite similar between male staff and male faculty (even though staff is majority female), but females perceive the environment as being more masculine, and especially so female faculty. This suggests that masculine norms are perceived even in environments where most co-workers are female, which is the case with our staff respondents, but that female faculty feel particularly exposed to masculine norms of behavior.

These results describe the differing perceptions of different groups, by gender an occupation. From here, the interest is in determining the extent to which these perceptions and beliefs explain turnover intentions and workplace well-being.

3.2 Turnover intentions

We start by analyzing how much different perceptions about the environment explain turnover intentions. We take a broad interpretation of turnover intentions as reflecting not just actual turnover but also a general sense of commitment to the organization. In Table 4, the dependent variable is now turnover intentions and is regressed on a female indicator, a faculty indicator as well as controls and the three perception variables. The goal is to see how much any differences in turnover intentions between genders or occupation groups can be explained by the 3 perception variables (as well as other controls), and whether once we partial out the contribution of those variables, there are any significant difference between groups in turnover intentions.

Columns 1 and 2 of Table 4 show that women and faculty have a higher turnover intention on average. This is in line with existing literature (Xu, 2008). However, both these differences disappear (become very small and statistically insignificant) when controlling for our three main variables of perceptions of the workplace norms and behaviors (columns 6 and 7).

Furthermore, Table 4 shows the importance of measuring the three (correlated) constructs simultaneously. Each of them has a large and significant effect on turnover intentions when introduced by themselves in the regression, with climate for inclusion and gender equality reducing (columns 3 and 5) and masculinity culture (columns 4) increasing turnover intentions. However, when we control for all three at the same time in the regression (column 7) we find that, once we include climate for inclusion and masculinity culture, the marginal effect of gender equality support is negligible (an insignificant -0.039 coefficient), but the effect of inclusion and masculinity remain large and significant (-0.29 and 0.25 respectively). This

means that a one standard deviation reduction in masculinity reduces turnover intention by 25 percent of a standard deviation and a one standard deviation increase in inclusion climate reduces it by 29 percent.

While we do not have actual turnover in our data, we can use earlier estimates of the relationship between turnover intentions and turnover to provide a back of the envelope calculation of the effect. A range of estimates for the correlation coefficient are provided in the literature going from 0.32 (Carsten & Spector, 1987) to 0.52 (Tett & Meyer, 1993). If we take these as lower and upper bounds, this means that a one standard deviation increase in masculinity contest culture, using these estimates, would imply between an 8% and 13% increase in actual turnover, and a one standard deviation reduction in inclusion climate associated with between a 9.4% and 15% increase in actual turnover.

We interpret this as suggestive evidence of the following: a masculinity culture is detrimental to retention and employee commitment, and this is true regardless of the inclusion climate perceived by the employees. In other words, inclusion does not fully explain perceptions of masculinity. In contrast, any positive effect of the perception of gender equality support, is fully explained by the extent to which it fosters inclusion and reflects less masculinity, with any remaining gender emphasis having no additional positive effect. While we cannot ascribe causality to any of our results, our correlations would suggest that increasing inclusion and reducing masculinity culture and norms are positive levers to retain employees.

TABLE 4 here

3.3 Workplace well-being

While turnover intentions also reflect a broad sense of commitment to the organization, we are interested in evaluating directly the effect of these climate perceptions on employee workplace well-being. Table 5 reports the results. Here, the differences between men and women are insignificant on average (column 1) and when controlling for other variables (column 2). Faculty members report 11% lower levels of workplace well-being than staff. Similarly to turnover, each variable is a strong predictor of workplace well-being (negative for masculinity, positive for inclusion and equality, columns 3 to 5), yet accounting for the 3 main perception variables reveals important dynamics, that are different from those in the turnover table.

Here, controlling for the three perception variables radically changes the results for female and faculty: women and faculty report much higher workplace well-being when accounting for the

three variables. This means that while these two groups tend to be more satisfied at the workplace, existing norms of behavior and professional climate may drag down their well-being to the point of making them worse off than staff and men on average. The effects are large: women report 16 percent and staff 10 percent of a standard deviation higher wellbeing when controlling for those climate and norms variables. Women faculty therefore report 26 percent higher well-being were it not for these perceptions.

In terms of the contribution of each variable to well-being, similar to the results for turnover intentions, masculine norms and an inclusion climate are very strong and significant predictors of workplace well-being. Holding all other variables constant, a one standard deviation increase in masculine norms reduces well-being by 17.5 percent of a standard deviation whilst a one standard deviation increase in climate for inclusion increases well-being by 35.1 percent of a standard deviation. In contrast, while significant, gender equality support is quantitatively much less strong than the other two variables (7.1 percent).

We can interpret this evidence as suggesting that perceptions of masculine norms at the workplace and an inclusive climate are very strong predictors of employees thriving in the organization (emphasis on gender equality much less so). So much so that the fact that females and staff have much worse perceptions/experiences drags down their well-being to the point of reverting an otherwise more positive experience at the workplace.

TABLE 5 here

3.4 Effects of perceptions across gender and occupation: are there trade-offs?

While Tables 4 and 5 established that the perception variables play a very large role in turnover intentions and workplace well-being, we would like to know next whether perceptions of inclusion, masculinity and gender equality support affect the four main groups in this analysis differently. The objective is to explore possible differential role of perceptions between groups and even the existence of trade-offs: this would be cases where perceptions of a certain dimension would play a positive role for one group and a negative role for another such that improving the environment in a given direction would be beneficial for one and detrimental for the other. For example, perceptions of a masculinity contest culture may be more negative for women more than men, or even, have positive effects on the latter group. These results are reported in Table 6.

TABLE 6 here

For ease of comparability, Column 1 of Table 6 (Table 7) replicates the last regression in Table 4 for turnover (Table 5 for workplace well-being). The following columns additionally allow for different correlations between the perception variables and turnover by gender and occupational group. Both tables show the same pattern of results: the main positive effects of inclusion norms and negative effects of masculinity stand when controlling for interaction effects and the correlations between the perception variables and turnover/well-being do not differ significantly between males and females, nor between staff and faculty. All the interactions have much smaller coefficients than the main effect and are statistically insignificant. The only exception to this general pattern is that, if anything, women benefit less than men (Table 7 column 2) from improvements in gender equality support. In fact, the results suggest that while men's well-being is higher when there is more gender equality support, the effect for women is zero. This could be reflecting the fact that focusing too much on equality can fire back as the minority group is reminded of their status, or women's gender fatigue, and their tendency to be more invested in or burdened by gender initiatives, relative to men.

Similarly, Table 7 in relation to well-being reveals no trade-offs for the main groups of interest in increasing inclusive norms and decreasing masculine culture. Importantly, however, the estimations suggest that increasing support to gender equality has a slightly lower impact on women's well-being relative to men, by 0.7%. This is concealed when considering the main effects of gender and support to gender equality separately, since results in Table 5 point to an overall positive effect of 0.7% on well-being.

TABLE 7 here

3.5 Bounding estimates

This far, a limitation of our results lies in not knowing whether the estimated relations between our independent (perceptions and socio-demographics) and dependent (turnover intentions and workplace well-being) variables are driven by unobserved selection. We could have selection into the workplace, but also selection into the survey. In the context this paper we are particularly worried about possible differential selection into the survey between men and women. If we were not able to address selection into the sample, we would interpret our results as reflecting differences *conditional* on having been hired and retained into these institutions. This is a relevant population in itself as it is the current employees of the institutions. However, if our results (and in particular any differences between men and women) are driven by selection

into the sample, then our estimated correlations are much less informative of the actual population being surveyed.

Papers analyzing survey data rarely address this problem. We provide a strategy to assess the sensitivity of our results to omitted variable bias and in particular selection using the bounding technique proposed by Oster (2019). The method allows a partial identification of these estimates by constructing a bound which contains the true value and is derived from complete information on observed and unobserved variables.

The potential impact of omitted variables and selection bias is assessed by measuring how sensitive estimated coefficients are to the inclusion of important control variables. Point estimates which are unaffected by the addition of variables can be interpreted as revealing limited omitted-variable bias (Altonji et al., 2005). However, Oster highlights that estimated coefficients may remain stable as a result of adding uninformative covariates, such that changes in the model R^2 must equally be incorporated in the construction of bound estimates. This is the methodology on which the following paragraphs are based.

There are several assumptions in Oster's method. First, we assume that δ, the relative degree of selection on observables is equal to that of unobservables, such that δ =1. The second assumption is made as to the value of R^2_{Max}. R^2_{Max} is the model R^2 derived from a hypothetical regression of the dependent variable on the treatment variable and both the observed and unobserved controls. Using a sample of journal results from randomized experiments, Oster (2019) sets R^2_{Max} to $\text{Min}\{1, 1.3\hat{R}^2\}$, where $\hat{R}^2$ is obtained from the regression of the dependent variable with observed treatment and control variables. The hypothetical maximum value for R^2_{Max} (i.e., should the researcher possess complete information on both observable and unobservable covariates) approaches 1.

Thereof, the bound is estimated as follows:

$$\left[\hat{\beta}, \beta^*(R^2_{Max}, \delta = 1)\right]$$

Where R^2_{Max} is $\text{Min}\{1, 1.3\hat{R}^2\}$ and $\hat{\beta}$ is the treatment effect from the regression of the dependent variable with observed treatment and control variables. $\beta*$ is estimated as follows:

$$\beta* = \hat{\beta} - (\dot{\beta} - \hat{\beta}) \frac{R^2_{Max} - \hat{R}^2}{\hat{R}^2 - \dot{R}^2}$$

Where $\dot{\beta}$ and $\dot{R}^2$ are drawn from the uncontrolled regression of the treatment variable on the dependent variable.

As to the interpretation, Oster (2019) suggests that if the bound excludes zero, then the true effect of the treatment on the outcome variable is not 0. In other words, a bound excluding 0 indicates that the point estimates produced are robust to selection on unobserved variables.

We implement Oster's method in two cases. First, given the high significance of our perception measures in relation to turnover intentions and well-being, we assess their robustness to selection on unobservables. Second, we examine results disaggregated by gender and occupation to assess whether this reveals different results. Results are show in Table 8.

TABLE 8 here

The coefficients in the first panel column 1 of Table 8 replicate those in Tables 6 (turnover) and 7 (well-being). Column 2 in turn provides the bounds estimate for each corresponding coefficient. The first two panels confirm the conclusions in earlier tables: the main effect of climate for inclusion and masculinity contest culture is always significant since the bounds on those variables consistently exclude 0. There is unlikely selection on unobserved parameters influencing the main effect on the two perception measures. In turn, gender equality support, which was small and insignificant for turnover but small but significant for well-being, in both cases now has a bound that includes zero, confirming that the marginal effect of equality is indistinguishable from zero when accounting for the two other variables.

The bounds' width provides some indication as to the direction of the unobservables' effect on the estimated coefficients. Note that for climate for inclusion and masculinity contest culture, the true bounds are smaller relative to the estimated effect on both turnover intentions and workplace well-being. In other words, unaccounted confounders lead us to overestimate the true treatment effects. However, since the bounds exclude 0, this gives us some confidence that the results on the relation between individuals' perception of the workplace and outcomes are likely to exist in a "true" (non-selected) population and despite the influence of unobserved confounders.

Finally, we re-ran the regressions and bounding estimates for each group (male, female, staff and faculty). We saw in Tables 6 and 7 that the differences between the groups were not statistically significant already without the bounding, except for gender equality support, which was more beneficial for men's well-being than for women. Table 8 allows us to see the main effect for each subgroup directly, and confirms the conclusions from earlier tables: climate for inclusion and masculinity contest culture have significant effects for all groups; and the only group that benefits from gender equality support are males, this is true as a main effect and also

when we account for possible omitted variable bias and selection through the bounding. This means that it is unlikely that the result is driven by differential selection of men and women into the sample, but rather reflects a true underlying correlation in the population.

4 – Discussion and Conclusion

This paper explores what may contribute to a lower representation of women in academia. In contrast with existing research, we compare these dynamics with staff respondents in the same academic institutions. In these institutions, we measure individuals' perceptions of norms and behaviors in their workplace, namely masculinity contest culture, climate for inclusion, and support to gender equality. Our first result is that women have worse perceptions of their workplace relative to male counterparts. This manifests as significantly higher perceptions of masculinity, and lower perceptions of both climate for inclusion and support to gender equality. In addition, female faculty have the worse perceptions of masculinity contest culture relative to all other groups, namely, female staff, male staff and male faculty. In this case, there is an additive effect of gender and occupation. This is important since the gender distribution across staff occupations differs from that of faculty occupations, the latter having a lower proportion of women. The fact that perceptions of inclusion are lower for women regardless of occupations reveals that focusing on increasing the number of women is most likely insufficient to improve their sense of inclusion. In contrast, the fact that female staff indicate less pervasive masculinity relative to female faculty is indicative that such norms of behaviors may be less unsanctioned if women were more represented in the workplace.

Beyond formulating these tentative dynamics, our interest is also in identifying the effect that these perceptions measures have on individuals' general attachment to their institution and their institutional well-being. To address this, we consider all three perceptions variables in combination, since they are most likely correlated. This yields important results. First, climate for inclusion significantly decreases turnover intentions and increases well-being. Second, individuals' perception of masculinity contest culture has the opposite effect, in increasing turnover intentions and decreasing workplace well-being. These effects are strong even when considering all perception measures together. In contrast, we do find an effect of gender equality support in decreasing turnover intentions and increasing workplace well-being, but this effect is relatively marginal in comparison with perceptions of inclusion and masculinity. As such, improving perceptions of masculinity and inclusion appear as promising levers to improve

organizational outcomes. This is especially the case since we find no gender or occupation trade-off, whereby one group would benefit from, say, higher inclusion, to the expense of another groups' well-being and attachment to the institution. The only exception to this general conclusion is the fact that men benefit more from gender equality support than do women. It is likely that dynamics such as women's "gender fatigue" at being burdened to a higher extent by initiatives promoting gender equality. All our results hold when addressing possible unobserved heterogeneity an in particular sample selection into the survey using Oster's (2019) boundin methodology.

In line with these findings, an important avenue for further research is in determining what organizational interventions and policies can effectively improve perceptions of both masculinity and inclusion.

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Tables

Table 1 – Distribution of the sample

	Occupation		
Gender	Staff	Faculty	Total
Male	162	175	337
	22.24	55.21	32.16
Female	569	142	711
	77.84	44.79	67.84
Total	731	317	1048
	69.75	30.25	100

Notes: First line is the number of observations; Second line is the share in %.

Table 2 – Summary of main dependent variables, by gender

	(1) Min	(2) Max	(3) Full sample - mean	(4) Full sample - sd	(5) Male sample - mean	(6) Male sample - mean	(7) Female sample - mean	(8) Female sample - mean	(9) Difference on mean average
Gender equality support	1	5	3.60	(1.01)	3.89	(0.90)	3.47	(1.03)	***
Climate for inclusion	1	5	3.32	(0.89)	3.45	(0.85)	3.26	(0.90)	***
Masculinity contest culture	1	5	2.50	(0.74)	2.44	(0.72)	2.53	(0.75)	*
Eudaimonic workplace well-being	1	5	3.79	(0.79)	3.84	(0.77)	3.77	(0.80)	
Turnover intentions	1	5	2.58	(1.11)	2.46	(1.10)	2.64	(1.11)	**
N			1048		337		711		1048

Correlation matrix	Gender equality support	Climate for inclusion	Masculinity contest culture	Eudaimonic workplace well-being	Turnover intentions
Gender equality support	1.000				
Climate for inclusion	0.362***	1.000			
Masculinity contest culture	-0.281***	-0.431***	1.000		
Eudaimonic workplace well-being	0.261***	0.415***	-0.308***	1.000	
Turnover intentions	-0.225***	-0.407***	0.371***	-0.535***	1.000
N			1048		

mean coefficients; sd in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 3 – Estimated effect of individual and institutional factors on perceptions of the workplace

	(1) Inclusion climate	(2) Masculine culture	(3) Gender equality support	(4) Inclusion climate	(5) Masculine culture	(6) Gender equality support	(7) Inclusion climate	(8) Masculine culture	(9) Gender equality support
Female	-0.221*	0.155	-0.480***	-0.172*	0.170	-0.425***	-0.166**	0.155*	-0.425***
	(0.088)	(0.095)	(0.083)	(0.078)	(0.097)	(0.091)	(0.063)	(0.069)	(0.095)
Faculty				-0.363***	0.289***	-0.348***	-0.295***	0.118	-0.343***
				(0.013)	(0.019)	(0.020)	(0.065)	(0.067)	(0.055)
Female x Faculty							-0.091	0.231**	-0.007
							(0.070)	(0.069)	(0.076)
Institution x Department fixed effects	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Controls*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	1048	1048	1048	1048	1048	1048	1048	1048	1048
R^2	0.053	0.061	0.100	0.112	0.096	0.142	0.114	0.106	0.142
adj. R^2	0.039	0.047	0.087	0.078	0.061	0.109	0.078	0.070	0.108

Standard errors clustered by institution; * p<0.10 ** p<0.05 *** p<0.01

*Variables: minority, care responsibilities, spouse, main breadwinner, institution, years in the institution

Table 4 – Estimated effect of individuals' perception of the workplace on turnover intentions

	(1) Turnover intentions	(2) Turnover intentions	(3) Turnover intentions	(4) Turnover intentions	(5) Turnover intentions	(6) Turnover intentions	(7) Turnover intentions
Female	0.160**	0.075	0.054	0.111**	0.034	0.035	-0.034
	(0.041)	(0.091)	(0.039)	(0.042)	(0.040)	(0.054)	(0.079)
Faculty		0.202***					0.011
		(0.009)					(0.013)
Climate for inclusion			-0.428***			-0.312***	-0.293***
			(0.024)			(0.021)	(0.019)
Masculinity contest culture				0.379***		0.228***	0.247***
				(0.037)		(0.022)	(0.021)
Gender equality support					-0.244***	-0.051**	-0.039
					(0.030)	(0.017)	(0.022)
Institution x Department fixed effects	No	Yes	No	No	No	No	Yes
Controls*	No	Yes	No	No	No	No	Yes
N	1048	1048	1048	1048	1048	1048	1048
R^2	0.006	0.094	0.199	0.160	0.077	0.246	0.293
adj. R^2	0.005	0.059	0.194	0.154	0.071	0.239	0.263

Standard errors clustered by institution; * p<0.10 ** p<0.05 *** p<0.01

*Variables: minority, care responsibilities, spouse, main breadwinner, institution, years in the institution

Table 5 - Estimated effect of individuals' perception of the workplace on well-being

	(1) Workplace well-being	(2) Workplace well-being	(3) Workplace well-being	(4) Workplace well-being	(5) Workplace well-being	(6) Workplace well-being	(7) Workplace well-being
Female	-0.097	0.039	0.018	-0.046	0.038	0.044	0.161***
	(0.062)	(0.062)	(0.017)	(0.034)	(0.044)	(0.027)	(0.021)
Faculty		-0.107***					0.096***
		(0.005)					(0.015)
Climate for inclusion			0.437***			0.352***	0.351***
			(0.057)			(0.057)	(0.047)
Masculinity contest culture				-0.316***		-0.145**	-0.175***
				(0.040)		(0.036)	(0.035)
Gender equality support					0.247***	0.067*	0.071**
					(0.021)	(0.027)	(0.026)
Institution x Department fixed effects	No	Yes	No	No	No	No	Yes
Controls*	No	Yes	No	No	No	No	Yes
N	1048	1048	1048	1048	1048	1048	1048
R^2	0.002	0.124	0.232	0.144	0.103	0.255	0.332
adj. R^2	0.001	0.090	0.227	0.138	0.097	0.248	0.304

Standard errors clustered by institution; * p<0.10 ** p<0.05 *** p<0.01

*Variables: minority, care responsibilities, spouse, main breadwinner, institution, years in the institution

Table 6 - Estimated effects of gender and occupation on the relation between institutional perceptions and turnover intentions

	(1) Turnover intentions	(2) Turnover intentions	(3) Turnover intentions	(4) Turnover intentions
Female	-0.034	-0.040	-0.036	-0.040
	(0.079)	(0.080)	(0.081)	(0.076)
Faculty	0.011	0.003	0.014	0.034
	(0.013)	(0.011)	(0.013)	(0.031)
Climate for inclusion	-0.293***	-0.270***	-0.291***	-0.253***
	(0.019)	(0.031)	(0.017)	(0.040)
Masculinity contest culture	0.247***	0.291***	0.248***	0.298***
	(0.021)	(0.030)	(0.021)	(0.024)
Gender equality support	-0.039	-0.066	-0.040	-0.081
	(0.022)	(0.057)	(0.022)	(0.052)
Female x Climate for inclusion		-0.031		-0.050
		(0.025)		(0.045)
Female x Masculinity contest culture		-0.062		-0.067
		(0.050)		(0.051)
Female x Gender equality support		0.036		0.054
		(0.071)		(0.069)
Faculty x Climate for inclusion			-0.015	-0.024
			(0.033)	(0.038)
Faculty x Masculinity contest culture			0.001	-0.007
			(0.026)	(0.029)
Faculty x Gender equality support			0.019	0.023
			(0.030)	(0.029)
Female x Faculty				-0.039
				(0.054)
Institution x Department fixed effects	Yes	Yes	Yes	Yes
Controls*	Yes	Yes	Yes	Yes
N	1048	1048	1048	1048
R^2	0.293	0.293	0.293	0.294
adj. R^2	0.263	0.262	0.261	0.260

Standard errors clustered by institution; * p<0.10 ** p<0.05 *** p<0.01

*Variables: minority, care responsibilities, spouse, main breadwinner, institution, years in the institution

Table 7 - Estimated interaction effects of gender and occupation on the relation between institutional perceptions and well-being

	(1) Workplace well-being	(2) Workplace well-being	(3) Workplace well-being	(4) Workplace well-being
Female	0.161***	0.170***	0.153***	0.158***
	(0.021)	(0.020)	(0.019)	(0.017)
Faculty	0.096***	0.104***	0.090***	0.059*
	(0.015)	(0.022)	(0.017)	(0.029)
Climate for inclusion	0.351***	0.316***	0.357***	0.346***
	(0.047)	(0.065)	(0.034)	(0.059)
Masculinity contest culture	-0.175***	-0.202**	-0.173***	-0.200**
	(0.035)	(0.071)	(0.036)	(0.065)
Gender equality support	0.071**	0.123***	0.067**	0.105**
	(0.026)	(0.026)	(0.018)	(0.037)
Female x Climate for inclusion		0.048		0.013
		(0.054)		(0.062)
Female x Masculinity contest culture		0.037		0.035
		(0.087)		(0.073)
Female x Gender equality support		-0.070*		-0.051
		(0.027)		(0.035)
Faculty x Climate for inclusion			-0.051	-0.048
			(0.031)	(0.034)
Faculty x Masculinity contest culture			0.002	0.004
			(0.029)	(0.022)
Faculty x Gender equality support			0.031	0.028
			(0.041)	(0.041)
Female x Faculty				0.051
				(0.032)
Institution x Department fixed effects	Yes	Yes	Yes	Yes
Controls*	Yes	Yes	Yes	Yes
N	1048	1048	1048	1048
R^2	0.332	0.333	0.335	0.336
adj. R^2	0.304	0.303	0.305	0.303

Standard errors clustered by institution; * p<0.10 ** p<0.05 *** p<0.01

*Variables: minority, care responsibilities, spouse, main breadwinner, institution, years in the institution

Table 8 – Bound estimates

	(1) $\hat{\beta}$ $(s.e.)$	(2) $[\hat{\beta}, \beta^*(R^2_{Max}, \delta = 1)]$
	Full sample	
Turnover intentions		
Climate for inclusion	-0.253***(0.016)	[-0.253, -0.088]
Masculinity contest culture	0. 298*** (0.024)	[0.070, 0. 298]
Gender equality support	-0.081 *ns* (0.052)	[-0.081, 0.021]
Eudaimonic workplace well-being		
Climate for inclusion	0.346*** (0.043)	[0.147, 0.346]
Masculinity contest culture	-0.200** (0.029)	[-0.200, -0.059]
Gender equality support	0.105** (0.021)	[-0.017, 0.105]
	Female sample	
Turnover intentions		
Climate for inclusion	-0.300***(.022)	[-0.300, -0.088]
Masculinity contest culture	0.242*** (.030)	[0.074, 0.242]
Gender equality support	-0.029 *ns* (.033)	[-0.029, 0.019]
Eudaimonic workplace well-being		
Climate for inclusion	0.354***(.039)	[0.127, 0.354]
Masculinity contest culture	-0.174** (.040)	[-0.174, -0.051]
Gender equality support	0.053 *ns* (.029)	[-0.007, 0.053]
	Male sample	
Turnover intentions		
Climate for inclusion	-0.268** (0.039)	[-0.268, -0.087]
Masculinity contest culture	0.260** (0.034)	[0.092, 0.260]
Gender equality support	-0.072 *ns* (0.071)	[-0.072, -0.006]
Eudaimonic workplace well-being		
Climate for inclusion	0.312* (0.09)	[0.157, 0.312]
Masculinity contest culture	-0.175* (0.05)	[-0.175, -0.070]
Gender equality support	0.087*** (0.01)	[0.012, 0.087]
	Faculty sample	

Turnover intentions		
Climate for inclusion	-0.325** (0. 051)	[-0.325, - 0.124]
Masculinity contest culture	0.248** (0.061)	[0.248, 0.093]
Gender equality support	-0.001 *ns* (0.042)	[-0.001, 0.019]
Eudaimonic workplace well-being		
Climate for inclusion	0.265** (0.060)	[0.132, 0.265]
Masculinity contest culture	-0.142* (0.035)	[-0.142, -0.053]
Gender equality support	0.057 *ns* (0.073)	[0.057, 0.019]
	Staff sample	
Turnover intentions		
Climate for inclusion	-0.284** (.0345)	[-0.284, -0.063]
Masculinity contest culture	0.250*** (.0245)	[0.052, 0.250]
Gender equality support	-0.050 *ns* (.040)	[-0.050, 0.008]
Eudaimonic workplace well-being		
Climate for inclusion	0.387*** (.038)	[0.107, 0.387]
Masculinity contest culture	-0.174* (.046)	[-0.174, -0.039]
Gender equality support	-0.043 *ns* (.040)	[-0.043, -0.021]

Notes: results Column (1) are those from the full controlled regression models in Table 6 and 7. Results from Column (2) are calculated with the method developed in Oster (2019). * p<0.10 ** p<0.05 *** p<0.01

Annexes

Table A1 – Response rate by gender and occupation

	Female faculty	Male faculty	Female staff	Male staff	Total
Total respondents (N)	150	234	649	187	1220
Total institution (N)	373	598	1385	506	2862
Response rate (%)	40.21	39.13	46.86	36.96	42.63

Table A2 – Summary of main independent variables

	(1) Min	(2) Max	(3) Full sample - mean	(4) Full sample - sd
Gender:				
Male	0	1	0.32	(0.47)
Female	0	1	0.68	(0.47)
Minority status	0	1	0.11	(0.31)
Has care responsibilities:	0	1	0.53	(0.50)
Has spouse:	0	1	0.82	(0.39)
Main breadwinner:				
Roughly equal balance	0	1	0.46	(0.50)
Respondents' spouse	0	1	0.23	(0.42)
Respondent	0	1	0.32	(0.47)
Respondent years in the institution:				
Under 3 years	0	1	0.24	(0.43)
3-7 years	0	1	0.24	(0.43)
Over 7 years	0	1	0.52	(0.50)
Department:				
Staff department	0	1	0.72	(0.45)
Accounting, Economics, Finance, Politics	0	1	0.08	(0.26)
Decision Sciences, Marketing, Operations	0	1	0.10	(0.30)
Entrepreneurship, Organizational Behavior	0	1	0.09	(0.29)
Other department	0	1	0.01	(0.11)
N			1048	

mean coefficients; sd in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Appendix 1 – Exploratory factor analysis on survey items

Appendix Table 1 summarizes the correlation between the main items of interest included in our survey. Since we find no previous research addressing the relation between climate for inclusion (CFI), masculinity contest culture (MCC) and eudaimonic workplace well-being (EWWB), we conduct an exploratory analysis to assess whether, in our dataset, these survey items covary uniquely onto these three distinct factors. All items are formulated on a 5-point Likert scale (1=Strongly disagree, 2=Disagree, 3=Neither Agree nor Disagree, 4=Agree, 5=Strongly Agree).

APPENDIX TABLE 1 here

For MCC, the survey contains 3 items from Glick et al.'s (2018) scale. In the complete scale, "Show no weakness", "Strength and Stamina" and "Put work first", constitute three themes of MCC. The items in our survey include "In my institution, if you don't stand up for yourself people will step on you" and "In my institution, it's important to be in good physical shape to be respected". For CFI, 3 items were selected from Nishii's (2013) 18 item scale. Sample items include "My institution is characterized by a non-threatening environment in which people can reveal their true-selves". Finally, the EWWB scale developed by Bartels et al. (2019) covers interpersonal and intrapersonal dimensions of individual well-being. In the authors' scale, the two dimensions are each composed of four items, and items from both are included in our survey. These include for example "Among the people I work with, I feel there is a sense of brotherhood/sisterhood" and "I feel that I have purpose at work". While our items for turnover intentions and gender equality support are described in Appendix Table 1, they are not included in the analysis, since these are single items and not factors.

Appendix Table 1 indicates no risk of high intercorrelation nor multicollinearity with no coefficients close or above 0.8 (Field, 2013). We then produce two measures of sample adequacy. First, we find that Bartlett's test of sphericity is significant ($\chi 2 = 3488.119$, $p < 0.000$) confirming that our sample is suitable for exploratory analysis. Second, the Kaiser Meyer Olkin (KMO) value is 0.847. Values above 0,7 indicate there is enough overlap/shared variance between the variables (MacCallum et al., 1999; Hoelzle & Meyer, 2013). With these results, we conduct the analysis with orthogonal varimax rotation. Note that using oblique rotation

yields similar results. The maximum likelihood component analysis with a cut-off point of .40 and the Kaiser's criterion of eigenvalues greater than 1 yields a three-factor solution. Appendix Table 2 presents factor loadings to specify how these are structured.

APPENDIX TABLE 2 here

Tabachnick and Fidell (2014) recommend items that have a loading with an absolute value less than 0.32 and are not loading clearly onto a single construct. "Clearly" is defined as a difference below 0.2 (Child, 2006). This is the case for Brother/sisterhood that is loading almost identically on Component 1 and Component 2. The other factors are composed as expected according to the original scales. For the rest of the analysis, we therefore use Institutional belonging as the interpersonal dimension of EWWB, rather than "brother/sisterhood". As such, MCC (Weakness, Physical shape, Days-off, Stand-up; α=0.70), CFI (Employee insight, No conflicts and True selves; α=0.74) and EWWB (Energy, Purpose, Development, Institutional Belonging; α=0.83) refer to standardized averages of respective items listed in Appendix Table 1.

Appendix references

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Tabachnick, B., & Fidell, L. (2014). Using multivariate statistics, 6th, internat edn. In: Pearson Education, Harlow.

Appendix Table 1 – Correlation matrix of main survey items*

	Mean	Std. Dev.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) True-selves	3.60	0.89													
(2) No conflicts	3.22	0.85	0.529												
(3) Employee insight	3.28	1.02	0.433	0.473											
(4) Weakness	2.70	0.99	-0.292	-0.222	-0.218										
(5) Physical shape	2.25	0.98	-0.189	-0.150	-0.085	0.334									
(6) Days off	2.13	0.95	-0.257	-0.180	-0.221	0.380	0.342								
(7) Stand-up	2.92	1.13	-0.346	-0.273	-0.320	0.413	0.325	0.372							
(8) Gender equality support	3.60	1.01	0.216	0.295	0.285	-0.155	-0.156	-0.222	-0.183						
(9) Institutional belonging	3.87	0.95	0.276	0.216	0.245	-0.154	-0.121	-0.224	-0.225	0.213					
(10) Brother-sisterhood	3.68	1.02	0.321	0.254	0.301	-0.215	-0.143	-0.210	-0.297	0.125	0.408				
(11) Energy	3.71	0.98	0.216	0.184	0.315	-0.087	-0.099	-0.222	-0.241	0.188	0.502	0.379			
(12) Development	3.62	1.05	0.186	0.193	0.357	-0.159	-0.133	-0.191	-0.287	0.260	0.426	0.321	0.645		
(13) Purpose	3.96	0.88	0.153	0.127	0.243	-0.140	-0.110	-0.195	-0.226	0.163	0.469	0.261	0.625	0.642	
(14) Turnover	2.64	1.28	-0.269	-0.236	-0.291	0.225	0.104	0.197	0.374	-0.215	-0.315	-0.230	-0.366	-0.421	-0.390

**Note: Unstandardized items*

Appendix Table 2 – Item loading on the three factors retained by the exploratory analysis

Variable	Eudaimonic workplace well-being	Climate for inclusion	Masculinity contest culture	Uniqueness
Energy	0.845	0.137	-0.047	0.264
Purpose	0.835	0.011	-0.098	0.293
Development	0.818	0.128	-0.098	0.305
Institutional belonging	0.669	0.214	-0.111	0.494
Brother/sisterhood	0.434	0.387	-0.179	0.630
No conflict	0.057	0.824	-0.083	0.310
True selves	0.093	0.773	-0.221	0.344
Employee insight	0.271	0.717	-0.064	0.408
Shape	-0.049	0.001	0.740	0.450
Weakness	-0.036	-0.218	0.713	0.443
Days off	-0.183	-0.117	0.695	0.470
Standup	-0.209	-0.326	0.608	0.481