

In/Visibility Issues Surrounding the Coping Strategies of Algerian Female Engineers



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Summary:

The scope of the present article revolves around exploring the experience of Algerian female engineers and sheds some light on the dichotomous construction of (in) visibility of female's endeavour, contribution, and strategies to cope within male-dominated engineering and challenge the marginal borders embedded with their resistance, exclusion, and underrepresentation in an arena perceived as masculine. This paper expands the view that workplace context can explain people's behaviour at work setting or even as social individuals by drawing on the tenets of CDA and FCDA that serve to offer an understanding of their experiences and challenges in light of the complexities and masculinities of engineering. Although their experiences varied, the analysis of the participants' discourses remains representative of a significant manner of resistance to the available masculinities, it reveals a picture of extensive masculine culture that affects their coping strategies, and highlights women's consciousness-raising in the professional domain while struggling to gain their social status.

Keywords: gender; engineering workplace; male-dominated domain; female engineers; coping strategies.

1. INTRODUCTION

Every society has quite specific stereotypes about male and female characteristics. Stereotypical gender roles about masculinity and femininity at both social and workplace levels trace the history of the

discriminatory thoughts used against women to justify men's dominance and supremacy in a patriarchal society. Accordingly, Janet Holmes & Maria Stubbe (2003: 573) highlight the prevalence of gender role stereotypes in the distribution of "masculine" and "feminine" workplaces while perceptions related to the nature of these jobs continue to be a result of gender stereotypes. In this context, studies about women's experience at the workplace have been examined extensively. While their integration in the male-dominated domain deserves to be given much interest in women's studies since the culture is experienced as masculine.

Research about the experiences of women in engineering professions and education highlights the tension and challenges that surround the field of engineering when it comes to the gendered practices and the underrepresentation of female engineers since the culture of engineering workplace and education is perceived as men's terrain and a male's oriented occupation. The cultural environment of engineering that is perceived as masculine privileges men and forces women to "fit in" the male-dominated norms of engineering which is strongly related to how workers both create the culture of their environment and how they are affected by such environment that reinforces the gendered practices which are naturalized and are assumed as the taken for granted norms.

Particularly, the existing research offers insights into women's experiences in engineering as a male-dominated occupation. The presence of female workers in men's fields in Algeria related to the employment of women remains an issue of debate due to the instilled social conventions throughout history. Hence, the representation of female workers in male dominated jobs needs to be examined from a new perspective that considers the importance of the constitutive nature of discourse in reflecting their realities at workplace. This paper aims to identify some of the strategies female engineers use together with the barriers imposed by cultural assumptions on female engineers. It, then, looks at the details of the complexities of workplace and engineering in particular that co-construct their professional identities. To this end, this article highlights female's awareness about the masculinities that exist in engineering by giving account to day-to-day experiences with each other while struggling to gain their social status, membership and share their problems as a result of social conventions and institutional norms. The overall questions that have mainly guided this paper to explore female experiences are: How do female engineers cope in engineering professions in light of the present constraints? How do they enact their institutional identities in their engineering work? How is resistance manifested in their discourses about engineering? Since resistance helps to understand the cultural beliefs and assumptions that dictate what is taken as the norm.

2. The Conceptualization of In/ Visibility paradigm

Despite the complexities of the term, many researchers have sought to explain and give a clear understanding of the perspective of visibility/ invisibility of

women workers in the male-dominated domain as a means through which men remain dominant in terms of power relations by providing a critical reflection and evaluation concerned with such concepts.

In doing research concerning the practices of revealing and concealing gender within the organization, Lewis & Simpson (2010) sought to unveil the hidden gendered and ideological practices and traits in organizations. Inspired by Kanter (1977), Lewis & Simpson (2010) developed the (in)visibility vortex framework in their work *“Revealing and Concealing Gender: Issues of Visibility in Organizations”* to uncover the invisibility of women as an obstacle against their mobility in organizations. Women’s (in) visibility is based on power dynamics that control the mechanism of movement around the (in)visibility concerning the norm and the margins in organizational practices. Lewis & Simpson (2010: 09-10) conceptualize the (in)visibility vortex as “a flow, usually in a spiral motion around the centre. The speed of rotation and the level of turbulence are greatest at the centre and decrease progressively with distance towards the margins...(the) closer the individuals or groups lie in relation to the norm, the more likely they are to secure access to its privileges...the concept of the vortex therefore captures the turbulence and insecurity that occur both within and immediately outside the centre”. The movement around the norm highlights the practices of invisibility which tend to conceal “privilege and advantage and preserving the status quo” (Lewis, 2017:15). At this stage, the norm tends to be invisible, unproblematized and unnoticed. The social groups who occupy the central normative position are men. Men’s practices are unmarked unlike women who are always marked by gender and race, in this sense, men carry the universal norms of manhood and hence masculinity and tend to be physically unmarked, invisible and privileged by the gender norms. The dominant centre conceals men’s behaviour and advantages masculinity while femininity is disadvantaged, visible as stranger, and marked by the gender categories. The relation between power and (in)visibility of concealing the norm and revealing the ones at the margin marks them as the “others” that is reinforced by the normative discourses of masculinity that tend to exclude women from entering the centre. In this sense, (in)visibility is strongly linked with the norm which is entailed within the practices that are dictated upon the ones at the centre as well those on the periphery who are gender marked. Inspired by Kanter (1977), Simpson & Lewis (2005,2007,2015) use the vortex to justify the tokenism processes as well as practices and experiences- which were characterized by the dominant masculine norm i.e. men and gendered power. From the vortex lens and according to Kanter (1977), women were considered as tokens and as minority groups in contrast to men as majority group because of the numerical imbalances that exist in organizations, Kanter characterizes men as “the invisible dominant centre”. Yet, to challenge the dominant centre and change the culture of a given work as management, women managers and secretaries who enter from the margins should face revelation while focusing on

female differences from the male norm which may result in a negative evaluation of women managers as they display non-traditional gender roles in society. Also, in reading Kanter's work (1977) from the vortex perspective, women who are "under pressure from relentless scrutiny also sought social invisibility through conservative dress, working from home or keeping silent in meetings thereby seeking to disappear within the margins- with other women pursuing strategic invisibility by distancing themselves from damaging femininity" (Lewis,2017:18). Based on Kanter's work (1977), Lewis & Simpson (2012) provide a critical lens on the complexity of both visibility and invisibility which govern everyday work experiences and practices. Accordingly, to uncover gender inequality and analyze women's in/visibility from the surface and deep conceptualization at the workplace as distinct theoretical insights into the practices of revealing and concealing gender in organizations through (in)visibility. Simpson & Lewis (2005, 2007, 2010) relate the surface conceptualization to explains women's exclusion in terms of gender differences, visibility at the surface level is largely associated with negative state of exclusion and difference whereas deep conceptualization analyses the role that discourse plays in the construction of gender differences and the suppression of women's position in society and the workplace as well (Simpson & Lewis, 2007). The deep conceptualization highlights how women's silence is dictated by the masculine domination; it is tied to power dynamics to maintain the normative position in terms of "processes of maintaining power through invisibility and the struggles around the norm" (Lewis & Simpson 2010: 03). As well as the former is concerned, women as a minority group in male-dominated setting face high visibility pressures which lead them to fear from making mistakes that exclude and marginalize them from the norm. Compared to women, men as a minority group in female-dominated professions receive distinct forms of treatment i.e. being visible means positively "seeking authority and hold special expertise feed into career success. Drawing on Kanter (1977); Simpson (1977,2000), Lewis & Simpson (2010) claim visibility as a disadvantaged obstacle for women in career jobs stating "visibility can have negative consequences for women through performance pressures, heightened career barriers and the creation of a hostile working environment as well as through strong social constraints on behaviours in social interactions"(2010: 03).Lewis & Simpson (2010) suggest that token women professional occupations can benefit from the disadvantages of the visibility perspective by increasing their in these occupations to reach gender equality and recognition in their jobs and society as a whole. A focus is given to the deep structure, Lewis & Simpson (2010) explain such dimension drawing on Robinson (2000) in his explanation of the perpetuation of power relations, where men are positioned at the "centre" i.e. invisible, and hence, their experience, behaviour, and practices reinforce their powerful and dominant unnoticed position. As a counter-reaction, women who experience marginalization can seek recognition by threatening invisible centre; a position

given to men, a fact that brings men's normative position to be highly visible by failing in education and employment (Robinson, 2000). Also, through the process of visibility, men claim their position as invisible as they de-centre from normative position- centre- by claiming 'victim status' or performing 'victim identity and this position contributes to privilege them and conceal them while advantage them as dominant group over women (2010). To illustrate, Jacqueline Watts' (2007) work of women's experience in male-dominated engineering illustrates how women as token/ minority groups are highly visible in terms of "physical spectacle" while invisible as being authoritative in their job. Female engineers face attempts of exclusion from male engineers who are claimed to be the experts and the professional pillars of the engineering domain through using specific mechanisms such as pointing at women's sexuality, women engineers stand up and subvert men's authority.

The conceptualization of (in)visibility in terms of a vortex provides a clear understanding and a deep analysis of the complexities of such terms inside and outside the norm flowing around the centre. This analogy, that Lewis and Simpson made, provides a practicable analysis of the working and dynamics of the process of (in)visibility within the vortex. The vortex framework offers both fruitful and supporting analysis to women at the workplace and to gender issues in the field of organizations which aim to demonstrate "how the focus on increasing the number of women on boards of directors is only a partial "solution" to gender disadvantage; uncovering hidden forms of gendered power; exposing the mechanics of segregation in terms of the robustness, uncertainty, and invisibility of the norm and how normalizing discursive practices, such as 'natural sex differences'...; and bringing out the way in which multiple forms of visibility and invisibility are embedded in the day-to-day interactions, experiences and strategies of those on the margin" (Lewis, 2017: 19). In this sense, the (in)visibility vortex highlights the ongoing battles to gain privilege within the centre in the course of discursive practices while offering a platform to understand power relations and gender inequality that individuals both undergo and subvert in organizations that aims to reach gender equality and brings out social change.

2.1 Female workers in Male-Dominated engineering

Women engaged in non-traditional professions i.e. masculine domain are supposed to encounter constraints in the course of in/visibility processes which is a highly complex process marked by exclusion and disadvantaged practices that women challenge to be recognized in male-dominated organizations such as engineering. Women working in the masculine domain are the ones who work hard as workers and at the same time gaining recognition as women to receive equal treatment as men. In masculine-dominated occupations, women are also subject to the men's "gaze" (Foucault, 1977) in terms of a feminine body that is a hard task for women to perform to challenge the institutional gender relations to be accepted as workers in such domain. Again, Patricia Lewis & Ruth Simpson

(2010: 01) seek to uncover gender inequality through “the vortex” lens and analyze women’s in/visibility” from the surface and deep conceptualization at the workplace as distinct theoretical insights into the practices of revealing and concealing gender in organizations through (in)visibility. As work continues to be part of an individual’s identity and a source of satisfaction for many individuals, Dohery suggests (2009:84): “*work remains an important source of identity, meaning, and social affiliation*”. In dealing with engineering culture, Lee and Faulkner (2010) highlight the subtle organizational dynamics that undermine women’s achievement in senior posts. The study of Watts (2007) about women in the construction field uncovers the cultural constraints for women in authority as they are not taken seriously, she rather states that the cultural environment of construction works in favour of men who put women in a subordinate position. Kanter’s work (1993) “Men and Women of The Corporation” uses a feminist theoretical framework to analyze in-depth interviews with women working in organizations. Her work highlights the cultural issues of visibility and invisibility that surround the organizations. She highlights the problems that minority groups experience in their workplace since they are considered as the other and different from the norm as subject to visibility status, and receive both positive and negative evaluation depending on the minorities’ performance and achievement at work from colleagues and peers. As a challenge from the majority group i.e. dominant group reinforce their dominant norms through the discourse and culture of the workplace to mark the minority group different and outsiders. Accordingly, female workers in engineering, as a male-dominated profession, are represented as a minority group and perceived as physically weak and sexually visible that affects their achievement and professional performance in organizations. Among the research interest of female experiences, practices, and achievement in engineering are:

Jacqueline Watts (2010) article: “*Now You See Me, Now You Don’t*”. *The Invisibility Paradox for Women in a Male-Dominated Profession* investigates the different ways and strategies female engineers use to cope with male engineers. Women engineers as a minority group become “*highly visible*” resulting in both negative and positive effects i.e. they are “*highly conspicuous*”, and invisible, while their high visibility in terms of showing their femininity forces them to provide hard work to be accepted.

Faulkner (2011) uses the term “gender in/authenticity” to unpack the non-congruence of gender engineering identities for women and to capture the gender congruence and engineering identities for men. Thus, gender in/authenticity is reinforced by gender stereotypes and the conventional norms in society, it reveals the in/exclusion within the technical social dualism that surrounds engineering that is perceived as a requirement in seeking membership. As women continue to work in engineering workplace, Faulkner (2006) states that engineering workplace culture is marked with gender-inclusive dynamics through

the process of “doing gender” in “doing the job”. Besides, the practices involved within workplace culture serve men who feel a sense of belonging to such domain. Beyond, Faulkner(2006) coined the term “in/visibility paradox” to analyze the practices that women experience routinely in their engineering workplace culture; engineering as men’s space is experienced through routine practices which show men’s fraternity with each other and reinforce women’s absence invisibility. As a result, women have to work hard to achieve “the same level of easy acceptance with new associates that men achieve” (2006:11). Nevertheless, the masculine culture of engineering is reflected through offensive specific “non-work topics of conversations”, tolerated offensive humour, sex talk, and “dirty talk” that make even other men and women uncomfortable. Yet, any challenges or oppositions to face these practices put women into risk to lose “membership of the community” as well as the sense of belonging. Moreover, the workplace culture as a context for interaction is characterized by more range of masculinities than femininities; female workers experience pressure to show or to hide their femininity which correspond to the in/visibility paradox i.e. women are visible as females but invisible as engineers who must re/establish their identities constantly with others and have to work hard to achieve membership. Precisely, women are visible (feminine/ physical appearance) and invisible (professional status). So, to be visible is to adapt characteristics to fit in the majority culture which is the masculine culture and dominantly men’s space while facing pressure not to behave in ways perceived as masculine “not to lose their femininity”. Through her findings and observation, Wendy Faulkner suggests that men engineers describe women colleagues in terms of their physical appearance which reflects their perceptions of the female engineer as only visible in terms of her appearance rather than her professionalism. Latter, Faulkner (2007) recognized engineering as a site where there is complex gender and professional tensions in relation to the available masculinities of engineering, the technical/ social dualism and gender in/authenticity about what constitutes “real engineer” while actual women’s position is questioned in light with the conventional gendering of engineering which continues to reproduce women’s identity in terms of social skills while the technical and technological abilities are associated with men’s identities that profoundly operate in the dynamics of engineering, reflect the complex gender dynamics that constitute engineers’ troubled identities and capture the normative pressure that persist around men’s presence as the norm and women’s position as unusual and fragile.

3. The Tension between the categorization of “Difference” and “Sameness”

The workplace mirrors how gender perpetuates activities related to each work imposed by the “gendered discourses” appropriate to each culture and associated with the social conventions and ideologies that serve the dominant group of men in “musculinist ways” that are naturalized and hence accepted as

the norm. The workplace as a context may explain people's behaviours in the work setting or even outside as social individuals. Gender differences and roles are transformed in the workplace culture through gendered discourses which are deemed appropriate for men and women through the process of "gendering". The work of Sophie Reissner (2012) *"The Guys Would Like to Have a Lady:" The Co-Construction of Gender and Professional Identity in Interviews Between Employers and Female Engineering Students* draws on the ways female engineers negotiate their identities which intersect with gender and professional aspects using the social constructionist approach to explore the discursive patterns of women engineers and how they re-construct their professional identity in interactional contexts in engineering which is historically perceived as an "androcentric professional context" where the struggles about the requirements of the institutional discourses between "difference" and "sameness" that are tied to gender differences about the employees which. The work of Reissner demonstrates that women must supply *"lot of work both to display that equality and to show the integration of technical and relational skills"* to illuminate the stereotypical images about women in terms of being inadequate for the job since they use social (communicative) skills instead of technical skills. By doing so, women may prove their technical abilities and their communicative skills which are concerned with *"competency discourses that is reflected in the requirement to fit in a professional engineering box"* to establish a sense of belonging and to fulfill their full potential. Hence, being perceived as the "same" subjects female engineers to high visibility in comparison to men who are invisible in a historically "male's job". Reissner highlights the tension between the discourses of difference that refers to gender as a "feminine interactional style" and the discourse of sameness which means to have masculine abilities to fulfill the job of engineering which is an institutional taken for granted male-dominated job where women face as a challenge to negotiate and hence co-construct their professional identity in a domain which they do not belong to. Reissner (2013) concludes that "difference" and "sameness" that are "defined by cultural members" should not be polarized as an "axis" rather they should be conceptualized as a continuum. Through being different from the norm, women still face gender stereotypes that consider them as a minority group whose chances to be recruited in engineering is difficult and restricted which reinforces gender differences between men and women. The requirements of engineering for employees to be the same is a prerequisite to "fit in" in engineering while the requirement for women to be different receive resistance as well as rejection from the male dominant group to resist and assert their masculine normative culture.

4. Research Methodology

In attempting to explore the coping strategies of female engineers in Algeria, the research setting was the Algerian Company of Sonatrach, the study includes 60 female participants from varieties of sub-disciplines in engineering i.e.

holding different degrees in engineering including computer science engineering, electronics engineering, mechanical engineering, civil engineering, electro-technical engineering, and computer science engineering. Thus, the data collection uses both qualitative and quantitative methods. Accordingly, the analysis of data is both descriptive and interpretative of the ways female engineers portray their coping strategies in a discursive positioning. To fit the needs and the purpose of the research, the data was gathered from relevant methods such as questionnaires; by providing a set of questions to female engineers to explore how female engineers perceive engineering culture as well as to provide a clear understanding of how they negotiate their gender and professional identities. Also, the present research relies on interviews with female engineers as a decisive tool that is useful to explore the discursive perspective with a clear and direct inquiry of female engineers' familiarities as well as evaluation of their workplace culture in light of gender dynamics, social norms, cultural assumptions and institutional practices related to engineering workplace culture. This analysis serves to highlight women's awareness about the restrictions they face to cope with engineering career choice.

5. Results and Discussion

5.1. Females' strategies to cope in the male-dominated engineering

The main question that structures the core of this research is how do male and female engineers enact their institutional identities in their engineering work? At this point, we need to explore how the participants use/ adopt behaviours or professional strategies they perceive as best to fit the nature of the work. This worth considering question has three possible answers which are extremely important to present vivid assumptions that define how the participants perceive their workplace nature.

5.1.1. Women's resistance to the masculine norm of engineering

A focus on female workers in a historically defined male-dominated domain is concerned with discovering the evaluation, representation and images associated with female workers when they enact their professional identities in engineering work. From the participants' narratives, it is evident that traditional gender roles of femininity and masculinity affect work and organizational practices and strategies that women adopt. The findings display that female engineers adopt unique coping strategies that affect the construction of their professional identities as well as their experience at their workplace setting that entail their resistance to male organizational norms as their unique challenge.

Concerning the engineering workplace, all of the participants of this study said that they are driven by their will and their abilities to fulfill the engineering job to challenge the precept that their activities in male-dominated fields are inadequate due to their physical power. One female informant declares

Participant 01: "Engineering is in fact dominated by male engineers but it is not something given by God. It is something that is imposed historically by society if we look at the history of engineering and this doesn't mean that women cannot do well in engineering in light of the constraints and difficulties women face."

This is clear evidence about women's resistance, here, the participant sounds confident and self-reliant of her abilities to do the career job confronting the masculine culture that engineering has. Also, this episode echoes women's power and ability driven by their will to fulfill the engineering job. Like any other work, the participant asserts her right to be involved within engineering because it is not exclusive to man only. If we take a look at the expression "this doesn't mean that women cannot do well", in other words, as the participants signify that "women can do well", indicates women's ability and insurance of their success in engineering under the work conditions and the pressure they undergo. Some female participants appreciated displaying their femininity through their speech and behaviour to do their job and to cope with a male-dominated domain.

Participant 02: "To be a woman means to be more delicate, polite, you know how to negotiate, how to communicate and this is better... something that we have to appreciate as far as our work needs..."

Female's appreciation of their femininity, i.e. displaying feminine styles and social skills, is perceived as a challenge they face to gain acceptance and membership to be treated equally, this is evident in the following participant's excerpt

Participant 03: "Male engineers expect us to be like them claiming that we wanted equality. For them, by doing a job like them or in their ways means resist us because they may feel that that they are threatened"

Some female participants appreciate their femininity that is displayed in their behaviour and speech. We have noticed the working concept of "feminine body" in the participants' interviews that make this point clear that they are visible in terms of the relevance of their bodies as receiving comments from their co-workers "you are beautiful" "you are sexy today". Consequently, women are subject to exclusion and isolation. Since the work is highly gender marked they have to work to be better suited for the job due to their minority group where their bodies are highly visible for men that indicate women's presence is unnatural, unlike men whose bodies go unnoticed and normal. So, women may be subject to exclusion which is "a scaring effect" that draws on their passive roles in conversations.

5.1.2. Male strategies

The results show that male strategies are popular among female workers. To a certain extent, male strategies may reflect the engineering workplace nature which favours male presence as the norm. Engineering context reflects the Masculinities of engineering. Most of the time women adopt “masculine” characteristics to cope with the nature of the work which is historically accepted as a male-dominated field. Hence, this workplace culture is perceived to have a masculine tendency which in turn has a higher tolerance of behaviour. As a coping strategy, women working there find themselves obliged in a way or another to adapt with the culture as well as to adopt the male working culture and network.

Participant 04: “Being a female and engineer at the same time leads you to speak like a man, to work like a man, to follow the masculine norm, admit competition and non-cooperation, accept long working hours... Briefly, you have to behave almost like men; I am working like a man...”

As this excerpt shows, the female participant tends to adopt the masculine behaviour as a coping strategy that gives a clear understanding of women’s choice of adapting masculine characteristics that are strongly tied to the fact that women are perceived as a minority group who find themselves obliged to follow the masculine norm to survive and to be taken seriously as well as to avoid discrimination and exclusion. Like many other excerpts, this one justifies women’s restricted entrance which is tied to women’s different position and treatment in engineering.

By looking deeper into the question “why do female workers use male characteristics?” that tends to confirm the reason why female participants choose male engineers strategies, the participants respond that engineering is perceived as a historically male-dominated profession. A curious look at the findings makes it clear that female participants seem to find themselves struggling in an area where they are perceived as outsiders who adopt male strategies to achieve a sense of belonging and to be recognized as fully-fledged in the engineering domain. Beyond, some female participants make great efforts to moderate their female bodies i.e. their physical appearance to avoid any sexual attraction or negative evaluation by male colleagues. Female’s big challenge is discrimination and bias which are the result of stereotypical gender roles, which is evident in the following participant’s talk:

Participant 05: “I think that a woman is as good as a man, so she claims to be so, she learns to work like them. As a woman, you need to look like them, to behave like them, to be rough, to permit rough talk and offensive humour because the way they perceive you makes a difference. So you have to struggle to gain your status and acceptance...”

5.1.3. The tension between sameness and difference

In light of the complexities of engineering workplace culture throughout empirical evidence of the analysis of both questionnaires and interviews suggest that female participants' gender and professional identities are negotiated by adopting masculine characteristics and sometimes ways which paradoxically represent both females' difficulties and the tension between "sameness"- using masculine values and expectations in their activities and practices- to fit in the masculine domain and "difference" to represent their femininities – in terms of using feminine interactional styles reflecting their values and expectations and norms-(Sophie Reissner-Roubicek, 2012: 247) to represent themselves as professionally adequate for the job of engineering which is men's space who is thought to be best suited for this given type of work accordingly, one female participant states:

Participant 06: "...in such masculine culture, women find themselves obliged in certain contexts to adopt masculine characteristics to do their job to be recognized as an engineer...."

As a minority group, female engineers articulate their awareness about the hierarchy of power relations that work through the course of the engineering workplace. So, women are in a position to be subject to unequal treatment as professionals in light of the technical/ social dualism as well as (in)visibility paradox which highlight the complex work provided by females to reconstruct their professional identities which in turn articulating the tension they undergo between their passion conducted by their will in their persistence in engineering as a career choice and the normative male practices for female exclusion which is conveyed through some extracts of male speech who tend to engage in interactional talk about sports issues that tend to exclude women and shows a sense of harmony between male counterparts who show their interest in sports that form on aspect engineering identity. This is one aspect of the mechanism of silencing to exclude women from participation in the interactional setting as well as from work practices.

6. Conclusion

The engineering workplace reflects the cultural and professional processes that perceive engineering as a typically naturalized male domain. Female engineers perceive engineering as highly gendered, most of them are discursively affected by the male norm and the culture of their jobs. The gendered engineering culture legitimizes male's presence and practices that become exclusive for them. Women's fear of exclusion forces them to make great efforts to gain acceptance and membership. Faulkner (2011:285) states that gaining membership is mainly based on gender norms *"If to be a 'real engineer' is to be a man, and if 'men' and 'women' are necessarily different, then women engineers have to play down their identity as 'real women' if they are to belong in*

engineering. They must, in some sense, become invisible as women—what Jorgenson calls ‘disqualifying their femininity’. Briefly, the present article articulates the focus on gender and coping strategies in constructing female’s professional identities that are negotiated through their submission to the culture as well as adopting both masculine characteristics and norms and sometimes ways which paradoxically represent both female engineers’ difficulties and the tension between “sameness” to fit in the masculine domain and “difference” to highlight their femininities to represent themselves as professionally adequate for the job of engineering which is man’s space. Hence, engineering is discursively gendered. As a minority group, female engineers articulate their awareness about the hierarchy of power relations that work through the course of the engineering workplace. So, women are in a position to be subject to unequal treatment as professionals in light of the technical/ social dualism as well as (in) visibility paradox which highlight the complex work provided by females to reconstruct their professional identities which in turn brings to light the tension and the pressure they undergo of their passion conducted by their will in their persistence in engineering as a career choice and the normative male practices for female exclusion.

To conclude, women’s underrepresentation in engineering is due to the fact that the majority of engineering workplaces are outnumbered by men i.e. the culture of engineering is loaded by gender norms and expectations to serve the majority groups who practice ongoing strategies of exclusion and normative pressure to those who are systematically discouraged and underrepresented. Hence, the processes of exclusion from engineering make the workplace more comfortable to the dominant group, a factor that makes engineering resistant to change which is reinforced by historically gender relations and subtle mechanisms to ensure men’s stability and women’s fragile position. Engineering remains a domain that highlights men’s privilege and women’s non-congruence, engineering as a workplace context needs to be changed through improving and normalizing women’s presence as real engineers.

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