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Article

Towards Social Justice in Institutions of Higher Learning: Addressing Gender Inequality in Science & Technology through Capability Approach

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Abstract: The focus of the study is to examine and relocate gender equality in higher education using Capability Approach as the background frame. The paper discusses how gender relations are rooted in the socio-cultural matrix in India. It attempts to explore the factors prevalent in the structure which impacts woman's opportunities and functionalities in the higher education. The database includes faculty from one of the central universities of South India, the study deals with the dynamics of constructs in Science and Technology indicating socio-psychological obstructions faced by women. Based on thorough analysis, the oppressed capabilities are conceptualized thereby enabling the researchers to relocate the gender equality and the capabilities that need to be enriched for women can be contemplated which helps in reducing the existing disparity. The intention of the study is essentially not to quantify the attributes of inequality to make them measurable but to choose attributes which enable an effective comparative basis to address inequality. The empirical study reveals an existence of the element of stereotyping as a single entity and capability approach restores the uniqueness by the fractional combination of capabilities listed.

Keywords: Discrimination; science and technology; stereotypes; women; capability

1. Introduction

Gender stereotypes in society have led to the formation of normative beliefs about the different roles expected to be performed by men and women. The lineage of these normative dogmas may be attributed to the sexual division of labor in society. Persistence of such normative dogmas in the society is reinforced by the fact that an individual in the society irrespective of their gender practices gender stereotypes. Gender discrimination at the workplace can normally be traced back to the roots of certain segments of time and contexts of society. Modern and industrial life, just like its prior times have reshaped the social roles and these transformations also have had impacts differently on men and women. Due to the changes in the society and in the organizational structures (referred to as workplace), explicitly or implicitly, there was also an ample space carved for oppression, discrimination and inequality.

Despite several reforms by the government for inclusion of women in education, women's literacy rate has always lagged men's literacy rate in India and this trend is more pronounced in rural areas than urban. Literacy rates among women have had external benefits of reduced infant mortality, higher work participation of women and bolstering woman's agency in a society which continues to be patriarchal. In various surveys carried out by the Institute of Social Studies Trust (ISST), it has been made apparent that parental opposition for girl's education is continuously decreasing. If the right infrastructure is provided—schools and colleges located in the neighborhood, preferably with women as teachers—there is a greater chance for parents to allow their daughters to study. Hence, there is

a need not only to improve the quality of education but also, to encourage participation of women as teachers.

The discrimination component is much higher in scientific and technical fields in India than among social sciences and other fields. Women have less access to resources as funding, financing, technology and education, which are required to remain actively engaged in science, technology and innovation. [Kulandaiswamy \(2005\)](#) analyzed that there will be a need for a massive increase in opportunities for higher education by 2020. There has been an increase in the growth of teaching staff over the last decade (from 20 thousand in 1950 to 0.93 million in 2013), still, that doesn't match with the exponential growth of colleges that have risen at a far greater rate ([Deloitte 2013](#)). This has resulted in a high student-teacher ratio, which increases the burden on teachers and overburdened teachers are unable to pursue any research or encourage their students to do so ([Ministry of Human Resource Development 2013](#)).

It has also been observed that registration and participation of women are less than that of men in science and technology. The representation of Indian women in the Sciences & engineering compared to women in all disciplines has been just 12.5 percent, though this rate is considerably high compared to other places like US, European Union, South Africa, South Korea, Indonesia and Brazil ([Huyer and Halfkin 2013](#)). Statistically, [Pereira \(2014\)](#) in her study found that women in science and engineering account for only 31% of the student population at the first level. This percentage increases with level, rising to 38% of women at the student PhD level and 35% at the graduate PhD level. The report demonstrates the lack of appeal for young women of science and engineering studies. India also has a low representation of women in decision-making, only 22% of legislators, senior officials & managers are women and only 26 percent of listed companies in India have a woman on their board of directors. An important reason responsible for this is private-public divide is associated with the notions of gender. Women are linked by the society within the private domain of household, whereas men are associated with authority and productive work.

Women are under-represented in management positions all over the world in all kinds of professions even though, women qualified for management jobs are increasing. Women are disadvantaged and marginalized by the men's culture and the associations that are constantly made, imagined about flexibility, rationality and efficiency at workplace. They suffer from discrimination and inequality in all societies despite there being no significant difference in productivity between men and women as managers ([Donnell and Hall 1980](#)).

Gender mainstreaming is a globally accepted strategy for promoting gender equality. It is a process rather than a goal of creating knowledge and awareness of and responsibility for gender equality among all education professionals engaged in higher education. It is not an end in itself but a strategy, an approach, a means to achieve the goal of gender equality in higher education institutions—through sensitization and educating key stakeholders that the costs of women's marginalization and gender inequalities are born by all in the education sector as a whole.

In 'She Figures' Report by [European Commission \(2013\)](#), it was clearly established that despite the steadily growing number of women with a scientific or technical university degree in most European countries, women are still under represented in science and technology (S&T) professions, be it in companies or universities. It further reveals that women in scientific research remain a minority (33% of researchers in the EU-27 in 2009). Their proportion is growing faster than that of men but not enough to indicate that the gender imbalance in science is self-correcting.

Jobs customarily and historically held mainly by women were often denied to men based on social stigmas. Some of the more common jobs that fell into this category were nurses, childcare providers, hospitality, management, flight attendants and secretaries etc. In countries where gender discrimination is considered an aspersion, it is also often difficult to prove. It is usually not as overtly evident as racial discrimination since the perpetrator can claim miscellaneous reasons to why an individual was denied equitable opportunities. Relocating gender equality deals with the degree of association between both men and women.

The division and discrimination in labor processes and professions on gender basis is closely linked to educational outcomes, opportunities, and disparities. Many scholars and policymakers attempted to address the problem of gender inequality through education. Amongst many others, education is viewed as a critical tool to uplift the marginalized sections, empower the subjugated; thereby contributing its share in creating a fair and just society. Education viewed as a socialization process has interesting insights to offer in the study of inequalities prevailing in the society. After poverty, gender is the most influential factor to keep people out of reach with regard to education (United Nations 2013). The gender disparity rises as one moves from primary to tertiary level, the only relief being that girls are more likely to reach the last grade in a particular level, once enrolled, than boys (United Nations 2013) and also as we move towards higher enrollment rates, women at higher levels of education seem to outnumber men (United Nations 2013).

Furthermore, gender inequality follows even after the education to educational institutions as the workplace. The nature of gender relations at the higher education centers (as a workplace) is more crucial than at other organizations as it impacts the gender relations among the students who attend the colleges and institutions. At the higher education level, many efforts and studies are focused on bridging the gender gap by improving the enrollment rate of women in colleges and ensuring the fall in drop-out rates. This would ensure a quantitative gender balance, but significant qualitative differences continue to persist.

According to the Educational Statistics at a Glance (Government of India 2016), the Gender Parity Index of India is 1.03 for primary level, 1.01 for secondary level and 0.92 for a tertiary level. The emphasis needs to be shifted to higher education. After the entitlement until 14 years in India through the legislation of Right to Free & Compulsory Education, the suppression of women can be said to be further dependent on the highly unequal capabilities at the tertiary level and in the organization or workplace. The organization as an institution consisting of many interconnected individuals can identify opportunity and risks that an individual may be unable to perceive. This enhanced perception is essential because of the assumption of radical uncertainty—organizations as institutions have better capacities of orientation in these uncertain environments. Bringing diverse individuals together in an organization fills gaps in knowledge, motivation, and capability, and creates synergies. This is in line with the assumption of a distinctive distribution of knowledge, motivation and capabilities in the competence-based theory of organizations. The organizational ambiance widens the room for action in the sense of those who try to increase their opportunities by permanently looking for new goals, means, and alternatives. A single actor's possibilities are typically more restricted than several interconnected actors who combine their abilities in an organization.

The focus of this paper would try to look at both the former and later aspects. Theories such as invisible glass ceiling and dual work burden explain the lack of gender balance as we reach the apex of the organizational structure of academia but fail to gauge the inequality and discrimination even at the bottom of the pyramid. To tackle the inequality even at the lower rungs, mainstreaming gender is offered as the solution to adjust and deal with the multifaceted and various forms of discrimination and marginalization.

2. Gender and Capability Approach

Gender equality is incorporated in one of the Millennium Development Goals and now Sustainable Development Goals, where India has made a progress but not sufficient to meet the targets. South Asia lacks in witnessing an improvement in removing the disparity between men and women's enrollments at higher education level and in addressing the inequality at the workplace. The progress in nearing the SDG's for a developing nation is largely determined by the enhancement of women's capabilities (which also removes the disparity automatically). Moreover, proactive promotion of greater and equitable participation of women and men of all social and ethnic groups can have a significant downstream impact. More women both in public and private sectors, such as school teachers, health care providers, journalists, development workers, bank employees and so on, have

a ripple effect—creating role models for women and girls in traditional communities where gender discrimination and sex segregation are normative (UNESCO 2010a). Similarly, Pereira (2014) explored the gender segregation and found that despite the change of the professional careers in recent years; the balance of women is still negative and progress has been uneven in science in general and in engineering in particular.

The research of 'gender' in higher education and relocating gender equality using capability approach framework relates to the third millennium development goal in two indicated ways, firstly achieving gender equality by working on the capabilities of women contributes to an increase in the effective/participation of women in academia which is an organizational structure and can be viewed as workplace. Secondly, women teaching staff has positive effects on the girls and their education (affecting their enrollment, learning, motivation, participation & dropout rates) (Kirk 2008; World Bank 2006; Ministry of Foreign Affairs, Government of Netherlands 1999) thereby contributes to the elimination of gender disparity at various levels of education, esp. higher education in this case. Pereira (2014) found in her official study that female students lack female role models to follow; they seem to be unable to find self-esteem as professional scientists and suggests that the involvement of more female engineers in professional engineering, including teaching duties, should serve as example and role models in students' education and future careers.

Sen (2005) in discussing capability approach argued that increasing women's agency can have a significant positive impact on the wellbeing of all people. In households, where women enjoy relatively more freedom, reflect in higher enrollment in higher education and access to outside employment. A relatively more amount of freedom reduces the dual work burden of being a woman thereby leaving more space for a higher education professional for spending quality time with one's work in any chosen way (Sen 1985). In the context of the capability approach, the gender discrimination can be fundamentally opposed to the equality of opportunity for women in any chosen dimension. Robeyns (2003) used capability approach to study gender inequality. The capability approach has enormous potential for addressing feminist concerns and questions related to health, voting power, political power, domestic violence, education and women's social status (Robeyns 2003; Alkire 2005). Feminist concerns and activism have played a role in expanding the capabilities of women vis-à-vis higher education (Rosenberg 1993; Stromquist 1993). Robeyns considered capabilities as real opportunities and selected a list of relevant capabilities. Gender inequality assessment was detailed after a four-step process: unconstrained brainstorming; testing draft list against literature available; engaging with other lists of capabilities; debating the list with other people. Education and knowledge were among the list of capabilities she put forth. She defined education and knowledge as "being able to be educated and to use and produce knowledge" and suggested that capability analysis of educational equality should investigate the hurdles faced by girls in educational achievements, such as sexist behavior, sexual harassment, gender differences in expectations and encouragement, a men-dominated class atmosphere, etc. (Robeyns 2003).

Through this study, the capability that needs to be enriched for women can be contemplated which helps in reducing the existing disparity. Mostly, in understanding the subjugation in the case of women, it is important to judge it using combined capability approach. Women all over the world lacked support for central human functions, and the lack of support is to some extent caused by them being women. However, in partial fulfillment of the MDG's, the potential of women to be capable of these human functions is restored to some extent, although much remains to be done (Nussbaum and Glover 1995). According to Nussbaum (2003), the unequal failure in capability is a problem of justice. In continuation, the reasons behind the deficiencies in their functionalities can also be explored under this study. In relocating the gender equality, it is essential to execute a holistic study. Firstly, in determining a set of capabilities that helps us in contemplating and contextualizing the state of women esp. in higher education. This can be done by reviewing the existing literature. Secondly, collecting and investigating the inequality, focusing on the causes, in the above-chosen domain (higher education).

The major objective of the present paper is to uncover the hidden aspects that contribute and maintain the subjugation of women at the workplace in higher education institutions. To recognize the concerns that women as an employee in academia face in India; it is, therefore, vital to explore the Indian socio-cultural matrix in which gender relations are rooted. Lastly, achieving a mere increase in the number of women or an equal proportion of men and women does not guarantee equality. Although gender parity (in quantitative figures) may be achieved but the barriers to equality (qualitative in nature) would not entirely cease to exist. Capability approach could a large extent guarantee that, as it involves both the organizational level as well as individual level barriers that restrict the progression towards parity and equality.

This paper attempts to develop the list of capabilities in the Indian higher education context which help in assessing gender inequality in academia and which act as indicators to be focused on, to proceed towards relocating gender equality. By querying the answers broadly, it is tried to enquire deeper into teacher's attitudes and their readiness to upkeep procedures and contribute in movements against gender discrimination and inequality, and to foster a gender welcoming ambiance in university. This study probes into the nature and attitudes of teaching and administrative staff to the concept of feminism and indicators that denote gender-responsive practices. We attempt to examine gender practices locating it within a conceptual framework of Capability Approach (CA).

3. Method

Pattern of access in higher education in India is itself an evidence of discrimination and the most appropriate method for unfolding would be interaction with individuals who negotiated access to higher education and those who could not. Informant Interviews were found to be the most appropriate method to be used, key informant interviews are helpful in exhaustive and qualitative information about experiences, opinions, and beliefs. The themes covered for interviews were social inclusion, opportunities, social and cultural capital and negotiation of access to higher education.

The subject matter of this research was so diverse that any number of respondents could not be sufficient. Therefore, it was appropriate to find out individuals those who had gone through a transition. So snowballing technique was used and forty respondents (25 percent men and 75 percent women) across all departments were selected but we started observing repetitive answers just after thirty respondents, still ten more were required to find out further variation in answer, yet no significant variation was found. The database includes one of the central universities from Andhra Pradesh in India. We have supplemented the obtained data through field notes and recorded interaction patterns. Faculty and staff were consulted based on convenience sampling for semi-structured in-depth interviews based on open-ended as well as close-ended questions that were settled pertaining to the functionalities that they have a reason to value as academicians and the obstructions in beings (as teacher, researcher, in satisfaction, happiness etc.) or doings (performance).

The nature of the research problem requires investigation from qualitative perspectives only. Secondary data had been collected mostly through the documents of regulatory bodies such as Ministry of Human Resource Development and various other committees and commissions on higher education. Qualitative method is found to be suitable measures for examining the personal and social perception of employees at the workplace (academia). A crucial limitation recognized through review of the literature reveals that most of the studies were frequently explored merely on the theoretical and conceptual basis. Hence, the present study attempts to view the factor of marginalization in a more understandable way by field inquisition.

4. Results and Discussion

The discourses on gender dimensions have been one of the important focuses of research over the past years. This has provided new insights into empirical underpinnings by recognizing gender as a critical analytical category. Gender as a category of analysis suggests that each gender must be examined in relationship to other to get the entire account. Gender as the analytical category is

vital as it confers to the idea of subjugation and power relations. Literature asserts that gender issues are enclosed in a dissimilar way depending on theoretical and political perspectives. Largely the understanding of gender issues is grounded in feminist perspectives. The responses in our study exemplify that some teachers, especially men are in absolute refutation of the gender inequality and uneven power relations. Collaborating one's understanding of various social process and structures about gender were argued to be exaggerations and not realistic. This is not unusual but insightful of societal opinions about women's pursuit for gender parity. Yet gender inequality is recognized and challenged by most of the female faculty. One of the respondents from sciences obscures the gender processes using arguments related to merit and thus explains scholarship as an alien entity thus delinking the human participation in constructing or discovering knowledge:

“There is no denial that inconsistencies and irregularities are a part of any system . . . , but the higher education and research ought to be only in pursuit of scholarship and promoting merit. Hence, for the production of knowledge, merit should realign the standing of actors and their relationships, it should not happen that actors and their roles reshape and determine the way scholarship can be produced; this might have grieved impacts and compromise on the production of knowledge itself in academia . . . The role of women should be looked into and perhaps reformed but cannot become a determining base or a code book in an institutional framework as the output would justify the nature of relations and power equations that persist.”

Though, the portals of education have opened up for women, the extent of their integration and progress in science and technology (S&T) is still governed by patriarchal and old-fashioned mores in the Indian context. This determines the position of women in the society/workplace and, colors perceptions of young girls about science as a career (Datta 2010). Women complained about the hard attitude towards them, especially in traditionally men-dominated disciplines (S&T). Women opined that colleges and universities can attract more women in science and engineering if they improve the departmental ambiance to promote the integration of women as faculty and researchers (Evetts 1994). This would serve as a motivational factor for future generations and will help to combat stereotypes like women don't perform well in S&T.

Faculties in Sciences and Technology cited the problem that institutes lack faculty mentors and has overwhelming work requirements. Women faculties also expressed concern about spousal employment and child care. Many private colleges do not provide appropriate benefits to women like paid maternity leaves and child care facilities which is a great concern for women. Men should be equally involved in raising their children which demands paternity leave and child care facilities which will help in advancing equal rights for both men and women. Few women agreed that due to the societal pressure they took breaks in their careers for child bearing and rearing and re-entry was quite difficult for them. Even with equal qualifications and achievements to that of their counterparts, women are perceived less favorable in terms of their ability and accomplishments. This stereotyping tends to be reflected in evaluations and promotions and places women at a disadvantage for advancement (Eagly and Karau 2002).

Explanations have been offered as to why gender differences exist within the institution. Most of them have considered gender differences as an outcome of socio-cultural and historical/psychological conditions. Liberal feminism upholds individual competition in a hierarchical society arguing that one's sex should be irrelevant to one's chances for mobility, choices and personal fulfillment. Radical feminism argues that gender is the most fundamental social category and celebrates the biological capacities and cultural creations of women. Socialist feminism regards to gender and social class as fundamental categories and analyses how women's status is a function of patriarchy, capitalism, and racism. Recently feminists have entered the poststructuralist debate as post-structuralism assumes that there is no fixed set of meanings that depend on an individual's location in time and social structure. Post-structuralism also offers the theoretical perspective which some scholars view as important to the development of multicultural emancipator work, although others are more doubtful.

The undesirable typecasts attitudes towards women endanger the institutional goals, making most organizations losing long term benefits. The positive influence of attitude between men and women at work are ample, these constructive effects embrace more operative teamwork, enhances job satisfaction, which is all consistent with human resource goals. Within the last decade, another group of theories became more distorted in terms of debate by exploring a poststructuralist and postmodern perspectives that dissolve the postulate of a stable gender identity. These theories claim that widespread policies and practices in the social system perpetuate discriminatory treatment of women. The most influential meanings of gender in a social space are drawn from social and cultural meanings attributed to it. The meanings thereby can be identified by gender as a category of the top social construction of sex.

Persistently, many types of research turned their consideration to spot the causes for these gender differences. A woman is primarily still seen as a homemaker in India and marriage is preferred over career as remarked by the subjects of the present study. Robeyns (2003) identified 'domestic work and nonmarket care' as an important capability and highly gendered. It involves raising children, taking care of dependents and doing household work. Robeyns viewed that the functioning will be valuable and enjoyable if done out of choice and for short periods, but could become burdensome otherwise. Gender is also taken as social, psychological and cultural construct referring not necessarily a direct product of an individual's meanings attached to the biological division of sex. These social constructions attach themselves to behaviors, expectations, roles, representations and sometimes to values and beliefs. Only the gender lenses can disclose the process of exclusion and suppression. Power is not seen here as most efficiently hierarchical, although lines of authority and accountability are significant safeguards for the exercise of power in an organizational structure.

A gender-wise breakup of data related to awards in science and technology shows a consistent marginalization of women scientists and technologists worldwide, India being no exception. According to Noble Prize official website, 2016, only 48 women have been awarded noble prize between 1901–2016 (NobelPrize.org 2017). The noble prize received by females since 1901 are- 2 in Physics, 12 in Physiology/Medicine, 4 in Chemistry, 14 in Literature, 15 in Peace and 1 in Economics. Subjects belonging to Arts, Humanities, and Social Sciences are more related to social reality and exhibit relationship with society so it is attributed to the distinctiveness to the kind of the discipline also.

Due to the differential nature of the soft discipline, women display characteristics as compassion and empathy towards students in particular. However, they accepted that they remain muddled in the social dynamics of relationships and in the pulls and pushes of social and work roles. One of the respondents spoke about the significance of access and the participation as a part of response in the in-depth interview, which says—

"The nature of gender dynamics cannot just be addressed by referring to—if women have equal access to something as men because the problem is deeper than that . . . At the level of appearance, it might be accessible but there are constraints thrown on being a woman to use that access to participate in the process is severely disabled . . . So even if the distance to be traveled to reach a destination is equal and it is accessible to take part in the race for both, the two roads are qualitatively different with a lot of bumps and breakers for women . . . "

Faculty expressed that they should be involved before making any change in goals, problems, and opportunities as it's finally on them to teach in the most effective way. Management must ensure that these are communicated to the rest of the staff in a timely fashion. Most of the faculty denied taking an active part as they considered it as an additional burden and diversion from the main task of teaching and research. Some considered it as necessary so that faculty has a direct say in the administration and formulation of rules and regulations. They felt institutions should provide more opportunities, training and mentorships for potential leaders. In a study done by Spendlove (2007), most of the respondents perceived that academic credibility and experience of university life were crucial for

effective leadership in higher education, continued with their research and teaching activities alongside their managerial roles.

Women experience a strong gender bias when being evaluated for promotions on both their level of performance as well as their potential impact. Results of a survey conducted by Boatwright and Boatwright and Egidio (2003) also demonstrated that connectedness needs, gender role, self-esteem, and fears of negative evaluation accounted for a significant amount of the variance in predicting college women's leadership aspirations. Many women perceive leadership as an endeavor of men. Results from studies done by Gerber (1988) and Boatwright and Egidio (2003) suggested same. They asserted that they have more responsibilities at home but were not ready to accept that they possess a lower degree of abilities when they were asked to compare themselves with teachers who were men.

The professional environment and the socio-cultural context are inextricably associated. Most the women interviewed, feel that do not excel sufficiently in their career due to the stereotype that women are less ambitious and lesser committed due to family responsibilities. Catalyst (2004) shows that there is hardly a difference between senior men and women when aspiring for the highest roles in an organization. Ironically, Johns (2013) argues that today men still dominate at all levels of influence in an organizational structure with significant barriers existing for women aspirations to be achieved. Men belonging to the departments of sciences found to be involved deeply in research and teaching tasks than women. Publications of men were more as compared to women faculty staff in all the departments of Science faculty. Pereira, D. and Díaz, C.'s case study (Pereira Gómez and Díaz 2016) in the context of Earth Sciences reiterates the lower representation of women in scientific publications. But the staff, in general, believed that all women who wish to seek advancement should be offered the opportunity to do so in line with the other colleagues. Zahorik et al. (2003) obtained the same finding in their investigation. Laboratory work is a prerequisite in Science and due to multiple reasons women could not afford much time for laboratory work in contrast to men. The findings of Gupta and Sharma (2002) expressed that women in academic sciences are predisposed by the prevailing socio-cultural system. Women are held back by well accepted structural barriers of long working hours, inflexible working patterns (Vianen and Fischer 2002; Davidson and Cooper 1993). Women in faculty staff found it difficult to find peers through the academic networking circles which are dominated by men; it results in lessening the efficiency through increased advising loads, anxiety for more committed work and deficiency of appropriate mentors.

Women, in general, face the problems in research, publications due to a paucity of time for having dual responsibilities at work and home. They also face discrimination at points like work environment and social climates. Family responsibilities of women are frequently found to be the reasons for gender disparity in publication rates. Intrinsic within this historical and socio-cultural process is the reality of gendered perceptions of the profession. Though women's employment is increasingly accepted in society, it is found that girls are encouraged to take a degree that would enhance her prospects of making a good match. Datta (2010) states that teaching followed by disciplines like arts and medicine are considered to be a most appropriate profession for women as they are compatible with other responsibilities of women as mother and wife.

Women, like in every profession, had to manage their careers and families. It has been observed that professional women who work outside the home perform a larger share of household work than men. Women are bound to pay equal commitment to family and job, those are considered successful are those who can handle both in a proficient manner. Consequently, there are greater chances of a career rather than the family getting compromised in this process of balancing (Scandura and Lankau 1997). Discrimination occurs in parts but comparing actual performance in academic jobs is difficult, even then there is growing concern about the differential treatment of women which is not related to performance. Some studies suggest that deficiencies are presumed even when no differences exist because of how historical roles have persisted for long (Dubno 1985; Powell 1999; Thomas and Alderfer 1989).

Women are more likely to make personal adjustments within relationships that help them in collaborative ways of working (Bass and Avolio 1994). The reason for such finding is the higher

quotients of emotional sensitivity in women and it is also argued in few studies as women usually want 'multi-dimensional' lives that escort towards progress in the organization. These can be reiterated in the study conducted as most of the women in the academic faculty than men have described the plethora of adjustments that they go through in the workplace which is unusually left unnoticed by an insensitive eye. [Strohschein \(2016\)](#) found that men are benefitted from marriage and family whereas marriage acts as barriers for women, the benefit of men seems to be at the cost of women's freedom, opportunities and choices. It was found during our interview that those women who are multi-tasking in handling the diverse work could manage the position and so possess high ability to do a task efficiently. Most of the women have complained that the multi-tasking nature often runs contrary to performing a deep and specialized research activity.

The focus of attention is constantly shifted, much higher in the contexts of women that it becomes demotivating to pursue an effective and rigorous research. The relationship between gender and performance at the workplace is not straightforward rather it is multifaceted and complex in nature. There are several studies based on gender differences in academic lines that reveal major issues as socio-cultural background, previous socialization experiences, interpretations, and expectations of social situations. Results indicate that the configuration of professional organizations and gender-role stereotypes infiltrates into the profession and escorts to differences of performances at the workplace. One of the respondents from social sciences sums it up the following way:

"The role played by gender in shaping one's habitus and social and cultural capital is extremely crucial yet under-examined. Even men and women have same levels of education, degrees, and other institutional requirements, cultural capital differs and that has an impact on the levels of performance, as the Head of Department, I have observed many women and men who are first generation learners or come from the lower classes, women more than men censor what they speak, struggle to socialize, can switch topics and make rarely adjustable to the changing situations with ease . . .

. . . Higher Education is a space where, more so in social sciences, free and diverse ideas with varying terminology and accents are discussed and social practices are critiqued and debated heavily . . . the difference is cultural capital does not make a person smoothly engage with such subtle scenarios of sensitivity. Men are far more comfortably spaced than women, they socialize easier, they speak, accept and change and put a point across easier . . . it's not the same with women, they are more introvert, less open, highly insecure and hypersensitive hampering their social existence in small measures . . . "

This research moves a little deeper crossing the abstract formations into listing the capabilities that tangibly help us in dealing with gender inequality in higher education institutions. The list is backed by theoretical underpinnings, a thorough review of literature, is substantiated by empirical works, brainstormed and scrutinized in light of discussions with teachers (few of whom were the subjects who participated in the current study), in focused group discussions, and also with various experts and research scholars at various conferences and seminar interactions held on the themes of Higher Education. The inputs are proposed and cross checked with the help of various post surveys of this study in conceptualizing the nature of subjugation of women. A relevant list of capabilities developed by us below helps to relocate gender equality, focusing on the professional front. We do not concentrate on the disparity but on inequality, therefore although an equal number and representation of women and men in academia is imperative, but does not necessarily bring equality of men and women in the profession of higher education. We provide a situational discourse on how equality should also be focused on as much as a quantitative parity. In this study, we restrict ourselves to highlight the parameters of equality in a general context.

- Self-Esteem—It is the fundamental trait that contributes to the psychological well-being of an individual and also to the performance levels of individuals. Self Esteem comprises of two

parts—self-confidence and self-respect. Any kinds of discrimination or any abused form of treatment would directly impact on women's self-confidence. Widening of choices, professional satisfaction, and equal status convinces the individual to deserve well-being not necessarily at the cost of freedom or interest. Any kind of academic achievement has an implicit impact on the self-esteem. It allows creativity at the workplace which is an imperative characteristic in the domain of education.

- Motivational levels—Motivation plays a vital role in achieving one's ends. It acts as a catalyst in an endeavor. It is shaped up with many internal and external factors in academia. In the mode of subjugation, women cease to possess the driving force as they have to work harder to overcome the barriers and to achieve the same equal ends that of men.
- Overall working hours spent in the organization—Due to the dual role conjured on women and the stereotypical perceptions in regard to the family, timing, and duty; Women are deprived of the both time and freedom which are fundamental requirements for research.
- Research publications—Research funding and publications are an integral part of assessing the progress and promotions in the higher education. The simple quantitative comparison of research publications can partially, if not fully, help in understanding the gender inequality.
- Administrative and decision-making posts—In a hierarchical framework power and status are biasedly associated with the positions. The representation of women in administrative works contributes to a shift in the present outlook of gender inequality.
- Research Grants—The number of grants and the amount of aid applied/sanctioned by/to women is also a significant factor in determining the reach of women relative to men. Another element which demonstrated the discriminating effect can be conceptualized by calculating a number of research grants applied to the amount sanctioned for women.
- Participation Rate—Most of the women are unable to avail the opportunity of participation in seminars/conferences/workshops due to overburden, lack of company, safety measures etc. They remain behind in social bonding and being a part of the formal/informal academic circle.

Feminist discourses have developed various examples of how a patriarchal society marginalizes women at the workplace. Gender stereotypes not only denote differences in how men and women are but also denote norms about what kind of behaviors are suitable for each of them (Eagly and Karau 2002; Heilman 2001; Rudman and Glick 2001). Empirically, Lindberg et al. (2011) demonstrates the case study of Sweden which is regarded as one of the most advanced countries in respect of gender equality; yet the dominant percentage of professors in Swedish colleges and universities were men the gender gap remains quite high. Despite the fact that women have been admitted to higher education in Sweden for 120 years, and more than 60 percent of Swedish university students are women.

A more truly gender-responsive culture would be characterized by gender equity in access, redressing structural barriers that influence the access and participation of both sexes, and women's active role in decision-making in the management and administration of higher education (Leo-Rhynie 1999, p. 10). Strategies must be explored by institutions to unite gender-responsive practices at workplace. This empirical study substantiates on the existence of barriers to achieving these functionalities desired by women, these functionalities cater to the core of the profession in higher education. Theoretically, they might have equal access to the necessary means to achieve the ends, but empirically they fall short in reaching the ends they have a reason to value (Kabeer 1999). The findings highlight the necessity for bridging this inequality by improving these particular capabilities which are beneficial for individuals as well as the institutions. The aforementioned list developed by us was in consultation with the post-research survey with faculties in various positions at the university where we have carried out the in-depth interviews, thus contributing towards operationalizing Capability Approach.

5. Conclusions

Discrimination, marginalization, and inequalities are visibly present in the social structures and are further improved and encouraged by its functioning. The cultural and psychological constructs further contribute to these imperfections, positively or negatively. The most efficient and non-coercive (not by rules, laws, regulating etc.) way of achieving gender equality in Indian Higher education context is to make the individual capable of performing those functions that would reduce or remove subjugation and raise them to equal beings. That is by improving capabilities of marginalized sections and empowering the individuals of these sections by suitable and appropriate means.

The subjugation of women can be said as the suppression of the capabilities, disabling them to be equal to men; these immaturities, containment and lack of capabilities are the barriers that hinder the functioning of women. The progress of a gender-inclusive culture must be the concern of all stakeholders of the institution. However, this affirmative perception and strong backing might diminish without an explicit gender policy to promise its execution. In stereotyping the role of women and men, there is also an element of stereotyping the whole category of gender as a single entity comprising of homogeneous individuals, but capability approach restores the uniqueness of every individual with a varying value i.e., a fractional combination of capabilities listed. This helps us to incorporate and note the ambiguity in different individual choices, preferences. This advantage can be included using the capability approach. As Sen describes the capability approach includes the ambiguities (Sen 1985), this approach is justified in relocating equality without harming their diversity, uniqueness, and individual preferences.

The aim of the study is essentially not to quantify the attributes of inequality to make them measurable, but to choose attributes which enable an effective comparative basis to address inequality. Inspecting and studying the above semi-structured interviews; one can conceptualize the oppressed capabilities of women particularly in Science and Technology thereby enabling the researchers to relocate the gender equality in the domain of higher education. The findings thus far show that an empowering milieu exists for the organization to generate a gender policy and plan of action; these actions would benefit in the formation of a gender-inclusive culture. Acting on these parameters would help in achieving gender parity in higher education, if not sufficiently but significantly. There is clearly a need to look at how reforms in the education sector are impacting women teachers' sense of personal and professional identity. These are not the prescriptive list of capabilities, but however, as a working paper, one could firmly state that they are crucial capabilities which cannot be escaped in addressing the unachieved and far way equality. Relocating the impositions of gender would minimize the oppression, discrimination and subjugation prevailing over a long period. This relocation helps in achieving balance and in attaining equality. Capability approach can act as an instrumental framework in tackling gender disparity and inequality in the Indian higher education context. Their capabilities and functionalities can be envisioned through education and empowerment. Through the elimination of gender disparity, it is also observed that it does not necessarily ensure equality, but reversely, improving and working on inequality affects the quantitative disparity by reducing it.

Author Contributions: This paper is entirely a collective effort where the study has been conceptualized and conducted as a team, where in both the authors have been present at all the stages of the study. However, if we were to judge with instrumental precision, then the design of study, analysis of extensive interviews, editing etc. have received relatively higher efforts from Dr. Tanu Shukla and the collection of data, writing the paper in the current format would have relatively greater inputs from Kalyan Kumar. Both the authors read and approved the final manuscript.

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