

and a new scientific contribution, and those who are interested in the production of knowledge in medicine for professional or educational purposes.

References

- Bleakley, A. (2012) *The Proof Is in the Pudding: Putting Actor-Network-Theory to Work in Medical Education*, in “Medical Teacher”, 34 (6), pp. 462-467.
- Latour, B. and Woolgar, S. (1979) *Laboratory Life: The Construction of Scientific Facts*, Princeton, Princeton University Press.
- Mol, A. (2002) *The Body Multiple: Ontology in Medical Practice*, Durham, Duke University Press.

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Ilenia Picardi

Labirinti di Cristallo. Strutture di Genere nell'Accademia e nella Ricerca [*Crystal Labyrinths. Gender Structures in Academia and Research*], Milano, FrancoAngeli, 2020, pp. 124

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The book *Labirinti di cristallo. Strutture di genere nell'accademia e nella ricerca* [*Crystal Labyrinths. Gender structures in academia and research*] by Ilenia Picardi outlines a framework aiming at unravelling gendered practices in academic and scientific institutions.

The author adopts the theoretical perspective provided by feminist studies in the field of Science and Technology Studies (STS) as a toolkit capable of discussing the complexity of the metaphorical and iconographic representations of “crystal ceiling” and the “leaky pipeline” and of observing how gendered practices construct academic paths similar to “crystal labyrinths”. With the labyrinth’s metaphor, Picardi shows how women *do science* by oscillating between innovative disciplinary mobility and hybridisation dynamics practices (Sciannambo and Viteritti 2021) and the reproduction of male-dominated career models. *Crystal labyrinths* expose the rhetoric of merit as a system designed to justify the low presence of women in high positions because they are supposedly less competent than men in fields such as science, politics, and business. Indeed, Picardi’s book highlights that the current systems of evaluation of competence and consequently of career progression in academic and research work are underpinned by gendered processes.

The volume is articulated in six chapters, and it is grounded on empirical evidence coming out from both quantitative and qualitative analysis techniques.

In Chapter One the statistical analysis describes the gender dynamics in recruitment processes as a consequence of the latest reform – dated 2010 – of the Italian academic system. The data provided by Picardi show the substantial precariousness of academic careers. Such precariousness becomes structural when the sex variable is introduced. The author introduces what she calls the Glass Door Index (GDI), with the aim of operationalising the gender gap that occurs in the transition from low-waged positions to permanent positions. The GDI has the potential to show how evaluation policies and reforms, which have introduced important transformations in the selection of academic staff and in career regulation, make Italian women more exposed to the risk of precariousness than their male colleagues. The reform acts as an invisible door limiting access to academic career progression, reinforcing the gender gap in those disciplinary fields – for example in scientific-technological disciplines – where the presence of women is already inherently lower due to historical and cultural factors. In Italy, the extension of the precarious status causes delays in the time needed for career stabilisation, affecting especially the recruitment of women in the 25-40 age group. There is an invisible door that limits the access to scientific careers, reinforced by evaluation systems that have a differential impact by gender, especially in an age range when women, as the author points out, may be faced with the choice between career and pregnancy.

Chapter Two focuses on the issue of gender equity in feminist literature. In feminist STS studies the issue of equity unveils gender segregation and discrimination as factors that prevent women from accessing the technoscientific education. Such studies have also questioned social, political, and cultural dynamics, whereby informal discrimination is maintained even when women enter scientific careers (Harding 1986). Picardi, introducing the issue of gender equity, observes the dynamics of scientific production as influenced by practices, values, assumptions, and power relations dominated by a model of scientist, who is generally male, white, and Western.

The concept of gender equity sets the ground for the theoretical framework outlined in Chapter Three, which underpins the analytical reading and shapes the qualitative analysis of Chapter Four. Chapter Three features the dialogue between feminist STS and the gender approach of the “practice turn” in organisation studies, launched by Silvia Gherardi (2019). Like Gherardi, Picardi turns the analysis to the gender structures and processes that disclose the role of sociomaterial practices in the production and reproduction of power asymmetries in organisations. The concept of practice allows looking at gender as a process that, running through

the academic institution and research groups, reproduces patriarchal models of recruitment and career assessment. Practice-based literature and feminist STS studies accompany the reader to look at gender in *its doing* through the enactment of *gendered practices* that perform the production of institutional and academic structures understood as *gendered organizations*.

Chapter Four provides the results of an empirical research consisting of semi-structured interviews and three focus groups involving 26 women researchers in STEM and 18 women researchers in Social Sciences and Humanities (SSH), by using a qualitative analysis carried out through the NVivo software. The collected experiences have been codified and aggregated to capture the different dimensions of the examined phenomenon. This chapter aims to provide an interpretative scheme to disentangle the gendering processes that create and reproduce gender inequities in academic and scientific institutions. Picardi identifies three levels of gendering processes, acting and producing academic and research environments dominated by patriarchal logics, which enact gendered practices. For Picardi, the gendering processes are embedded in 1) academic and research institutional structures; 2) the organisation of academic and research work; 3) academic and research culture. These processes, while encapsulating the phenomena in which gender becomes a practice, also structure the practices that reproduce gender discrimination in the institutional contexts of academic research. Gendering processes are portrayed as “crystal labyrinths” that reproduce male-dominated top positions. According to the author, there is not just one invisible obstacle at the top of women’s careers, as the metaphor of the “glass ceiling” suggests, but multiple obstacles situated along their – often fragmented – career trajectories. However, the crystal labyrinth metaphor theorised by Picardi risks excluding the socio-material density of emancipatory practices against the homologation to male models.

In Chapter Five, the author presents an analytical exploration of the mechanisms that underpin gender practices. The mechanisms are embedded in the scientific-reputation system based on the concepts of merit and excellence: women’s careers are, therefore, mainly evaluated by groups of men according to spatial and temporal mechanisms built on a patriarchal model of science. The concepts of “merit” and “excellence” reinforce, in certain ways, the biases linked to evaluation criteria, which, even if proclaimed as objective and neutral, contribute to reiterating gender discrimination. Women’s careers are assessed using evaluative and quantitative criteria which, on the contrary, tend to favour linear paths and work rhythms congenial to the model of work historically and culturally free from caring roles. Women must work twice as hard to be considered at the same level as their male colleagues: a phenomenon known in literature as the double standard of excellence. The chapter ends with an interesting

discussion about the temporal dimension in the Italian academic context. The author captures how the dimension of time is plural and multidimensional. Time, entwined with politics, power, knowledge and control, imposes constraints and rhythms, generating gender asynchronies that, in turn, produce tensions between personal time and work time, especially in the 30-40 age class, in which women define intimate relationships and future projects, even those of motherhood. Tensions between private and professional life can cause a loss of planning for the future, and in some cases, as some of the stories point out, a “forgetting to choose to face the choice of motherhood” (p. 68, my translation).

The book ends (Chapter Six) with a critique of the supposed objectivity of scientific career evaluation methods. The author notes that gender discrimination in academic environments can only be investigated by acknowledging the social character of science. Analysing the constitutive and normative elements of science means observing the systematic operation of social mechanisms – male-dominated leadership and network patterns, gender asymmetries in the distribution of research funding – that sustain the processes of recruitment, reputation building, and promotion in academic careers.

In writing this review I adhered to a feminist epistemology – which underpins the entire structure of the book – by situating myself as a young post-doctoral researcher. The reading of this book is striking for its criticism of equity and temporal mechanisms of research, which are reflected in the homologation to the male scientist model and in certain “non-choices”, such as the renunciation to have children narrated by some of the women who have been interviewed. It is an intrinsically political book that shows how the rhetoric of merit translates into “replacing the *future* category with that of the *extended present*” (p. 95, my translation, original emphasis). This volume contributes to disentangling the labyrinths of gender mechanisms in order to rethink the structures of the organisation of scientific work – and the production of knowledge – claiming the right to choose and plan the future.

References

- Sciannamblo, M. and Viteritti, A. (eds.) (2021) *Fare la Differenza: Stereotipi di Genere e Nuove Pratiche di Affermazione nei Campi Scientifici*, Roma, Centro Stampa Sapienza.
- Gherardi, S. (2019) *How to Conduct a Practice-based Study: Problems and Methods*, Cheltenham, Edward Elgar.
- Harding, S.G. (1986) *The Science Question in Feminism*, Ithaca, NY, Cornell University Press.