Women in Latin American Academia: Gender Inequalities in the Social Sciences of Chile, Mexico, Brazil, and Argentina

Mulheres na academia latino-americana: desigualdades de gênero nas ciências sociais do Chile, México, Brasil e Argentina

Mujeres en la academia latinoamericana: desigualdades de género en las ciencias sociales de Chile, México, Brasil y Argentina

Abstract: This article discusses the gender inequality female researchers and university professors face in the social sciences in four Latin American countries: Chile, Mexico, Brazil, and Argentina. The objective is to understand the forms of discrimination these women face in their work environment and analyze how these forms operate and impact their labor marginalization. It also seeks to characterize the difficulties faced by female academics in reconciling their reproductive and care responsibilities with professional practice. The second section sets out the theoretical framework and defines the concept of gender inequality. The third analyzes the gender gap in international academia, contrasting the most recent data from the Global North and South on the obstacles faced by women in professional academic settings. The fourth reviews case studies in Chile, Mexico, Brazil, and Argentina and offers a characterization of this problem in these countries. The final section presents four analytical-interpretative conclusions.

Keywords: gender inequality, women, research, social sciences, Latin America

Resumo: Este artigo discute a desigualdade de gênero enfrentada por pesquisadoras e professoras universitárias das ciências sociais em quatro países latino-americanos: Chile, México, Brasil e Argentina. O objetivo da pesquisa foi compreender as formas de discriminação que essas mulheres enfrentam em seu ambiente de trabalho e analisar como essas formas operam e impactam sua marginalização laboral. Buscou-se, também, caracterizar as dificuldades enfrentadas pelas acadêmicas em conciliar suas responsabilidades reprodutivas e de cuidado com sua prática profissional. O texto apresenta, primeiramente, o quadro teórico e define o conceito de desigualdade de gênero; na sequência, analisa a diferença de gênero na academia internacional, contrastando os dados mais recentes do Norte e do Sul globais sobre os obstáculos encontrados pelas mulheres em ambientes acadêmicos profissionais. Além disso, revisa estudos de caso no Chile, México, Brasil e Argentina e oferece uma caracterização do problema nestes países e, por fim, discorre sobre quatro conclusões analítico-interpretativas.

Palavras-chave: desigualdade de gênero; mulheres; pesquisa; ciências sociais; América Latina.

Resumen: Este artículo analiza las desigualdades de género que enfrentan las investigadoras y/o profesoras universitarias de las ciencias sociales en cuatro países de América Latina: Chile, México, Brasil y Argentina. El objetivo es comprender las formas de discriminación que enfrentan estas mujeres en su entorno laboral y analizar cómo estas formas operan e impactan en su marganización laboral. También se busca caracterizar las dificultades que enfrentan las académicas para conciliar sus responsabilidades reproductivas y de cuidado con la práctica...
Introduction

This article discusses the gender inequality female academics (researchers and university professors) face in the social sciences departments of public and private institutions in four Latin American countries: Chile, Mexico, Brazil, and Argentina. Our objective is to understand the forms of discrimination and violence these women face in their work environment and analyze how these forms operate and impact their labor marginalization. In addition, we seek to characterize the difficulties female academics deal with in reconciling reproductive and care responsibilities with their professional practice. To address these issues, we will synthesize national and international statistics on gender inequity in science and contrast them with the findings of qualitative case studies in the four countries.

This review of statistics and literature had a feminist stamp due to the intersubjective nature of the exercise for the article’s authors. First, because of our self-recognition as academic women, we form part of the community we set out to research (BELL, 1993). Second, we have experienced several forms of inequality that we analyze here. These two dimensions challenge us profoundly. We cannot “create authority” as researchers by distancing ourselves temporally and spatially from the subject matter or the study subjects (WESTON, 1997). Therefore, our methodological-analytical stance in this study is intersubjective, reflexive, and experiential while standing as political praxis: it is focused on de-naturalizing power inequalities (GREGORIO and ALCÁZAR, 2014). This viewpoint implies critically recognizing the subordinate place we occupy as women in academia (BEHAR, 1995). It also entails assuming that women have opened up new fields, questions, discussions, and methodologies. These contributions cannot be thought of as “neutral” regarding gender: those who made them have faced a series of barriers that are not verified internationally in the trajectories of male scientists. The increase in the number of women in Latin American universities and research spaces since the 1990s has been notable (GENTILI, 2012; International Institute for Higher Education in Latin America and the Caribbean - IESALC, 2021). Today, the region is ranked third in the world regarding female scientific participation, mainly due to the significant number of researchers and university teachers in the social sciences (UNESCO, 2021). At the same time, feminism has become a protagonist in the Latin American political agenda in the last decade (SILVA and FERNÁNDEZ, 2022), with different intensities in the countries addressed here. Universities from the region are highly active spaces “in the production of feminist and progressive discourse committed to the struggle for gender equality and social justice” (GENTILI, 2012, p. 2). A substantial part of the militancy is linked to university spaces involving female students, teachers, and researchers: their proposals, conceptual frameworks, and perspectives are predominantly constructed from the social sciences.

However, the gender gaps in Latin American universities are persistent and find “an anchorage in an institutional culture and in a series of factors hidden behind technical or supposedly objective arguments that justify or naturalize the advantages of men” (Ibid., p. 3). A ‘gender hypocrisy’ prevails in Latin American university spaces, allowing the reproduction of inequality, discrimination, and violence against women who work professionally in these spaces. Latin American institutions of higher education “have an acute capacity to judge society but very little to judge themselves” (Ibid.).

Studies on gender inequality in science are developing in most Latin American countries. Public research and university teaching systems
need to be diagnosed to serve as a basis for public policies to address this issue (IESALC 2021, UNESCO 2021). In Latin America and Worldwide, this problem has been better studied and analyzed among research teams in the exact sciences, biology, technology, mathematics, and physics (EGANA DEL SOL et al., 2022; FLORES et al., 2022). The silence of the Latin American social sciences and the developing nature of the knowledge and debates around gender inequalities are problematic: they fail to protect women working professionally in this field, present and future generations. Considering these circumstances, this article seeks to gather information to describe and analyze the main problems female social scientists face in the four countries.

We chose Chile, Mexico, Brazil, and Argentina for five reasons. First, they are the Latin American countries with the highest scientific production (SANTÍN and CAREGNATO, 2020). Second, the four states invest the most in science in the region: Brazil accounts for 60% of all investment, Mexico 17%, Argentina 7%, and Chile 2%, making up 86% of the Latin American total (ibid.). Third, they also concentrate 86% of the regional scientific human capital: Brazil with 60%, Argentina with 16%, Mexico with 8%, and Chile with 2% (ibid.). Fourth, they present high levels of gender inequality in science: Mexico (66.98% of researchers are male) and Chile (66.88%) occupy second and third positions in terms of lower female participation (after Peru, with 68.11% male scientists) (ibid.). In Brazil, male participation is 52.5%, and in Argentina, it is 46.97%. However, these latter percentages do not imply that female academics in these countries have greater participation in scientific publications (ibid.), better representation in management positions (GENTILI, 2012), professional recognition, or equal salaries to men (BIDEGAIN, 2016). Fifth, there is insufficient (if not nonexistent) systematic and comprehensive data on gender inequality in these countries’ national statistical systems, research agencies or councils, and universities (UNESCO, 2021).

To better understand these realities, we conducted a “systematic review.” This term alludes to a particular writing genre and a specific methodological process. The purpose of a systematic review is, on the one hand, to “examine the published literature and put it into perspective” and, on the other hand, to “investigate on a topic” in which “relevant and necessary information is discussed” (TORRES AND LÓPEZ, 2014, p. 394). What is sought is to offer “a detailed, selective and critical study” that allows forming “an overall perspective” (ibid.). Consequently, this article is methodologically constructed from the secondary review of other studies constituting its “unit of analysis” (ibid.).

To select the works to be read, we carried out a bibliographical search between March and April 2022 using five keywords: “women” + “scientific research” + “universities” + “gender inequality” + “Latin America.” We then repeated the procedure, replacing the last term with “Chile,” “Mexico,” “Brazil,” and “Argentina.” This review focused specifically on works published between 1990 and 2022 and yielded a sample of 150 texts, including scientific articles, chapters, books, theses, and reports from supranational agencies or organizations.

We reviewed these texts between June and July 2022, grouping them by country and topics addressed. In this process, we cut out those works that repeated issues, perspectives, and approaches, seeking to constitute a mosaic without repetition. These steps led us to a sample of 92 texts. We read these selected works between July and December 2022, writing thematic syntheses. Once we finished this synthesis process, we organized the topics and wrote their respective sections.

To present the results of this process, we will start by discussing, in the second section, what we mean by gender inequality, situating our theoretical framework. The third section analyzes the gender gap in international academia, contrasting the most recent data from the Global North and South on the obstacles faced by women in professional academic settings. The fourth reviews case studies in Chile, Mexico, Brazil, and Argentina and offers a characterization of this problem in these countries. The final section presents four analytical-interpretative conclusions.
Theoretical Perspectives on Gender Inequality

The way in which we apply the concept of *gender inequality* requires us to situate the diachronic and symbolic-relational aspects of how this term and the scientific field interweave.

Modern science is a European historical construction (initiated between the 17th and 18th centuries) linked to an ethnocentric worldview, a project of colonial domination, and the formation of racial hierarchies (SAID, 2004). Reviewing the writings of influential European thinkers since the 18th century, Todorov (1991) concludes that this ethnocentrism and racism also operated by equating European women to “primitive” mentalities. Based on these principles, scientific ideas in the 19th century assumed female subordination to be natural, defining women as the particular and inferior form of a universal version of the human being projected from European men (PATHOU-MATHIS, 2021).

Reflecting on this, De Beauvoir (2018 [1949]) observed that the conceptual construction of “Humanity” as an entelechy created in the image of the white European male was an effect of male representational power: a way of erasing women from History, of turning off their action and decreeing their inferiority. The abilities of female scientists such as Madame Curie “brilliantly demonstrate that it is not women’s inferiority that has determined their historical insignificance: it is their historical insignificance that has doomed them to inferiority” (DE BEAUVOIR, 2018 [1949], p. 128). Science relied on this mechanism to destitute the female part of humanity, assuming its subordination as a natural and immutable phenomenon (LERNER, 1986). *Science is patriarchal.*

In anthropological terms, patriarchy refers to hierarchical social systems organized and based on male power (MIES, 2019). Material goods (economic resources, objects) circulate preeminently among male figures, marginalizing the female (and dispossessing people, things, and symbolisms associated with the female) from equal access to socially valuable. Thus, patriarchy is an “immense symbolic machine” that ratifies “the masculine domination on which it is founded” (BOURDIEU, 2002a, p. 9).

By *masculine domination*, we refer to the social order controlled by the masculine principle and symbolically anchored on three axes. First, on an androcentric worldview articulated by binary categories of understanding (male/female, above/below, strong/weak) (Ibid.). The force of this dichotomous order is such that it “dispenses with justification: the androcentric vision imposes itself as neutral and does not need to be made explicit in discourses intended to legitimize it” (Ibid.). Second, it is also an embodied construction. Bodies are socially constructed as repositories of a “mythical vision of the world rooted in the arbitrary relation of men’s domination over women” (Ibid., p. 11). Third, it is sustained by a symbolic structuring principle representing “man as active and woman as passive” (Ibid., p. 21). This principle “creates, organizes, expresses, and directs” male desire as “possession,” as “eroticized domination” (Ibid.). Scientific knowledge integrates a set of patriarchal representations, playing a central role in contemporary forms of masculine domination.

However, patriarchy also constitutes a spatialized form of power articulated by the archetypal division between public space—the locus of political prestige, masculinized by antonomasia—and the private and domestic—as assumed as inferior, female—(SEGATO, 2013). The masculine voice and scientific knowledge are elevated in the public space as a source of distinction. At the same time, the domestic spheres are dedicated to stereotypical female understanding, which, despite being undervalued, is central to maintaining life.

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4 Archetypes are a set of dispositions and practices based on a series of images (not always conscious) that designate the legitimate, elevated, good, and beautiful. They are often unattainable, but what matters is not their intangible character but their role as a moralizing boundary between people, things, and spaces (Gupta and Ferguson, 1997).

5 Distinctions are strategies of differentiation and recognition employed by persons and groups to establish their place in contexts and their distance from others (Bourdieu, 2002b). These strategies are not neutral in political or moral terms; they also constitute an aesthetic sense and involve the incorporation of medium and long-term social structures in the dispute for power and positioning (Ibid.).
These spatial processes are based, in turn, on the “rigorous distribution of activities assigned to each sex, of their place, time and instruments” (BOURDIEU, op. cit., p. 9). Within the framework of this logic, it is assumed that reproductive work (in private spheres) is “typical” of women (LASLETT AND BRENNER, 1989). These activities include not only procreation but also what we call here “care”: the plurality of tasks (with physical, material, mental, emotional, and relational aspects) that make it possible to sustain life and restore our social environment (BIDEGAIN AND CALDERÓN, 2018). Most caregivers (paid or unpaid) in the world are women. Patriarchal ideology naturalizes this disproportion by justifying it on the biological function of motherhood. On the other hand, this supports the expropriation of female care work: it is undervalued, unpaid, and implies an overload for women (FEDERICCI, 2018). In addition, the moralizing distinction of motherhood as “incompatible” with the sciences looms in the androcentric archetypes of research:

The academic/scientific world is the sphere of reason *par excellence*. It is the “natural place” of the subject of modernity: the rational, Cartesian subject, capable of being objective, of precise calculation and measurement, moderation, and control of the affections that can “cloud” the cold and serene gaze of reason. Motherhood appears in such a context as an essentially subjective experience that has nothing to do with the academic and scientific sphere. This premise responds to a symbolic principle integrated with the historical origin of the institutions dedicated to science and the current division of the spheres of subjects that inhabit this social space. The former is based on the establishment of a symbolic frontier that leaves, on the one hand, the professional world of scientific work (of objectivity and reason) as a public sphere and, on the other, the world of “true life,” of private life (of the subjective and emotions) (PALOMAR-VEREA, 2009, p. 56).

Since the 1970s, these reflections have been framed by the concept of “gender” (LAMAS, 2018). The idea makes explicit that social hierarchies between the sexes are not derived directly from the biology of their bodies; they are supported by a complexity of mechanisms (relational, material, symbolic, economic, political) that endow their differences with cultural characteristics). Gender mandates constitute schemes of perception internalized through language, performance, customs, and socially established practices (Ibid.).

Assuming a (self-)critical perspective of these issues, when we speak of *gender inequality* in this article, we adhere to an understanding of the long-term symbolic, social, and cultural duration of masculine domination. We also make visible that the characteristics of inequality lived by female academics intersectionally entail racial and class exclusions. They are part of a “historical privilege (sometimes known as inherited privilege),” which refers to “the advantages gained from belonging to dominant (highly valued) social categories: being white, male, upper-class, able-bodied, cisgender, heterosexual” (Bisson et al., 2022, p. 9). Our allusion to intersectionality recovers the critical perspective on racial discrimination introduced into feminist studies through this concept, which was coined in the early 1990s within the framework of the debates developed by Black feminists inspired by Crenshaw (1991). For this author, the factors that endorse excluding women intersect with each other and become stronger.

Thus, the intersectionality of elements that marginalize people in a specific sphere of relationships operates from the crossing of hierarchies related to gender, class condition, skin color (which includes racial and ethnic stigmatizations), political, cultural, and national identities (CRENSHAW, 1991, p. 1944). There are several reasons why the experiences of intersectional subordination of women in academia (and elsewhere) are not adequately addressed (Id., 2002). First, there is an excellent degree of invisibility regarding the marginalized women’s experiences and circumstances and the lack of knowledge about their living conditions (CRENSHAW, 2002, p. 174). Second, whenever the problems are interpreted as the result of the “gender subordination of women or the racial subordination of certain groups, a double problem of overinclusion and underinclusion arises” (Ibid., p. 174). According to the latter:

A gender analysis may be underinclusive when a subset of subordinate women faces a pro-
blem, in part because they are women, but this is not perceived as a gender problem because it is not part of the experience of the women in the dominant groups. Another more common situation of underinclusion occurs when there are gender distinctions between men and women of the same ethnic or racial group. It often appears that if a condition or problem is specific to women’s ethnic or racial group and, by its nature, is unlikely to affect men, its identification as a problem of racial or ethnic subordination is compromised. In this case, the gender dimension of a situation makes it invisible as an issue of race or ethnicity. The opposite, however, rarely happens. In general, racial discrimination that most directly affects men is perceived as part of the category of racial discrimination, even if women are not equally affected by it. (Ibid., p. 175)

With these concepts in mind, we have tools to review, in the following section, the situation of women in science at the international level.

**The Gender Gap in International Academia**

Generalizing gender inequality patterns in professional science is both a Latin American phenomenon and a global problem. The number of women entering universities has been progressively increasing since the 1970s in the core capitalist countries and since the 1990s in peripheral ones, thus reversing the rates of masculinility. Currently, women are more likely to enter university and complete their education, obtaining an undergraduate or postgraduate degree (IESALC, 2021). Women account for 53% of students placed in university degrees, 55% in master’s, and 44% in doctorates worldwide (UNESCO, 2021). This phenomenon is known as the *female advantage* (Buchmann and DiPrete, 2006) and is considered one of the most significant international social changes in recent history (Williams and Wolniak, 2021).

These would be encouraging data if their scope were not limited to women as students. The supposed “advantage” has not transferred to the general labor market or the university as a professional workplace. One might think that being a majority among students, women would also number “the majority in academic positions in universities, participate in relevant research, assume leadership roles, and even earn competitive and comparable salaries” (IESALC, 2021, p. 21). However, this is not the case: “The failure of universities to recruit, hire, and promote female academics is increasingly striking” (ibid.). Even though women are the majority of those who complete undergraduate and postgraduate degrees, they only make up 33% of the total number of professional researchers in all scientific fields (UNESCO, 2021).

In short, more access to higher education does not guarantee an equally improved insertion of women into science. Women who work or study at university also face “the threat or reality of harassment and sexual violence on campus” (IESALC, op. cit., p. 6). University is, internationally, a space that reproduces gender inequalities and *gender-based violence* (CASTRO AND GARCÍA, 2008; DREW AND CANAVAN, 2020; FLORES-HERNÁNDEZ AND ESPEJEL-RODRÍGUEZ, 2015; MINGO AND MOREO, 2015; VALLS et al., 2007).

Even in core capitalist countries, where gender policies have been implemented in the last three decades, there are still no scenarios of gender equity in science. In the wealthiest European States, with highly relevant international scientific production, the participation of women is inferior to (or barely above) the global average. For example, in France and Germany, it is 28%. In Belgium, Holland, Switzerland, Finland, Italy, and Austria, it ranges between 25 and 34.9% (UNESCO, 2021). Eastern European countries that made up the Soviet axis fared better with gender equity performances under socialist governments and maintained higher proportional participation of women. However, Southeast Europe (with 51.2% female scientists), Latin America and the Caribbean (49.8%), and Western Asia (48.3%) are the three regions with the best rates of female

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6 Defined as the violence exercised against a person or group based on their gender identity (Wies and Haldane, 2011). Previous studies point out that the violence lived by female in academia manifests itself in multiple forms, most often materializing as “sexism” (Flores-Hernández and Espejel-Rodríguez, 2015). Small and medium aggressions of a varied spectrum (without necessarily involving physical intimidations) that cover all possible dimensions and in different intensities become diffuse, confusing, and difficult to identify (Ibid.).
presence in science (Ibid.). In Latin America and the Caribbean, six countries are among the top ten in this field: Venezuela (61% female scientists), Trinidad and Tobago (56%), Argentina (54%), Cuba, Paraguay, and Uruguay (49%) (Ibid., p. 122).

The International Survey of Scientific Authors (ISSA2), carried out by the Organization for Economic Cooperation and Development (OECD) in 2020 with 12,000 researchers from 60 countries, confirmed the existence of a vast international gender gap in science (BELLO AND SARRICO, 2021). Their findings highlight that: i) women are underrepresented in research; ii) they are less likely to hold leadership positions; iii) they have more difficulty entering and progressing in their disciplinary fields; and iv) they earn on average 5 or 6% less than men (Ibid.). Most university graduates worldwide are from social sciences, arts and humanities, journalism and information, and health and welfare, fields with lower pay (UNESCO, 2021). Thus, they “are at a greater disadvantage in certain fields, typically those associated with more prestige and better salaries” (BELLO AND SARRICO, op. cit., n.p.). This wage gap persists despite “no evidence that women’s research is of lower quality” (Ibid., n.p).

Specifically, in Latin America, the gender wage gap widens among people with more education: women with more than 13 years of study earn 25.6% less than their male peers in the region (BI-DEGAIN, 2016). The more qualified female scientists are, the greater the economic punishment they receive. Inequality rates in the academic world are even higher than the average in the general labor market. Thus, as a work environment, the university is more sexist than others in the labor market regarding teaching staff (IZQUIERDO et al., 2004). Inequality in the proportion of women to men is greater the higher the faculty category. In the higher classes, the levels of inequality are “higher than those among managers in private companies” (LEÓN AND MORA, 2010, p. 400). For women, “the impossibility of progressing does not translate into stagnation, but rather into an inevitable withdrawal from university scientific activity” (Ibid.).

However, gender is not the only element that pushes female scientists in Latin America into precarious employment. The intersectional effect persists in this area (generalized in all the axes of the region’s labor market). It magnifies the exclusion of women from lower or lower-middle classes, especially if they are Indigenous and Afro-descendants. Wage gaps “multiply if analyzed by educational levels according to gender and ethnic-racial origin” (BIDEGAIN, op. cit., p. 54). This effect is noticeable among workers with more access to formal education. If we were to design a scale for the most educated people in the region, we would have white men at the top end with the highest salaries and Indigenous women at the bottom with the lowest wages. The author continues, “how sexism, racism, and ethnocentrism are the basis of socioeconomic inequality and generate systems of discrimination and privilege” (Bidegain, 2016, p. 54 Ibid.). Thus, among women themselves, hierarchies form: some are taken more into account as subjects with rights than others (Bidaseca, 2014). The capacity to have a voice, even among those involved in feminist political struggles and academia, seems to be granted to white women with a high level of formal education (Ibid.).

Leaky Pipelines, Glass Ceilings, Sticky Floors, and Vertical Segregation

The persistence of this academic androcentrism means that, worldwide, “female researchers tend to have shorter and lower-paid careers,” and their studies are “underrepresented in high-profile journals” (UNESCO, 2021, p. 108). It is not only that men publish more scientific articles but also that productivity gaps are accentuated to the detriment of women in the most prominent indexed journals in each field (IESALC, 2021). In the current century, Latin American scientific publication systems have adopted the editorial rules of the Global North countries. These supposedly ensure the rigor of research published in journals indexed by private catalog systems belonging to large international companies and by scientific/university publishers.
In several regional countries, the imposition of metrics for evaluating academic productivity affects measures of national “development,” given that States follow the indicators recommended by the OECD (GUIZARDI et al., 2022). These parameters imply the exclusion or marginalization of researchers who do not meet these criteria. The annual publication of numerous indexed scientific articles is a requirement to apply for and maintain positions, projects, funding, and scholarships. These criteria should follow “transparent” guidelines through anonymous and peer review. However, androcentric biases and the recurrence of “glass ceilings” for women (who are less numerous as reviewers and in editorial positions of scientific journals) penalize the work written by women (Cellini, 2022; Martinsen et al., 2022). Thus, it is as if women compete with men, but they run on sticky floors held back by circumstances that prevent them from progressing (Lewicka, 2018).

The supposedly meritocratic systems of academia are a leaky pipeline (BELLO AND SARRICO, 2021). Women must work much harder to gain recognition; they face stricter standards in funding applications, peer review, tenure, and job applications (BROWER AND JAMES, 2020; WITTEMAN et al., 2019; HENGEL, 2017). Their abilities are underestimated, even though they “show higher and faster rates of improvement throughout their careers, in terms of writing standards and research contributions” (UNESCO, 2021, p. 129). Thus, although women “are as productive as men in terms of output” (Ibid.), they have higher dropout rates at each stage of their scientific career (HUANG et al., 2020).

There is sufficient international evidence of the enormous “barriers to entry and bias faced by women in all research fields” (BELLO AND SARRICO, op. cit., n.p.). The system is androcentric, based on the social and hierarchical distinction of masculinity, and promotes a “vertical segregation” in academia (UNESCO, op. cit., p. 127). In this system, for example, Bello and Sarrico (2021) state that “men tend to get more credit for co-authored articles in tenure decisions, and women are subject to higher evaluation standards when they seek to have their articles published in top journals.” UNESCO (2021) also declares that men receive twice as many invitations to speak at scientific events.

All this frustrates female scientists’ possibilities of accessing stable working positions and progressing to the higher hierarchical echelons (TOUKOUSHIAN AND BELLAS, 1999). In many countries, the graph showing the proportion of women at each career stage is a pyramid that narrows sharply at the higher settings. While academic progression also means fewer possibilities for men in the highest positions, the male expulsion rate is much lower (UNESCO, op. cit.). Likewise, women’s access to decision-making spheres, such as scientific councils and science academies, is difficult: the glass ceiling of these spaces of power was called “impenetrable” by UNESCO (Ibid., p. 127). The United Nations Organization adds that as these positions are usually subject to a vote by other scientists, the low female participation is an indicator of the (low) level of recognition and status that female researchers have in their countries: women represent less than 10% of the members of academies of science internationally.

Care Overload and Time Poverty

The International Labour Organization (ILO, 2019) states that women perform 76.2% of unpaid care work worldwide, giving 3.2 times (420%) more time than men. The dedication to unpaid domestic work implies that 647 million people abandon their formal jobs: 90% are women. The Economic Commission for Latin America and the Caribbean (ECLAC, 2020), in turn, affirms that the social distribution of social reproduction work is highly problematic in Latin America. Cecchini (2019) reinforces that families are primarily responsible for care, but women sustain this overload, performing between 71% and 86% of unpaid care work. This pushes them into precarious productive insertions, wage inequality, interruptions in educational trajectory, and impoverishment.

How does this reality affect academics? Well, in at least two more immediate dimensions. First,
the care work in their families leaves them with little time to dedicate to teaching research, which requires tranquility to read, write, and do fieldwork. Second, they are pushed to care in their work environments when assigned management tasks that classify them as “caretakers” of the teams and students.

These disparities are part of female scientists’ lives, especially if they are mothers: raising children exponentially increases the female overload. It implies, in addition, a set of discretionary treatments in scientific spaces. Preserving androcentric archetypes, universities morally, symbolically, relationally, and economically penalize scientists who are mothers, both in Latin America (ALMEIDA et al., 2020; CASTANEDA-RENTERIA AND ARAUJO, 2021; GIONA AND NASCIMENTO, 2021; PALOMAR-VEREA, 2009; UNDURRAGA et al., 2021), and elsewhere (ALONSO et al., 2016; HERMAN, 2009; LEWICKA, 2018; LOPEZ et al., 2018).

The overload of productive, reproductive, and care work has been internationally noted as one of the leading causes of women abandoning or delaying scientific careers (UNESCO, 2021). For most female scientists, this overload represents a considerable challenge for paid professional performance (LEWICKA, 2018), resulting in time poverty: they cannot achieve better living and working conditions because of a lack of working time to devote to the processes that lead to these improvements (BIDEGAIN, 2016).

During the COVID-19 pandemic, the number of female scientists increased in all countries where studies of the phenomenon were conducted. The fact that women had access to less stable contracts and fewer working hours put them at the top of the list of resignations in institutions that suffered economic crises during the period (UNESCO, op. cit.). This increased the instability of women’s employment in science. According to the OECD study, women experienced a “reduction in their time devoted to research during the pandemic.” They were “more concerned than men about their job security and career opportunities” (BELLO AND SARRICO, 2021, n.p.).

UNESCO (2021) points out a survey of 4,535 female scientists from European countries and the United States found that female academics were more overloaded with domestic work during lockdowns. Those with at least one child under the age of five reduced their working time up to 17% because they were the primary caregivers for their nuclear families (MYERS et al., 2020). Consequently, there was a reduction in publications in highly indexed journals and new research projects led by women (VIGLIONE, 2020) and greater public participation of male scientists (UNESCO, op. cit.).

In the Global South, the situation was even more disadvantageous. The survey carried out with 5,000 scientists from the Global South by the Organization for Women in Science for the Developing World observed that, during the Covid-19 pandemic, 56% of female researchers interrupted or suspended their empirical work, 31% their teaching tasks, and 22% their course attendance, according to UNESCO (2021). A fifth of the female academics indicated delays in the delivery of publications, 17% the suspension of their funding sources, and 16% could not present new proposals to receive funds (JOHNSON, 2020). Forty-four percent had to reduce their working hours to reconcile them with reproductive work (Ibid.): “The respondents indicated that their share of childcare had increased from 51% to 66% during the pandemic. They also reported being responsible for 69% of home education” (UNESCO, op. cit., p. 110).

The National Contexts

In this section, we will review the case studies on the sample countries to build a panoramic view of the situation of female academics in the social sciences. These investigations ratify the existence of substantial gender gaps. But what information do we have on these realities in the four countries?

Chile

Chile ranks 70th out of 156 countries in the international gender gap ranking (World Economic Forum - WEF, 2021). This is not a good performance (the equal country ranks first), but
Chile’s gender inequality may be even more representative in certain aspects. For example, the government is better placed regarding women’s access to education (ranked 31) and political empowerment (position 49). However, it has worrying levels of female economic participation (position 113), women’s activity in the labor market (99), and wage equity (124) (Ibid.).

In Chile, the application of neoliberal models of economic management progressively impacted scientific development, generalizing the individualistic logic of hyper-productivity and highly competitive standards (ENCISO et al., 2021). Research on gender inequality in Chile is a recent field of study (BAEZA AND LAMADRID, 2019). Even though female insertion in universities has increased, two types of segregation persist and are supported by elitist and androcentric patterns (Ibid, p. 5). The first is “horizontal”: female academics are linked to fields of knowledge with lower incomes (BAEZA AND LAMADRID, 2019; SANHUEZA et al., 2020). From undergraduate education, the masculinization of technology sciences and the feminization of social, educational, and health sciences are observed (SANHUEZA et al., 2020). In 2017, women accounted for 69.9% of undergraduate enrollments in social sciences and 21.8% of those in technology (Ibid.). In 2019, in one of the most critical institutions in the country, the University of Chile, the most significant number of female academics were in the faculties of philosophy and humanities (42%) and social sciences (39%). For subjects considered to have greater social or scientific prestige, their presence was incipient: law (21%), physical sciences, and mathematics (11%) (BAEZA AND LAMADRID, op. cit.). The second type of segregation is “vertical”: women have less access to high academic positions. In 2009, they held 14% of positions of power (deanships and directorships). In 2012, only 5.1% of universities had a female rector; in 2018, of the 74,074 academics registered in Chile, 56.7% were men (SANHUEZA et al., op. cit.).

The pioneering study by Berrios (2005) showed that professional relationships in Chilean academia reproduce symbols of prestige and power that disadvantage women. One of the essential productivity indicators in Chile’s academic trajectory is the awarding of funding from the National Fund for Scientific and Technological Development. Berrios (2005) showed that women were awarded four times fewer projects. Other indicators are also headed by men, such as having doctoral degrees and publications in indexed journals (MARTÍNEZ, 2012). Difficulties of recognition, securing resources, and the female overload with family care expel women from the academic system “as the progression up to higher positions in the research trajectory advances” (BERRÍOS, 2007, p. 45).

The study by Martínez (2012) with female academics from the doctoral schools of essential Chilean universities highlights the high costs in the labor trajectory derived from the difficulty women face reconciling productive, reproductive, and care work. Women face the crossroads of having to define themselves as either “mothers” or “academics,” thus reproducing dichotomous gender role categorizations that position science as opposed to care. Women who achieve academic success tend to reproduce patriarchal and neoliberal logic, developing different strategies: masculinization, perfectionism, and time juggling (ENCISO et al., 2020).

Ríos et al. (2017) note that in Chile, there was progress in gender studies and feminist theories (in chairs, courses, seminars, and research centers), but this did not result in gender equality in academia. For those female academics who must move between universities, given the greater flexibility of their links compared to males, there is a higher level of work precariousness (RIOS et al., 2017). In the last decade, measures have been promoted to counteract these inequalities, particularly in public universities; however, gender gaps persist (BAEZA AND LAMADRID, 2019).

Mexico

Mexico occupies the 34th position in the international gender gap ranking of 156 countries. In terms of the political empowerment of women, it is ranked 18. However, the data are less encou-
raging regarding female economic participation (position 98), women’s activity in the labor market (129), and wage equity (132) (WEF, 2021).

Female underrepresentation in Mexican university research and teaching staff persists (CARDENAS, 2015; DIDOU & GÉRARD, 2011; HENRY, 2020; IZQUIERDO & ATRISTAN, 2019; MENDIETA-RAMÍREZ, 2015; ORDORIKA, 2015). In 1984, when the Mexican Research National System (SNI) was created, only 20.41% of all registered researchers were women; in 2019, this rate was 37% (IZQUIERDO & ATRISTAN, 2019). Most female SNI researchers are concentrated in the two lowest levels of the professional hierarchy (CARDENAS, 2015; IZQUIERDO & ATRISTAN, 2019; MENDIETA-RAMÍREZ, 2015). Women are not the majority in any scientific area of the SNI, but they are better represented in the humanities and social/behavioral sciences (48.4%), medicine and health sciences (43.2%), and biology and chemistry (40.5%), in contrast to physics, mathematics, and earth sciences (18.2%) or engineering (19%) (CARDENAS, 2015).

Academic positions with the highest decision-making hierarchy are occupied mainly by males in Mexico (ORDORIKA, 2015). For example, in the National Autonomous University of Mexico, female academics account for 42.2% of the total teaching staff but only 26.9% of those in higher positions (BUQUET et al., 2013; ORDORIKA, 2015). In 2015, of the 180 entities that belong to the National Association of Universities and Institutions of Higher Education of Mexico, only 20 were headed by female rectors/directors (ORDORIKA, op. cit.). Seventy-six percent of the Mexican Academy of Sciences members are men (HENRY, 2020).

The unequal distribution by gender in the hierarchies within universities and academic institutions correlates with the higher incidence of violence against women in these settings (BUQUET et al., 2013; MENDIETA-RAMÍREZ, 2015; ORDORIKA, 2015). Buquet et al. (2013) and Mendoza and Soriano (2009) evidenced systematic behaviors of belittling, discrediting, multiple harassment, and bullying against these professionals. Among the factors that prevent curbing these circumstances are: 1) a lack of support and defense networks against violence; 2) the absence of protocols for cases of discrimination/aggression; 3) lack of access and representation of women in scientific committees and university policy decisions; and 4) lack of public policies that make female scientific work visible (MENDIETA-RAMÍREZ, 2015). In addition, the recurrence of "unwritten criteria of exclusion of women" in the decision-making processes of "research institutes and centers to which they are attached" and "gender discrimination mechanisms to intervene in editorial, arbitration, and scientific committees of academic journals with high impact levels" (MENDIETA-RAMÍREZ, op. cit., p. 85).

All this is magnified among female academics who are mothers due to the lack of support for the reconciliation of tasks: "family limitations" induce them "to abandon their careers" due to the "lack of support mechanisms" (ibid.). Mexican female academics spend an average of 28.5 hours per week on caregiving, while men spend 10 hours (BUQUET et al., 2013). Scientific career progression raises demands for writing, teaching, research, continuing education, and internationalization (FLORES et al., 2017). These activities require a lot of invested time: given their reproductive overload, female academics do not meet these standards, having to invest more years in progressing at each stage. Women take 10 to 12 years to move from the first to the second level of the SNI, while men take four to 10 (BUQUET et al., op. cit.). Discrimination, violence, and the overload of Mexican female researchers have repercussions on their physical and mental health (FLORES et al., op. cit.).

Brazil

According to the WEF (2021), Brazil ranks 93rd out of 156 countries in the world gender gap ranking. In labor participation, it ranks 89th, and in educational level, 37th. However, it ranks 108th in health, life expectancy, and political empowerment. In terms of wage equity between men and women, it ranks 126th, affecting the professional facts of female scientists.
The broad area called "social sciences" by the Brazilian National Council for Scientific and Technological Development (CNPq)\(^7\) includes political science, international relations, sociology, anthropology, and archeology. In this area, we find the highest proportion of professional female presence in Brazilian universities: 42.1% against 57.9% men (National Association of Graduate Studies and Research in Social Sciences – ANPOCS\(^7\), 2019). That statistic is more worrying if we observe that women have higher participation rates as students: they account for 55.23% of master’s degree quotas and 57.88% of doctoral allocations in human and social sciences (BOECHAT, 2020).

CNPq (2016) states that the distribution of researchers by sex and age shows that the percentage of female researchers decreases as they advance in their life cycle; there is no parallel pattern in male trajectories. Women are also less represented in teaching and scientific leadership positions. In 2014, 54% of leadership positions were held by male researchers, compared to 46% of women (Id., 2016). Female academics are also underrepresented in the leading national research promotion agencies. From 1961 to 2017, men held 100% of the CNPq’s presidential positions, while from 1952 to 2017, they accounted for 85% of the presidential posts in the Coordination of Improvement of Higher Education Personnel (CAPES)\(^8\) (BOECHAT, 2020). In 2017, the higher councils of these funding agencies had 42.85% and 15.78% female representation, respectively, and in 2018, only 29% of rector in federal universities were women (Ibid.).

Likewise, male researchers are the primary recipients of scientific productivity grants: they receive 64.6% of the stipends, compared to 35.3% awarded to women. This gap widens for grants at the highest scientific /productive level, which reaches 74% for males (BOECHAT, 2020). The study conducted by Elsevier (2020) for the 2014-2018 period showed that women in Brazil appeared less often as corresponding authors. In addition, they presented a higher annual rate of decline in their publications than men: their writings tended to become scarcer as they progressed in their academic trajectory.

Argentina

As explained by WEF (2021), Argentina ranks 35th in the international gender gap ranking of 156 countries. This placement should be read cautiously, as it shows the persistence of inequality patterns when disaggregated by area. Although the country is ranked 48th regarding women’s educational level, health, and life expectancy, it is ranked 103rd in female labor participation and 117th in terms of wage equality.

In the country, 22.57% of researchers work in the Social Sciences and Humanities (SSH), the third most significant area of knowledge among the five registered by the National Council for Scientific and Technical Research (CONICET). However, SSH has the lowest proportion of researchers (34.5%) at the highest hierarchical level of CONICET (BEIGEL AND GALLARDO, 2021).

In 2020, women surpassed men in the number of researchers in this institution: 54% versus 46% (CONICET, 2020), with the highest entries in biological and health sciences (64%) and SSH (60%) (BEIGEL AND GALLARDO, op. cit.). However, as CONICET explains, female participation decreases as one moves up the hierarchy of research positions: in the first category: “assistant,” women account for 61%. This rate decreases progressively in the other ranks: “adjunct” (56%), “independent” (49%), principal (42%), and senior (25%). Women are the majority among doctoral (60%) and postdoctoral (59%) grant winners funded by the Council. In addition, female participation among grantees confirms the trends of concentration in certain areas of knowledge: women are the majority in the biological and health sciences (68%) and the social sciences and humanities (63%) (Ibid.).

Despite the high numbers of female researchers, they are underrepresented in senior academic positions and science and technology bodies. In the Disciplinary Commission of Social Sciences and Humanities of CONICET, we fou-
nd 80 male and ten female evaluators (2020). Women account for only 40% of the members of the Merit Rating Board and three out of nine members of CONICET’s board of directors (BEIGEL AND GALLARDO, 2021). Women direct only 25% of the research centers linked to CONICET and 14% of the Scientific and Technological Centers (PECHENY, 2020).

According to Elsevier (2020), Argentina is among the countries closest to gender parity in scientific publications; however, it is necessary to analyze this data when disaggregated. The publisher also found that female researchers in Argentina were less likely to write and that their work became scarcer over time because they had higher rates of decline each year than men. In the complete corpus of CONICET’s publications, up to February 2020, men published more scientific articles than women: on average, 37 articles versus 28 (BEIGEL AND GALLARDO, 2021). Male researchers in the social sciences and humanities lead over women regarding the average number of publications in all areas (Ibid.).

Final Reflections

In this article, we saw that the way science is done historically reproduces the exclusion of women. This is due to the persistent adherence to classical scientific epistemologies and androcentric biases regarding neutrality and rationality. Thus, it alludes to the persistence of patriarchy in the academy and its new configurations with the advance of the neoliberal system of scientific productivity. The patriarchal division of labor in university teaching and research institutions prevents women from having time to do research. They are the ones who look after the students, coordinate programs, and teach more classes: they spend less time in their days on tasks that allow them to add productivity points (such as index publications or research projects). They are also generally overloaded by the exercise of care in their own families, which makes their burden exponential. With the implementation of standard productivity measures of the neoliberal international scientific system, the female over-load of care leads directly to the female labor lag. Women take much longer to achieve the necessary scores to progress in academia. These deepen stereotypes according to which they are “less” rational or productive and, therefore, “less scientific.”

From these aspects, the issues addressed allow for several reflections on the subordinate place that women occupy in the social sciences internationally and in the four countries in our sample. For our purposes here, we would like to highlight four.

First, the literature reviewed suggests that the reproduction of gender inequalities in the spaces of professional practice in the social sciences of Chile, Mexico, Brazil, and Argentina is linked to the naturalization of androcentric symbolisms and masculine domination. This naturalization is intersectional (intertwined with racial, ethnic, class, and age discrimination) and is uncritically assumed as a constitutive form of scientific knowledge and social thought. This dimension is difficult to identify because, among other things, the instruments adopted by the States of the four countries to measure the realities of their scientific and university spaces are not designed to contemplate said intersectionality. Thus, our review also contributes to the debate on the absence of mechanisms to diagnose the specific problems that academic women go through when they suffer, at the same time, processes of ethnic-racial and class discrimination. Returning to Crenshaw’s (2002) debate summarized in the theoretical section of the text, the underinclusion of black and indigenous women in the academy of the four sample countries begins with the invisibilization of their specific realities.

The peculiar inability to unravel these naturalizations—in a professional field that denounces these problems in society as a whole—is influenced by three mechanisms. On the one hand, the silencing of women’s difficulties is due to the persistence of a discursive taboo that prevents addressing these realities as a public, community, and political problem. On the other hand, because of the logic of academic distinction and presti-
women who complain see their possibilities of promotion and recognition in the workplace even more diminished. Finally, because of the lack of gender parity in management and decision-making positions, women’s perspectives on relations and problems could gain institutional importance if they were represented in these spaces.

Second, there is much more gender violence and inequalities in academia than the community is willing to acknowledge. The refusal to attribute these problems has epistemic consequences for the social sciences: it assumes that these academic communities are articulating themselves contrary to some of the basic principles of social research. For example, they reproduce in their everyday life the inability to denaturalize relationships, symbolisms, and moralities and elaborate self-critical visions of behaviors and social links in this professional environment.

Third, academia in the social sciences of the four countries is based on the patriarchal constructions of the public/private dichotomies and the division of social labor that pushes women into a naturalized position as caregivers. Thus, there is an implicit reproduction of the broader social logic of overexploitation, undervaluation, and expropriation of women’s work (productive, reproductive, and care).

Fourth, women’s response to the inequalities and violence they live in as academics has dialectical dimensions. They resist these relations while reproducing some (or several) of their aspects simultaneously. This implies, for example, that female scholars who are outstanding social-political protagonists in the struggle for women’s rights sometimes also reproduce naturalized patterns of gender inequality in their professional performance. The depatriarchization of relations in social science requires a profound intersubjective rethinking of the social divisions of labor and distinction in academia and the links, relationships, emotions, and symbolisms involved in women’s professional practice.

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