Gender inequalities in the scientific subfield of communication: the glass ceiling in the backyard[a]

Desigualdades de gênero no subcampo científico da comunicação: o teto de vidro no quintal

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ABSTRACT

This paper addresses the gender inequalities in the constitution of the scientific subfield of communication in Brazil, based on a mapping directed at Communication Graduate Programs, Research Productivity Grants, Institutions, and scientific journals. At first, we present a panorama of feminist epistemologies and the issue of gender in science. Then, the dynamics proper to the (re)production of gender inequalities in the scientific subfield of communication are discussed based on the axes selected. We conclude that female researchers have lower participation on the highest levels of academic careers. This fact suggests the existence of a *ceiling glass, as* identified on other fields of knowledge.
Keywords: Feminist epistemologies, communication field, gender

RESUMO

Este artigo aborda as desigualdades de gênero no subcampo científico da comunicação no Brasil, a partir de um mapeamento direcionado aos Programas de Pós-Graduação em Comunicação, às Bolsas de Produtividade em Pesquisa, às entidades e aos periódicos científicos. Apresentamos inicialmente um panorama das epistemologias feministas e a questão de gênero na ciência. Em seguida, são abordadas as dinâmicas próprias de (re)produção das desigualdades de gênero no subcampo científico da comunicação, a partir dos eixos selecionados. Conclui-se que as pesquisadoras possuem menor participação nos âmbitos mais elevados da carreira acadêmica, o que sugere a existência do *teto de vidro*, também identificada em outros campos do conhecimento.
Palavras-chave: Epistemologias feministas, campo da comunicação, gênero

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THE ACCESS OR obstruction of women to the development of scientific careers is a subject that has mobilized scholars from various areas and latitudes. In a way, the discussion follows the spread of feminist perspectives on science, whose questions lie on themes sensitive to how knowledge is produced, considered, and valued. Among the discussions, mentions of the barriers encountered by women in the scientific career are recurrent and discussed via statistical analyses, qualitative approaches, and bibliographic surveys[1].

[1] Such as Olinto (2011); Moschkovich (2013); Costa and Sardenberg (2002); Souza Surnami (2020); Taborda and Engerroff (2017); Rosser (2004); González Ramos (2018); Tang (1997); and Sinha and Sinha (2011).

The relief attributed to this discussion results from the opacity of the phenomenon. By gathering the data on hand, an observer could conclude that there would not be much to discuss in the current context, in which women, in the face of historical, social, and political processes, acquired greater representativeness in science and in which there are, at the limit, formal impediments to their insertion. An impression that would become sharper if one looked at data originated in the social sciences, in which female researchers are not infrequently the majority (Costa & Feltrin, 2016).

Nevertheless, the restrictions transcribed in inequalities are often not made known by formal mechanisms but subtly. Its configuration has been studied from the idea of vertical segregation: although women will predominate in some areas, the higher the career level (or the more prestigious the spaces), the lower their presence. Even without formal or institutional objections, with access and high training, women are less seen in certain spaces. It is as if an invisible surface, difficult to overcome, prevents them from continuing to advance. A *glass ceiling*[2], historically configured by elements of social, institutional, and subjective order, simultaneously becomes an apparatus for the maintenance and invisibility of inequalities between men and women in academia.

[2] Also known as *techo de cristal* or *teto de vidro*.

The discussion on this opaque barrier has been conducted in several areas, whether they are more distant, such as the exact and health sciences, or in their neighborhood – social sciences and humanities. But it seems like this is a debate still far from our backyard. In fact, the articulations between gender and communication took place, over time, from the themes, research objects, and epistemes woven in the encounter or dispersion between these knowledge matrices (Escosteguy, 2019; Tomazetti, 2020). This relation continues to be woven between theoretical practices and experiences, summoning different epistemological perspectives, such as that of decoloniality (Tavares et al., 2021), or by the intensification of articulations between gender, media, and politics from the feminist movements present on the internet (Sarmento, 2020). Between gaps and advances, the discussion

on gender inequalities constituting the scientific subfield of communication does not seem to have been fruitful. No studies dedicated to this effort were identified, at least if they were systematized in theses, dissertations, and publications in recent journal issues[3] (Haag et al., 2020).

In this context, this article is part of ongoing research[4] discussing the configuration of gender dynamics in this social space in which communicational knowledge is performed. Considering the absence of data to discuss the phenomenon from its own context, we present a mapping[5] focused on some instances: Graduate Programs (PPGs), Productivity Research Grants, Institutions, and publication in journals.

To better locate the proposed debate, it is worth situating our understanding of this scientific subfield, belonging to the academic field of communication, as "a set of higher-level institutions aimed at the study and teaching of communication and where the theory, research, and university training of communication professions are produced" (Lopes, 2003, p. 278), organized into scientific, educational, and professional subfields. The scientific subfield houses the practices of knowledge production. It is the privileged instance of field production, a locus in which its disputes operate with greater strength and will, therefore, be our object of analysis. The notion of field invites us to think of conflict as constitutive of its structuring, considering that this space is both a field of forces and a field of struggle that seeks to transform it (Bourdieu, 1983). In each specific social field, these disputes are manifested through different power relations, in their historically situated hierarchies and constructions. This is what Londa Schiebinger (2001) characterizes as scientific culture: "Despite claims of value neutrality, sciences have identifiable cultures whose customs and ways of thinking have developed over time" (p. 139), which are marked by gendered practices.

Bearing in mind the polysemy that circumscribes the concept of gender in the field of feminist studies, we place it in our research from the perspective of an analytical category and therefore, relational, crossed by a symbolic production and sociohistorical configurations (Bonetti, 2011). Thus, we start from the definition of Joan Scott (1995), for whom gender is both a "constitutive element of social relations, based on perceived differences between the sexes" and a "primary way of giving meaning to power relations" (p. 86). This approach makes it possible for us to observe how the configurations of activities, logics, hierarchies, and recognitions between the subjects that constitute the scientific subfield of communication are crossed by power relations articulated by gender.

At first, we indicate the broader panorama of the discussions on feminist epistemologies and the issue of gender in science in which this text is situated.

[3] In another area of the history of sciences, it is important to highlight the rescue of the female presence in the production of communication knowledge in the recent project by Maria Cristina Gobbi, aimed at rescuing the contribution of women to Latin American communication studies, and the recent contribution by Escosteguy (2020).

[4] Project "To be a woman and to be a researcher in the field of communication: between social roles and inequalities in the sphere of work and academic productivity."

[5] We thank scholars Antônia Haag, Gabriela Habckost, Giovanna Parise, Julia Guima, Julia Perez, Karoline Costa, Laura Raupp, Nathalia Brum, and Thainá Gremes for their work of collecting and describing the data and for constituting themselves as the first interlocutors of the analysis presented herein.

A necessary movement to enter the dynamics of (re)production of gender inequalities in the scientific subfield is discussed below. We further elaborated on this scenario in relation to the scientific subfield of communication from the selected axes.

FEMINIST EPISTEMOLOGY AND THE ISSUE OF GENDER IN SCIENCE

In the context of our research, we start from the understanding that scientific production is a social construction (Velho & León, 1998) and, therefore, is culturally and historically situated. The development of science is crossed by interests and tensions which, as a general rule, make a hierarchical logic prevail which sustains dominant ways of seeing/understanding the world as well as valuing what should/deserves to be investigated.

The relation established between science and the notion of truth (which would be achieved by transparent and objective criteria to observe the studied phenomena) is, in fact, a version which presents itself as unique and universal to support the point of view of those holding power. To ensure its validity without manifesting major contradictions, the precepts that historically and socially establish what is meant by science are based on the concept of rationality. Therefore, they oppose subjectivity and multiple experiences and interpretations which could be raised from a scenario or an object of analysis.

The construction of this dichotomy between rationality and subjectivity supported the inequality between men and women in their ways of operating the social structure and, consequently, scientific logic itself. It is in this context, therefore, that the justifications that separate what is "scientific" from "unscientific" – including the "natural,"" the "cultural,"" and "political" – have been strengthened. The idea of the neutrality and universality of science protects the interest of shaping a broader social order in the expectation of not opening space for dissenting knowledge and voices. Thus, the history of science was conducted from a hegemonic epistemic model located temporally, spatially, and socially, reflecting the interests and values of the group that produced it and benefited from the structure of the colonial, patriarchal, capitalist, and racist domination developed in the eighteenth century: they are mostly white, Western, and bourgeois men (Góes, 2019, p. 2).

Thus, it is understood that legitimate/universal knowledge was built and recognized "by academic and scientific institutions as the knowledge of that area – based on the marginalization of several great Others whose perspectives may, when incorporated, actually change ... the constitution of disciplinary

fields" (Adelman, 2016, p. 94). The understanding of a plurality of these Others, which does not hold the privileges of the dominant group, scales the various crossings that formulate conditions of oppression and inequality, leading to the need for an intersectional perspective to observe the various realities from which women, in the scope of interest of this text, were neglected and excluded from the history of the sciences.

Based on questions raised by feminist thinkers, it was only in the twentieth century that new spaces were occupied in the expectation of destabilizing the masculinist logic of conceiving and legitimizing the universal history of men.

> In the links between genders, the search for isonomy and recognition of differences between women and men only achieve meaning and factual importance due to the tireless struggles of feminism in history. As a voice that stitches and dignifies the various social and political voices, feminism emerges as the great echo modifying the ways of being of human behaviors in society, refuting false moral postures, assumed as universal when they only manifest the latent desire for a vile permanence in power. (Santos, 2016, p. 131)

The reflection on the engendering of gender issues in the scientific field, based on the contribution of feminist thinking, allowed the appropriation of experiences that consider the social and historical context of scientific practice, the position of the subject of those who observe, and the relations established with the investigated phenomenon. This epistemological perspective is invested with a challenge to stimulate analyses that value situationality and, therefore, can favor more divergences and multiple looks than consensus (Góes, 2019).

Thus, criticisms of the masculinist model of knowledge production present different possibilities of analysis and action for deconstructing hegemonic science. Objectivity is not simply refuted or placed in opposition to subjectivity. As an establishment of possible (and sometimes necessary) criteria or parameters, objectivity can be seen as a critical process of subjectivity (Góes, 2019, p. 3). In this regard, the views of groups occupying a subordinate position (the "Others") are considered fundamental: since they are free from the artifices of power, they can reflect more broadly and critically on the processes of domination (Adelman, 2016, p. 94).

It is in this context that gender studies propose to replace the scientific perspective of the *abstract* universal (not open to diversity) with the notion of a *concrete* universal, based on the communication of *situated* individuals. It challenges the single point of view and the single voice and proposes to replace

them with narratives that contemplate multiple voices, built in cooperation but also in contradiction and opposition (Löwy, 2000, pp. 31-32)

> If we define science as a subjective and situated activity, the members of the dominated groups who want to achieve a status of subject of knowledge no longer need to choose between two symmetrically fearful possibilities: the disappearance of their otherness and the renunciation of the ideals of universality, rationality, or objectivity of knowledge. A "situated science" can pave the way for another definition of objectivity and universality – a definition that includes passion, criticism, contestation, solidarity, and responsibility. (Löwy, 2000, p. 38)

The inclusion of the feminist perspective in the history of the sciences is, therefore, a claim that extends from the effective participation of women in the field to the movements of resistance to hegemonic knowledge and defense of multiple, engaged, and situated knowledge. These are dynamics maintained in the epistemological sphere and in the problematization of the logics of production and legitimation of scientific knowledge.

Thus, we expect to reflect on what the data says about the field of communication and how they can mirror the experience of female researchers both with regard to the development of their careers and the recognition of their positions. We understand that it is also crucial to think , from analytical parameters that filter and cross the available numbers as the field of communication consolidates and authorizes their trajectories, if it is open to the plurality of voices and knowledge, as the feminist perspective claims when relating gender and science.

GENDER INEQUALITIES IN THE SCIENTIFIC SUBFIELD, NUMBERS, AND DETAILS

Despite the persistent difficulty of women's access to certain social spaces (labor market, political participation, and leadership positions, to name a few), they are the ones who take the lead in educational indicators. In universities, the participation of women grew in line with their higher entry into courses, identified since the 1970s. In Graduate Studies, female expressiveness remains the majority among PhDs and Masters in the country. Concerning grants (undergraduate research, Master's, Postdoctoral, among others), women also gain notoriety, even with a narrow margin, with 50.44% (Venturini, 2017).

However, popular wisdom reminds us that the devil is in the details. Or, rather, inequalities. The greater presence of women in university seats

does not necessarily result in equal opportunities. In undergraduate courses, a female concentration persists in certain areas, women show greater expressiveness in courses linked to health, the arts, and the humanities, whereas men mostly occupy the so-called more technical areas (Almeida et al., 2020; Artes, 2017; Barros & Mourão, 2020).

Regarding research grants, there is one strand in which women have a lower incidence: those of Productivity Grants, totaling 36% of those awarded (Venturini, 2017). In these, men predominate at all levels and the disparity increases in higher strata. In 2017, men accounted for 62% of the 30,362 productivity grant holders at the first level of their career (PQ2) and reached 77% of the 4,896 grant holders at the highest levels (PQ1A) (Barros & Silva, 2019). When analyzing the last 10 years, these percentages have no changes or evolution. This indicates a divergent situation regarding the difficulties or possibilities of professional advancement in the scientific career for men and women. In other words, "... women continue to be chronically underrepresented in the scientific career, and their participation declines significantly as one ascends to the higher levels of the academic career" (Velho & Leon, 1998, p. 314).

This last datum reveals the Brazilian context, given that Productivity Grants are linked to researchers working more systematically, that is, who invest their professional trajectories in the scientific subfield. If it reveals inequalities, it can conceal its logic. To do this, one must pay attention to the details.

Why, even if leading educational indicators and holding the majority of university seats, do women not have so much expressiveness in the scientific subfield? A possible answer to this question has been synthesized in the concept of the glass ceiling:

> Even highly qualified women are blocked in their professional ascension by discriminatory practices, family-work conflicts that prevent them from producing as much as men, and by traits of behavior acquired during their socialization process, which would be "unfavorable" to professional success, such as lack of aggression, ambition, etc. (Velho & León, 1998, p. 331)

The glass ceiling, from a feminist perspective, locates the chances and opportunities of women's access in structural terms, not only from individual experiences that can sometimes conceal the dimension or persistence of the phenomenon. It is not an objective mechanism but a subtle and often difficult one to perceive. In a relational key, the glass ceiling focuses on the trajectory of female researchers, especially on their perceptions in terms of

chances, opportunities, and potential. Nora Räthzel (2018) researched why women choose not to apply for higher positions in their academic careers. When comparing the answers given by women in relation to men, she identified that, for them, some reasons are more important, such as the requirements for them to be promoted, the difficulties associated with reconciling their careers with other dimensions of life, and the greater appreciation of factors associated with well-being.

Inseparable from the glass ceiling is the context of academic career development, experienced differently by men and women. Scientists experience tensions of various kinds, from the reconciliation of personal and professional life, the experience of motherhood, and the overload arising from the performance of domestic work, among many other reasons. At the limit, the expectation that women need to be successful in all areas of life "... has effects from both a physical, psychological, and emotional point of view, which deteriorate their personal situation until justifying the resignation of their professional projects"[6] (González Ramos, 2018, p. 41).

This situation is aggravated by the complicity of scientific logic with neoliberal parameters aimed at increasing competitiveness in research centers. Ultimately, the assumption of *scientific excellence* would justify this pressure, which also historically relates to an androcentric work model of time use. This makes the research space often hostile to life with a certain balance between personal demands, well-being, and rest (Revelles-Benavente, 2018) and focuses on the experiences of female researchers. For scientists linked to centers of excellence, this androcentric logic produces additional, albeit often subtle, difficulties of ascension for women:

> Feelings of malaise are ... little expressed but are suggested indirectly when talking about neoliberal logic and the pressure to increase the indicators of scientific production. Scientific discourse justifies all these sacrifices through the passion for research or the desire to solve the problem in which they work (cancer, Alzheimer's, for example). Any contrary force compensates for the demand and working conditions. All difficulties are tolerated since they consider themselves part of a small group of people who do what they like for the collective good. This results in something paradoxical, as situations are accepted limits justified through this discourse of "doing what I like"[7]. (Revelles-Benavente, 2018, p. 90)

The criteria underlying the constitution of scientific "excellence" would often be incompatible with female researchers' dynamics and life experiences.

[6] In the original: "tiene efectos tanto desde el punto de vista físico, como psíquico y emocional, que van deteriorando su situación personal hasta justificar la renuncia de sus proyectos profesionales."

[7] In the original: "Los sentimientos de malestar son poco expresados, pero son sugeridos indirectamente cuando se habla de la lógica neoliberal a la que están sujetos, la incertidumbre e inestabilidad laboral o la presión por incrementar los indicadores de producción científica. El discurso científico justifica todos estos sacrificios a través de la pasión por la investigación o el deseo de resolver el problema em el que trabajan (el cáncer o el Alzheimer, por ejemplo). Toda fuerza contraria compensa la exigencia y las condiciones laborales. Todas las dificultades son toleradas puesto que se considera formando parte de un pequeño grupo de personas minoritárias que hacen lo que les gusta por el bien colectivo. Ello resulta paradójico, pues se aceptan situaciones limites justificadas por medio de ese discurso de 'hacer lo que me gusta'."

Not infrequently, within the scope of the duties of the scientific subfield, it is up to them to deal with tasks considered secondary, in which the requirements and parameterizations around excellence focus less intensely. Nonetheless, not even women who support the parameters of excellence have an equal position because "ambition is judged diametrically differently if a man or a woman exercises it. As in the assessment of the skills of men and women (they [men] are brilliant, they [women] are workers)"[8] (González Ramos, 2018, p. 56).

The observation of the details that underlie the statistics relocates the gender problem in the scientific subfield as a cause and effect of female researchers' possibilities, experiences, and chances of work (Revelles-Benavente, 2018). In other words, it leads to a discussion about the founding structures of this field, norms, and logics that govern scientific institutions. To proceed with the analysis, it is essential to contextualize the dynamics of the specific social space in which the gender issue takes place, that is, to situate it, in our case, in the scientific subfield of communication.

[8] In the original: "La ambición es juzgada de manera diametralmente diferente si es ejercida por un hombre o por una mujer. Como en la evaluación de las competencias de hombres y mujeres (ellos son brillantes, ellas trabajadoras)."

DETAILS AND INEQUALITIES

The exploration of the relations between gender and science in the scientific subfield of communication started, at first, from a mapping directed to the Graduate Programs in communication, Productivity Research Grants (PQ), the entities that configure the field, and scientific journals. The mapping can be appropriated from two keys, an exploratory one, considering the little information we have about how the scientific subfield of communication in its generic dynamics. Although the data that will be shown below are in public domain, its meeting, from the perspective of gender and science, allows us to compose an initial, eminently partial framework of the gender dynamics established in the field.

A second key to understanding the data is a quantitative approach, organized in the perspective of redistribution, that is, focused on analyzing the equity of access to social goods (Artes, 2017). When quantifying them, clues are obtained about the place occupied by women in this social space. An issue linked to the dynamics by recognition is that these places cannot be dissociated from their meanings and historical, cultural, and social matrices.

PPGs in communication are a central instance of the existence of a scientific subfield. Their development boosted what we know and think about communication today in the process of maturation motivated by numerous discussions and internal disputes about the specificities of the communication object, the disciplinary limits of the area, and about what, in fact, is possible to name *Research in Communication*. These training spaces indicate institutional investments in academic research,

a socially recognized and shared sphere of legitimacy that highlights prestigious scientific qualifications, and which issues are relevant to the area.

In the 53 national PPGs in Communication listed on Sucupira (sucupira.capes.gov.br), women assume a modest majority, with 50.1%, that is, they are 436 of the 869 professors working in graduate courses in 2019. The scientific subfield of communication distances itself from the national reality, in which men are the majority, occupying 58% of the teaching staff in PPGs, according to data from CAPES in 2017 (Barros & Silva, 2019). However, it is worth remembering that gender inequalities affect professions linked to areas historically considered to be female in a different manner, as opposed to more technical areas.

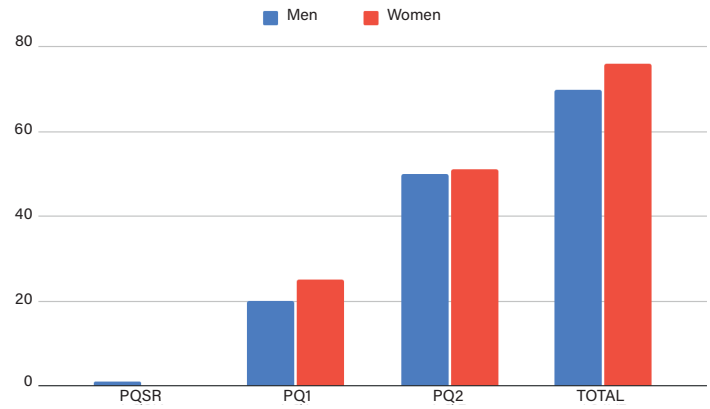
In 2019, the sum of male students totaled 1740 (42.6%) and women, 2341 (57.4%). Both as professors and as students, women predominate. However, there is a significant decrease in amplitude depending on the position occupied. That is, there are more female students in the Graduate courses in communication but it is not in the same proportion that they become part of the teaching staff. Somehow, the glass ceiling seems to interfere with the distribution of chances and the possibility of women's access to these positions.

When analyzing the data from Productivity Research Grants (PQ), the perception about the existence of this symbolic limit, which is more difficult to transpose for female researchers, stands out. It is known that this grant, offered by the National Council for Scientific and Technological Development, linked to the Federal Government, is a central incentive for researchers in the country. The grants are distributed in five levels according to career stage (PQ2, PQ1D, PQ1C, PQ1B, and PQ1A). Beginning researchers are contemplated with the PQ2 grant and can ascend throughout their trajectories, although the distribution of opportunities does not include all prominent researchers in their areas (Barros & Silva, 2019).

Within the area "Arts, Information Science, and Communication,"" 147 researchers were identified with grants in the scientific subfield of communication (Figure 1) in 2021, divided into different categories and levels. There are 45 PQ1 and 101 PQ2 Grant Holders, in addition to 1 Senior PQ Grant Holder. Women are the majority among PQ1 grant holders. They are 55% (25 female researchers out of a total of 45) and practically tie at the PQ2 level, with 50.4% (51 female researchers out of a total of 101):

Figure 1

Distribution of PQ researchers by sex, according to grant levels



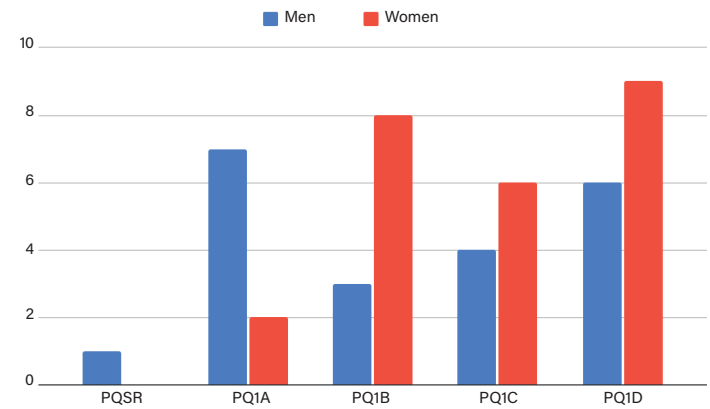
Note. Prepared by the authors.

In a broader perspective, the distribution of grants in communication is in line with the data that show a predominance of women in the PQ grants linked to the Humanities. However, this does not portray the reality of awards in broader terms in the country.

A close look at the distribution of grants at the PQ1A level (Figure 2) reveals that the higher proportion of women does not mean, however, access to its higher levels:

Figure 2

Distribution of PQ researchers by sex, according to the categories at the Senior and PQ1 levels



Note. Prepared by the authors.

Men are more representative in the PQ1A and Senior PQ categories. A framework, again, similar to that existing in the humanities, in which women become a minority at the highest level of grants (Barros & Mourão, 2020). The distribution of these scholarships in the scientific subfield of communication suggests the maintenance of the glass ceiling, observed in other areas of knowledge (Barros & Mourão, 2020; Martin-Palomino, 2018; Velho & Leon, 1998). That is, it alludes to the subtle, informal obstacles that make it difficult for women to ascend in their careers. Their late entry into the research universe is one of the possible explanations for this phenomenon, considering that reaching the highest levels of Productivity Grants requires dedication for decades (Barros & Mourão, 2020). Nonetheless, it is not a self-explanatory condition, as the delay to enter the prestigious circles of scientific production is made of similar matter of the reasons why the glass ceiling is still identified in the scientific field, interwoven in hegemonic logics historically built on the constitution of knowledge, with their epistemes, looks in relation to the subject, and their own modalities of legitimation (Adelman, 2016).

The analysis of gender relations in positions in the Board of Directors of associations in the field of communication is supported by the idea that specific institutional spaces represent the voices that are authorized and legitimized to represent the area and guide and objectify collective interests. The nominations for these positions include the evaluation of recognized attribute pairs, such as leadership posture, competence, and authority. In the realm of science, in general, men historically occupied these spaces.

For Esther Martin-Palomino (2018), besides the dynamics that make it impossible for women to access positions of power, it is essential to consider how much social capital limits female participation in the academic sphere. From this perspective, men indicate and support themselves to remain in the decision-making instances. From this perspective, support networks are key in supporting and promoting self-confidence and more opportunities. Women have limited access to academic careers due to homosociality. It keeps more women from being in decision-making positions. The effect of these networks formed only by men is the reinforcement of gender stereotypes and the devaluation of women, who are ignored as part of another group (Martin-Palomino, 2016, p. 139).

Our analysis was directed to two representative entities of general scope, the National Association of Graduate Programs in Communication (COMPÓS) and the Brazilian Society for the Interdisciplinary Studies in Communication (INTERCOM) and four specific associations of large areas

of the field: the Brazilian Association of Researchers in Journalism (SBPJor), the Brazilian Association of Researchers in Organizational Communication and Public Relations (ABRAPCORP), the Brazilian Association of Researchers in Advertising (ABP2), and the Brazilian Society for Cinema and Audiovisual Studies (SOCINE)[9]. Data were collected from the official websites of these associations and our focus was to map the members of the board of directors from a temporal perspective.

Currently, the board of directors of COMPÓS (2021-2022 term) is composed of three women (president, vice-president, and treasurer) and two men (general secretary and scientific director). The information on the website about the previous terms does not indicate the names of the treasurers and scientific directors; only the presidents, vice-presidents, and general secretaries' are available. Between 1991 and 2020, of the 16 boards that headed COMPÓS, we found a total of 31 men and 20 women, eight times the female positions reserved for general secretary, a function that is admittedly operational, supportive, and culturally associated with women. To date, only three women have held the highest office in the hierarchy and were presidents of the Association.

Considering that COMPÓS is one of the main representative associations of the scientific subfield of communication (since it brings together the PPGs), the history of the composition of its Board of Directors is a very interesting mirror to think about the consolidation process of leaderships. If women are the majority in the group of researchers accredited to the Graduate Programs in the country, what makes their participation in the board of directors of COMPÓS historically unequal? The scenario refers to a statement by Ana González Ramos (2018), for whom "theoretically, job opportunities of men and women will be identical but the statistical data show a different reality: very few women can ... obtain scientific leadership positions"[10] (p. 44).

The reasons for this obstruction are diverse. They can be both in the dynamics of recognition and in the relations of the scientific field itself, as well as in the maintenance of social roles supported by the patriarchy that demand from women an additional effort to reconcile professional career expectations with dimensions of personal life (Räthzel, 2018).

When analyzing the context of leadership positions at INTERCOM, the data suggest a similar situation. INTERCOM is the oldest national entity in the field of communication (having been founded in 1977) and its first board of directors was inaugurated in 1979. The information available on the website appoints the board of directors' members in 18 terms, with a noticeable variation in positions throughout the period and, therefore,

[9] Considering the exploratory nature that guided our analytical path, we chose to analyze associations and institutions whose scope comprehensively included different epistemological perspectives and disciplinary interests in the scientific subfield of communication in the country. Organizations linked to historically consolidated disciplinary areas were also considered. However, we recognize that our mapping does not include associations and entities that have representation in the scientific subfield and whose analysis would help us to understand the engendering of gender in specific areas, such as the Brazilian Association of Researchers in Communication and Politics (COMPOLITICA), the Brazilian Association of Researchers in Ciberculture (ABCIBER), and Rede Alcar, which may be addressed in future works.

[10] In the original: "Teóricamente, las oportunidades laborales de hombres y mujeres serían idénticas, pero los datos estadísticos muestran una realidad diferente: muy pocas mujeres consiguen ... obtener posiciones de liderazgo científico."

also changing the number of participants in each edition. In 42 years of history, 186 positions on the board of directors of the association[11] were counted, 98 held by men and 88 by women.

[11] Fiscal councils are not included in the analysis.

In this period, INTERCOM was led 11 times by a man and seven times by a woman. In the analyzed scenario, it is interesting to note that, among 18 boards, the group was mostly male 12 times. In only two editions, the number of managers was equivalent between men and women; for four terms, the board was predominantly female (1991-1993; 1995-1997; 2002-2005; 2014-2017).

We point out a relevant fact: in the four boards of INTERCOM with a female majority, their president was a woman. We emphasize, therefore, the importance of support networks among women as resources

> essential to increase the number of women in positions of relevance and, perhaps, as an element of resistance to patriarchal interests at all levels of society ... would be an instrument of facilitation and according to the positions that presuppose success in professional trajectories[12]. (Martín-Palomino, 2018, p. 134)

[12] In the original: "esenciales para aumentar el número de mujeres en posiciones de relevancia y, tal vez, como un elemento de resistencia a los intereses patriarcales presentes en todos los niveles de la sociedad ... un instrumento de facilitación, y de acceso a las posiciones que suponen el éxito en las trayectorias profesionales."

The boards of directors of associations specific to major areas (journalism, advertising, public relations, and cinema) show a slightly more equitable situation concerning the female representation in their staff. Founded in 2003, SBPJor has an executive board composed of five members. During the nine terms registered so far, 29 female advisors and 16 male advisors were part of the group. Despite most women on the staff, a woman held the president's office only four times.

Within the scope of SOCINE, a total of eight boards, elected to manage the entity since 2005, were registered. Although the total number of leaders is close (16 men and 18 women), the highest rank is held predominantly by men. In total, there were five male SOCINE presidents and three female presidents. The Brazilian Association of Researchers in Advertising is the most recent institution, founded in 2010. Since then, the entity has set up four boards (chaired twice by a man and twice by a woman), totaling 44 positions, which were occupied 34 times by men and 10 times by women.

The Brazilian Association of Organizational Communication and Public Relations Researchers is an exception to the other contexts analyzed in this scope. With its boards elected since 2006, the entity has chosen a female president for seven terms and had only one male president. The predominance of women also remains among board members: women occupy almost three times more seats on the board than men throughout its history: 36 female advisors and 13 male ones. The deviation found in ABRAPCORP, compared to other entities, can be

weighed from a specificity in Public Relations: according to research published by the Federal Council of Public Relations in 2009, 80% of the professionals active in the market at the time were women.

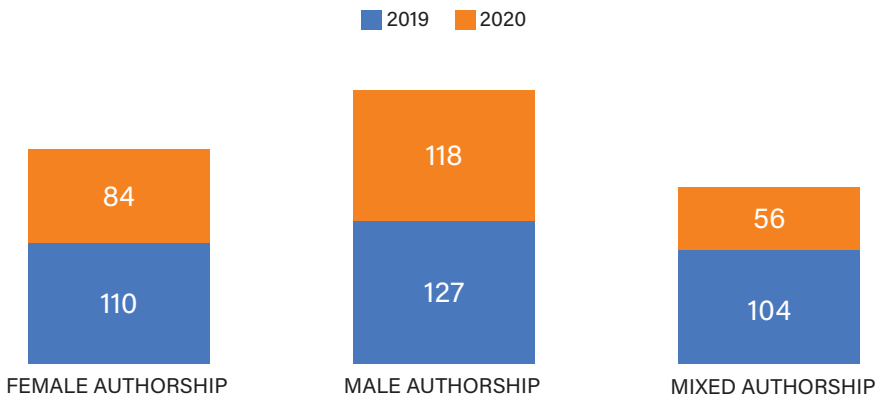
The last indicator catalogued to reflect on gendered relations within the scope of communication was academic production, based on the criteria of valuation of the scientific field itself. In this context, we have the publication of journal articles as one of the main parameters to account for and measure scientific excellence, with Qualis/CAPES as the reference ranking system in Brazil to qualitatively conceptualize the production of researchers.

Thus, we selected seven national journals of stratum A2[13] which are directly related to the discussions undertaken in the field of communication: *Comunicação, Mídia e Consumo*; *Chasqui*; *E-Compós*; *Famecos*; *Galáxia*; *MATRIZes*, and *Intercom*. The data referring to the 2019 and 2020 editions were systematized. At first, the texts were separated between exclusive female authorship (individual or collective); exclusive male authorship (individual or collective), and mixed authorship (a partnership between male and female authors). The data can be seen in the figure below (Figure 3).

[13] The classification refers to the Qualis-CAPES 2013-2016, an indicator which was in effect during the data collection period.

Figure 3

Authorship of A2 journal articles by sex in 2019/2020



Note. Prepared by the authors.

Among the 341 articles published in 2019, 127 had an exclusively male authorship (37.2%), 110 had an exclusively female authorship, (32.3%), and 104 were written by a mixed authorship (30.5%). In 2020, the collection recorded 258 articles. The predominance of articles written by men

significantly increased, with 45.7% of the total (118 texts). The articles written by women maintained a similar index to the previous year, 32.5% (84 texts), and the texts written in mixed partnerships decreased, representing 21.8% of the total (56 texts).

Before analyzing the proportionality of authorship according to sex, it is essential to consider that the Coronavirus pandemic in 2020 significantly impacted the personal and professional lives of the entire society, including the academic community. Thus, the reduction of 25% in the number of articles published, compared to the previous year, is justified.

The Increase in the production of articles among men during the pandemic is an example that can reveal gender inequalities in the scientific field. A national survey by the Parent in Science (PiS) movement pointed out that the submission of articles among men remained unchanged or even grew during social isolation. The data are inversely proportional compared to the women's report, which stated that the pandemic greatly impacted meeting deadlines for notices and article submissions. This difference is explained by the practical and emotional demands related to care and family organization assumed by women. Also, according to the PiS report, the discrepancy increases according to the parenting relationship (weighting the presence and age of the children), race, and career time.

Another survey carried out by PiS between 2017 and 2018, which interviewed 2186 Brazilian scientists, points out that this discrepancy in productivity between researching fathers and mothers is historical (Machado et al., 2019). Considering the average number of articles published among the respondent group, taking the birth of children as a starting point, women have substantially reduced their scientific production for at least four years, while there is no difference in publication data between scientists who are fathers. The consequences of this reduction in production among scientific mothers are little (or almost not at all) discussed by the Brazilian academic community, which maintains indistinct evaluation parameters for women after motherhood. This is directly reflected in their unequal access to selection processes (such as scholarships and public contests), which disregard these gender variables through parenthood in the academic career.

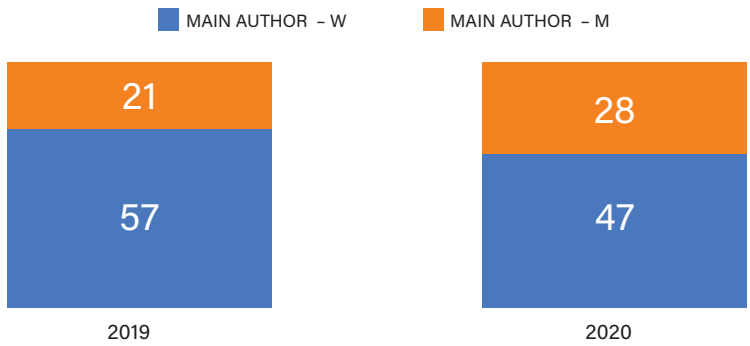
The finding of variations in the results considered parameters of excellence in scientific production and raised a reflection on the adoption of criteria that do not distinguish structural inequalities. For González Ramos (2018), "... a fair assessment of the merits and efforts made by women (as well as other people in situations of vulnerability) requires considering the individual and social factors that affect their decisions and the achievement of socially recognized achievements" (p. 46).

What is observed in our mapping, in addition to this variation in the pandemic period, is the trend of greater exclusive male publication in the highest-ranked journals in communication. This result, besides the very parameter that focuses/synthesizes the notion of scientific excellence based on the number of articles and the impact factor, refers to an autonomous and competitive academic ideal. This model, which is based on a neoliberal logic, tends to ignore or reduce the value and need for the care and sustainability of life (Carpintero, 2018, pp. 176-179) as if personal and professional trajectories could be completely different and unmarked by a social, cultural, and historical structure. We want to point out, therefore, that the largest production of articles in qualified journals is not simply a matter of merit/competence but also availability and dedication which, in many cases, when observed through the lenses of gender, encounters barriers that are imposed by the cultural and social dynamics of the private life of each agent.

Continuing our analysis, we dedicated ourselves to observing the articles of mixed authorship (Figure 4) to verify how the main authors of the texts were configured (traditionally allocated as the first name of the list).

Figure 4

Main authorship in mixed articles, A2 journals, in 2019/2020, divided by sex.



Note. Prepared by the authors.

It is noticeable that the writing partnership between men and women decreased by almost 50% between 2019 and 2020, possibly related to the issue of productivity during the pandemic mentioned earlier. However, another aspect stands out from these data: women tend to dedicate themselves more to collective work than men, configuring 83% of the main authors in mixed articles in 2019 and 62% in 2020.

In this scenario, it is interesting to resume the thought of Nora Räthzel (2018) when she analyzed that academia structurally treats the chances and opportunities of female and male researchers differently. Thus "... the actions of women and men have different consequences, and their results are awarded/received differently"[14] (p. 126), especially when they are more dedicated to conducting collective work.

[14]In the original: "las acciones de las mujeres y los hombres tienen consecuencias diferentes, y que sus logros son premiados/recibidos de manera diferente."

Female participation in operational tasks, necessary for the functioning of the logic of academic production, can also be considered from the editorial function of scientific journals. Among the seven A2 journals analyzed, women are the majority occupying these editing positions. In this regard, we believe it is pertinent to point out the possible prestige associated with the role of the editor of a scientific journal. Nevertheless, observing the data in light of the productivist account which measures what has value in academia, we understand it is crucial to emphasize how much this activity, which focuses on the collective and qualitative functioning of the subfield, demands time, is complex, and does not have an[15] estimated recognition equivalent to the publication of texts (mostly by men).

[15]This same discussion on the operational activities for maintaining scientific journals has been made in communication, still without the gender bias, to discuss the discredit given to the function of ad hoc reviewer.

FINAL CONSIDERATIONS

With data put on the table, we have the dimension that quantitative surveys point us to important clues to map how gendered relations are constituted in the scientific subfield of communication. When we address our gaze to observe the gender relations that are established in communication, we seek to advance a discussion that has not yet been made and that, at first, may seem defined since the beginning since we do not – apparently – have a question of numerical representativeness to solve. However, we have in mind that

> ... gender makes a difference to women in science not only because of what they bring with their bodies – and sometimes not even because of what they may bring because of their socialization-, but because of the perception science brings to the community about women as well as about gender – and, in turn, because of what such perceptions bring to the common values of popular scientific disciplines. (Keller, 2006, pp. 29-30)

In the context of PPGs, although women are the majority among students and professors, there is a decrease in female participation among professors. A reduction observed in the distribution of Productivity Research Grants (PQ) as well, especially at higher levels. These data indicate a permanence of the glass

ceiling that hinders female researchers due to historical, structural, and social factors related to the development of the academic career. In rural institutions, there is a significant contribution of women, although often outside the more legitimized presidencies and spaces of power (occupied mainly by men), with a few rare exceptions. However, when they take the lead, especially at INTERCOM, women tend to have more female boards, suggesting the configuration of support networks with one of the estimated resources to occupy these spaces. The configuration of networks by women is also noticeable in the publication of articles. Although men publish more, women captain the works of collective authorship more intensely.

These data are understood in their uniqueness as a portrait of a moment but they must be read in a structural key. If this is not done, we are at risk of individualizing issues and privatizing responsibilities because often "... the role of women is questioned but not the norms that govern scientific institutions or the social norms that keep women in a vulnerable situation"[16] (González Ramos, 2018, p. 43).

Otherwise, although quantitative mapping provides important information, not all answers are available from absolute numbers. It is necessary to cross and weigh them from the notion of situationality. Therefore, "We become cautious with phrases that begin with 'women are…, realizing that the only way to complete such a phrase is to say that women are people, defined by many social variables and that they adapt to the pressures and opportunities they find, and have the resources to do so." (Keller, 2006, p. 30)

What we intend to introduce with our reflection, at this moment, is the key to a debate that we understand needs to be initiated (and, of course, deepened) collectively. This notion of collectivity implies the institutional and individual positions of the agents operating in this subfield, according to the logics and parameters constructed and validated by the group.

On the one hand, we are aware that the gender inequalities exposed here correspond to a broader cultural, social, and historical context than the academic environment itself – which refers to the certainty that its deconstruction is a complex and continuous work. On the other hand, we have in mind that, as researchers in the area of social and human sciences that are based on feminist epistemology, it is a duty to bring to the focus of our own space of action the idea that specific dynamics that foster gender inequality (which we unveil, analyze, and criticize when looking at the "outside") must also be deconstructed, and perhaps first, here, "inside." The panorama we have outlined is presented as a first step. After all,

[16] In the original: "se cuestiona el papel de las mujeres pero no las reglas que rigen las instituciones científicas o las normas sociales que mantienen a las mujeres en situación de vulnerabilidad."

> analyzing the issues related to women in scientific activity is a much more complex task than simply counting heads, titles, and publications and calculating proportions. It is essential to locate the analysis in its context and count on the collaboration of the process participants in interpreting the information. There are so many variables interacting here – area of knowledge, country, type of institution, women's age, luck, creation type – that it is difficult to reach any definitive conclusion about the determinants of scientific production by women, except that it is a social construction. (Velho & León, 1998, p. 344)

From this provocation, we will continue our investigation by listening to agents who daily embody the numbers presented in this text: female researchers. Considering that this is a social construction of which we are part, we understand that it is possible and necessary to resignify, between the most structural parameters and the fabric of experiences, ways of conceiving a scientific production more in line with the different realities of those who produce it. M

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