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Commentary

Science communication herstories: reflecting on the Greek feminist birth control movement of the 1970s and 1980s

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Abstract

For decades, science communication has been occupied with the discussion regarding democracy, equality, equity, inclusion, participation, and engagement in knowledge production and circulation processes and practices. As a continuously flourishing field, its scope has been expanded recently towards the intertwinement, interaction and intersection of the public presence of science, gender and sexuality. This paper aims to contribute to this ongoing discussion, addressing theoretical, methodological and ethical concerns that I faced when conducting research about the sociopolitical aspects of (dis)appearance of knowledge and the multiple communication practices in the case of the Greek feminist birth control movement in the 1970s and 1980s. More specifically, I draw attention to the following points: (1) the question of atypical archives; (2) the question of the concept of the public; and (3) the question of boundaries. Science communication can happen in unexpected places, especially when it is generated by marginalised social groups. The issues addressed indicate the theoretical and methodological awareness needed, and the related possibilities for prioritising inclusion and diversity in science communication. This focus could reveal the rich content of science communication as a

social practice, offering tools for tracing invisible or lost herstories of production and circulation of knowledge from a historical perspective.

Keywords science communication; birth control; gender; feminism; publics and counterpublics; boundaries; science and society

Key messages

- The study of science communication from a historical perspective reveals the role of gender as an internal part of science communication as a social practice.
- The intersection of the feminist aspect with science communication studies provides a theoretical framework based on diversity and inclusion.
- The role of gender reconfigures the relationship between science and society in democratic terms.

Recent years have seen a push for greater inclusion in science communication, and more attention to gender, but there are several methodological challenges, ethical concerns and theoretical considerations for research in this area that we need to discuss further. This expansion of the scope of science communication is apparent in numerous academic events, in research and in agendas. More specifically, in 2018, the University of Rhode Island's Metcalf Institute launched the Inclusive SciComm Symposium to discuss effective approaches for prioritising inclusion, equity and intersectionality in science communication, and, in 2019, the American Association for the Advancement of Science Annual Meeting around the theme of 'Science transcending boundaries' organised the panel 'A feminist agenda for science communication?', focusing on how the feminist approach can contribute to the reconfiguration of science communication.

The ongoing discussion has included a series of commentaries in the Journal of Science Communication under the themes 'The need for feminist approaches to science communication' and 'Neglected spaces in science communication'. This body of knowledge has transformed gender into an analytical category, focused on multiple spaces, communities and contexts of science communication, and has approached gender, feminist and queer studies as methodological tools that provide new explorations in the examination of science communication, both as a field of practice and research, and as a professional discipline.

Lewenstein's emphasis on the need to explore the perspectives that 'a feminist agenda might bring to talking about science communication' (Lewenstein, 2019: 1; Davies et al., 2019), Pérez-Bustos's (2014, 2019) urge to include marginal and neglected experiences in order to develop an alternative ethos of science and to destabilise social imaginaries about science, science communication and social identities, Halpern's (2019) call to explore the intersection of standpoint theory and science communication focusing on the concepts of perspective and subjectivity concerning knowledge production and circulation, and Roberson and Orthia's (2021) attention to the multiple possibilities that queer theory and intersectionality could offer to the field of science communication have already shaped a dynamic theoretical and methodological territory for the deeper analysis of the public presence of science, and the relationship between science and society.

Such an insightful and constantly developing area of study does not conceive gender, feminism and intersectionality as a perspective. Instead, scholars approach them as a type of lens (I borrow the term from an oral discussion with Dr M. Tsilimpounidi) – a way to see, think, know, act – or as a standpoint that opens perspectives for the further exploration of science communication practices and theories, and the relationship between social identities and types of knowledge and expertise. In the history of science community, it is well established that science as a social activity embodies social values, structures and ideologies in its research, theories, practices and institutions. In the field of science communication,

however, there is a need to examine the production and circulation of scientific knowledge with regard to 'forces that go beyond science' (Lewenstein, 2019: 3), such as gender, race, class and power, as well as their intersectionalities (Roberson and Orthia, 2021).

Whether studying the democratic, feminist and/or queer past, or building an inclusive future for science, science communication and the wider society, it is crucial to approach gender and sexuality as an integral part of science communication. Prioritising inclusion and diversity in science communication entails endless possibilities, followed by critical challenges that require our theoretical and methodological awareness. Here, I address such theoretical, methodological and ethical concerns that I faced when conducting research (Chordaki, forthcoming) about the sociopolitical aspects of appearance and disappearance of knowledge, and the multiple communication practices, in the case of the Greek feminist birth control movement during the 1970s and 1980s. These challenges were crucial for my research interest: the exploration of the feminist birth control movement in Greece as a history of a rival form of knowledge, and as an insightful case for the reconfiguration and the reconstruction of the relationship between science and society. A herstory – women's history, or history written from women's perspective (Cambridge Dictionary, 2022) - of science communication that occurred immediately after the fall of Greece's dictatorial regime in 1974 would show how women as a marginalised social group communicated and circulated medical knowledge by placing it in the centre of their political interests, and thus reshaped the relationship between science and society in the era of the democratic transition. It is crucial to note that I approach my case study as a herstory of science communication (instead of health communication), because the spectrum of my actors' communication practices moves from the circulation of knowledge about birth control and the promotion of reproductive rights to the critical analysis of scientific methods and criteria of credibility of scientific knowledge.

Based on my experience and engagement with the intersection of gender and science communication, I specifically draw attention to the following points: (1) the question of atypical archives; (2) the question of the concept of the public; and (3) the question of boundaries. I aim to discuss ethical, methodological and theoretical concerns that can help us explore science communication that occurs in unexpected places, and trace invisible or lost herstories of knowledge production and circulation. More specifically, I focus on our responsibility to enrich the archival collections we study, while respecting the possible sensitive content of the material. Additionally, I highlight the complex character of the notion of the public that results in the visibility of marginalised social groups. Lastly, I discuss the essential role of the grey areas that emerge in classical dichotomies related to science communication, emphasising the embedded social relations.

The question of (atypical) archives

In doing empirical research in science communication, one needs to locate and examine archival collections related to the production and circulation of knowledge. Typically, such archives include those generated by a scientific community, a community of experts, or individual scientists and experts; delivered to scientific publications, publications directly linked to scientific or state institutions, or mass media; including a body of scientific knowledge, accompanied by hard data, theories and methods. Thus, for an archive to be considered typical - widely and unquestionably relevant to science studies - manifestations of visibility regarding the content, the medium and ownership status appear as crucial issues.

For my research, the exclusive examination of the popular, and thus visible, archival material was insufficient. Soon, it was clear that if I wanted to discuss the role of gender and marginal social positions in the production and circulation of knowledge about abortion and contraception, I had to focus on the exploration of less visible archives – feminist magazines, brochures, pamphlets, posters and so on – archives that usually tend to be seen as irrelevant to science studies. In this case, the archival collections were produced by a social movement, were published by subaltern social groups and communities through unofficial publishing practices, and included a body of knowledge that combined scientific and experiential expertise, generated based on the actors' personal and collective needs, desires and interests. As Wilkinson (2021: 1) argues, this phenomenon derives from our tendency to search and locate issues 'that generate the greatest obvious attention ... [instead of] equally important but less visible spaces and subjects'. This call to explore science communication 'beyond typical settings' (Wilkinson, 2021: 1) is essential when we aim to reveal lost herstories in which oppressed and invisible social groups operated as science communicators by developing their own (counter)discourses in multiple forms of expression (Dow and Condit, 2005).

Consequently, working in this area of research, I had to locate those atypical archives in public libraries and, most importantly, in private collections which members of the movement maintained in their houses (for example, the Delfis Archival Center, E. Leontidou's archival collection and the Library on Gender and Equality, all in Athens). Establishing trust relations with the owners and the librarians who have cared for the material throughout the decades, another issue arose - trauma, stigma and the protection of identities. Between three hundred thousand and five hundred thousand illegal abortions took place in Greece every year until abortion was decriminalised in 1986. The more unofficial the archives become, the more intensely personal traumatic experiences they include. The various feminist groups (often autonomous – for example, the Autonomous Women's Movement), the women's organisations (for example, the Union of Greek Women), often linked with political parties, and the individual women who participated in the birth control movement all communicated about abortion and contraception in multiple ways (publications, translations, international networks and channels of communication, exhibitions and so on), aiming to bring an experience previously considered private into the public eye. Nevertheless, trauma and stigma created different levels of sharing, both in that period and today within the context of my research. In that regard, these issues had to be part of my methodology, while at the same time, respectfully, I had to let my historical actors draw the end line of my study, embodying feminist ethics of care between me, as a researcher, them, as the subjects of my research, and the archives, as the object of my research. Hence, it is apparent that archival material is alive because its type and content acquire an active role in the research process.

The question of the concept of the public

Warner (2005: 7) argues that publics are queer creatures. Indeed, as feminist approaches have shown, the public sphere is not a stable category but a complex entity and, thus, the traditional view of the public sphere creates problems of singularity, idealisation, gender, male gaze and universality (Susen, 2011). Multiple scholars of science communication have highlighted the diverse presence of audiences, situated publics, the multiple possibilities of communicating science, and the essential role of focusing on communities in science communication practices (Lewenstein, 2016; Pérez-Bustos, 2014; Orthia et al., 2021).

The emphasis on multiple publics (see Ferre et al., 2002; Loehwing and Motter, 2009; Fraser, 1990; Benson, 2009; Pajnik, 2006; Hawkesworth, 2006; Rendal, 1999) makes possible the exploration of contingencies, accessibility, the multiplicity of standpoints, and the visibility of multiple experiences and identities, as it reconfigures what counts as expertise and knowledge in the service of equality. Moreover, it allows us to decentre hegemonic publics and speakers, to emphasise peripheral or muted voices, and to highlight the importance of diversity and inclusions against participatory deficits and exclusions. Additionally, it broadens the importance of the right to speak with the parallel right to be listened to – what Roberson and Orthia (2021: 5) indicate as 'the right to have a voice and be included in a future', while, at the same time, emphasising the provision of space for the voices and experiences of marginalised people to acquire social relevance in acknowledgement of, and appreciation for, the differences within society (Doroh and Streicher, 2021).

Indeed, this framework enabled me to acknowledge multiple public spheres and counterpublics (for the definition of this term, see Fraser, 1990: 67; Fraser 1995; Loehwing and Motter, 2009; Warner, 2005), which consequently revealed multiple ways through which different social groups communicated about birth control by developing numerous and often contradictory meanings. I had the chance to examine how the press circulated birth control by sharing opinions, arguments and medical information derived from the journalists themselves, women and feminists, the medical community, lawyers, politicians and antichoice supporters. (I have examined articles related to birth control that were published in newspapers and magazines of general interest between 1974 and 1991.) Additionally, I focused on the practices of science communication followed by the religious press, the medical community in textbooks and journals, and the sphere of the politicians that shaped the related laws discussed in detail in parliament (Law 1492/1950 'For the constitutional validity of the Greek Penal Code'; Law 821/1978 'For the removal or transplant of human biological substances'; Law 1609/1986 'Technical termination of pregnancy and protection of women's health and other regulations'). I also examined women's and feminists' communication about birth control – as counterpublics – in their own publications (for example, the magazines Skoupa [Broom], Dini [Swirling] and I Poli ton Ginaikon [City of women], and the publication $A\nu\tau\iota\sigma\upsilon\lambda\lambda\eta\pi\tau\iota\kappa\dot{\alpha}$ Mė $\sigma\alpha$ [Contraceptive methods]); spaces (for example, the Women's Bookstore, the Women's Cafe of the Democratic Women's Movement); networks; and materialities (such as the public exhibition of contraceptive methods in 1976. For the self-examination groups, see the magazine Mitra 2, 2005: 9), which reveals their active engagement in the communication of birth control and the circulation of related knowledge.

As much as a discussion about science communication necessarily includes the notion of the public, the relationship between the public and the private becomes the core of a researcher's standpoint because how we define public defines private. Warner (2005: 27) discusses the problematic character of the dichotomisation in terms of gender power relations by arguing that the private and the public are complex terms that cannot be 'mapped with different colors ... a private conversation can take place in a public forum, a kitchen can become a public gathering place'. Similarly, Butler (1993) discusses the distinction between the outside and the inside of the closet, arguing that the outside must produce the inside over and over again in order to maintain itself outside.

Turning back to my case study, such approaches helped me to define as public the character of activities that are usually seen as private, meaning that the content and the actors involved in such spaces remain invisible. I am talking about the closed self-help, self-consciousness and self-examination feminist groups where medical knowledge was infused with personal and collective experiences.

The question of boundaries

Boundaries and demarcations seem to be the protagonist in science communication – boundaries between science and society, production and circulation, private and public, relevant and irrelevant knowledge, scientific and other types of knowledge, scientific and experiential expertise, and centre and periphery (indicatively, see Bucchi and Trench, 2014; Bucchi, 2019). As Kerr et al. (1997: 280) argue, such boundaries 'reflect the wider social context' and, more specifically, social power and gender relations. In that sense, they embody hierarchical structures, and, as such, they operate as a crucial factor for maintaining the establishment of the privileged categories at the expense of the non-privileged or less privileged. Hence, boundaries and demarcations embody struggles and conflicts, and become political categories, as it becomes our (as researchers) decision about how we will approach them. By this, I do not mean that related studies are not critical. Instead, I want to emphasise that the focus on the grey areas, where the boundaries are blurred, is equally essential and rich regarding science communication.

As Lässig (2016: 45) argues, by 'focusing on knowledge we are able to see what was lost in history, what was suppressed as subversive or dismissed as irrelevant or deemed obsolete and thereafter forgotten'. To that end, the methodological tool of 'boundary movements' (McCormick et al., 2003) allowed me to see the feminist birth control movement as a social movement that works both inside and outside the boundaries of science, blurring the boundaries between professionals and lay activists, and approaching social movements as 'cultural and analytical spaces ... that move between social worlds and realms of knowledge' (McCormick et al., 2003: 547). At the same time, such an approach opened up a new perspective about expertise – a central notion among science technology and society (STS) scholars – which is closely related to science communication practices and policies (Hetland, 2014). The expansion of the notion, from a concept that is exclusively related to the scientific community (the first wave of STS, 1950-60) to the inclusion of lay and experiential expertise (Collins and Evans, 2002), the exploration of the deconstruction of the expert/lay divide, as well as the hybrid positions of lay experts (Kerr et al., 2007), and the crucial role of social location in science understanding (Kerr et al., 1998), has made the feminists' production of knowledge an experience-based expertise that was closely related and relevant to the circulation of birth control and women's engagement with science. However, a new question arises: how can we analyse or study a type of expertise which is not related to an empirical knowledge that is derived from the relationship between bodies and a tool, a machine, an instrument and so on, rather to how situated bodies feel, respond and interact within specific (medical) interventions within specific social contexts?

Conclusion

As the literature has shown, we need to focus on the theoretical tools provided by feminist and queer studies, disability studies and post-colonial theories to better understand the complexity of science communication. Reflecting on my research, I have shared some methodological, theoretical and ethical concerns regarding the intersection of gender and the wider field of science communication. The three points that I have discussed are crucial for understanding the rich herstories of science communication from a historical perspective. At the same time, they can help us to transform science communication into what Roberson and Orthia (2021: 5) characterise as 'presenter and promoter of [a] science [inclusive] future'. Thus, we need to examine the role of gender and sexuality in science communication – as a social practice, where gender is an internal part of science communication, rather than a perspective or an approach.

Moreover, we need to utilise feminist critics and theories in science communication – as a theoretical framework and scientific discipline - in order to be able to reconfigure the relationship between science and society. Is there any other way besides the interaction that can explain the relationship between science and society? Is there an actual and sharp distinction between science and society - a distinction that implies specific approaches for studying this relationship?

Finally, I want to emphasise the need for diversity and inclusion in science communication, ideas that, in my view, should include science communication practices that both credit and discredit science. Science communication needs to study cases such as the feminist birth control movements or the contribution of the knowledge of Indigenous communities to addressing the recent bushfire crisis in Australia (Morrison, 2020). Such case studies can reveal different types of knowledge and expertise that coexist with science in the public arena, while at the same time stressing their interconnectedness. Nevertheless, the study of the anti-vaccination movements, or the narratives of COVID-19 deniers or flat-earthers, is equally important. Such movements destabilise the status of scientific knowledge dangerously, yet they are not homogenised publics, and their communication practices differ significantly. The exploration of the differences that they include offers an opportunity to understand how they operate and, thus, both to understand the relationship between science and society better, and to establish trust relations. Therefore, I believe that inclusion and diversity must be fully implied in science communication to enrich the field and to depict the complexity of the movements of knowledge.

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