The cyborg metaphor in Ibero-American science, technology and gender literature

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ABSTRACT
Donna Haraway’s “Cyborg Manifesto” (Haraway 1991b) has marked a before and after in relationships between feminisms, technologies, and bodies (Wajcman 2010). In this literature review, we look at the reception of Haraway’s essay in Spanish language current literature in Science, Technology and Gender Studies (ST and Gender) considering some works from Spain, Mexico and Argentina that summarize the main points of the essay to establish a dialogue with it, though not always in complete agreement. This literature review is aimed to highlight and make these contributions known in order to identify current ways of thinking about cultural productions, epistemologies, bodies, subjectivities, and technologies that have been inspired by the cyborg figuration.

KEYWORDS
Feminism; gender; technologies; Ibero-American

Introduction: after the cyborg

Donna Haraway’s “Cyborg Manifesto” (Haraway 1991b) has marked a before and after in relationships among feminisms, technologies and bodies (Wajcman 2010). Published in two versions, first in 1985 and later in 1991, the “Manifesto” made an important contribution to feminist thought in the post-industrial age, leading to new understandings of relationships among women, bodies, and technologies.

In this literature review, we look at the reception of Haraway’s essay in Spanish language current literature in Science, Technology and Gender Studies (ST and Gender) considering some works from Spain, Argentina and Mexico that summarize the main points of the essay to establish a dialogue with it, though not always in complete agreement.2 These three countries, as well as others from Latin American not included here,
have established a fluid dialogue around common STS, gender and feminism problems. This dialogue has been presented in the compilation *Science, Technology and Gender in Iberoamerica* edited by Norma Blazquez Graf and Javier Flores in 2005. The book constituted a big effort to make this field of research visible in Spanish, given that most of ST and Gender literature is primarily published in English.

The purpose of this literature review is to highlight and make these contributions known in order to identify current ways of thinking that have been inspired by the “Manifesto” on cultural production, epistemology, the hybridization of bodies and technologies and collective actions based on feminism and new technologies. However, this review will demonstrate that Haraway’s proposals are read in different ways in Latin America and Spain.

In the Ibero American scene, an extensive literary corpus reflects on the relationships among feminisms, gender, science, and technologies in epistemological terms. Authors from the core of feminist epistemologies, especially Harding (1991, 1996), Longino (1990, 1993 and 2002) and Haraway (1991a) have been widely studied during the first years of the twenty-first century in Spain (Romero Bachiller and García Dauder 2006), Argentina (Maffia 2007) and Mexico (Guzmán Cáceres and Pérez Mayo 2010). Readings on feminist epistemologies started at the beginning of the new century motivated by the need to understand and change the deep causes of underrepresentation of women in science and the emergence of new subjectivities related to sexual dissidences, among other interests. The first series of readings focused on the criticism of the objectivity of science (Pérez Sedeño and González García 2002; Maffia 2005) and evolved to refine and differentiate positions of central authors around this issue. For example, Romero Bachiller and Dauder García (2006) find some common elements in feminist epistemologies, such as the claim about new ways of situated, partial and politically responsible scientific objectivity as opposed to the thesis of a unique scientific truth. However, they observe differences between these main authors as to the processes and the status of the subjects involved in achieving a fairer and more situated objectivity. The “Manifesto” made its way in between these epistemological readings. It introduced the idea of the democratization of new technologies into the field. The “Manifesto” did so in a way that was much more subtle than the epistemological claim about the search for a more democratic science.

In the present work, we consider the cyborg as a metaphor used to understand a certain condition of the real world. In this case, it is an opportunity to review how Spanish ST and Gender literature constructs and problematizes some aspects of postmodern epistemologies, how it analyzes the technocultural landscapes, and how it assumes the hybridization of bodies and technologies, all of which are fundamental topics of the “Manifesto.” Spanish language literature in the ST and Gender field has considered three main issues about the cyborg. First, it is concerned with power conflicts within feminist movements. For Haraway, the cyborg opens a new post-feminist era, with no distinctions inside the feminist movements and with no frontiers between bodies and technologies or nature and culture. Second, Haraway’s essay takes on the challenge of thinking about information technologies as an opportunity for women and other gender minorities to achieve liberation.

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3 *Ciencia, Tecnología y Género en Latinoamérica.*
from race, gender and class oppression through a hybrid techno-human figure. Third, the same assemblies of bodies and machines that allow liberation also confirm an oppressive system based on the feminization of work and poverty. For the liberation and construction of new subjectivities, we need to be aware of this ambivalence and exploit different uses of technologies in collaborative and communicative ways.

Other post-feminist authors, such as Braidotti (2015), think about the body as a hybrid. The emergence of new subjectivities and gender elections are thought of as new possibilities such as post-gender bodies, post-modern thinking, and post-human beings. In contrast, Latin American feminist epistemologists, aligned with the non-academic feminist movement, question whether it is useful to think about these unifying figures, taking into account the complexity of identity concerns in Ibero-American countries. These diverse positions will be analyzed in the following paragraphs. We intend to make visible different faces of the cyborg as metaphoric thinking: the cyborg is at the same time a cultural figuration, a post-feminist metaphor, a monster emergent from flesh and technology and a powerful collective movement. We will highlight these metaphors through the ontological and cultural reflections of main Ibero-American ST and Gender authors.

The cyborg as a cultural figuration

In her book *Cyborg Ontology: The Body in the New Technological Society*, Spanish philosopher Teresa Aguilar García (2008) presents a broad vision of the cyborg as cultural metaphor, as an instrument to analyze and understand certain concepts and practices of contemporary and close-future life. She takes up the cyborg figuration and places it in various fields: postmodern art, cyberfeminism, virtual bodies, movies and philosophical thought.

For this author, thinking in terms of cyborgs implies overcoming the classic categories: the hybridization between body and technology in its positive sense surpasses humanism, feminism, and the body, giving rise to new epistemological configurations that allow us to think in hybrids, rather than in oppositions such as feminism/patriarchy, subject/object, nature/culture. The cyborg represents contemporary bodies hybridized with technology; it provides metaphors, moreover, to rethink the classical categories. In these new configurations, humanism is displaced by post-humanism, feminism by cyberfeminism and the body by transhumanism. This last is “a neophilosophy” that supposes a transcendent, pure and abstract being, which an organic body does not need at all.

Metaphoric thinking is central to the consideration of a textual materiality for the body, as evolution enters a new stage in genetic and bodily manipulation that is based in coding and writing and is shared by both humans and machines. From this union, a new kind of being emerges; a monster that subverts established values because it frees us from categories such as race, gender, and class. Opposed to this assumption, Aguilar García poses her critique to the western nature of cyborg’s duality:

Haraway’s optimism, however, does not specify in what way or why the communion with the inorganic is a sort of upheaval for the oppressed. She assumes our cyborg nature frees us from race, gender and class as identity marks of an unsustainable subject in the cybernetic age.

*Ontología Cyborg; el cuerpo en la nueva sociedad tecnológica.*
However, the number of individuals connected to the network or to a mobile device is still limited to the western white world. (Aguilar García 2008, 15–16)

As we will see later when reviewing the feminist epistemological vision, this is not a minor point in thinking about the cyborg in the Latin American context.

**The cyborg as post-feminist metaphor**

One of the main controversial sides of the “Manifesto” is its invitation to overcome the dispute between diverse feminist movements. It is known that there is not one single or essentialist feminism. Diversity in women became the source of a division inside the feminist movement:

Painful fragmentation among feminists (not to mention among women) along every possible fault line has made the concept of woman elusive, an excuse for the matrix of women’s dominations over each other. (Haraway 1991b, 296)

The cyborg with its figure of unity is presented in order to solve differences within the feminist movement as well as outside of it. However, the dream of post-feminism embodied in the cyborg is a real challenge for Latin American culture. Of course, English is the main language of computer science’s domination, and the Northern hemisphere is its main location. These conditions deepen Latin America’s subordination. In any case, the South appropriates technology to create ways of resistance through cyberfeminist uses, as it will be shown later. Nevertheless, the main question in this region is not about the domination exerted by informatics. Rather, it is about the oppression centered in increasing patriarchal domestic violence, and in the patriarchal biopolitical control of women’s bodies and decisions about them.

The term “hybrid” has been extensively used in Latin America. It is strongly anchored in cultural studies. Argentinian anthropologist Néstor García Canclini coined the concept “hybrid cultures” in Mexico in the ‘80s to describe the complex composition of Latin American landscapes:

Nowadays, we conceive Latin America as a complex articulation of traditions and modernity (both diverse and unequal); an heterogeneous continent formed by countries where multiple logics of development coexist …. In this way, we consider the postmodern age not as a trend that would replace the modern world, but as a way to problematize the misleading links to the traditions that it wanted to exclude or overcome in order to be constituted. (García Canclini 1989, 23)

This author undertakes a deep analysis of Latin American culture, which he characterizes as a hybrid between the traditional, the modern, the cult, the popular and the massive. His view of the hybrid as a metaphor of some kind of cultural formation is indeed in

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5El optimismo de Haraway, sin embargo, no precisa de qué forma o por qué la comunión con lo inorgánico es una suerte de revulsivo para los oprimidos. Asumir nuestra naturaleza cyborg nos libera de raza, género y clase como pautas identitarias de un sujeto moderno insostenible en la era cibernética, pero el número de individuos conectados a la red o a un móvil sigue estando circunscrito al mundo blanco occidental” (Aguilar García 2008, 15–16).

6Hoy concebimos a América Latina como una articulación más compleja de tradiciones y modernidades (diversas, desiguales), un continente heterogéneo formado por países donde, en cada uno, coexisten múltiples lógicas de desarrollo …. En esa dirección consideramos la postmodernidad no como una tendencia que reemplazará al mundo moderno sino como una manera de problematizar los mal conducidos enlaces a las tradiciones que éste quisiera excluir o sobrepasar en orden de constituirse” (García Canclini 1989, 23).
correlation with Haraway’s account. However, what about the cyborg as a unifying figure of different kinds of feminism in conflict? What about a single post-gender figure fighting against any type of domination? Would that be possible in the context of a hybrid Latin American culture?

This is a controversial point that Argentinian philosopher Diana Maffia poses in her article “Feminist Epistemology: the Semiotic Subversion of Women in Science” (2007). The starting point of Maffia is the expulsion of women from science. This movement has two effects: “to avoid our emancipation in the epistemic communities which build legitimate knowledge, and to repel the qualities viewed as ‘female’ from such construction and legitimation, furthermore, considering them as obstacles” (Maffia 2007, 64).

There is a similar expulsion in Haraway’s starting point. Women have been expelled from science as well as from technology. This has given way to many losses: for women, for science, and for democracy, in the sense that sexism in science is ethically and politically oppressive in the same way (Maffia 2007, 64). Women in science have traditionally occupied the place of object of knowledge. However, since the ‘70s, with the presence of women in universities and the rise of political feminism, there have been systematic and consistent attempts by women scientists to point out the sexism prevailing in science, and to become subjects of science. The author provides a detailed examination of the changes that have led women to a relocation of their subjective position, shifting from objects to subjects of the scientific discourse in less than fifty years. She highlights four important steps taken in the field of social studies of science and gender. The first step has been to make the history of women who have done science visible. The second analyzes the history of women’s participation in scientific institutions. The third focuses on the way in which science has defined the very nature of women. Finally, the fourth attempts to reveal the masculine nature of science and the distortions in its methods that have led to the absence of women in the significant roles of modern science. The challenge for feminism is to abandon women’s placement as an object of knowledge so that they can become autonomous subjects of scientific discourse.

This semiotic subversion is a powerful one since science is a patriarchal construction. Moreover, we should recognize that science in Latin America is in a peripheral condition (Vessuri 1983). It is much more limited and constrained, in comparison to global science. Therefore, in Latin America the feminist challenge is twofold: women have to build their subjective position in science, as well as in society, but without losing their distinctive resources as women. Based on this diversity, women’s hybridization should be between tradition and modernity, between their ancestral knowledge and their own subjective production in science.

In the context of “the voice of subaltern,” quoting Spivak (1998), Maffia refers to the attraction that postmodern thinking has awakened in Latin American feminism. Yet, she does not consider it is a good way out for the necessary semiotic subversion:

Postmodernism and post colonialism excited feminists in Latin American countries, who found in them some deep criticism against the centralism of European rationality. In political terms,

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7Epistemología feminista: la subversión semiótica de las mujeres en ciencia.
8 “… impedir nuestra participación en las comunidades epistémicas que construyen y legitiman el conocimiento, y expulsar las cualidades consideradas ‘femeninas’ de tal construcción y legitimación, e incluso considerarlas como obstáculos” (Maffia 2007, 64).
9“es ética y políticamente opresivo en igual forma” (Maffia 2007, 64).
however, these positions can result in a seductive trap from the intellectual point of view, immobilizing in a region where women can barely perceive the gender oppression among so many overlapping oppressions. Feminist criticism of science is a problem of academics when ancestral knowledge (of women also, but not only of women) is ignored by a relationship between center and periphery that is as sharp as patriarchal domination. (Maffia 2007, 92)10

As noted by Haraway, Maffia highlights the gender, class, and race-based divisions among feminist movements, but she also observes a new divide between North and South feminist thinking, so to call it. Post-colonial thinking is, for the author, an inventory of colonial thinking. North feminism is not always able to accept South feminism discourse if it is not formulated in the North’s same categories and languages. Paradoxically, these categories and languages are not useful to describe the cultural hybridization of Latin American women. Then, Maffia categorically affirms: “a ‘powerful heteroglossia’ (Haraway 1991b) that monolithically opposes patriarchal discourse is not a viable project for feminism” (Maffia 2007, 93).11

Perhaps not all women in Latin America are able to identify themselves with a hybrid product of advanced technoscience, even metaphorically, if they are still fighting for the freedom of decision about their bodies, bodies that are still mainly objects of science and biopolitics, as shown in the next section. Feminism in Latin America does not need new techno-essentialisms, but it demands respect for diversity and for staying together to confront the sad extreme adversities of violence and social exclusion, which are obstacles to women’s control of their own bodies, among other sources of oppressions.

In relation to the epistemological field, which is a smaller academic problem than the one described above, Latin American women have to think their own technoscientific narrative. This narrative, in words of Maffia, should be: “exotic enough to be attractive, folkloric enough so it can be attributed as an identity and sufficiently understandable in the very terms of central thought for it to be meaningful” (2007, 94).12

Far from neglecting the value of the cyborg, the argument here is that this figure highlights the richness of metaphoric thinking, upon which Latin American activist feminist movements strongly rely. This creative thinking about the importance of symbolic figures and narratives that express the diverse identities of Latin American women contrasts with the institutionalized, canonical and normative point of view of “gender politics” (Gargallo 2006).

Latin American decolonizing feminism also faces up to this view. It has built its own lines of thought and action, recognizing the role of the post-colonial thinking of Haraway (1991a), Harding (2011) and Maffia (2003) as a starting point in the

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10"El postmodernismo y el postcolonialismo entusiasmaron a las feministas latinoamericanas, que encontraron expresadas algunas de las profundas críticas en proceso contra el centralismo de la racionalidad europea. En términos políticos, estas posiciones pueden resultar en una trampa seductora desde el punto de vista intelectual, pero inmovilizadora en una región donde las mujeres apenas pueden percibir la opresión de género entre tantas opresiones superpuestas. La crítica feminista a la ciencia es un problema de académicas cuando los saberes ancestrales (también los de las mujeres, pero no sólo los de las mujeres) son ignorados por una relación entre centro y periferia tan aguda como la dominación patriarcal” (Maffia 2007, 92).

11"No es proyecto viable para el feminismo una ‘poderosa heteroglosia’ (Haraway, 1991) que se oponga monolíticamente al discurso patriarcal” (Maffia 2007, 93).

12"Para que las mujeres latinoamericanas, además de establecer una crítica feminista de la ciencia, podamos producir saberes que se integren y valoricen en el diálogo con otras culturas, el paisaje debe ser suficientemente exótico para que sea atractivo, suficientemente folklórico para que nos sea atribuido como identidad, suficientemente comprensible en los propios términos del pensamiento central para ser significativo” (Maffia, 2007, 94).
deconstruction of androcentric knowledge. It is also strongly based on important Latin American feminist thinkers such as Julieta Paredes (2010), Francesca Gargallo (2006) and Rita Segato (2017) among others. This movement is aimed to give voice to Latin American peasants, aboriginal, Afro-American and Afro-Latin women (Espinosa Miñoso and Castelli 2011, 194). The strong imprint of these feminist thinkers and activists has been recorded in the volume Feminisms and postcoloniality: decolonizing feminism in and from Latin America (edited by Bidaseca and Laba 2011). This volume “starts from the margins of life of the ‘Other’ of the hegemonic feminism: indigenous and peasant women, Afro-descendants, diasporic and migrant women, lesbians, workers in the maquila, sex workers, trans…” (Bidaseca and Laba 2011, 9). Although it does not emerge from ST and Gender Studies, it uses postmodern feminist epistemology: “the production of the Latin American feminist ideology is based on the thought and the political program of Western feminism” (Bidaseca and Laba 2011, 191).

It is striking how certain figures of Haraway’s thought are liberating for this movement. The book begins with the reference to the concept of “situated thought,” also coined by Haraway, while rejecting, with justice, the universalizing figures: feminism can also be colonizing. The volume makes visible the positions of Latin American women on subjectivity, sexuality, gender, race, class, work, and migrations, such as Mapuche and African-American women in the city. Here, the relationship with the cyborg becomes more complex and confrontational. Although new technologies are not the focus of the volume, all consequences of post-industrialism and globalization are viewed as factors of impoverishment and disempowerment in Latin American poverty contexts. While globalization effects can be liberating for some women, for others they can cause impoverishment and disempowerment. Pombo (2011) remarks on the effects of capitalism’s uses of feminization in the context of globalization. She shows how some Latin American women are pushed to non-desired migrations as an effect of poverty in their country of origin. Far from empowering women, the author affirms that these kinds of processes transform women into subalterns and provoke the extension of the labor model based on multiple informal activities and the typical invisibility and lack of recognition. (Pombo 2011). In the same way, Contreras Huayquillán (2011) reports prostitution as a survival strategy that occurred in the nineties resulting from the privatization and foreignization of the main Argentine oil company, in the context of a globalization that meant very high costs in economic and social terms for the Latin American countries.

The cyborg as the technoscientific body

As mentioned before, the cyborg metaphor considers the body as a cultural construction fully mediated by science and technology. This section focuses on hybrids as a result of the intersection between bodies and technoscientific knowledge. Without referring to the cyborg explicitly, but assuming some of Haraway’s and postmodern epistemological

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13Feminismos y poscolonialidad: descolonizando el feminismo desde y en América Latina (editado por Bidaseca and Laba 2011).
14 “que parte desde los márgenes de la vida de la ‘Otras’ del feminismo hegemónico: indígenas y campesinas, afrodescendientes, diasárticas y migrantes, lesbianas, trabajadoras en las maquilas, trabajadoras del sexo, trans…” (Bidaseca, Laba, and Espinosa Miñoso 2011, 9).
15 “…la producción del ideario feminista latinoamericano se amparó en el pensamiento y el programa político del feminismo occidental” (Espinosa Miñoso and Castelli 2011, 191).
premises, Spanish feminist epistemologists Eulalia Pérez Sedeño and Ester Ortega Arjonilla edited the book *Cartographies of the Body: Science and Technology Biopolitics* (2014). Firmly committed to the ST and Gender field, the collection includes a number of studies within feminism that address the issue of the body as a product of a diverse, socio-technical construction. It opens up a debate about the social use of technologies inside the feminist movement. Although this issue has been thoroughly reviewed in the English literature, the literature in Spanish is scarce; this book is thus a necessary and welcome contribution.

It reviews three kinds of complex and controversial technologies applied to the body. In the first part, it approaches the “technologies of desire”; this concept refers to biomedical technologies applied to the bodies of healthy women. Its objective is not to cure an illness but to normalize the bodies so that they conform to certain ideals of sexuality and beauty (Pérez Sedeño 2014). The study undertakes an in-depth review of the three kinds of practices. The first chapter focuses on biomedical interventions to compensate the lack of desire in adult women. Based on the success of the *Viagra* pill, designed for men, science seeks to develop a similar pill for women. However, it has failed due to inappropriate models of female desire. The second chapter goes into the controversy about the meaning assigned to plastic surgery among women who undergo it and its relationship to feminist goals. It deals with the ethical aspects implied in these practices. This chapter also focuses on the rise of new roles in biomedicine: the patient in the role of the client and the doctor as a service provider. Chapter three is dedicated to those eating disorders based on media images of thin, white, fragile bodies that have defined a beauty model under a Victorian ideal. Eating disorders are the consequence of this model of extreme thinness and fragility similar to young women during the Victorian age who were condemned to long fasts and extreme control of appetite. The article goes on to demonstrate that anorexia and bulimia have been treated as disorders that only affect high-class white women, but they are also suffered by African American and Latin women. Moreover, in the two last groups, these disorders are often underdiagnosed and not treated, in part, because of these women’s lack of access to health services.

The second part of the book is dedicated to problematizing assisted reproductive technologies (ART) as reinforcements of stereotypes, hegemonic ideologies, and gender inequalities. These are observed in many aspects of ART: from androgenic language biases in public communication and advertising to clinical methods of diagnosis and control, in which women bear most of the suffering. Moreover, the entire treatment tends to focus only on women’s bodies:

We are talking, in Foucaultian terms, of a biopower that absorbs the old right to life and death that the sovereign held, and this seeks to turn life into an administrable object of power. In this sense, regulated life must be protected. This biopower is an individualizing technology that scrutinizes the individuals, their behaviors and their bodies in order to produce docile and fragmented bodies, based on discipline as an instrument of control of the social body, penetrating it until it reaches its atoms: the individuals. Technology monitors, controls, intensifies the performance and multiplies the capacities and usefulness of human beings (their reproduction) but especially of women. (Pérez Sedeño and Sánchez 2014, 170–171)

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16 *Cartografías del cuerpo: biopolíticas de la ciencia y la tecnología.*

17 “Podemos decir que estamos hablando, en términos foucaultianos, de un biopoder que absorbe el antiguo derecho de vida y muerte que el soberano detentaba y que pretende convertir la vida en objeto administrable por parte del poder.”
The third and last part, called “Insubordinated Bodies and Sexual Dimorphism,” is dedicated to the tensions between the biomedic processes that historically sought for the body’s heteronormativity and the recent discourses about intersexuality, mainly provided by social collectives and some academic voices. In these chapters, the cyborg’s mixed composition of flesh and technology emerges, but in an empirical rather than a metaphoric way. Haraway says that modern medicine is full of cyborgs, but “Foucault biopolitics is flaccid compared to the open field of the politics of cyborg.” (Haraway 1991b, 150). The section reveals the confrontations between, on the one hand, institutional models that normalize the biopolitics of the bodies, such as medical decisions taken without having taken into account actors’ desires, and, on the other hand, the new political semiotics developed by the activists’ networks. These networks give meaning to agents’ own sexuality through the expression and sharing of opinions and feelings. The purpose of this section is to make heteronormativity visual as a social construction that has nothing natural: the scientific assumptions that created it are borrowed concepts from observation of abnormalities in plant genetics and zoology in the beginning of the twentieth century. These views contribute to reinforce dichotomous identities as much as a dual reality (Santesmases 2014). The study, thus, reveals the cultural construction of human sexuality in the context of biological and zoological dualisms: “Weak, sterile and newly classified living beings have not introduced a shadow of doubt in the previous characterizations of the sexes” (Santesmases 2014, 303).18

Following this botanical and zoological dualism, intersexuality was originally conceived as an anomaly observed through cytological and chromosomic studies. In a second stage, intersexual bodies were normalized by clinical surgeries mostly performed in the first moments after birth. Both processes were developed without any consideration for the subject’s feelings or perceptions, thereby causing his or her later suffering. Once the intersexual difference of a subject is established, biomedical science puts protocols into practice that condition the experiences and constructions of the identities of the social actors involved (Gregori Flor 2014). Despite this, the rise of the Internet gave voice to intersexed subjects, who, in the context of the intersex social movement, had already reappraised the medical meanings from the private sphere and re-evaluated them according to their own experiences. Network activism has been key in the demedicalization of intersexuality. Similar to Maffia’s claims about women scientists, García Dauder (2014) considers how network activism represents the passage from the old politics of semiotic representation, where the subject was mainly an object of knowing, to a new politics of semiotic articulation, where the subject enacts the new collective construction of knowledge about intersexuality.

This new discourse about bodies, based on subjects’ meanings, perceptions, and experiences, is creating a crisis for the biological point of view:

En este sentido, la vida regulada debe ser protegida, diversificada y expandida. Ese biopoder es una tecnología individualizante del poder que escruta a los individuos, sus comportamientos y su cuerpo con el fin de producir cuerpos dóciles y fragmentados. Está basado en la disciplina como instrumento de control del cuerpo social penetrando en él hasta llegar hasta sus átomos: los individuos particulares. Es una tecnología que vigila, controla, intensifica el rendimiento, multiplica las capacidades y la utilidad de los seres humanos (su reproducción), pero especialmente de las mujeres” (Pérez Sedeño and Sánchez 2014, 170–171).

18“Seres vivos, estériles y de nueva clasificación no parecen haber introducido una sombra de dudas en las caracterizaciones sobre los sexos” (Santesmases 2014, 303).
Unidirectional readings about our corporal materiality do not offer us too many certainties about our identities, desires or subjectivities. The more new discoveries are made about our hormones, genes, and their influence on our behaviors, the more ambiguities we find in such discourses. (Gregori Flor 2014, 333–334)

These last chapters recover one of the cyborg’s main positive possibilities: the use of technology as a way to fight against the hegemonic scientific and technological capitalist and patriarchal power. As shown in the next section, these will be the main assumptions of cyberfeminism, studied and enacted by academic and activist voices.

The cyborg as collective movement

From Spain, García Manso (2007) reconstructs the origins of cyberfeminism on a global level, recognizing the “Manifesto” as one of its main sources. In 1991, four Australian artists from the VNS Matrix collective recreated it at the “Cyberfeminist Manifesto for the 21ST Century,” a multimedia online and offline project. Perhaps, that is why a large part of cyberfeminism focused on art. Especially body art has sought to recover women’s bodies for women, in opposition to their possession and definition in multiple ways by patriarchy. It is intended to show the female body in a radical and rebellious way, far from pornographic or fantasizing anthropocentric stereotypes. However, unlike its patriarchal predecessors, cyberfeminism lacks a definition of its own. This shortcoming is exploited by some cyberfeminists as an example of the fluidity that characterizes their movement to adapt and to transform itself and as their resistance against being typecast and homogenized. The cyborg is still positioned in the opposition of feminism to patriarchy. Nevertheless, the movement insisits on seeing feminism as focused as a problem of women, instead of taking the leap to overcome the sexual or gender dichotomies themselves, as Haraway proposes in her “Manifesto.”

The article “Social Collectives and Cyborgs: Towards a Feminist Reading of Drones” (Suárez 2016) describes some technological uses intended to block both some frontiers and dualities. Beyond the gender gaps in piloting or in designing drones, issues promoted by the liberal vision of feminism, the author inquires on what kind of agency can be possible in the coupling between subjects and these kinds of machines. Suárez (2016) focuses on some cases of assemblies between humans and unmanned vehicles, such as drones. If some authors of STS literature, e.g. Braidotti (2015), have tackled drones only from their destructive and anti-humanist side, Suarez considers them from their possibilities to challenge power, through a counterculture where political participation, art, and hacking are mixed. Her hybrid list is cheerful and colorful. It includes some feminist drones that take advantage of gaps in legislation to distribute abortion pills across borders. Other examples include a drone that lands on the terrace of the Japanese prime minister carrying a sample of sand with radioactive material to protest against the nuclear policies carried out by him, and a DIY drone construction academy in Brazil that developed a counter-map showing

19 “Algo que sí podemos afirmar a día de hoy es que las lecturas unidireccionales sobre nuestra materialidad corporal no ofrecen demasiadas certezas acerca de nuestras identidades, deseos o subjetividades. Es más, cuanto más nuevos descubrimientos científicos se generan sobre nuestras hormonas, genes y cerebros y su influencia sobre nuestros comportamientos, más ambigüedades y contradicciones encontramos en sus discursos” (Gregori Flor 2014, 333–334).

20 Project documented at Net Art Anthology https://anthology.rhizome.org/a-cyber-feminist-manifesto-for-the-21st-century.
the effects on slums of the construction of facilities for the Olympic Games Rio 2016. The last example is a drone called Droncita, which records the social protests in Mexico City, providing counter-information on the power and number of attendees at the protesting marches. The article shows that the social significance of drones is variable, dynamic, and not predetermined by their technological architecture. Not all eight projects that Suarez describes are made for women or by women. The most interesting value of the article is the proposal of a positive feminist reading of the cyborg possibilities. Here, Suarez envisions the use of technology for resistance and the defeat of the informatics of domination, the promotion of desired distributed agencies between humans and machines and the fusion of technology, politics, resistance, and art. For Suarez, those elements make up a current feminist reading.

**Conclusion: the cyborg as the power of thinking**

Spanish language ST and Gender literature dialogues with the cyborg. It appropriates several of its multiple meanings to generate a rich body of knowledge deployed in multiple directions. Resulting from the historical position of Latin America as a colony of Spain, these two regions read the metaphor of the cyborg in different ways. However, both Latin American and Spanish ST and Gender Studies share the peripheral situation of lack of recognition of their critical thinking, given that most of the literature in the area is published in English.

The Spanish works go deeper into the hybrid aspect of the cyborg. We can identify one approach that exploits the cyborg as an aesthetic and cultural synecdoche of the times, and another that is more interested in the hybrid constituted by technology and body in more advanced scientific and technologic contexts. The empirical research of Pérez Sedeño and colleagues (such as Pérez Sedeño and Ortega Arjona 2014) shows that Foucault’s biopolitics is, much more than a flaccid premonition (Haraway 1991b), a harsh reality when female and intersexual bodies are subordinated to biomedical science and technologies.

In contrast, Latin American readings are engaged with a critical assessment of the unifying cyborg’s metaphor, where this figure assumes a unique position that comes to resolve differences among feminist projects. They point out that there are some difficulties here due to cultural hybridization in adopting a single figure that uses technoscientific imagery as a solution to differences among feminisms.

If Spanish and Latin American ST and Gender projects want to acquire a global scope, they need to create their own forms of metaphorical thinking. In terms of Maffía (2007), these must be so local that women can identify with them and so global that they can speak the same language that is spoken in Northern science territories. Besides, they must be so diverse that they can reflect our hybrid cultures. In Latin American feminism, the cyborg’s unifying aspect gave way to a more diverse feminism where conflicts can be diminished through reciprocal listening and understanding of mutual historical contexts, but conflicts can never be completely removed. Opposite to Haraway’s optimistic view of the hybrid, and in contrast to the empirical critical work in biopolitics, decolonizing feminism reads the global post-industrialism based on technological innovations as a main cause of the exploitation and poverty of women.

Finally, the feminist collectives create technological appropriations of the cyborg that are capable of reducing the gaps and effects of the informatics of domination in Latin
America. The new collective voices and dissenting claims about sexualities show us that
the cyborg’s upheaval emerges from the organization of networked collectives coordi-
nated by the Internet as well as by the innovative uses of drones.

If not all the positions shown here agree with the cyborg’s main imagery, at least they
create a powerful heteroglossia (Haraway 1991b) that speaks about different ways to fight
against the hegemonies of knowledge and power.

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