



Abstract

The goal of this paper is to expose the hidden facet of the interface technology-body through a theoretical application of the concept of pharmakon to the field of HIV/AIDS. Based on the works of Plato and Jacques Derrida, the concept of pharmakon is explored and situated within the interface technology-body. Thus, the main objective of this theoretical piece is to discuss how HIV medications as pharmakon are involved in the creation of new forms of corpo/reality for people living with HIV/AIDS, namely the cyborg and the mutant. Inspired by Haraway's cyborg and Cronenberg's mutants, the ambivalent quality of technology is explored through the technological figure and the monstrous figure, two different but complementary representations that expose the bodily experiences of Highly Active Antiretroviral Therapy (HAART).

Key Words body, HAART, HIV/AIDS, medication, pharmakon, technology

(Re)Thinking the Corporeality of HIV/AIDS in the Post-HAART Era: A Critical Perspective

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Introduction

Looking back at our history, we recognize that the human body is an important generator and recipient of technology.[1] As part of a wider interactive system, human beings have been known to respond to their internal and external environments through the practical application of knowledge and techniques, also known as technology.[1] In light of the advancements that have taken place in the twentieth century, we are now entering an era of great possibilities in the fields of science and medicine. In fact, we are living in a society that is more technologically dominated than ever before, one in which "productive techniques and knowledge

are moving inwards, to invade, reconstruct and increasingly dominate the very contents of the body".[1] Therefore, there is a definite need to reflect on the uncertainty of what the body is and what it will become in the presence of technology and more precisely, biotechnologies. The goal of this paper is to discuss the interface technology-body as it relates to the field of HIV/AIDS and the in/corporation of Highly Active Antiretroviral Therapy (HAART). Based on the work of Plato and Jacques Derrida, the concept of pharmakon will be explored and situated within the interface technology-body. The main objective will be to discuss how HIV medications as pharmakon are involved in the creation of new forms of corpo/reality for people living with HIV/AIDS, namely the cyborg and the mutant.

Revisiting Plato's pharmacy: the pharmakon from Plato to Derrida

Pupil of Socrates and founder of the Athenian Academy, Plato (428-347 BC) is an inaugural figure in Western philosophy and he remains widely influential in contemporary

thinking.[2] Through his work, Plato distinguishes philosophy as a subject and a method by insisting on its difference from other forms of thought such as rhetoric and poetry.[3] Often described as a literary philosopher, Plato is famous for his use of dialectics as a method to structure and to formulate his arguments.[3] His writing style is unique because it is structured in a dramatic form, either as a monologue or a dialogue, and it is typically centered on Socrates as the ideal figure of philosophy.[3] In the *Phaedrus*, one of many Platonic dialogues, a fictional conversation between Socrates and Phaedrus explores the relative merits of the lover and the non-lover (as sexual partners and thinkers), of rhetoric and philosophy and of speech and writing.[2] In a specific segment of this dialogue, Socrates attempts to convince Phaedrus that speech is superior to writing by referring to the Egyptian myth of Teuth, an inventor-god whose creations include numbers, calculation, geometry, astronomy, games and writing.[2] In the legend, we encounter Teuth's character during the exhibition of his arts to Thamus (Ammon), the great god-king of all Egypt.[2,4] When it comes to writing, Teuth says: "This discipline, my King, will make Egyptians wiser and will improve their memories: my invention is a recipe (pharmakon) for both memory and wisdom".[4] To this declaration the King replies: "Teuth, my master of arts, to one man it is given to create the elements of an art, to another to judge the extent of harm and usefulness it will have for those who are going to employ it. [...] The fact is that this invention will produce forgetfulness in the souls of those who have learned it because they will not need to exercise their memories, being able to rely on what was written, using the stimulus of external marks that are alien to themselves [...]".[4] For King Thamus (Ammon), writing (pharmakon) is not a remedy but a poison for the memory and the wisdom of those who rely on this art (techne). In Plato's *Phaedrus*, the pharmakon introduces itself into the dialogue with the richness and the ambivalence of its meaning as both a remedy and a poison. However, it remained unexplored in its original form, as an "undecidable" concept that inhabits both the curative and the poisonous, for many centuries before Jacques Derrida was able "to detect the play of undecidability in the foundational texts of Plato".[2]

Jacques Derrida (1930-2004) is a contested philosopher who has profoundly influenced the poststructuralist movement.[5] "Best known for having forged the term "deconstruction", Derrida follows the work of Nietzsche and Heidegger in elaborating a critique of Western metaphysics, by which he means not only the Western philosophical tradition but everyday thought and language as well".[6] In Plato's pharmacy,[4]

Jacques Derrida formulates a critique of Western philosophy and literature by deconstructing the *Phaedrus* as it symbolizes a longstanding tradition of "logocentrism" – the domination of the spoken word over the written word.[6] By focusing on the translation of pharmakon, Derrida displays how Western thought is profoundly structured in terms of dichotomies or polarities: "good vs. evil, being vs. nothingness, presence vs. absence, truth vs. error, identity vs. difference, mind vs. matter, man vs. woman, soul vs. body, life vs. death, nature vs. culture, speech vs. writing, and [remedy vs. poison]".[6] Through Derrida's analysis, we come to understand that dichotomies are more than oppositional entities as they are positioned along a hierarchical order that reflects politics of domination – politics of meaning.[6] As such, the pharmakon – as both remedy and poison – is caught in a chain of significations that is not primarily grounded in the intention of Plato, but rather in what is left unsaid through the play of words.[4] As demonstrated by Jacques Derrida, the common translation of pharmakon into languages that are the heirs and depositaries of Western metaphysics is as violent as it is impotent: "it destroys the pharmakon but at the same time forbids itself access to it, leaving it untouched in its reserve".[4] For many centuries, Plato's pharmakon has been confined to a vocabulary (recipe, remedy, philter, receipt, cure) that neutralized its ambivalence, decontextualized its meaning and consequently, prevented its interpretation. Through the work of Jacques Derrida, the pharmakon becomes an ambiguous word that uncovers hidden meanings in Plato's work and in the settings of the *Phaedrus*. [7] However, Derrida's goal is not to reconstitute the entire chain of significations of the pharmakon but only some of their meanings, and some of their effects, most of which are related to the Platonic problematic of writing.[7]

"In addition to using the word [pharmakon] to denote medicinal remedy or poison, Plato like other ancient Greeks, used [it] to mean a host of other things, such as pictorial colour, painter's pigment, cosmetic application, perfume, magical talisman and recreational intoxicant".[7] In Plato's pharmacy, writing as pharmakon is simultaneously taken away and taken from the myth of Teuth to explore its undecidability and ultimately, to formulate a critique of Plato's oppositions which are expressed through the mouth of King Thamus (Ammon): "speech is good vs. writing is bad, true memory is internal vs. written reminding is external, speech carries the essence of knowledge vs. writing carries the appearance of knowledge, spoken signs are living vs. written marks are lifeless".[2,4] For Jacques Derrida, the opposition between hypomnesis (re-memoration, recollection, consignation) and

mneme (living, known memory) is a response to Plato's own suspicion of the pharmakon (writing).[4] It is also indicative of the philosophical debates that were taking place in ancient Greece between the philosophers (those who know/speak) and the sophists (those who appear to know/write). The dialogue between Teuth and King Thamus (Ammon) reveals that the remedy and the poison "are not simply opposed in their meanings but are arranged in a hierarchical order which gives the first term priority, in both the temporal and the qualitative sense of the word".[6] In deconstructing the myth of Teuth, Derrida reveals the ambiguity of the pharmakon (writing) as both a remedy for hypomnesia and a poison for mneme, and the politics involved in the translation of the pharmakon as a remedy.[4] In doing so, he recognizes the ambivalent quality of the pharmakon (writing) by revealing its capacity to be simultaneously beneficial and detrimental – to be undecidable.

Technology and body: HIV medications as pharmakon

"At the close of the twentieth century, many predicted that "we" were entering a "biotech century", an age of marvelous yet troubling new medical possibilities".[8] Far from being the presage of a distant reality, this statement reveals that the biotech movement is nothing more than a continued effort to surpass the limitations of the human body.[1] Yet, it also implies that the twenty-first century signals the coming together of biology and technology in the "flesh machine"[9] – a phenomenon that is both promising and disturbing for the human body. The more we gain control over the human body, the more uncertain it becomes as the boundaries between flesh and technology are rapidly vanishing.[10] Therefore, "the idea of technological bodies [...] raises the possibility that spatial and functional arrangements of the organic properties of our bodies have been altered in line with the structures of society, and to an extent challenges the conventional notions of what it is to be and have a body".[1] According to Klugman,[11] medicine is an essential gatekeeper in determining which human-machine connections to permit and to develop. As a result, it is actively involved in the production, the prescription, and the consumption of biotechnologies – "biological procedures and techniques that seek to transform the living body" [translation].[12] By definition, medications "are substances that have the capacity to change the condition of a living organism" and as a result, they constitute a form of biotechnology.[13] While medications are rarely examined as part of the larger framework of technoscience studies, they should be considered as technologies of the body because "the often seamless incorporation of pharmaceutical

technologies within the corporeality of bodies demonstrate the seemingly non-existent boundaries between technologies and bodies literally and discursively".[14] However, the interface technology-body is hardly ever discussed in relation to medications, and most importantly in the presence of the all-encompassing "therapeutic" discourse.

As powerful technical and symbolic devices, medications acquire a force and a status in society.[13] They are not only the products of human culture but the producers of it "as vehicles of ideology, facilitators of self-care, and perceived sources of efficacy".[13] As such, individuals use and professionals prescribe medications according to meanings – emanating from a complex psycho-social-cultural matrix subject to constant revision – which they attribute to health, illness, to the body, and to their identity. These meanings are profoundly "guided by imperatives of production, consumption and order under the guiding principle of efficiency".[9] Much like Teuth's pharmakon, the medication has traditionally been (re)presented as a remedy to prevent the failures of the human body, to improve its functions and to surpass its limitations: the medication is a recipe (pharmakon) for human survival and longevity. Therefore, it must be confined to a vocabulary (recipe, remedy, philter, receipt, cure) that neutralizes its inherent ambivalence, decontextualizes its meaning and consequently, prevents its interpretation beyond curative efficacy. Yet, Martin[15] notes that medications are typically regarded with ambivalence and are usually surrounded with two sets of meanings – one positive (remedy) and one negative (poison). Interestingly, she suggests that within the Western pharmakon, the negative facet of medications and their negative meanings are displaced to the side and kept out of awareness.[15] However, because medications are used and their effects resonate over time throughout individuals and collectivities, their meanings change and can no longer be viewed through one pole (the curative pole) of the interface technology-body.[16] In the field of HIV/AIDS, the use and the effects of Highly Active Antiretroviral Therapy (HAART) have drastically changed over the past decade. The meaning of HAART has also been profoundly affected by the lipodystrophy syndrome, a body-disfiguring syndrome featuring adipose tissue depletion and accumulation in specific areas of the body such as the face, the upper and lower extremities, the buttocks, the breasts, and the dorsocervical spine.[17] In light of this disturbing phenomenon, there is a definite need to critically examine how HIV medications (as pharmakon) are currently re-crafting the interface technology-body.

"In modern medicine, therapeutic substances are invested with the capacity and mission to either cure, prevent or

manage illness, while illness, in turn, opens up bodies to the presence and powers of these substances".[18] Therefore, the discovery of the human immunodeficiency virus (HIV) was the very first step in developing a pharmaceutical response to the HIV/AIDS epidemic.[19] It not only opened up the body to the presence and powers of therapeutic substances but also secured HIV infection as a disease in need of curative response.[20] Since then, the introduction of Highly Active Antiretroviral Therapy (HAART) and the development of medical technologies (viral load, CD4+ count, genotype, and phenotype) have generated a "scientific computation" of the HIV/AIDS illness which excludes, and often conflicts with the lived experience of HIV-positive individuals.[21] "For some, it may seem that HIV medications have so successfully altered HIV/AIDS from a lethal infection, to a potentially manageable chronic illness that there is no need to contest the existing terrain".[22] However, the initial optimism that surrounded HAART more than a decade ago is rapidly vanishing as the interface technology-body is producing results that are conflicting and highly ambivalent.[23] While antiretroviral therapy is undeniably successful in preventing the replication of the virus, its restorative power is complicated by its manifold transformative potential to produce unpredictable results on the bodies of people living with HIV/AIDS.[18] Paradoxically, most of the unintended effects of antiretroviral therapy, including the disfiguring effects of lipodystrophy, are caused by its optimal use as a remedy.[24] Therefore, the adverse outcomes of HIV medications pose a significant challenge to the "normal" therapeutic sequence (disease-therapy-outcome) by revealing that HIV medications are as much poisonous as they are curative.[18]

According to Walby[25], "any biotechnological intervention inscribes itself into a complex dynamic of corporeal animation and relationship, which redistributes its intended [and unintended] effects according to its own shifting logic". In the field of HIV/AIDS, "lipodystrophy is a striking example of a particular biotechnical inscription being processed and redistributed by a body in unintended ways".[18] As a significant iatrogenic effect, the lipodystrophy syndrome demonstrates how the in/corporation[26] of HIV medications is a process that is "indeterminate rather than predictable, contextual rather than causal".[18] Much like Derrida's pharmakon, HAART cannot be discussed in terms of the dichotomies that characterize the therapeutic discourse: good vs. bad, therapeutic vs. toxic, desired effects vs. adverse effects. Instead, we need to recognize HIV medications as both poisonous and curative and acknowledge their "capacity to be beneficial and detrimental to the same person at the

same time".[18] As suggested by Derrida, the sole interpretation of HAART as curative "erases on a certain surface of its functioning, the ambiguity of its meaning as pharmakon".[4] The remedy evokes the "transparent rationality of science, technique, and therapeutic causality, thus excluding [...] any leaning toward the magic virtues of a force whose effects are hard to master, a dynamics that constantly surprises the one who tries to manipulate it as master and as subject".[4] By obscuring the poisonous pole of HIV medications, "biomedicine strives to master the indeterminacy and excess, the transgressions of pharmakon, the shadow that haunts the tradition and threatens to undo its work".[18] Whether they are assimilated into the logic of biomedicine or construed as contradictory to it, the unintended effects of HIV medications partly dislocate the restorative value inherent to the interface technology-body.[18] Consequently, the designation of lipodystrophy as a side effect of HIV medications is part of a broader strategy that aims at displacing the poisonous to the side and keep it out of awareness – out of meaning.[15] Much like Teuth's pharmakon, Highly Active Antiretroviral Therapy (HAART) has been presented by the scientific community as a recipe for the therapeutic management of HIV/AIDS since its introduction in 1996. Looking back at Plato's pharmacy, it is quite obvious that the stated intention of Teuth (herein representing the scientific community) is precisely to stress the worth of his product; thus, "he turns the word [pharmakon] on its strange and invisible pivot, presenting it from a single one, the most reassuring of its pole".[4] The response of king Thamus (Ammon) informs us about the hidden meaning of the pharmakon, by suggesting that its harm and usefulness are not to be judge by its creator but rather by those who are going to employ it (e.g. people living with HIV/AIDS). Interestingly, Jacques Derrida points out that "Plato is suspicious of the pharmakon in general; even in the case of drugs used exclusively for therapeutic ends, even when they are wielded with good intentions, and even when they are as such effective".[4] In light of Plato's pharmacy, Derrida considers that "there is no such thing as a harmless remedy [because] the pharmakon can never be simply beneficial.[4]

Technology and body: re-crafting the corporeality of HIV/AIDS

Looking back at our history, one is forced to recognize that technology has exerted a profound impact on the bodies and the environments of human beings.[1] As part of their response to their external and internal environments, human beings have changed themselves and their physical capacities through the practical application of knowledge and techniques (technology).[1] In recent years, the in/corporation

of biotechnologies has proven itself to be a promising way to penetrate the flesh of the living organism and to change its condition.[13] As such, “technoscience and the biomedical industry complex (e.g. hospitals, clinics, “hard science” laboratories, pharmaceutical companies) have increasingly infiltrated and re-formed the conceptions of health, illness, the body and what it means to be human”.[14] In the field of HIV/AIDS, the introduction of Highly Active Antiretroviral Therapy (HAART) has transformed the human body into a hybrid of living material and chemical substances.[18] More importantly, “its use has generated new and durable links between humans and biotechnology, productive links that define diseases and create new identities by reorganizing the bodies [of people living with HIV/AIDS]”.[18] While the boundaries between flesh and technology are rapidly vanishing, very few authors consider the uncertainty of what the body is and what it will become in the presence of HIV medications. Yet, “when technologies interact with the specificities of both bodies and subjectivities, a multitude of possibilities arise”,[14] such as the creation of new forms of corpo/reality for people living with HIV/AIDS, namely the cyborg and the mutant.

The human-machine connection: people living with HIV/AIDS as cyborgs

The term cyborg (the cybernetic organism), was first introduced by Manfred E. Clynes and Nathan S. Kline in a 1960 article on humans in space.[27] At that time, both scientists were defining the cyborg as a self-regulating man-machine system, an organism in which were incorporated exogenous components to extend self-regulatory control functions and as such, promote an optimal adaptation to new environments (mainly space).[27] Essentially, Clynes and Kline used the term cyborg to designate “an artificially enhanced [self-regulating] human being who was capable of surviving in space or on other planets without the need of an Earthlike biosphere”.[11] Since 1985, the concept of the cyborg has acquired additional meanings through the influential work of Donna Haraway[28-30] and the publication of the famous *Manifesto for Cyborgs*. [28] According to Haraway, “the cyborg is a cybernetic organism, a hybrid of machine and organism [and] a creature of social reality as well as a creature of fiction”. [29] The cyborg is a metaphorical entity that restructures socialist-feminist politics around science and technology, and provides a new space to redefine the bodies and identities of women.[29] It is a creature that inhabits a post-gender world – it is neither male nor female – since it has no origin in the Western world and the dichotomized structure through which human beings are conditioned as

man or woman.[29] Using the cyborg imagery, Haraway redefines the interface technology-body as unifying, revolutionary and emancipating for the world wide web of genderless techno-beings. Based on the idea that cyberculture provides an opportunity to alter our current view of the social relations of science and technology, the *Manifesto for Cyborgs* is controversial because it not only asks women to redefine their subjectivities but “to explore the potential and the risk of being cyborg – neither wholly man, woman, nor machine”. [31] Yet, Haraway’s work “is rarely, if ever, located, problematised or discussed critically”. [31] This is the case even though the cybernetic organism has only been presented through the most reassuring of its pole – as a recipe (pharmakon) to become a posthuman. Since the publication of the *Manifesto*, the cyborg “has played a key role in the ongoing under-recognition and under-theorisation of gender issues on the part of mainstream cybertheorists”. [31] On the other hand, it has provided insightful discussions on what the human body is and what it will become in the biotech century. While, “the cyborg horrifies some people and thrills others”, [32] it remains a provocative figure that exposes interface technology-body in unparalleled ways.

As a key mediator of the human-machine connection, medicine is an important producer of cyborgs – of coupling between technologies and bodies. [10-11,28-29,33-34] However, while the current progress of modern medicine offers us unprecedented control over our bodies, it also generates a growing fear of the iatrogenic effects of biotechnologies. [10] Haraway notes that the reconfiguration of the human body by science and technology evokes a strong ambivalence because “it is not clear who makes and who is made” through the connection human-machine. [29] As such, the fabricated union between organism and machine is not without risks and could eventually lead to an “irreversible dehumanization”, [35] although it seems today that we are less of a person without it. [15] Within the “technological clinic” or the “transhuman bodyshop” of modern medicine, [10] being a cybernetic organism is considered to be a desirable state, one that outweighs its potential risks. However, “the cyborg is a contested location” [36] since it is all “about transgressed boundaries, potent fusions, and dangerous possibilities” between animal/human, organism/machine and physical/non-physical. [29] Considering the ambiguous quality of the interface technology-body we ask: Could the cyborg ever become an unwelcome figure in society? Despite the fact that Donna Haraway confirms the existence of good cyborgs and bad cyborgs in a 1990 interview, those two figures have not (to our knowledge) been explored by cybertheorists. [36]

Based on these findings we ask: Could the machine eventually be threatening for the cyborg? If so, how would the cyborg body react in the presence of unintended effects of technology? What becomes of the hybrid when technology rebels against the complexity of the human body? How can the cyborg be in control (as suggested by Haraway[29]) when it is essentially defined as an “unbounded creature”?[26]

Donna Haraway argues that we, as cybernetic organisms, can be responsible for machines because “they do not dominate or threaten us”. [29] For people living with HIV/AIDS, this statement is very problematic because it does not recognize the ambiguous quality of the interface technology-body and in doing so, denies the risks of being a cyborg. It is also contradictory to Haraway’s previous statements on the uncertainty of the cyborg body and the inexplicable outcomes of the human-machine connection. [29] Since the advent of Highly Active Antiretroviral Therapy (HAART), medicine can turn HIV-positive individuals into cyborgs by restoring lost immunity through the suppression of viral replication, normalizing the internal and the external configuration of the HIV-positive body, reconfiguring the immune system as a battlefield for survival and enhancing the physical capacities of those who can no longer regulate their own immunity. [37] Reconfigured by technology, the bodies of people living with HIV/AIDS are coded automatons that must be read, regulated, measured and controlled through biotechnologies and medical technologies (viral load and CD4+ measurements/monitoring, genetic profiling, genotyping / phenotyping). [18,24] Subsequently, people living with HIV/AIDS are constantly “disassembled and reassembled” [29] under the technological gaze of medicine to secure their status as legitimate cybernetic organisms. Acting as the mediator of the human-machine connection, the primary goal of HIV medicine is to produce cyborgs that in/corporate the benefits of biotechnologies, namely longevity and survival. However, the iatrogenic effects of HAART challenge the one and only representation of the cybernetic organism as a desirable product of the interface technology-body. Consequently, people living with HIV/AIDS are not only cyborgs in-the-making but troubling figures of otherness that define the connection human-machine as a site of differentiation.

With the introduction of Highly Active Antiretroviral Therapy (HAART), becoming cyborg is indicative of a new mode of existence for people living with HIV/AIDS, [38] one that is being defined by the unintended effects of technology (e.g. lipodystrophy). In other words, “continued use of [HIV medications] generates new and durable links between humans and biotechnology, productive links that define diseases and

create new identities by reorganizing bodies”. [18] Therefore, the HIV-positive cyborg is a “contested location” [36] since it is all about transgressed boundaries between technology and body, potent fusions between curative and poisonous and dangerous possibilities between organism and machine. [29] Disfigured by the unintended effects of HIV medications (lipodystrophy), the cybernetic organism redefines biotechnologies as pharmakon – neither remedy nor poison. It embodies the unpredictability of the interface technology-body along with the benefits and the risks of being cyborg – neither human nor machine. By calling attention to the unintended effects of biotechnologies, the visibility of the HIV-positive cyborg disrupts social order by invading the reality and the imagination of individuals and collectivities. [24] As a social creature, this cybernetic organism is extremely ambivalent – neither infectious nor safe – because it threatens the boundaries between the sick and the healthy. More than a decade after the introduction of Highly Active Antiretroviral Therapy (HAART), people living with HIV/AIDS have become the unwelcome cyborgs of society – regenerated figures of monstrosity.

Regenerating the monster: people living with HIV/AIDS as mutants

Throughout history, the monstrous figure has always been positioned outside the course of nature [39-40] because it carries “the weight of not just difference, but of *différance*”. [41] In other words, “monsters speak to both radical otherness that constitutes an outside and to the difference that inhabits identity itself”. [42] As an object of knowledge and a mythical creature, the monstrous figure challenges the boundaries of the normatively embodied self in ways that confirm and secure the limits of the human body. [29,42-43] Therefore, “the monster is always whatever we are not” [43] and it continues to change as human beings evolve over time. [43] In light of the technological advancements that are taking place in the twenty-first century, the monstrous figure is going through yet, another transformation that mirrors the reconfiguration of human beings as cyborgs. For Shildrick [41] and Haraway [29-30], the cybernetic organism can be interpreted as monstrous because it is a creature that challenges what it means to be human and to have a body. However, the cyborg “has very little connection with the familiar and mythical secure world of humanism” [41] in which the monstrous figure is constructed as the natural symbol of otherness.

Since Aristotle, the term monstrosity has been used “to describe forms of corporeal excess, deficiency or displacement, not just those bodies which are malformed by disease, accident, or birth, but widely to depict all beings that are

deviation from the common course of nature".[42] Contrarily to the cyborg, the monster symbolizes nature's faux pas in the fabrication of the human body and consequently, the powerlessness of human beings against the complexity of their own bodies. Since Haraway's cyborg is clearly not a product of nature, defining it based on a term (monster) that comes from a longstanding tradition of naturalist thought is ultimately hazardous. Subsequently, there is a need to distinguish the monster from the cybernetic organism when examining the interface technology-body even though they are both complementary figures that contribute to a deeper understanding of the in/corporation of HIV medications and the involvement of this process in the creation of new forms of corpo/reality. By considering the monstrous figure as part of a new existence for people living with HIV/AIDS, the goal is to move beyond the cyborg discourse in order to recognize the complexity of living organisms and therefore, the participation of nature in the interface technology-body.

In the midst of the twentieth century, the traditional monstrous figure vanished from popular culture and was replaced by a new mythical creature known as the mutant. However, what appeared to be an important change in Western imagination was nothing else than a transformation of the outdated monster into a creature that embodied the uncertainty of the upcoming technological era. While the mutant took on a life of its own as a fictional character, it also became a central topic to modern science and medicine. Ever since the discovery of the human genome sequence in 2001, its constituents have become the most promising (and disturbing) sites for technological intervention.[44] The concept of mutation has also acquired new meanings because of a greater understanding of human genetics and its involvement in the "limitations" of the human body (e.g. illness, deformities, intellectual disabilities, deficiencies).[44] In addition, mutants (individuals living with biological mutations) have become valuable subjects in the quest to identify the perfect or normal genome.[44] So far, a small minority of the mutations that alter the meanings of genes have been recognized as beneficial for the evolution of the human race, and through this process the majority of living mutants – those whose genes are naturally or artificially altered – have been represented as ambiguous creatures that challenge the core of our existence (human genome).[44] Over the past twenty-five years, the human immunodeficiency virus has become an important producer of living mutants by immortalizing itself into the genes of otherwise "normal" human beings.[19] At a cellular level, the HIV virus is transported into the nucleus of the host cell (T-lymphocyte) in order to

insert its double-stranded proviral DNA (deoxyribonucleic acid) within the DNA of the host cell chromosomes.[19,45] By reprogramming the genes of the T-lymphocyte cell, the human immunodeficiency virus creates its very own factory and consequently, secures its capacity to replicate and survive within the human body. However, like many other retroviruses, the HIV virus is prone to mutate at an astonishing rate in the course of its replication – a phenomenon that allows the HIV virus to evolve constantly as environmental pressures change in the host (e.g. medications, vaccines or illness).[19,45] Scientists have recently discovered that the exposure of the human immunodeficiency virus to antiretroviral agents causes permanent changes of the HIV genome (mutations) and leads to the emergence of drug-resistant variants that are no longer responsive to therapeutic measures.[46] Therefore, the cellular pathogenesis of HIV has set in motion a biological process through which people living with HIV/AIDS have developed undesirable mutations that attest to the complexity of the human body. In light of the advancements that have taken place in the field of HIV/AIDS, namely the use of HIV medications, people living with HIV/AIDS have become more than living mutants, they are the monstrous figures of the technological era.

In popular culture (literature, movies, television), the monster has always been portrayed as a character that evokes fear and fascination, a creature that is far from being "normal" but similar enough to disturb the normatively embodied individual.[42] Until the 1980s, the concept of monstrosity was a recurrent theme in Western cinematography with the creation of monstrous figures that were always positioned outside the course of nature because of their physical otherness. Apart from Mary Shelley's *Frankenstein*, very few creators were willing to explore the monster as a product of science and technology and as a hybrid of human and machine.[47] As a result, the work of cinematographer David Cronenberg is one of great interest when attempting to explore the monstrous figure of the technological era, namely the fictional character of the mutant.[48] In the majority of his movies, Cronenberg represents the human body as an object of experimentation that can be manipulated, transformed, ripped apart and broken down.[48] As such, his characters are typically generated from an experimental process that expands the limits of the human body to a point where it is no longer controllable or habitable.[48] For Cronenberg, mutants are living beings or objects that have undergone a transformative process – either a biological mutation or a metaphorical mutation.[48] Based on movies such as *"The Fly"* from 1986, *"Dead Ringers"* from 1988, *"Scanners"* from 1981 and *"The Brood"* from

1979, Cronenberg's mutants are represented as either male or female.[48] While there is an interesting connection to be made between his construction of the female mutant and the longstanding tradition of describing women's bodies as monstrous,[47] his conceptualization of the interface technology-body is of greater use to the current discussion. For David Cronenberg, the mutation is related to the practice of medicine and its manipulation of the human body through technology.[48] With regards to the unintended effects of HAART, namely the lipodystrophy syndrome, the similarities between the living mutants of HIV medicine and Cronenberg's fictional figures are both disturbing and alarming. Similarly to Jeff Goldblum's character in "The Fly", people living with HIV/AIDS are currently experiencing a physical transformation as a result of unexpected "experimental mutations".[48] Caused by an unknown pathogenesis, lipodystrophy is an unforeseen product of science and medicine that causes an abnormal redistribution of adipose tissue in the body by disturbing the functional and structural integrity of adipocytes. As a result of the unintended effects of HIV medications, people living with HIV/AIDS undergo a troubling metamorphosis, one that is worthy of a horror script à la Cronenberg: "[...] I would look at myself in the mirror and not see the same person I used to be";[49] "[...] I don't see my body as before. If I look at myself in the mirror I see it old, it's wasting";[49] "[...] almost alienated from my body there's this inbuilt distance between who you are now and what you're seeing [...]".[50] From Haraway's cyborg to the extreme representation of Cronenberg's mutants, technology is pharmakon because it serves the seed of life as a remedy and the seed death as a poison – it is ultimately the pharmakon that signals the end of what it means to be and have a body.[4]

Final remarks

The goal of this paper was to expose the hidden facet of the interface technology-body through a theoretical application of the concept of pharmakon to the field of HIV/AIDS. Based on the works of Plato and Jacques Derrida, this interpretation of the pharmakon served as a pivotal element in formulating a critique of the in/corporation of Highly Active Antiretroviral Therapy (HAART). The main objective was to discuss how HIV medications are involved in the creation of new forms of corpo/reality for people living with HIV/AIDS. Inspired by Haraway's cyborg and Cronenberg's mutants, the ambivalent quality of technology was explored through the technological figure and the monstrous figure, two different but complementary representations that expose the bodily experiences of HAART. What this essay argues is that the pharmakon – as

both remedy and poison – is caught in a chain of significations that is not solely contained in what we have presented but rather in what was left unsaid voluntarily through the play of words.[4] Underneath our interpretation of the interface technology-body are the experiences of people living with HIV/AIDS who in/corporate the essence of the pharmakon – the promise of a remedy, the dangerousness of the poison, the ambivalence of life itself and the death of what it means to be a normal human being.

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