80 - NEW BODY TECHNOLOGIES: CHALLENGES FOR THE PHYSICAL EDUCATION

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"The body is in evidence, and there is no way of predicting its future and its limits", Santanella (2004, in reference to Villaça e Göes) begins with this sentence his questionings about the body, adding to the massive amount of academic production that prioritizes it as one of the main themes of contemporary culture. According to the author, there is a convergence of opinions among the reasons that lead the body to the status of protagonist of these reflections, which form a consensus: a de-referencing process and fragmentation of the individual; the spectacularization of the world via the excessive proliferation of images, chiefly of images of the body; the virtualization of reality on the tele-informatics networks; the new medical technologies; and the genetic engineering. In a nutshell: the transformations of the body's imaginary and reality caused by the technologies that invade the world and the human beings (p. 29).

The rising and explosion of new discourses about the body on the scope of the sciences (chiefly the medical ones), technology, and the world and the academic production testify the articulation of new practices regarding the body, which constitute these discourses. Foucault (1986) points out that the body not only receives the meaning of the discourse, but it is also constituted by it, circulating as truth on the social place of that enunciate it. The discourses, in their materiality that constitutes reality, are a social, cultural and historical production, as well as the objects that inform them, in this case, the body.

A new logic also arises from each technological advance that uses the body as something to be invaded, scrutinized, decoded and potentized. This logic reads the human body as an object to be decoded and digitalized by the new technologies of the information era. In the wake of the frequent scientific-technological transformations, the body is immersed in the logic of the upgrades of the digitalization process. The virtualization incorporates it to the world. In this scenario, which is marked by scientific advances in important knowledge areas, the possibilities of transformations and technological mutations in the body are reconfigured everyday. These are the scenarios that make possible an explosion of discourses (LIMA, 2004).

The aim here is to discuss the relations of the body in the contemporary culture, where it is mediated, tressed and invaded by the context of the new technologies with the implications and determinations that this context has been reflecting in the universe of Physical Education. There are several matters that must be discussed regarding the interventions in the body in the field of the Physical Education, such as body manipulation, mutation and transformation via supplements, steroids and other psychopharmacological substances, since in a concealed consent their use is becoming compulsory beyond the sports area, and affects the scenario of physical activities. These practices configure the rearranging of a moral regarding the body and its practices. This moral has been taking shape in the contemporary culture and it has been permeating the professional practice of Physical Education.

Through the observation of the everyday life we have observed the emergence of a set of representations, broadcasted chiefly by the different kinds of media, which contributed to the formation of new contemporary identities and subjectivities, frequently leading to the post-human, post-organic (Santos, 2003).

The scene
Like millions of Brazilians that fulfill the Sunday ritual, I stand by the TV while it invites me to watch the spectacle of Brazil and the world through the lenses of Fantástico, fragments of reality in a mixture of information and entertainment that are no longer distinguishable.

On an accelerated retrospective that does not foster much dialogue, I am particularly provoked by an image: I am introduced to Eva Byte, a virtual reporter that moves at ease among an elite team of journalists. In spite of the familiarity with which the media production weaves in our image-hidden everyday life, it is hard not to experience a certain level of wonder; differently from a caricature or a mascot, her image replicates a human form and, being so, she incorporates and occupies her social place.

Eva walks among several other characters, real or imaginary (this makes no difference whatsoever in the post-modern scenario the realm of the simulacrum), and her form achieved after more than 200 attempts of physiognomy represents the “imperfect perfection” of the human being. As a digital creation, Eva was born from a set of information, articulated in order to create, or better still, simulate an ideal reporter. One of the major challenges of her creation was the attempt of reproducing the idea of human imperfection. “Eva is not perfect: she is 30 years old, has freckles on her face, rings under her eyes, spots on her neck, and lines on her skin, even because, as we know, the more imperfect the virtual being is, the closer it will be to the human beings”.

Eva Byte materializes a superb metaphor of what we may call a “new” human condition; her existence announces and enunciates winds that the post-modernity, yet with little consensus, bring forward. Among so much controversy, an essential matter has been reappearing: rethinking the subjectivity and the constitution of this new man before the irremediable matrimony and fusion of nature/culture; natural/artificial; body/machine; organic/non-organic; there is, of the real and the virtual world, in a context which is marked by the new technologies.

As in a mythical re-modernization, men are reborn through the encounter with technology. Thus, as the famous Michelangelo's painting of the creation marks an emblematic relation of man with the divine, which modernity tries to bury, its parody, in which men encounter the cyborg, inaugurates a new logic, a symbiosis between nature and culture, men and machine, body and technology.

A cyborg is a cybernetic organism, a hybrid of machine and organism, a creature of social reality and also a fictional creature. In this new form, both of them are reconfigured in a hybridity of bodies that leap from the fictitious to the real, extrapolate all media production and mix themselves in the construction and the imaginary of the post-modern identities. The cyborg compels us to rethink the human condition while putting to test the values that until now gave the human beings a distinguishing and dominium status over nature and over all other beings. With him, nature and culture are re-structured; one cannot be object of appropriation and incorporation by the other any longer. Unity, Totality, original State, Narrative of origin...

4- According to Santos (2004), this condition means the way people feel and represent for themselves the world they live in. The post-modern condition is precisely the difficulty in feeling and representing this world.
One by one the pillars that constituted a modern state or even founded the religious imaginary are shaken (Haraway, 2000).

In this cultural panorama that begins to take shape, irremediably marked by the presence of the technology in all its spheres, including men and their bodies, it is almost impossible to think the construction of the subject and of the contemporary subjectivity detached from this mediation.

The several tie-ups that serve as scenarios of this epoch that, with considerable consensus, we call post-modern, place us as social actors of a reality that doubts of itself in its very construction. Fluidity, velocity, authenticity, fragment, hyper-reality, virtuality. Each scientific advance places us before an irrefutable ethical dilemma, chiefly rooted in the humanist principles, which confront a yesterday’s “past” where a certain longing for the front runs in disguise.

In this new time, in spite of the risk to venture on unevent trails that as a founding characteristic of this “new era” deconstruct every time the pillars and shake the structures of an instituted social imaginary, one of the biases that we wish to follow is that of the seduction of engaging on an exercise of deciphering this emerging human condition; especially in regard of the seduction of the technology over and by the body.

The most striking characteristics of this post-modernity, trailed by the techno-science and powered by the biotechnology, has been the exploration, invasion, digitalization, and replication of the body by the new technologies, or still, the indelicate interpenetration, the promiscuous engagement, the impudent conjunction between the human and the machine (Taddeu da Silva, 2000) which synthesizes the metaphor of the cyborg, in which the mechanization and the electrifying of the human is blended with the humanization and subjective engendering of the machine.

The manipulation of the body by the science is inserted in a context of accelerated scientific-technological advances, made possible and inscribed under the informational paradigm, where each and every manifestation of life can be coded and translated into a digital language.

Our imaginary is influenced and proceeded to be lulled by a torrent of cinematographic fictions that has been attesting the most striking limitations and imperfections of the human being, replacing it by electronic components, mechanical prosthesis, bionic eyes, and others. This and so many other superlatives have the same goal: maximize and potentialize the human abilities, bringing a concealed but efficiently present meaning of finiteness, limitation, and organic fragility before the machine. From Robocop to Matrix, we have seen the human body being reconstructed, reconfigured, and re-dimensioned. The senses are dislocated in a game of immersion and emission that goes from the body machine so well incorporated to the previous to the fluidity of the digitalized body on the cyberspace, where the bodily materiality itself is seen as obsolescence.

We will seek a type of dialogue that aims at enriching the debates about the frontiers between men and machine, which foment heated debates since the winds of the Industrial Revolution, even though they assume different contours under the light of the new technologies.

While trying to understand this synthesis generated from the interaction between biology and technology, the everyday scenario can get confused with a screen in which the hyper-real is projected over us. It seems to us that the fictionalists which are much more lucid than most of the mortals that watch aghast the bellicose events spectacularized by the media have been announcing this new era for some decades. In the words of Asimov (apud), the first clear indication that the people that wrote and read science fiction lived in a real world and that all the others lived in a fantasy realm, took place in August 6 of 1945, when the world learnt that an atomic bomb had exploded in Hiroshima.

Reality and fantasy blend together in the post-modern screen, opening space for the “concreteness” of the simulacrum. According to Santos (2004) the

Basic transformation of the post-modernity is the transformation of reality in sign. Simulacrum = sign. (…) While the real is hard to extract, the simulacrum is docte and makes our representation of a hyper-reality: Intensified, aestheticized, the simulacrum makes the real seem more real; it gives it a desirable appearance.

This hyper-real produced by the techno-science aggregates a value that is always superlative to the simulacrum, responsible for the spectacle and for the de-referencing process of things. The result is: models that do not recognize each other before the make-up session; children that confuse fantasy and fiction with reality and commit crimes; commodities that embody a lifestyle. Even Baye’s tele-fantasy in the Fantástico TV show that does not: be fast outside the cyberspace; and, finally, common people, characters of our every day life that use all these simulacra as mirrors.

Some interventions corroborate the use of this “hyper” as an adjective to human beings, or shade even more any kind of distinction that one insists to make between men and machine:


The search for the hyper-body is a process that gains new strength in this scenario, its construction in the sense that it guarantees a plus offered by the techno-science breaks with the limitations of reality, transplants all its fragilities and leads to a decisive in search of their simulacra. This apparent body presents itself as a result of the de-referencing process, since it denies its referent and starts to correspond to a mutation in perennial process. Turning to Le Breton, the exalted body is not the body with which we live, but a rectified, a redefined body. “(…) the body incarnates the bad part, the draft to be corrected” (p. 16).

Some of the elements that people the post-modern galaxy turn around a single axis: the individual in its three apotheoses consumer-costumer, hedonist, and narcissist. This way, the moral that imposed itself previously via the exercise of values is dislocated to the obligation and satisfaction with oneself. The moral of pleasure, the glorification of one’s own image and the consumption extended to all spheres of the everyday life as a lifestyle, contribute to configure the prominence, and even the obligation, of the manipulation of the body through the techno-science on the post-modernity. Teves (2001) endorses this by showing how much the hegemonic discourses about the body corroborate the modification of the social practices, “the ideology of satisfaction, of the maximum pleasure, is an integral part of the consumption ideology, with the technologies of the body and of the good life” (p. 41).

Challenges for the Physical Education

The last Olympics (2004), in Athens - Greece was involved by an imaginary of a return to a mythical past, re-actualized not only by the ride of the Greek gods in the sky, water, fire and air, ritualizing the opening of the ceremony, but also by the fusion of imagination and reality, myth and science, partnerships made possible by the hands of the technology.

The Athens’ Olympics also shed a light, as usually seen in the sportive spectacle over the ethical and moral dilemmas that approximate the athlete of the hero. The technology was present not only on the reconnection of men to the Greek mythological deities, but also by making almost impossible the exercise of the frontiers that used to distinguish them, since the human limits are profaned all the time on the sports arena. Who dares to bet on the new record? What will be the time of the next fastest athlete in the world? Perhaps these questions are much closer to be answered than we imagine, since very distinguished scientists of athletes and coaches work for this purpose.


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The first Olympics of the third millennium could not avoid metaphorizing a cybernetic universe that the cinematographic productions cultivated with such veracity in our imaginary. “The production of the moment”, the genetic doping was under the spotlight, from the lights of biological technology to the heated ethical or “bioethical” discussions that try in a nearly impotent attempt to rescue men’s place as subject of these relations.

If we are to re-elaborate our reflections in order to accompany vigorously the tenor of the new questionings, we should ask: can we foresee which laboratory will make the best mark in the 100 meters race? The story in the Veja magazine announces: “Bionic Medals. Engineers and scientists are the invisible athletes in the games”, and it finishes by saying: “In the Olympic sports men’s limits were surpassed a long time ago. From the 10,500 athletes gathered in Athens, the ones that are disputing the competitions with their own bodies’ resources have no chance to win (...) At the end of the day, the games are a sort of videogame. After finding the best human material available, technicians and scientists program and equip them to compete (p. 81, Aug 25, 2004).”

The body described in the Veja magazine story is the one that presents itself as an object to be used: it is merely an instrument for the development of technique. “The best human material available” is an imperfect stock, fragile in its original state, to be manipulated by science. In this level, the synthesis of this man does not allow distinctions in regards of its human singularity with the machine any longer.

Le Breton (2003), while discussing this mechanization of the human strongly based on the Cartesian mechanist philosophy of some sociocentric ventures to say that, nowadays, in a modern dictionary of ideas, the entry “body” would be described as “a wonderful machine”. It is interesting to follow the reasoning of the author when he points out that it is not the machine that it is compared to the body, it is the body that is compared to the machine. The mechanism paradoxically grants the body its doubtful noble titles, an incontestable sign of the provenience of the values of modernity. The body is nothing if it is not subordinate or engaged to the machine.

The singularities of this modern body metaphor not only on the discourses production of the different medias, but also on the root of the Western philosophical thought, so strongly marked, as previously stated, by the Cartesian perspective. The obsolescence, the frailty, and the limitations of the human are the pillar that made this body so legitimately manipulated by science, and paved the way through which the discourses connected to a post-humanism are organized.

Further on this course, we extrapolate the sports universe, since that in this space science and technology traditionnally appropriate themselves of the body, frequently under a questionable ethics, but also with the convincing argument of the results.

On the field of everyday life corporal experiences, we see that the body, at least in the big cities, is under an irremediable process of dependence of the technique and the artifact, limiting and reducing the necessity of movement. On a paradoxical contrast, the same society that worships this body experiences a progressive distancing of the physical activities that characterize the relation of men with the world as a way of interfering with the environment. Le Breton thesis is that as the subject distances itself from its body, the body reappears as a symptom that must be treated through a program of physical activities.

The author proceeds to discuss how much the individuals invest in self-management through the indiscriminate use of psychopharmacological substances aiming at the control of the temper, the escape from frustrations, and the enhancing of resistance against everyday life. There is a development of the imaginary of omnipotence over oneself, or still, “a manifestation of intolerance to the harshness of existence and an inscription on the contemporary extreme” (p. 57).

In this set not only the stimulants, fortifiers, antidepressants, and sedatives, are incorporated on the everyday life of the populaces, but also the narcotic substances and anxieties that plague the human being by the current use of vitamins, dietetics, diets, supplements, and still of the anabolic steroids.

The psychopharmacological substances, including the steroids, are devices of the new technologies, simulacra, and an elixir that maximizes, adds power and hides the frailties of this sketched body.

A major argument of this biotechnological invasion this digital body is in favor of humanity itself, since its aim is to extinguish the possibilities, that is, a new form of thinking that the human finiteness is no longer a problem. The de-referencing of the real body is a process that gains substance on the contemporary discourse. It is the search for the hyper-body, which transplants the limitations of reality and dives in search of its simulacrum.

It seems interesting to us that the hypothesis that the physical activity abandons its status of an end to achieve health and good shape a healthy and natural body to turn into a means; a way of triggering the metabolic process of the corporal ranging and transformation.

Turning to Le Breton we notice that, as with the steroids, a similar process seems to take place in regard to the ingestion of psychotropic substances in order to manipulate tempers and affectivities, diminishing the tensions and frailties before reality. In exploratory interviews with steroids users, we found evidences that a conception of a “pure” physical activity, i.e., without the use of any kind of supplements of drugs, is obsolete. The performers do not attribute meanings to that and do not “see what’s the point in ‘working out’ without any ‘fuel’.”

On the discourse of the performers, the metaphor of the machine, re-actualized, “turbinated” by the several opportunities of pharmacological novelties, marks a regularity that repeats itself on the contemporary techno-scientific discourse, producing new ways of thinking about the body. These representations, marked by the mutability that characterizes the scientific intervention over the body aggregate characteristics that are opposed to a not so distant past where anatomy was destiny and the body was the seat of an founding identity of the subject.

Before the new representations of the body, and under the many forms that incorporate themselves to the contemporary social imaginary, the Physical Education must reflect about the ethical and aesthetical dimensions of its professional practice, so permissively interposed by practices that put the aesthetical ideal over health and, sometimes, over the life of the individual through the use of drugs.

The bioethical debate that underlies the scientific advances and findings should also be present in the academies where bodies of teenagers, adults, and old people are built under the moral of a stock to be modeled and submitted to the design of the moment. This body, which is opened to all modifications, which always bears a provisory and mutant identity, is the one that is irreversibly traversed by technology, while all that is left for us as a starting point at this moment is to think about this body as the individual’s anchorage to a new era of the world.

To conclude with Le Breton, the autonomy and the omnipotence of the self-manipulation, i.e., the liberty to build the body compels a search for reference, “a compass to orient its use”. In this way, it is not possible to conceive Manichean discussions about the conjunction of technology with the body, and its consequential manipulation.

Our concern is with the necessity of discussing these themes for the Physical Education, as it is the field that articulates the knowledge in question. The autonomy and liberty that is implied in the action of the professional that deals with the body must be oriented by a sense of duty; it must be clearly bounded by ethical principles. We understand that the relation established between the desires, the seduction of the novelty, the corporal transformation, and the ethical limits that must mediate this intervention, imposes itself as one of the major challenges for the Physical Education.
NEW BODY TECHNOLOGIES: CHALLENGES FOR THE PHYSICAL EDUCATION

This article aims at discussing the relations of the body in the contemporary culture, where it is mediated, transposed and invaded by the context of the new technologies with the implications and determinations that this context has been reflecting in the universe of Physical Education. This thematic development by the doctorate student is a result of a research about the use of anabolic steroids by undergraduate students of Physical Education. New identities start to take shape when the body assumes an ever movable and mutable anatomy via the interpretation of technology, which adds power to and maximizes the bodily performance. In the scenarios of sports and fitness, the doping, the anabolic steroids, and the supplements corroborate the enhancing of the body, elevating it to its highest potency. One of the questions posed by the research is the apparent displacement of the physical activity as a means of promoting health and good shape to a mere way of triggering the metabolic process of the psychopharmacological substances. In this way, the ethical implications of the professional actualization underlie the discussion, since in a concealed consent the use of these substances is becoming compulsory beyond the sports area, also affecting the scenario of physical activities.

Key words: body, new technologies, social imaginary.

NOUVELLES TECHNOLOGIES : DÉFIS À L’ÉDUCATION PHYSIQUE

Le but de cet article est de discuter la relation du corps dans la culture contemporaine, médialisé, transpercé et envahi par le contexte des nouvelles technologies avec les implications et déterminations que ce contexte reflète dans l’univers de l’éducation physique. Cette thématique, que l’on développe pendant le cours de doctorat, est le résultat d’une recherche sur l’utilisation des stéroïdes anabolisants par des étudiants de graduation en éducation physique. De nouvelles identités commencent à être configurées au moment où le corps assume une anatomie toujours mouvante et mutable par l’interprétation de la technologie, renforçant et élevant au maximum la performance corporelle. Dans le décor du sport et de la « fitness », le doping, les anabolisants et les suppléments corroborent pour fournir des additifs au corps, en l’élevant à sa plus haute potentiel. Une des questions posées par la recherche, c’est l’apparent déplacement de l’activité physique comme promotion de la santé et de la bonne forme afin de déchaîner le processus métabolique des substances psychopharmacologiques. Dans ce sens, les implications éthiques de l’action professionnelle sous-jacentes aux discussions, puisque, dans un consentement caché, ces substances deviennent compulsives outre le champ sportif, dans le décor des activités physiques.

Mot-clés: corps, nouvelles technologies, imaginaire social

NUEVAS TECNOLOGÍAS EN EL CUERPO: RETOS PARA LA EDUCACIÓN FÍSICA

El objetivo de este artículo es discutir la relación del cuerpo en la cultura contemporánea, mediado, transpuesto e invadido por el contexto de las nuevas tecnologías con todas las implicaciones y determinaciones que este contexto refleja en universo de la educación física. Esta temática desarrollada en el Doctorado en curso, resultó de una investigación sobre la utilización de esteroides anabolizantes por estudiantes de graduación en educación física. Nuevas identidades empiezan a configurarse cuando el cuerpo asume una anatomía siempre móvil y mutable por la interpretación de la tecnología, potenciando y maximizando el ejercicio corporal. En el escenario del deporte y de la “fitness”, el “doping”, los anabolizantes y los suplementos corroboran para aditivar el cuerpo y elevarlo a la máxima potencialidad. Una de las cuestiones presentadas por la investigación es el aparente desplazamiento de la actividad física para promoción de la salud y buena forma, para un medio desencadenador del proceso metabólico de las sustancias psicofarmacológicas. En este sentido, las implicaciones éticas de actuación profesional subyacen a las discusiones, pues en un consentimiento disimulado, estas sustancias se vuelven compulsivas, más allá del campo deportivo, en el escenario de las actividades físicas.

Palabras clave: cuerpo, nuevas tecnologías, imaginario social

NOVAS TECNOLOGIAS NO CORPO: DESAFIOS PARA A EDUCAÇÃO FÍSICA

O objetivo deste artigo é discutir a relação do corpo na cultura contemporânea, mediado, transposto e invadido por o contexto de novas tecnologias com as implicações e determinações que este contexto tem refletido no universo da educação física. Esta temática que está sendo desenvolvida no doutoramento em curso, resultou de pesquisa sobre a utilização de esteroides anabolizantes por graduandos em educação física. Novas identidades passam a se configurar no momento em que o corpo assume uma anatomia sempre móvel e mutante pela interpretação da tecnologia, potencializando e maximizando a performance corporal. No cenário do esporte e de fardamento, os anabolizantes e os suplementos corroboram para aditivar o corpo, elevando-o a máxima potência. Uma das questões postas pela pesquisa é o aparente deslocamento da atividade física como fim de promoção da saúde e boa forma, para um meio de somente desencadeador do processo metabólico das substâncias psicofarmacológicas. Neste sentido, as implicações éticas da atuação profissional subjazem às discussões, já que, num consentimento velado, estas substâncias têm se tornado compulsórias, para além do campo esportivo, no cenário das atividades físicas.

Palavras chaves: corpo, novas tecnologias, imaginário social.