Cyberculture, Symbiosis and Syncretism

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Abstract

The impact of Cyberculture, of digital devices on young people as extensions of the body can be seen in terms of the decreasing structuring of thoughts and information, increasing impulsivity in perception and action, and the development of more primitive defense mechanisms. These adverse impacts result in the feeling of isolation and devaluation, frustration of present and uncertainty of the future, exteriorization and floating identities, mimetic and adhesive identifications, less cohesion of the self, and decreasing tolerance of the other. This paper focuses on the following themes:

Symbiosis versus Syncretism: The affirmations of Symbiosis. The dilutions of Syncretism.

Synopsis: Too much syncretism, too little symbiosis. Lack of a deeper co-construction of knowledge, more lasting and sustainable. Lack of increased more independent personal cognitive deepening. Lack of ability to be alone.

Causality and Free Will: Symbiotic versus syncretic causality.

Conclusions: Cyber-selfs – either distributed or not at all?

Keywords: Cybernetics, Cyberculture, Symbiosis, Syncretism.

Introduction: Cybernetics, Cyberculture, Symbiosis, and Syncretism

I wish to identify here what is important in the immensity of what is nowadays dubbed "Cyberculture," and hence try to find its structural and structuring concepts. One concerns the dilution, namely the concept of "syncretism". The other concept, the one of "symbiosis", refers to contributory and constructive individuality within a joint ocean of individualities. They are defined below.

This issue of symbiosis/syncretism springs from afar: a problematic one inherent in the biology of life itself. Bacteria had per force to cooperate symbiotically to form eukaryotes, uni- or multi-cellular living beings with cells already containing an individualized nucleus, separated from the cytoplasm by a membrane that envelopes it. Associations of bacteria formed eukaryotic cells. From the former are kept, with their own individuality within the eukaryotic cell, the self-replicating entities that are the mitochondria. And from other eukaryotic cells (viz. the primitive green and unicellular green algae) organelles were moreover adopted, all participating in the global

metabolic cooperation that constitutes the cell sporting a nucleus.

The issue of individuality/dilution, symbiosis/syncretism, next recurs and emerges at successive levels: from the organs to the organism, from the individual to the group, from the group to the society, and from the latter to the information networks and planetary info-ecology.

In order to proceed further, I first provide the structuring definitions of cybernetics and cyberculture, the latter obtained per analogy with the former, plus the definitions of symbiosis and syncretism.

Cybernetics and Cyberculture

Norbert Wiener (1948)[1] in his book "Cybernetics: Or Control and Communication in the Animal and the Machine," introduced the word "Cybernetics." The term comes from the Greek κυβερνητική (kybernetike), meaning "Governance": i.e. all that is pertinent to conducting, navigating, and piloting. The word κυβερνήτης (kybernetes) signifies "the man at the rudder, or captain of the ship."

The subtitle of the book, "Control and Communication in Animal and Machine," indicates that there is something common to the animal and the machine concerning communication and control. Namely, how information signals can be coded, transmitted and decoded; and how such signals enable to exercise control through reactive feedback loops that keep goals in focus, by sensing and correcting discrepancies between the target goal state and the present state. He intended after all to employ these communication and control capabilities for the guidance of antiaircraft missiles, and the stabilization of the human heart too. The research focused on the mathematical formulation and realization of mechanisms of control and communication, inspired by those found in living beings. Cybernetics had immediate application in radar, missile control and medicine, and has since been influential in the study of mechanical, physical, biological, cognitive, and social systems.

Although in the 21st century the term "cybernetics" is employed loosely to identify any system using information technology, we are not far from the meaning of "cyberculture" in the context of a social cybermetics (or "sociocybernetics"). This led me to an attempt to define it by analogy with "Cybernetics." There follows this definition "Cyberculture: Or Cultural Control and Communication in Networked Mechanisms." That is, I appeal to an abstract notion of enabling mechanism, shared in common by live beings and their artifacts (such as human technology machines), but

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[1] Accessed at https://en.wikipedia.org/wiki/Cybernetics

this time broadened with the concept of linked network, the latter being a place of cybercultural cooperation opportunity.

"Cyberculture" thus comprises: cultural communication through technology; emergence of cultural behaviours in a technological network; cultural influence and control of communication and behaviours in this network.

It involves varied components and functionalities, amongst others: attention and inattention; coding and decoding; human and nonhuman agents, plus avatars; sensors and actuators; augmented reality; multi-tasking; collective and distributed memory; big data and data mining; emerging network structures; self-evolution; control or otherwise; etc.

Cyberculture therefore encompasses the emergence of network of enculturating behaviours – and this is new – because emergence is what occurs when several prior things come together, and there appear in their midst new entities and new phenomena not anticipated at the start. This is what happened when the first eukaryotic cells emerged, an emergence that took a couple of billion years though. Emergence creates a problem of cooperation. Darwin did not know how to explain such cooperation: how, in spite of all the competition there arises cooperation, it being of necessity for gregariousness to be possible.

It is thus extremely important to study emergence, for when we put all the many entities together – some entirely new – in networks then new things will certainly emerge. New entities and behaviours will surface suiting this new system of co-dependent interaction. And just as an organism is made of similar cells, functioning clustered and syncretically in organs, and these in turn function in a symbiosis in that organism, etc., at several multilevels of association. We can say that we are still at a rather let us say infantile stage of network emergence, in which we are probably going to dilute ourselves. The question is to what extent are we going to dilute syncretically, or to what extent will we introduce, whether individually or in groups, some measure of symbiotic structuring.

I have extensively studied this facet of emerging cooperation using Evolutionary Game Theory (EGT), the application of game theory to evolving mutable populations. Indeed, EGT provides a framework of mathematically defined contest games, strategies, and analytics for modeling competition and cooperation, and is used to predict the results of having multiple strategies evolving in co-presence. EGT differs from classical game theory in emphasizing the dynamics of each strategy's frequency, inclusively under spontaneous mutations. EGT helps to explain the basis of altruistic behaviours in evolution, whether this evolution be biological or cultural.

Accordingly, it has become of interest to economists, sociologists, anthropologists, philosophers, and computer scientists.

Hence, I have been examining how and under what conditions moral behaviour emerges in networks of agents, cf. Pereira (2016b). For without moral rules there can be no cooperation between agents, man or machine. I am committed to investigating how to impart morality to machines, for they will have to cohabit with us, and will have to be convivial amongst themselves too (Pereira and Saptawijaya 2016). Machines from different manufacturers will be required to share some commonality of joint rules of behaviour, which shall amount to a morality compatible with that of humans. The ideal mathematical theory to study such emergent moral behaviours as a result of diverse strategies in copresence is EGT, because it permits studying them in the abstract, nevertheless precision pointing how to implement them concretely computation-wise.

How are we to think of this problem from the point of view of cyberculture, with some of the components and functionalities mentioned above? A cyberculture involving an entire info-ecology – an information ecology –, where each of us is but a small parcel in a huge (symbiotic?) network, itself evolving (overly syncretically?). How and where to grasp something so complex in what concerns us as a whole?

Cyberculture manifests itself in both syncretic and symbiotic structures; hence it is of important first of all to provide the definitions we shall employ.

Symbiosis

The meanings of "Symbiosis," according to "Infopédia" Porto Editora[2], are three, the last two being figurative:

> Meaning in biology: association of individuals of different species, with mutual benefit (at least apparent).
> Figurative sense: intimate association of individuals.
> Figurative sense: cooperation that benefits the individuals involved.

Of which we specifically adopt the third.

Syncretism

The senses of "Syncretism," according to "Infopédia" Porto Editora[3], are three:

Sense in Religion: phenomenon of fusion of different doctrines or religious practices.

Sense in Sociology: Different cultural elements.

Sense in Psychology:

- primitive form of perception and thought;

- characterized by global, undifferentiated, indistinct apprehension;

- verified in the early stages of the infantile mentality.

Of which we adopt and extrapolate more specifically the third. This psychological sense begins when the child is born, in which it is still fused with its exterior, as if it were still in the womb; in which he does not distinguish between himself and the world. It is only after the event of birth the homogeneous and the heterogeneous distinctions begin to take shape between themselves and the mother, between themselves and the world, and the process of identity creation begins.

The Focus on Young People

Now, we are all at an infantile stage of the development of the Web. The outcome of the impact this development will have on us in the future, in the long run, hinges on the importance for our children of their development with the Web. This raises the question as to what extent and in what ways the conquest of the phase of dilution, would affect the identity our children and grandchildren?

Therefore, given the importance that this dilution has for the future development of the present infantile stage, I focus here mainly on the problem of the identity development of young people at these enveloping times of the Web, leaving aside those of us who have developed their identity in the previous era. The aim of this focus is to begin to grab some tip of the vast complexity of the "cyberculture" theme, a theme too incommensurate to adumbrate in a single book, let alone in a short article.

So far not much attention has been paid to this problem, the exception being by authors from a psychoanalytic matrix. In particular, why is it that young people are increasingly together on the net and at the same time lonelier?, according to the lapidary title statement of Turkle's (2011) book, "Alone Together."

In her book, Sherry Turkle also tells us extensively about robots for the senior aged and of robots for children and young people, and about how these too may damage the creation and

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[3] Accessed at https://www.infopedia.pt/dicionarios/lingua-portuguesa/sincretismo?ic-click

maintenance of identity. We also learn that we need some other who is not just an extension of us, but the one who is human, with initiatives, who can say no and can argue. However, this other tends to disappear.

It is not solely the relationship with active screens themselves that is conducive to this dilution, but also the excessive access to the network as well. In addition, the dilution of the other also results from the relationships of personal proximity with such robots are becoming more intense and widespread. We will not deal here with these "plush robots", but more abstractly with digital communication.

Digital technology has impressed profound changes in life habits, in the speed of interpersonal communication, and the quality of relationships, cf. Gonçalves (2016). For young people, digital devices are extensions of the body itself, indissociable from the feeling of self, viz. Turkle (2011), and of group identity, cf. Lemma (2013). The boundaries between virtual world and external reality become diluted, and the self can, omnipotently, lose the organizing references of real circumstances, viz. Lemma (2013).

What is the influence of these changes on the subjective life of young people and their development, viz. Gonçalves (2016)? There is more impulsiveness, activity and perception, but less structured thinking about information. There is no time to structure information. The (psychoanalytic) defense mechanisms are therefore more primitive, thus giving rise to a greater cleavage of the self, to increased denial and greater tendency for adhesive identifications.

Such changes in the subjective life of young people are not responsive to their evolving and emotional needs, viz. Gonçalves (2016). Tensions between internal needs and external determinations mount, their resolution frustrated and, in psychoanalytic parlance, there is less repression (the mechanism that keeps unconscious emotions, impulses, affects, etc.), and less displacement (the unconscious transfer of an intense emotion from its original object to another). There is less patience and attention, less tolerance for frustration, waiting, and uncertainty, viz. Bilbao (2016), so fast are the stimuli. The connection to the net creates a dependence that needs to be continuous, cf. Kardaras (2016).

There is therefore more externalization (one lives more for what is external), and thus less interiority and cohesion of the self. The parental dispersion itself, when occasioned permanently and daily by this very same digital technology, exacerbates in the young person the feeling of isolation and of self-devaluation. It creates the additive need to see immediate responses to postings whose returns produce biochemical pleasure, as demonstrated in the laboratory. Almost like the mice that press incessantly on the button that gives them pleasure through an electrode

implanted in the brain.

In this regard writes José Pacheco a:

> Societies without human relations of neighbourliness, of company and friendship, without group interactions, without collective movements of common interest, depend on artificial and, I insist, poor forms of relationship that become addictive like drugs. There is no greater punishment for a teenager than having his cell phone taken away, and some of the most serious conflicts that today occur in schools are linked to the cell phone that functions as a lifeline.
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> Nothing is more meaningful and depressing than seeing at the entrance to a school, or at a popular restaurant, or on the street, people who are together but barely speak to one another, and are attentive to the phone, sending messages, sending pictures, viewing their Facebook page, hundreds of times a day. What life is left over? (J. P. Pereira, 2016a, part 1).

Permanent connection to the network, being tied to its devices, does not favour independence in relation to the object – the other –, nor mental elaboration in its absence, viz. Turkle (2011). The network is an extension of our avatars and us. One can create alter egos, consolidating no particular ego, it being easier to remain diluted amongst one's alter egos. This leads to schizoid situations.

Obviously, the construction of a solid identity with a well-defined differentiation, which is essential to creativity, consolidation and security, is compromised. One of the reasons that drives animals in general to always be attentive or on the move, to permanently want to occupy their up time, is that being alive requires energy and the latter should constantly be used in the best way. If the animal uses calories to stay alive but is not using this energy well, by looking around to comprehend and scrutinate the environment, and detect if there be predators, then the energy is being badly used. There exists, therefore, a fundamental anguish in life itself for using time well. This horror of the vacuum has to be reformulated in the internal constructions that prepare us for the future, and not remaining permanently obsessed with the present.

The psychic work of de-idealization of the parental image is also called into question. The young person moves on to a wider merger rather than putting effort on breaking free from parental merging. He thereby compromises his ability to be alone, by himself. The history tracking of reality is lost in space and time. Personal identity is denied through the always available floating identities, which are evident in the personal profiles provided in social networks and game

avatars. Some may even deny sexual difference. In all, good lessons are not grasped in the all too easy alienations of the virtual world of relationships and of apparent opportunities.

For all this, the mimetic and adhesive identifications are reinforced, viz. Gonçalves (2016). One tends to say "I am equal to that one" or "I reject that one". A growth dependent on mimicry and adherence becomes established, not one obtained by one's own construction.

Symbiosis and Syncretism

I have been putting syncretism and symbiosis on the two plates of the scales. Both are needed and coexist. The problem I raise is that of increased syncretism at the expense of symbiosis. We risk diluting ourselves as individual beings in the info-ecology of the planet, in the global semantic network, and lose identity. We may become diluted in a superorganism. Perhaps like the ant, perhaps it is even inevitable to become diluted in such a superorganism. I do not have answers to this issue but believe questions concerning cyberculture traverse these two concepts and pose such problematics.

We single out these admittedly few but decidedly exemplifying constructions of Cyberculture Symbiosis:

    Wikipedia, Wiktionary.
    Blogs in common.
    Public data repertoires.
    Joint public software, viz. SourceForge (https://sourceforge.net).
    Scientific cooperation in real time.
    Making available in widely resources in the Cloud.
    Elaboration of open signature petitions.
    Archiving of records by the public.

We single out, in a similar way, these dilutive aspects resulting from Cyberculture Syncretism:

    Imperfect psychic evolution.
    Superficiality.
    Lack of time. Poorly used time. Busyness.
    Hyperactivity and attention deficit.
    Incoherent fusion. Constant need for new stimuli.
    Discontinuity and failure to continue, due to jumping and skipping about.
    Inefficient multitasking.
    Schizoidism.
    Diffusion of self and emotional skewing.

As a synopsis, it would be said that in Cyberculture, for young people:

There is an excessive syncretism and a diminished symbiosis.

There lacks a greater co-construction of knowledge.

There lacks a greater and more independent personal cognitive deepening.

There lacks the capacity for being alone, rather than "Alone Together," in the serendipitous expression of Sherry Turkle (2011).

It is therefore the very cognitive development of coming generations that is in jeopardy. What this means for humanity as a whole, and the generations to come, is that increasingly there is more of "being together but alone." You lose the face-to-face and relationship as one whole. Each on his smart phone. In Facebook, or other social networks, each controlling what he says. Today young people do not like to call, because the telephone opens the conversation and who knows where it can lead and how long it can take. They do not even like email, because it's already too open in extension, and stays pending longer, waiting for more elaborate answers. They prefer the compact and controlled SMS in two lines, and if some exchange of messages does not please it they simply drop it and jump to another, Sherry Turkle (2011).

Causation and Free Will

Symbiotic causality occurs due to the persistence of a strong internal determination, from the inside out. The individual wants to do this or that, and has his personal and historical reasons for wanting to do it, in order to influence the external and to avoid being dominated by external causes. Syncretic causality is submerged by external determination and occurs from the outside to inside. The person is diluted before the external stimuli constantly bombarding him, with no time to elaborate and to counteract with causes in the opposite direction, from the inside to outside. So he reacts on impulse with sound bytes of the moment, often "kicking to the corner."

Conclusions: Cyber-selfs – either distributed or not at all??

These topics raise vast questions, and hence the double question mark. Below I deliver some provocative interrogations in response.

At the cybercultural technological crossroads in which we find ourselves, can we at all costs keep some individuality, albeit symbiotic, or will we instead succumb before the invasive syncretic synergies? Do we wish at all costs to retain and affirm our individuality, or will we inevitably end up diluted in the identities that are those of the group? Can we resist, or do we surrender to the invasive and syncretic synergy of football in the media? Or to the dilution in TV news' reality shows on judicial causes and courts, dispensed in daily episodes? Or to television's day-to-day

"comic strips" on the economic life of the market and world politics?

In the cyberculture under development, the nuclear notions of self, separation and individuality are all important. These, with so heavy emphasis in "Western culture", are not as relevant in other cultures. In the West, it is well known that the concepts of self, separation and individuation are very marked, in contradistinction to other cultures, namely in the East. An example of this is therapy. In the West, the individual self is the object of therapy: a self that values differentiation. In the East, the relational self is more permeable, and the self-other boundaries likewise. There, the unit of identity is not that of the internal representations of self and others, but that of the family or community in which the self is distributed and to which it is given priority (Lemma, 2013, 164).

The wisdom of the East may be relevant to the cyberculture of the West, viz. Roland (1988). There, the individual asks how he can contribute more, in symbiosis, giving priority to the whole. Instead of asking how he can defend himself more, in giving syncretic priority to himself.

Acknowledgements

References

Bilbao, A. (2016). *O cérebro da criança explicado aos pais.* Lisbon: Editorial Planeta.

Gonçalves, M. J. (2016). *Nascer e Crescer na Era Digital.* Talk on 31 de Março de 2016. Lisbon: Sociedade Portuguesa de Psicanálise.

Kardaras, N. (2016). *Glow Kids.* New York City: St. Martin's Press.

Lemma, A. (2013). *Introduction to the practice of psychoanalytic psychotherapy.* Hoboken, NJ: John Wiley & Sons.

Pereira, J. P. (2016a). A ascensão da nova ignorância. *Público* online. Accessed at https://www.publico.pt/2016/12/31/sociedade/noticia/a-ascensao-da-nova-ignorancia-1756629

Pereira, L. M. (2016b). Software sans Emotions but with Ethical Discernment. In S. Silva (Ed.), *Morality and Emotion: (Un)conscious Journey into Being* (pp. 83-98). London: Routledge.

Pereira, L. M. and Saptawijaya, A. (2016). *Programming Machine Ethics.* Studies in Applied Philosophy, Epistemology and Rational Ethics, vol. 26. Berlin: Springer International Publishing.

Roland, A. (1988). *In Search of Self in India and Japan: Toward a Cross-Cultural Psychology.* Princeton, NJ: Princeton University Press.

Turkle, S. (2011). *Alone Together: Why We Expect More from Technology and Less from Each Other.* Cambridge, MA: The MIT Press.

Wiener, N. (1948). *Cybernetics: Or Control and Communication in the Animal and the Machine*. Cambridge, MA: The MIT Press.