

# Postmodern Medicine

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### Abstract

After referring to modernism and postmodernism as the great cultural universes completing the 20<sup>th</sup> Century, the Author tries to demonstrate that one can also talk about a postmodern Medicine. The former, born with the discovery of penicillin and sulphamide, is marked by a certain optimism, the growth of a

powerful pharmaceutical industry, the height of Surgery and the birth of the Welfare-State. The hallmarks of the latter are a general disappointment, the invasion of the new technologies, the progressive reduction of the weight of traditional Surgery and the collapse of the Welfare State.

For many people, postmodernism is not far from a style that has prevailed in architecture since the 1980s. A correct perception, but clearly a limited one, as it is, in fact, a much wider movement, the influence of which has extended to all art forms. Further more: like what took place in other aesthetic trends (such as Renaissance, Baroque and Romanticism), postmodernism emerged in a particular historic context, as generator of trends of thought that changed behavior, lifestyle and scales of value. As a general concept, postmodernism is a cultural movement that has influenced the most varied aspects of human activities in these final decades of the 20th century.

As indicated by its name, postmodernism emerged after modernism and, in a certain way, it represents a break away from modernism. In order to better understand postmodernism, it seems imperative to identify the essential elements of modernism which, during this transition phase, entered a decline and ended up being replaced by others.

It is worth saying that, first of all, modern, modernity and modernism are ambiguous words, which are sometimes used in their lato sense, and sometimes in their stricto sense, often indiscriminately. But we will not be far from the truth if, within this concrete context, we identify modernism as the culture that prevailed in the Western history in the period that started between the two World Wars and that, with

its death proclaimed in May 1968, ended symbolically with the coming down of the Berlin Wall. It is a long, complex period, permeated by turbulent and dramatic events, but in which persisted certain elements that give it an identity.

One of these components – perhaps the most important one – is represented by the weight of the ideological systems. Communism on one hand, and capitalism on the other, were the two pillars of a dialectic that marked the lives of many generations, and were the origin of the major social conflicts and tensions between the two great powers that entered the history books under the name of “Cold War”.

Another component that is sometimes mentioned relates to the concern with cleaning the artistic creation, protecting it from the “contamination” of superfluous elements, alien to Western culture. While in global terms, it was not always exactly this way, this trend was clear at least in architecture (Corbusier and the schools influenced by him), abstract art and classical music (dodecaphony and concrete music).

Finally, modernism, in its final phase, was marked by a certain triumphalism, in a series of spectacular accomplishments that generated expectations: jet engines, television, atomic energy, and spacecraft. In the remnants of the mortal conflict that had been the Second World War, after the evil ones had been exemplarily punished, the modern world went through a period of moderate optimism, convinced that it was now capable of imposing a new order that would bring peace, justice and progress.

But postmodernism is the opposite of all that. Above all, because it was born out of an ideological emptiness (or at the very least, because it replaced heavy ideologies with other less encompassing ones, such as ecology, or grandiloquent statements, as is the case of the so-called “social solidarity”). But beyond this,

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it was also marked by the contamination of creative activity (evident, for example, in architecture, conceptual art, and fusion styles of music), by a certain pessimism in relation to fate of mankind, and finally, by the marvelous technological progress in the areas of electronics and micro-processing, which enabled scientific development to become democratic and accessible to the public. At risk of stereotyping, it can be said that in modernism, families fell in love with electro-mechanics (cars, fridges, washing machines, and turntables), symbols of a certain well-being, while during postmodernism, they surrendered to electronics (television, VCR, mobile phones and computers), which gave them a completely new relationship with the world, a world that, to a great extent, they did not know. Information and communication became the dominant marks of a period that witnessed the emergence of the “global village”.

Similar to what happened to modernism, postmodernism created its own cultural universe, which worked as a catalyzer of major social transformations, some of which had evil effects. It is within this context, particularly in the USA, that postmodernism (and its nearest relative, relativism) has been the object of fierce debate among philosophers and politicians. Believed to be responsible for the wave of irresponsibility and the loss of the North American social standards, postmodernism is causing a conservative reaction that is at risk of becoming radical. Liberals try to respond to this by reevaluating individual responsibility and with the clear statement that the liberal society is not neutral in relation to virtue, and has its own benchmarks.

Whatever the result of this debate (which must include that which was generated among us concerning the “Geração Rasca”), what seems assured is that both parties will reject the “culture of irresponsibility”, and that postmodernism, with its days numbered, soon will give way to another “-ism” that, whatever its name, will always be a “post-postmodernism”.

Despite the risk of stepping into an area outside my specialty, this introduction seemed to be essential to contextualize the following question: was there also a modern Medicine which was followed by a postmodern Medicine? On first glance, it seems evident to me that the answer is yes, but I will try to explain why.

Lewis Thomas, in his book *The medusa and the snail*, places the beginnings of modern Medicine in the 1930s, when penicillin and sulfonamides made their

triumphal entrance in the pharmacopoeia. Although he emphasizes that this was only possible due to the knowledge on bacteriology accumulated in the end of the 19th century, he acknowledges that the discovery of these two drugs marked the decisive turning point, because (except for some previous isolated cases) it was only after this that the amazing power to cure diseases became available to doctors.

However, although this power was important, it was only a small taste of what was about to take place. In fact, the discovery of penicillin and sulfonamides triggered a series of events that changed the face of Medicine and opened its doors to modernity.

First, an optimism with an air of triumphalism became prevalent among physicians. And it could not have been otherwise: if with half a dozen injections, it was possible to control severe cases such as staphylococcal sepsis and puerperal fevers, it also seemed logical to expect that, in the near future, new “antibiotics” would be able to selectively eliminate other cells that, due to harmful biological processes, had rejected the body that had generated them: cancer cells.

Another significant consequence was the sudden interest in the medications sector, among the large laboratories of the chemical industry. For better and for worse, from then on Medicine had to cohabit with laboratories of the pharmaceutical industry and adapt to the complicated marketing rules of these new partners. On the other hand, it would also undoubtedly benefit from the gigantic research programs that made available an enormous variety of drugs, whose molecules, manipulated and transformed by modern technologies, enabled the provision of a solution to the most exacting demands. Diuretics, corticosteroids, benzodiazepines, alkylating agents, beta-blockers, and H<sub>2</sub> receptor blockers <sup>3</sup>/<sub>4</sub> are some of the medicines that, among many others, changed the course of Medicine.

Modern Medicine would also be marked by another event of great importance: the rise and apogee of Surgery. It is known that until the end of the 19th century, barber-surgeons were a class outside any category. Illiterate, with no access to academic degrees, they merely treated wounds and trauma and carried out surgical procedures considered “imperative”: extraction of bullets, amputation of crushed limbs, caesareans, draining abscesses. The results were irregular, but almost always catastrophic.

The low social status of the surgeons of that time

was well documented in the diploma Louis XIV granted to Charles-François Felix, who had the courage to treat him, successfully, for an anal fistula. The text of the Sun King ended with this clarifying sentence: "... the practice as a surgeon shall not make him lose his quality as a nobleman".

With the progress of microbiology in the last twenty years of the 19th century, Surgery began to emerge from a dark era and tentatively attempted its first scheduled interventions. But it is only with the emergence of the triple A (asepsis, anesthesia and antibiotics) that it would impose itself as a great star. The old barbers became "grand patrons", filled of honor and money, rising to the highest levels of society. Gradually there are no more taboo territories for Surgery, and the heroes of the scalpel launched themselves onto lungs, heart and even the central nervous system, with the same energy they had previously used to operate hemorrhoids. And so, an incontestable triumph of surgical technique was seen, which was essentially based on three gestures that had been defined in the previous century: dieresis, exeresis and synthesis.

But modern Medicine did not stop here; it went on to produce another generous and brilliant idea: the universal right to health. And so the Welfare State was then born, which, in general terms, granted all citizens access to so-called "healthcare" and which, here in Portugal, after the start of the "Caixas", in the 1940s, would finally culminating in the Arnaut Law.

The complete scenario of an era was then created, an era full of amazing discoveries, justified hopes and generous ideas, but which, as everything in life, would finally exhaust itself and give way to a new reality.

At the end of the 1960s, the first signs emerged that something was wrong. In fact, the optimism generated by the discovery of antibiotics seemed to err in its excess. Some bacteria, such as staphylococcus aureus and gram-negative microorganisms, rapidly acquired defense mechanisms that enabled them to survive and even to become more aggressive. In 1976, there was an outbreak of Legionnaire's disease, which although rapidly solved, left behind a certain discomfort: after all, there were unknown bacteria, which were difficult to isolate using conventional methods, and which, on top of that, caused deadly diseases.

But the hardest blows to the optimism of modern Medicine were yet to come. The first was the emergence of the acquired immunodeficiency syndrome, an

unexpected event that tested the scientific knowledge and the technological resources of the time. It is clear that the time spent by scientists on identifying the virus responsible, penetrate its innards and detecting its serological trail was an absolute speed record. But is also true that after fifteen years of sophisticated research programs, there is not much more to offer than advice and primary (and not very romantic) methods of protection against the disease.

With the outbreaks of Ebola, and more recently, the episodes of the mad cow disease, with the appearance of mysterious prions, the sensation of vulnerability and insecurity grew even stronger. Besides the hope placed in the discovery of effective anticancer drugs, extrapolating from what had happened with bacterial diseases has not been borne out until today. The optimism of modern Medicine faded away, giving way to a certain disbelief, typical of a postmodernism that is void of ideologies and idealisms.

However, if something can give postmodern Medicine an expressive image and create a counterpoint for optimism, it would be the massive invasion of new technologies. CT scan, echography, magnetic resonance imaging, endoscopes of optic fiber, microcameras, and digital monitors completely transformed medical practice. The clinic underwent an enormous devaluation, as now it was possible to "see" what in the past, had to be inferred through laborious reasoning. Some specialties, such as Ophthalmology and ENT, which benefited most from microsurgery, started to carry out true miracles, although they still do not fully understand the nature of many of the diseases they are treating. And information technology, accessible to everyone, enabled communication and exchange of medical knowledge with amazing effectiveness and speed.

However, classical Surgery (involving dieresis, exeresis and synthesis) has become the object of an ever-tightening circle. LASER, endoscopic surgery and laparoscopic surgery (together with the abandonment of pathologies that previously belonged to traditional surgery, such as peptic ulcer) started to slowly but relentlessly narrow the traditional field of action of surgery, so that in the medium term, it seems likely that it will be restricted to the three Ts: trauma, tumor and transplant.

Finally, postmodern Medicine is marked by two significant phenomena: contamination and financial breakdown.

It must be clarified that, within this context, the word “contamination” has no pejorative meaning. The point is: until the late 1960s, the practice of Medicine belonged exclusively to physicians, and was based on a set of disciplines and techniques that only they could master. After that, everything changed: new disciplines, such as bioethics, quality and management (which doctors could not master so well) emerged and Medicine began to be shared by a variety of new professions. It also increased in financial and political weight, which it did not have in the past, and for that reason it became the object of curiosity and voracity of journalists.

All this had advantages, which took the form of wider debate on some essential issues and of contributions brought by extra-medical professional areas. But it also had negative effects, with negative impact on public opinion, consumption and general acceptance of some fallacies that have no scientific bases. A certain “relativism” then emerged, which places opinions based on competence, experience and reflection on the same level with others that are little more than irresponsible. It is a fact that doctors became legitimately worried about the interventions of the non-specialized Press (which is also postmodern), which transmits errors like “plural” effusion, “lumbar” pneumonia, or “nose” surgery (instead of aneurysm surgery).

But postmodern Medicine is also confronted by another fundamental issue: the financial breakdown and the end of the Welfare-State. The causes include, among others, the aging of the population and increasingly expensive new technologies. The solutions are not simple, and are a challenge to the imagination of physicians, economists and politicians. Finally, the idea that the universal right to health means that it does not cost any money is over: someone will have to pay, one way or another, and that someone is the citizens themselves, not some mythical entity. To achieve a system of effective financing, which simultaneously ensures equal access to all, is one of the greatest challenges facing decision-makers in the area of Health.

We see that a certain disenchantment (not to say pessimism), a strong influence of new technologies, the first signs of a retreat of traditional Surgery, massive participation of professionals from multiple, non-medical areas, and the start of the end of the Welfare-State, are the most significant components

that marked Medicine after the 1970s. It is evident that everything that is related to the cultural history of Mankind is an ongoing process, and dividing it into well-defined phases, as we tried to do, will always be an attempt to understand a complex reality in which components of various periods coexist. But for a generation like mine, who started clinical life at the end of the 1950s, the differences and counterpoints between what Medicine as it used to be and Medicine that exists today are entirely clear, and extrapolating from what is taking place in other fields, we dare to call it postmodern Medicine.

Reflecting on all that can be useful for understanding the changes that the 21st century will bring to the medical practice, and which will probably be more rapid and deeper than the changes that have taken place so far. ■

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