

Operationalization of the 'Human Body Domain': A Structural and Functional Conception



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Opinion

The interpretation of phenomena, any phenomenon, depends on the used framework of reference. Gone is the time (over a century) in which Einstein proposed the triple relationship phenomenon / signal / observer as a form of rupture with a framework of reference dominated by logical empiricism in which the phenomenon was considered independent from the observer? Similar rupture (at a functional level) was made by Darwinism with 'natural selection', with an interpretation that in a macro level allows us to interpret the actions on the phenotype (with all its various 'neo-Darwinisms'), consolidating an understanding of an evolution that frees itself in this way from more exoteric ways of considering the phenomenon.

But at a micro level (in relation to the above-mentioned macro), for example in education, sports, health, "martial arts", fitness, in every way in which the 'mastery of the body' is a fundamental tool for the development of the individual and of societies, the time of a natural selection does not apply. Fortunately, because events occur at such a speed that 'there is no time' to wait for coincidences, and in any case the costs would be excessively high (because there are alternatives). And the exoteric explanations that justify 'some tricks' as a mean of acting also no longer satisfy.

Thus, as we propose in particular in the article 'Winning in Efficiency', in which we present, in a very simple manner, the conceptual reasons that justify our position, the interpretation of the phenomenon formation (transformation, evolution, modification,...) of man must be seen as a process that goes through 'choosing' stimulus that leads to the intended adaptations that produces transformations... which may even happen without being aware of the causalities of the phenomenon, but which will be more efficient if we understand what we are doing and leading the process.

Haphazard is replaced by an intentionality, as we explain in more detail in our work Tratado Sobre o Desporto (Treatise on Sport). Some examples to, briefly, operationalize the process and

the complexity of the phenomenon (and why it even happens to work, it roughly works, anyway):

a) Development of Muscles

(Which some think, wrongly, more connected to sports) - Usually attention is focused on the load. But the 'speed' (wrong, the important thing is acceleration) is also an important factor. Remember the formula $F=ma$ (force = mass x acceleration), where we can privilege / regulate mass or acceleration. But the muscle is not a homogeneous and uniform thing, it is (roughly, very roughly) composed of red and white fibers. If we increase the mass we tend to request more red (slow) fibers, if, on the other hand, we increase the acceleration we tend to request more white fibers (fast).

But when muscular fibers (all) act, the involved joints get also requested (and others that support them), the muscle attachments and the bones to which they are attached. Everything is coordinated so that the result is the one wanted by a nervous system that regulates the hundreds of muscles (about 639, it is debated) to obtain the desired action. Coordinating everything according to the data collected from the context, the individual himself, according (more or less agree) with the intended use of the sum of the forces involved... All in accordance with the stimulus received and the aimed transformations according to man intentions, his dreams, fears, when we're moving a muscle, we're messing with a lot of things.

b) Cardiopulmonary Development

(Which some think, wrongly, more connected to health) - But the muscle we've talked about in the previous point only works if it has the necessary energy. But the available energy is not homogeneous and uniform, it is (roughly, very roughly) possible through three processes that favour: 1) slower but longer movements (aerobic) or; 2) aerobic that can be for maximum intensity forces (but in few seconds, ATP-PC system) or; 3) a little longer (a few minutes, glycolytic metabolism system), without forgetting (of course) that relaxing a muscle is as

important as contracting it (again ATP »ADP) ... And in addition to the regimens and the heart and lungs much more is being requested, adapted and transformed. All in accordance with the stimulus received and the aimed transformations according to man intentions, his dreams, fears, when we're working with energetic systems, we're messing with a lot of things.

c)Nervous Development

(Which some mistakenly think more related to education?) - but strategies and tactics, as well as the use of technologies that allow the accomplishment of objectives and accomplish WORK, as well as conceiving of these intentions and frameworks, realize the context and dialogue with it, as well as many other realities, which we have no space to describe but the reader can imagine (in performing this function) and using the muscles and energy regimes mentioned above and more, much more... because man is an organic being that is activated in its entirety... All in accordance with the stimulus received and the aimed transformations according to man intentions, his dreams, fears, when we're working with the nervous system (lato sensu), we're messing with a lot of things.

We are not saying that man should not be worked. We are assuming that it must be done very carefully and with the

awareness of much knowledge and many doubts, both tools profusely available nowadays. Sports, health, education, they work on man, the same man in all of them and simultaneously in all of these areas. If instead of knowing 'some tricks' that even have some effect we can understand the phenomenon and know ways to manipulate it (such 'tricks'), we will certainly be more efficient. So, as we've mentioned in the article 'Winning in Efficiency': We should seek to improve the processes (processes are tools) we use regarding three consequences:

- a) Increase the quality of the product (the activity and its domain);
- b) Increase safety and efficiency of services;
- c) Increase the quality and, consequently, the recognition and prestige of the professionals responsible for its orientation and management.

Conclusion

With some simple care, and a better knowledge structure, it is possible to gain more efficiency and profoundly improve the quality of the produced work.



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