

# **Recent History of Tonus (1940/2018)**

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## **The refusal of the discovery of J-B Baron**

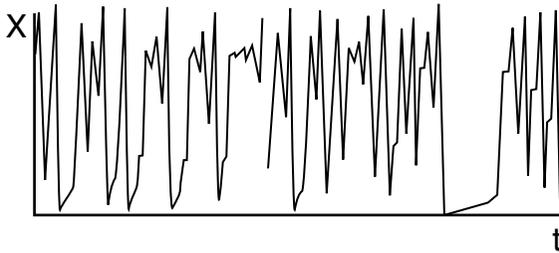
In the recent history of muscular tone there is an indisputable fact — although it is difficult to document it by writings since it is essentially silences! — and of major importance: The European and American neurologists refused the discovery of JB Baron in 1955. We are witnesses, we heard Baron say it and complain about it [1,2].

## **The end of the tone studies by the neurologists**

This fact has had an obvious consequence, the study of tone is no longer the domain of current neurologists, while neurology was its domain since Galen. André Thomas, who died in 1963, has no successor. These are the heirs of Baron, posturologists, who took the relay of advanced studies of tone.

## The ignorance of non-linear dynamic systems

In the presence of a temporal signal of this aspect:



It is impossible to think for a moment that it is generated by a rigorously determined system - here a mathematical equation of the second degree !!! - if we completely ignore the mathematics of nonlinear dynamic systems.

André Thomas, who was unaware of them, could not understand that the regulation of the postural tonic activity was rigorously determined, he saw only random phenomena:: «The tone varies at any moment, it is continually at stake ... all the peripheral excitations , of whatever natures they are, are

able to provoke tonic reactions » wrote Thomas and Ajuriaguerra in " L'axe corporel "[3].

J-B Baron's science thesis showed that the regulation of postural tonic activity functioned as a non-linear dynamic system. But Baron has not been able to explain it mathematically, we had to wait until J Martinerie's analyzes with P.M. Gagey [4].

It is because we know that the regulation of the postural tonic activity is rigorously determined, as "pre-wired" in the CNS, that we can seek to know its LAWS which allow us to manipulate it. André Thomas did not know how to manipulate the tone, he saw only random phenomena.

## **The absence of the neurologists**

In the absence of neurologists to supervise postural clinical examinations, paramedic who has experienced the therapeutic interest of posturology and wishes to continue to use it, is condemned to look at

things from the point of view of his specialty, the world that he knows well. With the risk of seeing only one aspect of things and prescribing, in good faith, harmful treatments.

## **The law of asymmetries**

We do not know when or how neurologists will be interested in tone in terms of its rigorously organized regulation. In the meantime, posturologists must organize themselves to find a global point of view on their patients. The rigor of the systematic organization of the regulation of postural tonic activity should provide them with a solution.

We have seen for a long time that "vision crystallizes the asymmetries of the orthostatic posture [5]". At the occlusion of the eyes, the 'X-mean' refocuses [6] and the subject turns around his vertical axis, with a movement of spin [7] which reduces the external rotation of his lower limb, probably homolateral to his directing eye [8]. If this general law of gestural

and postural asymmetries is confirmed, it will greatly simplify the clinician's overall vision of his patient.

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