

Complex system theories are necessary for a better understanding of our biopsychosociocultural constitution

María Dolores BRAQUEHAIS

Department of Psychiatry, Vall d'Hebron University Hospital, Barcelona, Spain

The etiological model of definite, lineal causes for mental health diseases, inspired in the seventeenth century Sydenham's model of infectious diseases, can no longer inspire our conceptions about the nature of the brain-mind-context relationship. The ambition of the psychiatry to become a medical discipline that started in the nineteenth century should not make us believe that the brain-mind-context relationship can be studied with the conventional medical approach to diseases. Current trends in psychiatry should reconsider wider, new, refreshing models such as the Complex Systems Theory.

Friederick von Hayek (1899-1992), the famous Austrian philosopher and economist, believed that economics, in particular, and the sciences of complex phenomena, in general, could not be modelled after the sciences that deal with essentially simple phenomena like physics. Hayek held that complex phenomena (I add such as mental health phenomena), can only allow pattern predictions (through modelling), compared with the precise predictions that can be made out of non-complex phenomena.

From the ontological point of view, matter is organized in different levels (physical, biological, psychological, and socio-cultural). Those levels cannot be studied with the same methodological approach. However, taking into account findings coming from other fields would certainly enrich our comprehension of the complex brain-mind-context interaction. Let's use a metaphor. If we want to

understand why a book we like (e.g. a best-seller) is important for us, we cannot reduce our comprehensive model to a statistical analysis of the number of chapters, paragraphs, words, and letters the book contains. These data will tell us something interesting about the book but little about why it is important not only for me/us but also for many other readers. Of course, if we eliminate the "quantitative" composition of the book, we won't feel and think what we feel. We need the physical support to read a book. However, we need to incorporate a "qualitative" (psychological and socio-cultural) explanation to achieve a wider comprehension of the "best-seller" phenomenon. We can clearly understand that those different levels cannot be studied with the same methodology. Nor one can be explained through the other.

Finally, let's keep in mind that our models should be dynamic as they change over time. For instance, the synthesis of evolutionary and developmental hypothesis for biological phenomena underline that matter is always in change, though some basic structural features (or organization patterns) may keep some configurations with minor changes over time.

It is time to incorporate a new multi-level, non-lineal, dynamic, open-minded model in the academic psychiatric field. Psychiatric journals would benefit from an "open-minded" perspective, including approaches that certainly tell us crucial things about the human being.

Address for correspondence: María Dolores Braquehais, M.D., Ph.D.; E-mail:mdbraquehais@vhebron.net