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Instrumentation-Optimism-Frustration Script in Psychiatric Research (The CT Scan: The Latest Model)

The hope in a magic solution issuing from the galloping technological advances to resolve the psychiatric dilemma lies somewhere in the conscious spectrum of any practitioner or researcher in the field not excluding most psychoanalysts. Perhaps this is the cause why the same script repeats itself with no or minimal progress or alteration . Every few years we come, again and again, to act the same role.

A technological device or a new laboratory technique declares a better possibility of getting to know the nature of the pathology in the CNS responsible for the pathogenesis of certain psychiatric disorder(s). This initiates a wave of optimism followed by a gush of research in the promising direction, but with the least effort to formulate the appropriate hypothesis that is likely to better fit the new tool. Honest comparative studies then follow, limitations accumulate, data mostly contradict each other, follow-up studies fail to support initial finding or prove original assumptions and, lastly, neither significant correlation nor causal relation could be established.

The most recent script is related to the CT scan. It seems to repeat the neumoencephalography story with the advantage of being a non-invasive and more sophisticated measurement. The review by Jacoby (1983) shows that at its best and from an academic point of view, CT may have certain prognostic value in dementias (particularly Senile Dementia Alzhiemer Type and Multi-Infarct Dementia ; SDAT and MID[1]). This limited value does not justify the undue enthusiasm for such technique to be applied to psychiatric illnesses not only on an academic research level but also as a practical diagnosis tool is primarily. However, such enthusiasm may reflect the continuous urge on the part of the psychiatrist to remember that he is but a physician in order to fit in the fashioned technological model. As such we usually overlook the fact that medicine, an art of healing. Technological devices could only sharpen and enhance, but never replace, such art.

Another point to be revised is the tendency of the investigators to consider the possible atrophy detected by the CT as the pathogenetic factor in itself or at most as possibly mediated through or caused by some other concomitant process such as aging institutionalization, malnutrition, inter-current infection...etc.

It may be as reasonable (or more reasonable) to start the other way round.

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1 – Senile Dementia Alzheimer Type and Multi-Infarct Dementia.

Arieti (1974) postulates "...the central nervous system would be the victim of the psychological conflict that it produces, the conflicts or turmoils themselves would disrupt the organization of complicated neuronal patterns. "He considered "the functional alteration of the nervous system in schizophrenia not at a biochemical or molecular level, but at a preceding level as a disintegration of neuronal pattern. Arieti was fully aware that such postulate could not be fully proved at the present state of our knowledge. The CT scan is a later technological achievement and it may open the gate to further developments that are able to minimize the gap between such hypotheses and their possible approval.

We have to think, also, in the atrophy detected as a possible consequence of specific disintegration of this or that area (s) i.e. as a sort of misuse or disuse atrophy resulting from neuronal dysharmony in a particular disease. We do not expect, by the present CT device, to disentangle the cause from the "effect" related to this circular problem. However, such orientation of the related current hypotheses may stimulate further elaboration of new techniques in the proper direction. It may also help to plan certain follow-up studies of the process of disorganization along with its behavioral and patho-anatomical consequences. An operational coherent hypothesis should stimulate creating new research devices as much as new devices can add a wealth of necessary part information.

The only way to get out of the stereotyped "instrumentation-optimism-frustration script" is to make good use of the feedback (failures). It is not enough to develop more the same instrument in the same direction but it is as necessary to revise the underlying hypothesis and elaborate the assessed clinical data. The history of the march of medical model (the ego-ideal of psychiatry nowadays) tells us that medicine has always developed through primarily detecting a patho-physiologic pattern of dysfunction then going to search for its atiological basis and patho-anatomical associates or consequences . Part information, whatever valid and concrete, should be used mainly in stimulating more logical and comprehensive hypotheses.

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