Empiricism in Psychiatry

Despite the vast gamut of elaborations available today, there is common agreement on the nature of the pursuit of natural science and the scientific disciplines orbiting around it: They all intend to reproduce, describe and explain the experience-based phenomena they investigate, in a bid to answer the question why things happen the way they do. Once an explanation has been offered, it is not deemed scientific until validated by research and framed in theory. This prompted E. Nagel (1961/1971, p. 15) to write in his classic work *The Structure of Science*: “[...] the distinctive aim of the scientific enterprise is to provide systematic and responsible supported explanations”.

The type of ‘why’ question may vary, however: why does a particular object expand when heated, why does the pulse rate increase following blood loss, why does social isolation increase the risk of a suicide attempt, and so on? Based on these examples one may gather that the explanatory approach cannot be separated from the object of explanation. This may be a natural phenomenon or a social event or, at a higher level of abstraction, laws or statistical correlations tied to somatic or social reality, which in turn need to be explained by a general theory. Obviously, natural-scientific psychiatry – biomedical psychiatry – will draw on this scientific view. But what exactly are the basic coordinates of this philosophy of science?

**The Natural-Scientific Explanation**

A specific, formal pattern seems to have emerged. Overall, two conditions need to be met for an explanation to be deemed valid. First, the statements underlying the explanation must be empirical in nature. The aim of this prerequisite is to eliminate speculation: some form of test implication is needed. A statement that cannot be tested is not acceptable. Thus, the criterion of testability separates scientifically acceptable statements from unacceptable ones – it functions as a ‘criterion of demarcation’ of scientifically meaningful language (Popper, 1959/1968, pp. 34-39, 85). Obviously, the key question is what exactly is meant by
’testable’ and what type of experience is ‘acceptable’ (Kraft, 1960, pp. 27-49). One may adopt either a strict or a lenient position, and both positions have their own drawbacks. An open-minded stance, prepared to embrace psychic factors, is bound to clash with orthodox scientific minds bent on rejecting entities that elude verification, such as inner experience. However, a choice for rigidity may have its pitfalls too.

Testimony to this is the debate that took place between Karl Popper and Rudolph Carnap in the mid-20th century. If we argue, like Carnap did in line with early logical-empiricism, that only statements which are strictly verifiable should be allowed, by extension this would mean that laws of nature are inadmissible, as they cannot verified in a strict sense. A law will take the form of a universal proposition, referring to something that will occur each and every time, although it would be practically impossible to verify each single case. Support by empirical evidence or corroboration would mean little, as a law cannot be verified in a strict sense. However, a law can be refuted, or falsified. Popper argues that all it takes is the finding of one instance – the instance that is prohibited by the law, the universal proposition: the finding of one single black swan suffices to refute a universal proposition that states that all swans are white. This debate led to the decline of a rigid type of positivism that distinguishes ruthlessly between observational language and theoretical language, to be superseded by a more liberal interpretation of science.

This extended concept of science highlights the theoretical embedding of laws, and the dominance of theory within observation, where refuting or falsifying laws and theories will bring separation, elimination and, at any rate, correction. The falsifiable quality of theories will offer conclusive evidence about their ultimate scientific quality. Despite the resulting extension of the scientific field with the attributed significance of theories and conceptual structures, the demand of testability is maintained in its strictest sense. Invariably, the implication is represented by external observation: “Here is a black swan” (Popper, 1959/1968, pp. 27-49; Putnam, 1974). Mental conditions, dispositions and competencies can be processed, provided they are fully objectified. This enables a scientific psychology and psychopathology to be developed. However, any subjective attribution of meaning will fall outside the scope of these sciences. Limitation of the range of the experience and the elimination of a more generalised concept of experience still apply. In view of the limitation intended, this approach should be termed empiricist or empirical-analytical rather than empirical, because the latter lacks