The Philosophical Assumptions of Psychotherapy Science

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Opinion

According to the authors, there are two distinct sets of underlying philosophical presumptions of psychotherapy science today: mainstream, well-established assumptions drawing on empirism, determinism, reductionism and mechanism and relatively new, alternative ones, here traced back to the concepts of intentionality, wholeness and analogical thinking. The current state of affairs in this field is a result of historical developments in Western science. In the antiquity and Middle Ages, truth was based on confirmation by authority rather than empirical experience. Only from renaissance onwards, experiment became the primary tool. In the modern era, the objective truth was thus to be found through verifiable, repeatable observations by several individuals and repeated, repeatable and standardised measurements of phenomena. An understanding had arisen from experiments that there were simple rules behind all phenomena that could not be observed directly and that these laws were abstractions requiring ideal conditions. Therefore, it was necessary to disregard some conditions/factors deemed disruptive in experiments, regardless of their role under normal circumstances. This reductionist simplification made it possible to obtain generally applicable data. Physics (especially Newton's rules of motion) played a major role in the development of this perspective and had had major methodological impact all other sciences.

Scientific methods, depending heavily on empiricism, reductionism and determinism, were applied with considerable success in hard sciences, spread to other fields and came to dominate them.

Yet another driving principle that emerged was mechanism, meaning, in a philosophical sense, the attribution of ‘natural processes and phenomena of the living to the laws of motion’ and explaining them strictly deterministically according to the principle of cause and effect in the sense of causa efficiens (Rieken and Gelo 2015). Mechanism was useful provided that simple mono-causal relationships were dominant, but much less so in more complex environments with multiple causes at play. Nowadays, laws of nature are understood as a theoretical model, and mechanistic thinking is considered as simplification. Modern physics has since stridden forward, as the perspective of the simple causal-analytical worldview of mechanics was challenged and relativized (e.g., by quantum physics where the observer is as influencing variable or the systems theory). However, the mechanistic influence with its prescribed quantitative methods is still prevalent in psychotherapy research, dominated by big samples allowing for context free generalizations of results, data collection through standardized measurements (questionnaires, rating scales), with focus on statistics, while subjective experience of the patient is pushed aside in favours of reliable measurements of what is supposed to change. The task of psychotherapy research is to provide empirical evidence about the effectiveness and workings of psychotherapeutic interventions (Rieken and Gelo 2015). Quantitative research is more prevalent and deemed more scientific. The standard is randomized clinical trial, with its controlled environment and control groups,
random distribution of patients into these groups as well as the measurement of effects with standardised instruments. This approach has led to the marginalisation of non-empirical issues, as feelings are not so easily measured as behaviour that can be observed, and, consequently, the gap between research and practice has increased.

The authors present a brief historical overview of critical thought regarding these concepts, pointing out the issues of free will, perspective, subjectivity, context, and environment as well as intentionality and meaning. Mechanism, in its philosophical sense where all behaviour is determined causally, a mere series of causes and effects, poses the problem of free will, while, in therapy, patients seek, of their own volition, to break their pathological patterns of cause and effect. Other authors emphasized that researchers/scientists needed to be aware of their own preconceptions impacting their choice of methods and examine them critically (Brent D. Slife 2004).

Slife criticizes objectivism, universalism as psychotherapy is the science of subjectivity, dealing with unforeseen events happening where, therefore, no ‘diagnostic and treatment universals’ are really possible; materialism (as it is not possible to measure love, despite the fact that it triggers measurable biochemical processes), hedonism (as inclination to be selfish as a result of twisted desire for self-realization) and atomism (considering the individuals without context as opposed to consideration of interpersonal and relational aspects). Alfred Adler’s individual psychology stresses man’s altruistic potential. Gottfried Fisher would like to see psychotherapy as a science independent from psychology or medicine and considers ‘ecological thinking in the sense of an inner reference to the environment’ as an essential element of the psychotherapy science (Fischer 2008, 2011). In general, the authors perceive suffering in the context of psychotherapy is a matter of personal experience, while medicine and mainstream psychology see it in terms of impaired functioning. They point out that psychotherapy research is not only about identification of generally applicable laws, but also about the constant flux of changes both in individuals and in contexts, and that both qualitative and quantitative methods are important. Identification of causa efficiens may provide explanation but does not necessarily guarantee understanding.

As far as the alternative perspectives in science are concerned, the authors focus on intentionality, wholeness and analogical thinking. The concept of intentionality with its reference to context or an object stands in opposition to the mechanical atomistic analytical isolating approach (Rieken and Gelo 2015). Intentionality has always been important in other humanities sciences, and the authors make a historical excursion, listing scientists and philosophers who worked with it. Franz Brentano (1995) used this concept in his descriptive psychology to determine psychic phenomena, characterized by their referential relationship to content or mental objects, as opposed to physical phenomena. Another philosopher who noted the importance of context was Heidegger. He pointed out that the initial approach to the world had been a practical one (Zuhandenheit) and the theoretical/analytical understanding had isolated understanding without context and awareness of their reference to each other.

The authors dwell extensively on Aristotle’s concept of causality. Aristotle distinguished four different forms of causality:

1. **Causa materialis** (material cause);
2. **Causa formalis** (formal cause);
3. **Causa efficiens** (efficient cause, i.e. the initial impetus/why);
4. **Causa finalis** (final cause, i.e. for what purpose).

Only causa efficiens and causa finalis were important for Western science. Causa efficiens came to completely dominate it, as the connection between cause and effect was seen by as the link between independent and dependent variables in an experiment. The concept of causa finalis has been significant for the Christian religion with its concept of creation by design, seeing a hidden purpose/God’s plan behind everything. With this perspective, even tragic events are all part of God’s plan or his punishment, i.e., have a meaning. Cause finalist was gradually marginalized in the modern science. In soft sciences, intentionality translates into questions about meaning and purpose of events, actions and life. Man is always setting goals and acting to achieve them, and the understanding of his actions can be enhanced when the desired final state is considered (Schiemann 1998). In psychotherapy, crisis situations like illness lead to ‘why’ and ‘for what purpose’ questions, which allows patients to process traumatic events in a meaningful way. Therapists should be asking patients questions about the meaning of their suffering (e.g., ‘Do you need your suffering?’), as consideration of intentionality can enhance understanding and contribute to recovery, allowing for a more active approach.

Causa finalist and causa efficiens are both useful. We should ask not only where problem comes from, but also what it wants to be achieved and what is its purpose. Psychoanalysis and behaviorism are dominated by causa efficiens. Causa finalist as a concept is, nevertheless, present in other schools of therapy, e.g. ‘reframing’ in systemic family therapy and neurolinguistic programming, Viktor Frankl’s logotherapy, which stresses the importance of the meaning of life, as well as Alfred Adler’s individual psychology emphasizing the unconscious intentionality. Qualitative methods in psychotherapy research can take account of causa finalis and intentionality. For example, therapists could ask patients what they want to change about themselves as the identification of intent is the identification of causa finalis. After the treatment, a second interview should be conducted for patients to reflect on the first interview and treatment results.

Intentionality is connected with holistic thinking. The concept of wholeness in western thought can be traced back to the ancient Greece. In modern system theory, the system as a whole is a combination of elements, and it may have properties that the individual elements do not have, i.e., the whole is more than the sum of its parts. The concept of wholeness draws attention to
the conceptual weakness of the quantitative mode of cognition with its isolation and analysis of individual parts. Understanding may require prior knowledge of context or some of its parts, so it is not a purely rational act, as it is also about intuition, insights and partial understanding (Rieken and Gelo 2015). The whole should be understood through the individual and the individual through the whole (Gadamer 1989), i.e. in line with the principle of the hermeneutic circle, spiraling to enhance understanding. The authors do not see analytical and holistic thinking as opposite, but complementary. In psychotherapy, it is therefore essential to ask about formative events in the patient’s life, both from the perspective of causa efficiens and causa finalis, as well as about the common thread in the life of a patient, his narrative of his life as this narrative is or can be imbued with meaning.

Last 20 years saw calls for the sophistication in psychotherapy research to reflect the wholeness of clinical practice. Quantitative research in psychotherapy is simplistic, whereas psychotherapy deals with complex and highly individual relations between phenomena. Therefore, new research strategies taking into account the complexity, contextuality, nonlinearity and circularity of the therapeutic process are needed (Greenberg 1991; Stiles and Shapiro 1994). Some progress has already been made: there is more qualitative research that stresses the intentional and narrative structure of meaning (qualitative helpful factors design method). Existing quantitative methods are being refined and new ones are being developed (the microanalytic sequential process design method, the application of the dynamic system theory in psychotherapy). In addition, there has been some development in the area of complex mixed method designs combining both qualitative and quantitative approaches (the significant events approach).

Analogical thinking (also ‘analogue information processing’) is defined as the process of establishing an analogical correspondence between two different domains of experience and/or knowledge, which results from projecting the relational structure of a source domain (more familiar and concrete) into a target domain (more abstract and unfamiliar)’ (Gentners 1983; Gentner et al. 2001). The target domain is thus enriched and changed. Although analogical thinking was completely sidelined in Western science, it played a role in a number of scientific discoveries. In addition, it is important in alternative medicine, namely homeopathy and traditional Chinese medicine that operate on the principle of analogical similarity. Both have been viewed with suspicion by Western science, because of their incompatibility with the causal-analytical model and their closeness to magic and its two principles of force: the rule of similarities (similia similibus) (which is inter alia the functioning principle in voodoo) and the rule of opposites (contraria contrariis) (which is inter alia the functioning principle in exorcism) (Müller 1987).

As analogical thinking has a method, uses generally understandable laws and is comprehensible, semantically clear, precise and logically consistent, it should be recognized as a kind of rationality (‘analogue rationality type’) (Gloy 2001). It is indeed applied as such in therapeutic methods with elements of transference, projection and free association. It also has a role to play in the construction of models, in psychodynamic therapy, gestalt therapy and could be made good use of in psychotherapy sciences. Hypothesis testing and the hypothetic-deductive method are not, in the authors’ opinion, suitable for research in the field of psychotherapy. There have been calls for discovery-oriented psychotherapy (Mahrer 1988), emphasizing the intention to learn and explore data to generate hypothesis and build theories. Analogical thinking can be useful here and may also contribute to the activation of abduction (Clement and N. Ovideo 2003).

Last but not least, the authors conclude that scientists do not reflect enough on the presuppositions of their approaches, which limits their options with regards to possible changes thereof as well as their understanding of how the prevalent concept of psychotherapy science is grounded. Researches need to understand that any research method is conceivable only on the basis of a set of metatheoretical assumptions and believes and engage in dialogue with the proponents of different approaches to develop and enhance understanding (Gelo 2012). Psychotherapy should not only apply mainstream scientific methods, but also take into account alternative frameworks outlined above. The choice of any method should be based on the subject matter under investigation and the research question, not on any abstract theory of knowledge used as a function of the researcher’s set of normative ideas.