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"The scientist who mistook his object for a method",

or:

Can we make a non-classical psychology?

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Abstract. Two research traditions in psychology, called the 'outside tradition' and the 'inside tradition', are compared in respect of their weak sides. These weaknesses can be seen to converge precisely toward one central issue, that usually evades from attention: the difficulties a researcher may have to distinguish object and method of investigation. By including these difficulties as a substantial topic of study, a non-classical psychology is considered possible. It is claimed that an empirically founded theory of psychotherapeutic practice, that intends to be more than a conglomeration of facts and feelings, must be non-classical.

1. Introduction.

There is a basic split between two research traditions in psychology. We may call them the 'outside tradition' and the 'inside tradition'. The following terms connote these two traditions:

'outside tradition':

positivistic
experimental
reductionistic
explaining
nomothetic
-etic
quantitative
objective
'hard'

'inside tradition':

phenomenological
humanistic, symbolic interactionistic
holistic
understanding
idiographic
-emic
qualitative
subjective
'soft'

These two research traditions, based on much older philosophical traditions, have developed during this century into more and more mutually opposing movements in psychology, each having its own strong and weak sides. Usually in debates between the two movements the strong sides of one are contrasted to the weak ones of the other. Also some 'reconciliating' styles of research have been developed, in which it is tried to combine the strong sides of both, e.g. by having a large quantitative survey study be preceded by a small qualitative exploratory 'pilot' study. No attempts seem to have been made to relate the weak sides of both traditions. Why should one?

The aim of this contribution is to do just this: to relate the weak

sides of both, in order to show that these weaknesses can be seen to converge precisely toward one central issue, that usually evades attention. This central issue will be described in terms of the relations between the object of investigation and the method.

2. A metaphor from quantum physics and from phenomenology.

It usually goes unnoticed that two so remote authors as Niels Bohr and Maurice Merleau-Ponty both make use of a particular metaphor, in discussing aspects of human perception. Bohr (1934, p. 99), being concerned with the boundaries between the observer and the physical object he is investigating, had a need to express the impossibility of observing one's measuring instrument while using it as such. This was particularly relevant in his description of the role played by the measuring device while observing quantum phenomena. Merleau-Ponty (1945, p. 167) was also concerned with the boundary between a sensing individual and his environment, with regard to how an individual organizes his environment in respect of his own body. Both authors use, in order to make their point, a metaphor which is quite interesting for our present purposes. It is the metaphor of a stick that can be used as an instrument of touch.

Bohr speaks of a stick that, if grasped firmly, can be used as an instrument for touching objects in the environment. The tactile sensations in the hand then escape from attention, and instead the distal edge of the stick takes the quality of a tactile organ. It is there, at this distal site, where the person observes the object he is touching with his stick; no longer is the palm of the hand the boundary of the person as a sensing unity, but the edge of the stick. Conversely, if the stick is held loosely, it cannot be used as an instrument of touch, and it appears to the observer as a stick, i.e., as an independent object, sensed in the hand. Likewise, Merleau-Ponty gives the example of a blind man using a stick as an elongation of his own body. Thus, the blind man has his stick 'participate' in his own body. Then the way in which he perceives his environment by means of the stick necessarily evades his attention. The stick has become incorporated.

Both for phenomenologists and for quantum theorists the metaphor illustrates that we cannot simultaneously pay attention both to an object and to the method by which it is perceived. Bohr is considered to have been inspired in this respect by William James (cf. Holton, 1973).

According to this basic complementarity between method and object of perception, there seem to be two possible courses of action for a researcher: either to focus upon the object, and allow the instrument to become part of his 'tacit knowledge' (Polanyi, e.g. 1966), or to keep his mind clear about his method, irrespective of the objects that we will face. This is a matter of priority. It is the (implicit) assignment of this priority by the researcher which determines in which tradition he operates. Priority of object over method has been assumed by the 'inside' tradition, and the reverse priority has been assumed by the 'outside' tradition.

I will describe the object-method complementarity in terms of a relation between this priority and the weaknesses of both the 'inside' and the 'outside' tradition. First, let me give a sketch of these weaknesses.

3. The weakness of the 'inside' tradition: the method fades out.

The inside tradition has been defined in various ways. Shotter's description of 'practical knowledge' is the most proper to our present purposes. He describes it as:

"... knowing from within a situation, which takes into account, in what is known, the situation within which it is known." (Shotter, 1985, p. 448).

Adherents of the inside tradition may or may not differ in respect of whether the object they are interested in exists independently of their knowing acts. What matters is that the object is given priority to the method. Here we encounter a problem. The knowing person is considered to influence, if not to

constitute, his object of study by his knowing acts. However, a specification by the researcher of the context in which the object exists would also comprise his act of knowing the object.

The inside tradition has thus as a logical limit the researcher's attempt to specify fully the method itself as a 'contextual aspect' of the object of study. This is why Polanyi's term 'tacit knowledge' is felicitous: the observer will never end in making the context explicit. His inside knowledge of the object seems to consist of an infinite hierarchy of implicit abilities, each of which is concerned with putting into practice the knowledge that has already been made explicit.

Examples:

a.

A practicing psychotherapist tries to be explicit about what he is doing when he is empathic with a patient. As soon as he starts to regard his empathy as a technique that can be performed, he finds himself in need of pointing at his own private experiences, from which he was able to utilize this 'technique' appropriately. The crux of empathy, and of authenticity in general, seems to escape whenever one tries to formulate it as an executable technique.

b.

A participant observer tries to be explicit about his performance, e.g. in an anthropological field study. Since his behavior is part of the situation studied (e.g. a party), description of his research behavior is necessarily embedded in a description of the situation. The method is absorbed by the object of study. Extricating it from the object can only be done at the cost of no longer understanding why this 'procedure' has been followed.

The weakness of this tradition, thus, resides in the researcher's incapacity to account fully for the method by which he obtained his 'inside knowledge'. Rather, he feels compelled to declare his knowledge to be of too much a 'contextual' nature as to formulate it as a fully explicit and reproducible procedure. The method is absorbed by the object of study, and cannot be extricated from the object. The object has priority over the method. The 'pure' method can only be formulated in abstract terms, as an in itself impracticable procedure. Wouldn't the availability of a clear and context-free method free us from many impediments?

4. The weakness of the 'outside' tradition: the object fades out.

The 'outside' tradition is the mainstream scientific culture. It assigns a predominant role to the development and elaboration of scientific methods. Only by being critical about the way one conducts one's observations and argumentations, it is thought possible for a researcher to arrive at knowledge that is of a justifiable degree of certainty. If the method cannot be accounted for, then the insights thus obtained are considered gratuitous.

Adherents of the outside tradition may or may not differ in respect of whether the object they are interested in exists independently from their acts of measuring it. What matters is that the method is given priority to the object. It is thought virtually possible to describe this world by means of an axiomatized system ('more geometrico'), i.e., by means of a method we are fully aware of, as we apply it. The method can also be conceived apart from that to which it is applied.

Since the method is kept here continuously under critical control, the weakness of this tradition does not reside, as above, in a lack of explicit procedural knowledge. To the contrary, the research techniques are clear and accessible. This time, however, the problem is in the object of investigation. Many aspects of the 'outside' techniques and methods, therefore, are aimed at establishing a clear image of the object, distinct from the method itself. The bulk of statistical techniques for example is designed to do just this. It allows the researcher to 'subtract' the assessed features of the measuring procedure from the 'raw data', so that what remains may validly be interpreted as features of the object of investigation. This kind of 'subtraction thought' is beautifully illustrated by the language used in the following fragment:

"If, after determining that neither concept redefinition nor scale recalibration has occurred, a researcher observes a difference in subject responses from time-1 to time-2, behavioral change can be said to have been detected." (Armenakis, 1988, p. 165)

For adherents of this tradition it is of the foremost importance that the object can be distinguished from the measuring instrument. Statistical criteria are often available to calculate measurement errors, and to decide whether or not measurements validly and reliably represent features of the object of study.

The outside tradition has thus as a logical limit the researcher's attempt to specify fully the object itself as the outcome of his method. Then the researcher becomes more and more entangled in technical issues of analysis, instead of being able to perceive his object by means of his method. The 'error terms' become too high, the 'signal-noise ratio' too low, or the sample too small. As a result, the focal object fades out.

The less the object can be distinguished from the method, the more the latter is given priority over the former. In a sense, then, the object is absorbed by the method and can only be formulated as an abstract concept.

5. Object-method complementarity and the relation between both traditions.

The validity and reliability issue is for the outside tradition the Achilles heel, as is the context issue for the inside tradition. The weakness of the inside tradition resided in that the method was absorbed by the object; the object was no longer a background against which the method could be delineated. Likewise, the weakness of the outside tradition resided in that the object was absorbed by the method.

What the weaknesses of both traditions have in common is their convergence to indistinguishability<¹> between object and method. We say that the method cannot be distinguished from the object, if the object absorbs the method. In this way we are able to formulate the weaknesses of both traditions in terms of the amount of difficulties it takes the researcher to distinguish object and method from one another.

We may put our two traditions thus on a horizontal 'distinguishability' dimension (see figure 1), linking the two traditions together at their weakest spots. Here 'weak inside' means that many difficulties arise for the researcher in distinguishing method from object. 'Weak outside' means the same for the reverse distinction: object from method.

The more difficulties arise in making either distinction, the more the 'priority' that is assumed by a tradition, becomes relevant. This 'priority' is given by the researcher in accordance with the tradition he is in. 'Priority of object over method', for example, is the degree to which the researcher attempts to keep sight of his object of investigation. The priority value, therefore, denotes that to which the researcher clings as he loses the ability to make distinctions.

Figure 1 shows 'priority' as a function of 'distinguishability'. Then at the 'weakest' value of both traditions the 'priority' values (i.e., the priority of object over method, as well as the priority of method over object) asymptotically tend to infinite values. That is, at the value of 'no distinction' between object and method, 'priority' is undefined. For the present purposes of conceptual definition, the relation between 'distinguishability' and 'priority' may be sketched as a hyperbola of the type: $y = 1/x$. Clearly, at extremely 'strong' values of 'distinguishability', the 'priority' values asymptotically tend to the 'no priority' value: Object and method are clearly distinguishable.

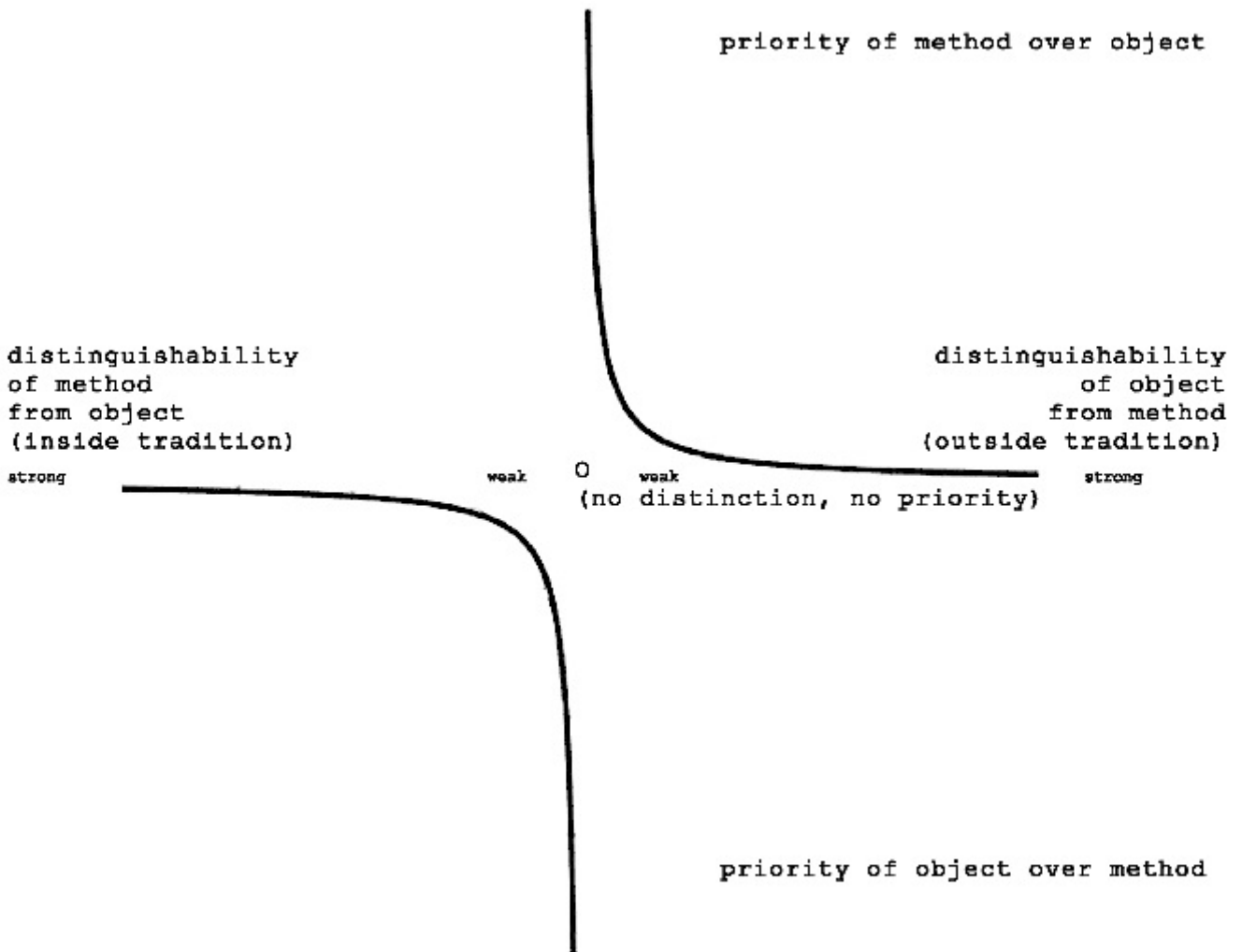


figure 1

6. The domain of a non-classical psychology.

Notice that both dimensions 'distinguishability' and 'priority' are defined in relation to the researcher who attempts to distinguish method and object. They are not defined as ontological 'an sich' qualities of method-object relations, that exist irrespective of an observer.

Regular psychology¹ in fact does make such an ontological assumption, viz. that object and method belong to distinct categories. Instead, a non-classical psychology takes into account the full variety of relations that may hold between object and method in terms of the researcher's capacities to distinguish the two. Predominant in this arrangement is the central asymptotic 'distinguishability' value, at which 'priority' is undefined. As a limit case of the outside tradition, the method has become here its own object of investigation. Likewise, as a limit case of the inside tradition, the object has become here fully its own method of investigation. Thus, at this point a

¹The reader may wonder why we do not speak more generally of 'regular science'. It is because modern physics, par excellence, has been already non-classical since the twenties of this century, whereas current mainstream psychology still mirrors itself to 19th century 'classical' physics.

fully self-referential relation occurs between object and method, that we may consider as a merge between the two.

By including the vertical asymptote we admit a basic incapacity for a researcher to maintain always a clear object-method distinction. The two 'regular' traditions, then, can be considered as unwarranted generalizations of a perfect object-method distinguishability. They both leave out the undefined point, at which the self-referential merge of object and method takes place.

Rather than denoting some 'temporary imperfection' in his method, a researcher's failures and inabilities to make object-method distinctions are now to be understood of substantial interest to his field of study. Thus, a whole universe of new empirical phenomena opens up, that is concerned with:

a) properties of objects of investigation that do not allow a clear object-method distinction;

and

b) the ways a researcher may become entangled in keeping his mind clear about object-method distinctions.

In other words: a universe of phenomena in which the researcher himself also enters as a participant (cf. von Foerster, 1981).

7. An empirical theory of psychotherapeutic practice.

It is precisely this universe that is also the work area of practical psychology, in particular psychotherapy. For if anywhere, it is here that

a) clear distinctions between the topics that are discussed and the ways in which these topics can be known, often disappear;

and

b) practitioners favor a culture of self-observation and the use of oneself as a supreme instrument in the study of their therapeutic interactions (e.g. Reik, 1948).

I therefore claim that an empirically founded approach to psychotherapeutic practice, that accounts for this self-inclusion by the therapist and not merely dismisses it as 'non-scientific subjectivity', must be non-classical.

In such an approach to psychotherapeutic practice the various ways a person (whether patient, psychotherapist, or therapy researcher) may deal with object-method distinctions, are phenomena of substantial (and not merely of methodological) interest. Research questions then are about the ways people get confused about object-method distinctions, and how they may 'infect' one another with these confusions (cf. Goudsmit & Mowitz, 1987).

Curiously, themes like 'incapacity' and 'confusion', 'indistinguishability' are highly disliked by academic researchers as respectable phenomena of study, especially when their own confusions become the topic of interest. However, if psychology is to account for psychotherapy as a scientific activity, it must be in a framework of non-classical psychology. If not, then either psychotherapy will eventually degenerate into a pseudo-medical technology, or it will be disqualified as an ('unscientific') art.

8. Literature

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Note

<<1>>.Notice that such a distinction means that object and method are not distinguished as entities 'in themselves', but always as a figure against a background. Either may take the role of figure or background.