

The black hole of psychotherapy research. Organizational closure in psychotherapeutic processes.

Arno Goudsmit¹

Dept. of Psychology
University of Groningen
Oude Boteringestraat 34
9712 GK Groningen, The Netherlands

and

Center for Systems Research
University of Alberta
Edmonton, Canada

0. Summary.

In this contribution the occurrence of organizational closure in psychotherapeutic interactions is discussed, especially in regard of the constraints this imposes upon doing research on this kind of human interactions. The current problem of low validity in psychotherapy process studies can be conceived in this light, and an outline of an alternative research procedure is given.

1. Introduction.

Let us start from an observation that can be done in regard of psychotherapeutic interactions. In psychotherapy the process of interaction between therapist and patient is taken as a topic of discussion. That means, that events and processes that take place in the therapeutic encounter, are reflected upon by both participants. However, this does not lead to a swirl of arid digressions by the participants of the variety 'the way we talk about the way we talk about...etc'. Though the participants are engaged in reflecting upon their interactions, and thus continuously skip towards a 'metalevel' and leave their 'object level' (on which the topic of discussion was located thus far), this stepping to higher levels of discourse is countered somehow, as if simultaneously some movement in an opposite direction is performed.

Indeed, two movements will be distinguished in this paper:
from doing to saying; we will call this transition 'naming'
from saying to doing; we will call this transition 'executing'

An external observer can distinguish either of these transitions, while listening to a taped session, or while watching a session from behind a one-way screen. However, as naming and executing make part of the therapeutic interaction itself, we may expect them also to become a topic of discussion for the participants themselves. When this happens, some kind of self-referentiality may arise in the therapeutic interaction, that we will call below 'organizational closure'. We believe that current problems of psychotherapy research, in which low validity of measures leads to little insight in therapeutic processes and to some enigmatic knowledge of therapy outcomes, are to be understood in the light of this organizational closure that occurs in the therapeutic interaction. Instead of ignoring vital

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properties and molding the subject matter to the requirements of established research procedures, the inverse is to be done. Psychotherapy research is to adapt to its subject matter, especially by taking notice of this quality of therapeutic interactions that we call 'organizational closure'. We believe it is due to this property of therapeutic interactions that much research attempts get lost somewhere, and end up with either vague trivialities or empty statistics. In section 2 a sketch of organizational closure will be given, that fits our purposes. In section 3 this will be applied to therapy research.

We will restrict our attention to those therapeutic styles, in which discovery is a major constituent. These are the 'uncovering' psychotherapeutic styles in which the process of therapy itself becomes a topic of interest for the participants. For the ease of speaking, we will confine ourselves to therapy situations in which one therapist and one patient are involved. Other kinds of therapy, however, also can be described in the way we will do below. Discovery as a therapeutic activity occurs in most varieties of psychotherapy that are inspired upon psychoanalysis or client-centered therapy. The aim of these psychotherapeutic enterprises is to have the patient overcome restrictions and constraints in experiencing, both individually and socially. The procedure that is used for attaining that aim is by exploring the interaction itself that takes place between therapist and patient. We do not deal with behavioral therapy and its research procedures. The reader interested in those topics is referred to e.g. Barlow, Hayes & Nelson (1984).

2. Organizational closure in psychotherapeutic interactions.

In therapeutic sessions there is an interaction between a therapist and a patient. We may distinguish the therapeutic process from the object of discussion. Then the psychotherapeutic styles that we are interested in, contain interactions that differ from other kinds of processes, such as political meetings or sport events. This difference is their organizational closure. In this section we will step by step introduce this notion, and its application to psychotherapeutic interactions.

2.1. The operation 'name' (that which is done becomes that which is said).

a- 'Name' takes as argument the process of interaction, and turns it into an object of discussion:

name (process of interaction) -> object of discussion

Naming as an operation resembles the 'quote' operation in Lisp, and can be compared to Löfgren's concept 'description process' (see Löfgren, 1989, this volume).

b- Therapist and patient, being in conversation about some problem, may at a certain moment switch to discussing the process of discussing, instead of continue their discussion itself. Then this new object may be called the 'description' of the process from which it has been derived, and it bears properties of it.

c- For each process of interaction, an object of discussion can be constructed, such that this object is the result of naming the process.

d- An example of naming is the following. A therapist may notice some emotion in the way the patient is talking about the subject matter. He might remark: 'you seem to be upset about this thing'.

2.2. The operation 'execute' (that which is said becomes that which is done).

a- 'Execute' takes as argument the object of discussion, and turns it into an interaction process:

execute (object of discussion) -> process of interaction.

Executing as an operation resembles the 'eval' operation in Lisp, and can be compared to Löfgren's concept 'interpretation process' (1989, this volume).

b- Therapist and patient, while discussing some problem, may at a certain moment take the object of discussion as a rule for their next behavior. The object can be called the 'prescription' of this process, and it serves as a blueprint for action. This new process then bears properties of the object from which it is derived.

c- For each object of discussion a process of interaction can be constructed, such that this process is the result of executing the object.

d- An example of executing is the following. A therapist may ask a grieving patient 'what would have happened [...] if you had died first, and your wife would have had to survive you?' (Frankl, 1973, p. 26; cf. also: Tomm, 1987). What the therapist aims at is not primarily to hear the patient's already existing considerations on this topic, but, instead, to trigger in the patient a process of seeing new meanings in his life. (Survey researchers may recognize this phenomenon: while interviewing people about their opinion on topics they are not acquainted with, that what is triggered is first of all a process of concept formation and opinion building; next, an opinion may be given, as if it had always been 'already there'). Likewise, therapist and patient may treat an object of discussion as a rule or prescription for further action. For example, a particular definition of the patient may (after being formulated as a description of his current way of behaving) serve as a rule or prescription for further behavior (cf. Laing's (1969) discussion of 'injunctions'). Thus, the object spoken of may become the action performed. In psychodrama therapy this is taken literally: the topics of discussion are put on the scene to be performed physically. In the contribution by Kim and Carole James to our symposium, a comparable transition is performed in regard of painting and art therapy.

2.3. Processes and objects.

Let us introduce the terms 'object' and 'process'. These two terms will be dealt with as denoting a pair of complements.

objects:	processes:
can be conceived by actors	cannot be conceived by actors
cannot be performed	can be performed by actors
are generated by processes	generate objects

Walking is an example of generating an object by a process: by walking, a path is connoted. Another, well known, example stems from William James: by running away from a bear, the bear is connoted as dangerous. The object, thus generated, is completely relative to the act that generates it. All meanings and distinctions that are thus produced by a person or a group of persons are relative to the interactive behaviors (with the medium), both internal and external, and with the other persons) that generate them (cf. Maturana, 1978, 1987). This dependence of an object from the process that generates it, returns as a crucial issue in section 3.3.

Now to generate an object is to specify it as intermediate between two processes, i.e. as the result of naming a process, and also as an executable blueprint for a next process. In this sense, an object switches from being descriptive to being prescriptive². This is to say, that to generate an object is to perform the naming and executing operations by which the object is

²An interesting comparable is-ought switch can be found in Bronowski, 1978, pp. 129 ff. Notice that only the non-ethical notion of relation switch between an object and a process (from posterior to anterior, or vice versa) is of our concern here.

related to a foregoing and a following process³. This is shown in figure 1.

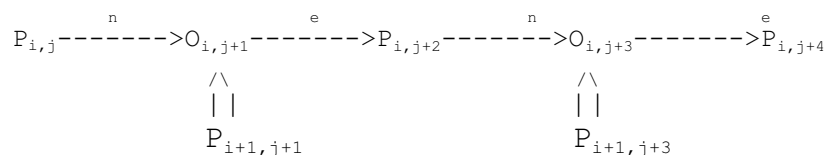


figure 1

Processes (P) and objects (O) alternately occur at level i . Here time goes from left to right (indicated by the j -indices), and following the $\xrightarrow{\quad}$ arrows; n denotes the naming operation; e denotes the execute operation; the double arrow \wedge denotes the generation of an object by a process, and thus comprises both n and e .

$P_{i+1,j+1}$ is the process that generates object $O_{i,j+1}$ as the outcome of naming $P_{i,j}$ and as executable into $P_{i,j+2}$, by performing the naming operation n and the executing operation e . That is, generating an object $O_{i,j+1}$ is considered here as a process $P_{i+1,j+1}$ that consists of a naming operation succeeded by an executing operation. Now neither this naming operation itself nor this executing operation can be represented fully in $O_{i,j+1}$ (as a description or as a prescription respectively) (see Löfgren's notion of 'linguistic complementarity', e.g. Löfgren, 1988, 1989). They remain tacit (cf. Pattee, 1977, p. 263) on this level. They may be generated as objects on a higher level $i+1$ (in this paper we deal with what Löfgren calls 'transcendable complementarities'; a non-transcendable complementary relationship would mean that no higher level language could be found in which these operations can be named).

Thus, in figure 2, $O_{i+1,j+2}$ contains the description of the naming operation between $P_{i,j}$ and $O_{i,j+1}$, and of the executing operation between $O_{i,j+1}$ and $P_{i,j+2}$. This description is the result of naming $P_{i+1,j+1}$. Furthermore, $O_{i+1,j+2}$, execution of which leads to $P_{i+1,j+3}$, also contains the prescription of the naming operation between $P_{i,j+2}$ and $O_{i,j+3}$, and of the executing operation between $O_{i,j+3}$ and $P_{i,j+4}$. Compared to $O_{i,j+1}$ and $O_{i,j+3}$ is $O_{i+1,j+2}$ an object on a metalevel. $O_{i+1,j+2}$ thus concerns the form in which an object at level i is generated.

Thus, an extendable hierarchy may be conceived, in which at each higher level an object may be generated that is (after being

³An example from actual politics just recently struck me. According to my (dutch) newspaper, Ronald Reagan said in a radio speech on July 18th 1987, that the broadcasted congress hearings of Oliver North (who had played a major role in illegal financial transactions, by which Nicaraguan contras were supplied with weapon money that was paid by Iran) had turned the people's opinion more favorable towards financially supporting the Nicaraguan contras. By a statement with approximately this message, Reagan not only described a current change in U.S. public opinion, but also prescribed this change as favorable.

named) the description of processes that generate objects at one lower level, and that is (before being executed) the prescription of those processes. Only as a process at a higher level (such as $P_{i+2,j+2}$ in relation to $O_{i+1,j+2}$) is performed, can the namings and executings, that take place at a lower level, be conceptualized (descriptively and prescriptively). In this way a process at a higher level can be conceived of as being performed by an actor who generates the objects at lower levels. These actors can be a whole range of different persons, or they can be one and the same person, dealing with his own behaviors. When objects are generated simultaneously, as is the case for instance with $O_{i,j+3}$ and $O_{i+2,j+3}$, this is to be interpreted as the occurrence of more simultaneous topics of discussion, the higher level topics being concerned with the generation of the lower level topics. It is not to be interpreted as different persons talking about different topics.

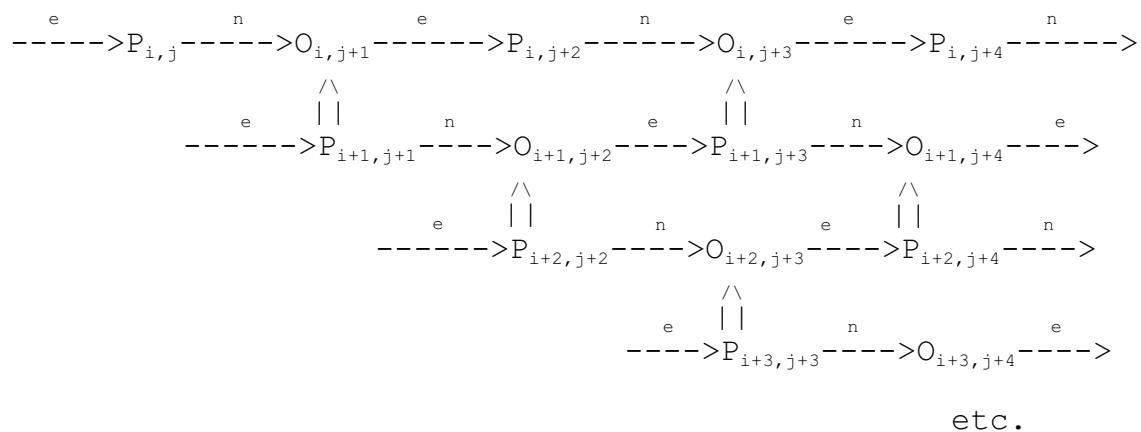


figure 2.

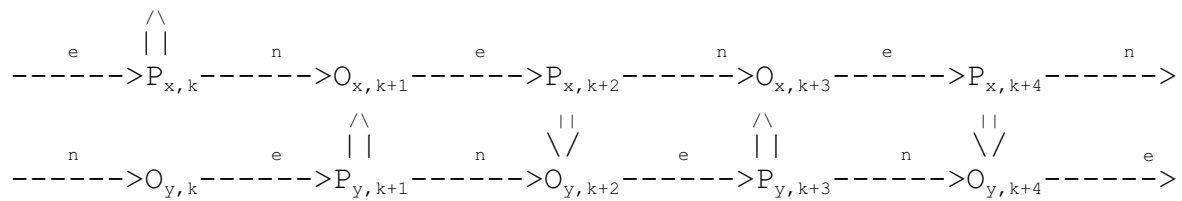
2.4. Organizational closure.

Thus far, this is to be considered as a possible way of formulating linguistic and other complementarities. We will now relate these notions to psychotherapeutic interactions, and especially to problems of validly investigating those interactions, both by participants and by external researchers.

In psychotherapeutic interactions not only the processes of interaction are named into objects of discussion, and the objects of discussion are executed into interaction processes, but also these very naming and executing processes are named into objects, and executed again into naming and executing processes. Especially the naming process (e.g., how a person arrives at a certain opinion on the things that happen around him) and the executing process (how he puts some idea into action) are topics of common investigation by therapist and patient. To some extent this may bring the discussion to higher levels of abstraction, but psychotherapy does not lead to a hierarchy of discussions on ever higher levels of abstraction. Instead, some closure is arrived at. A visualization of this development into closure is

given in figure 3.

figure 3.



Here, at step $k+2$ the process $P_{x,k+2}$ generates an object $O_{y,k+2}$ as the result of naming the process $P_{y,k+1}$, which in its turn has generated object $O_{x,k+1}$ that is the executable prescription of the same process $P_{x,k+2}$, etc. That is, between rows x and y ('levels' x and y if you like) there is no clear overall ordering of logical types, as in the hierarchy of figure 2. Only for each separate time step such an ordering is recognizable: at step $k+1$ row y is dominant over row x ; at step $k+2$ this is reversed, etc. This can be interpreted, analogously to the hierarchical ordering, as, for each row, objects of one row being concerned with (i.e., being descriptions or prescriptions of) the processes by which objects of the other row are generated.

Whereas on the one hand the hierarchy of figure 2 depicts processes at higher levels as generating objects at lower levels, in the circular arrangement of figure 3, on the other hand, there is an intertwining of generating processes, such that each row temporarily operates as a meta-level for the other row. This constitutes an 'entangled hierarchy' (to use a term from Hofstadter, 1979), or a 'heterarchy' (to use a term from McCulloch, 1965). We will not provide a formal account for how this circular arrangement comes into existence. We call it organizationally closed, as soon as objects of both levels become indistinguishable from each other. We will call this a 'merge'. We will use the notion of 'quining' to illustrate this issue.

2.5. 'Quining' and closure.

To 'quine' a sentence is to append it to its own quotation. Hofstadter (1979) uses this name in honor of W.V.O. Quine. By quining a sentence we may use the sentence as a predicate to its own quotation (as a subject term). For our purposes, it suffices to summarize quining thus:

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quine "Predicate x" -> Predicate "Predicate x"
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(where 'x' stands for some unspecified substrate).

Then, the notion of 'quining' is used by Hofstadter to quine a quine-containing sentence of the form:

quine "quine x".

Now this type of sentence, when the quining is executed, yields a sentence that is indistinguishable from the one from which it is derived:

quine "quine x" -> quine "quine x".

Here, regarding the quining operation in a stripped appearance, we notice that there is a high resemblance between operator and operand. Due to this resemblance the quining can be seen to be self-reproducing⁴. This provides the stability that is required for organizational closure⁵.

In terms of the relations as shown in figure 3, then, we may say that organizational closure is maintained, to the extent that an object that is generated (e.g. $O_{x,k+3}$) as the description of a process and as the prescription of another process, will resemble the object (e.g. $O_{y,k+2}$) that has been generated by the described process, as well as resemble the object (e.g. $O_{x,k+4}$) that will be generated by the prescribed process. We will, loosely speaking, refer to these relations as 'resemblance between object and process'. The more resemblance, the easier object and process merge and become indistinguishable.

3. Dealing with organizational closure in psychotherapy research.

Organizational closure may take many appearances, and may become stable in many different ways (cf. Varela, 1984, p. 27). It can occur in the actions of an individual, as well as in actions that are performed by both participants of a therapeutic interaction. We will pay some attention to both here in sections 3.1 and 3.2. Next, in section 3.3 we will introduce the notion of 'confusion of domains', or 'psychologist's fallacy' and its relation to lack of validity in research on psychotherapeutic interactions. Finally, in section 3.4 we give an outline for an alternative research procedure.

⁴Notice that this application of a quining operation to a quine-mentioning operand is not simply an operation of duplication: by the quining operation, the operand is 'split' into a new operator and a new operand, that then together can repeat the quining operation.

⁵This is the same notion of organizational closure that has been elaborated by Maturana and Varela (1980), and Varela (1979) in terms of processes and relations between processes by which an autopoietic system is defined. For organizational closure is understood by these authors as a network of relations between processes that produce these very relations. Thus, the similarity between the producing relations and the relations that are produced (and become now the new producing relations), constitute the organizational closure.

3.1. Feeling: organizational closure as individual activity.

As action of an individual, the closure depicted in figure 3 is a model for a self-referring subject, such that the knowing subject attempts to know himself as a knowing subject. As a philosophical theme, this is a very old and well known problem (cf. e.g. Watts, 1972; Folse, 1975).

We may recognize this phenomenon of self-reference also in a quotation from Heidegger about feelings:

"What is phenomenologically decisive in the phenomenon of feeling is that it directly uncovers and makes accessible what is felt.... Feeling is having a feeling-for, and so much so that in it the feeling ego at the same time feels its own self" (M. Heidegger, 1982/quoted by Denzin, 1984).

Indeed, we do not arrive at an identification of knowing subject and known object, but we can interpret figure 3 as a chain of actions by which a person generates his own object generating behaviors, by making objects (the feelings that are felt) into processes (feeling the feelings) and by making processes into objects. Being happy about being happy is an example of this kind of self-reference in feelings. Here the object of happiness merges with the act (process) of being happy (as named by the person himself).

The self-reference of feelings can be expressed in terms of the quine operation:

feel "feel x" -> feel "feel x",

where 'feel' is to be understood as an operation identical to 'quine'. We will now discuss the same thing in terms of interpersonal actions.

3.2. Explorations: organizational closure as social activity.

As actions, performed cooperatively by patient and therapist, the closure of figure 3 can be interpreted as a self-referring process of exploration. That is, the object of the participants' exploration activities is their process of exploration itself. This is not to say that a full identification is obtained of the object of exploration with the process of exploration. Rather, it is to say that in a psychotherapeutic interaction a merge of object of discussion and process of interaction (as named by the participants) may occur. Then the self-exploring process of psychotherapeutic interactions can be expressed in terms of the quine operation:

explore "explore x" -> explore "explore x",

where 'explore' is to be understood as an operation identical to

'quine'. A self-exploring process thus consists of two transitions (referring to figure 3):

- a) the object of exploration (e.g. $O_{y,k+2}$) becomes the new process of exploration ($P_{y,k+3}$);
- b) the process that is taking place ($P_{x,k+2}$) becomes the new object of exploration ($O_{x,k+3}$).

The process of psychotherapy is to be conceived as an exploration of the exploration itself. In terms of the name and execute operations this means that, between two consecutive steps in time, a switch of roles takes place between the process of exploration (which is the process of interaction) and the object of exploration (which is the content of the participants' discussion): both 'name' and 'execute' are performed simultaneously⁶. Only after the close resemblance between operation and operand has been established, will a process of self-exploration become stabilized.

In psychotherapeutic practice an important criterion for a therapist to mention the process of interaction that is taking place is a perceived similarity between this actual process and the object of the discussion. This is for example often the case in regard of so called 'transference phenomena', by which the patient enters into a pattern of interaction with the therapist, while in that way reenacting some already existing interaction pattern that the patient has with other (important) persons. If that which is spoken of in the therapy returns in some way in the therapeutic interaction itself, the therapist may then notice this resemblance, and attempt to 'connect' process and object of discussion (for example by saying: 'isn't that what takes place now between us, about the same as what you are talking about in regard of?'). What may happen then is that the process of interaction becomes the new object of discussion. Now if the previous object of discussion is indeed resembling this current object (previous process), then simultaneously the previous object may become executed into the new process of interaction. For example, if the previous object consisted of the pain it took for the patient to discuss the painfulness of something, then a remark by the therapist, that names this process, of the type 'it seems also to be painful for you to mention this, isn't it?'⁷ may simultaneously actualize (i.e., make into a process) the pain that was mentioned by the patient; as a result the patient may start to feel more clearly the thing he had just put into words.

By this kind of remarks, a therapist may not only mention the merge between process of interaction (as named by him) and object of discussion, but also favor it. For, as in the last example,

⁶whereas reporting on them in an interview session amounts to only naming, without executing; we will return upon this in section 3.4.

⁷Only the kind of remark is given here, not the recommendation to use this stereotypical formulation!

the pain it took for the patient to say something, is of a different logical type than the pain that is mentioned by the patient's words. Nevertheless, these two are to be confused by the therapist's remark, and thus process and object are to merge. (Even this merge, as a process, in its turn can be named, and the object, thus obtained, can be executed. Thus the result may even be a merge mentioning process of merge.)

3.3. Confusion of domains and measurement problems.

In order to observe the operation of an organizationally closed system, the system is to be opened by the observer. Whatever he is to see then, it will no longer be the closure of the system. Instead, the observer generates the system's behaviors as elements of his (the observer's) own domain of descriptions, not of the domain of descriptions of the system observed.

By now, we have arrived at something that Maturana and Varela (Maturana & Varela, 1980, p. 112; Maturana, 1987, p. 350; Varela, 1979, p. 68) denote in terms of 'confusion of domains' or 'logical bookkeeping' (Varela, 1979, pp. 11/12). The basic idea is that the objects and constructs of which an external observer makes use in describing the behavior of an organizationally closed system are not to be confused with the way the observed system itself assigns pragmatic connotations, through its interactions with its medium.

The same point has been made also in different terms in psychology already by William James (1890), when distinguishing between the constructs from outside and from inside a thought, e.g.:

"What the thought sees is only its own object; what the psychologist sees is the rest of the world. We must be very careful therefore, in discussing a state of mind from the psychologist's point of view, to avoid foisting into its own ken matters that are only there for ours. We must avoid substituting what we know the consciousness is, for what it is a consciousness of, and counting its outward, and so to speak physical, relations with other facts of the world, in among the objects of which we set it down as aware." (p. I-197)

James uses the term 'psychologist's fallacy' for this 'foisting'. We consider it as similar in its denotation as the term 'confusion of domains' (cf. Goudsmit, 1988).

"The great snare of the psychologist is the confusion of his own standpoint with that of the mental fact about which he is making his report. I shall hereafter call this the 'psychologist's fallacy' par excellence." (James, 1890, p. I-196)

As we stipulated in section 2.3, an object is dependent from the process by which it is generated. Now the objects that are generated in a therapeutic interaction in which organizational closure has occurred, are qualified by this closure, in that it is only possible for an external actor to generate the object that was generated by the participants, if this outsider is able to perform the generating process that, in its turn, is obtained by executing other objects, that in their turn, only can be generated by processes for which the same requirements hold, etc.⁸ In other words: the outsider should be able to do the same things as the participants do. That he is often not able to do so, leads to the well known sigh by an interviewed person: 'you should have been sitting there yourself for understanding what was going on'. Levenson (1972) nicely uses phrases like "I saw that my husband was jealous of my son, and I was treating him like my older brother, Harry, who was always my mother's favorite..." to illustrate how difficult it may be for an outsider to get at the core of a therapeutic process of change.

If an external observer does not succeed in generating the same objects as the participants of the therapeutic interaction, the objects he will generate should not be confused ('foisted') by him with the participants' objects. The objects that an external observer generates as the descriptions of the processes that take place in a therapeutic interaction, are not generated by the participants during their organizationally closed interaction.

As said above, the merge between on the one hand the objects that are generated, and on the other hand the (descriptions of the) generating processes, implies that beyond a certain degree of resemblance, the process of interaction is no more distinguishable from the object of discussion. This is an indistinguishability for the participants of the interaction, not for an external observer, who attempts, by way of a 'logical bookkeeping' to distinguish between processes of interaction and objects of discussion. A unity of process and object, as also occurring in performative speech acts (cf. Austin, 1962) is existent for the participants. An observer, however, or interviewer, who can distinguish between the two, does not share them with the participants. In other words: for the participants, this indistinguishability of act (process) and content (object) is itself not an element of their consensual domain⁹. However, to suppose that the participants would notice their lack of logical

⁸For example, in figure 3 the outsider is only able to generate $O_{x, k+3}$, to the extent he is able to perform the required generating actions ($P_{y, k+3}$); but these are the result of executing another, preceding, object ($O_{y, k+2}$) that is generated by a process ($P_{x, k+2}$) of which the object now to be generated ($O_{x, k+3}$) is the description.

⁹though a meta-observer might generate it as an element of his own domain of descriptions, as we did above in section 2.3.

bookkeeping¹⁰ in this respect, itself amounts to a confusion of domains (or psychologist's fallacy), committed by the observer!

By now we are able to reformulate a major problem for therapists to report in interviews on their major experiences during recent therapy sessions. Often therapists take recourse in interviews to turning up with terms like 'intuition', 'concentration', 'atmosphere', and the like, as inexplicable, ineffable, but crucial, constituents of the therapeutic session. The interviewer is left with obscurities. The inexpressibility, felt by the therapist, consists of previously not making distinctions between the object and the process, whereas in the interview these distinctions are enforced. For example, when the interviewer gently forces the interviewed therapist to make this distinction, simply by asking about 'just what happened', or 'what you have been talking about', a disturbance will result, without the therapist being able to 'un-do', or 'un-distinguish', the newly made distinction, and therefore, without the therapist being able to indicate¹¹ what the felt inexpressibility consists of, or what the disturbance is, that is triggered by the measurement attempts of the interviewer.

(This disturbance, on the other hand, is useful in supervision sessions, in which the therapist is to be 'released' from the web of connotations into which he has joined his patient, and in which he has got entangled. Thus the organizational closure of the therapeutic interaction may be broken intentionally, by forcing the therapist to apply logical types to the therapeutic session that is being discussed, and by having the therapist recognize his confusion of objects and processes.)

3.4. Rebuilding the closure.

There is an alternative to the type of necessary measurement disturbance that we mentioned in the preceding section. We will sketch this alternative in this section.

To start with an illustration, the principle that is suggested

¹⁰If, however, they start to notice it, that would amount to a breakdown of the organizational closure of their interaction. To some extent, a bookkeeping of logical types is reintroduced then. To the therapist, the former indistinguishability of object and process may appear then as an error on his part, as an unwarranted assumption that that, which he conceived as the process of therapy, also were present in the awareness of the client, as their shared object of discussion. In short, the therapist may reconsider the client's remarks as no longer denoting the things that the therapist thought they denoted. Instead, the therapist may start to reinterpret the previous indistinguishability of process and object, as an incorrect confusion of domains, on his part. More notorious is a recourse by the therapist to labelling the client's noncompliance as 'resistance'. (This, of course, amounts to blaming the client for the occurrence of the breakdown.)

¹¹We are reminded of Polanyi's (1958) discussion of 'tacit knowledge'.

here can be recognized in the logical design of Carlos Saura's famous flamenco movie 'Carmen'. Here the classical Carmen story is put into a flamenco ballet, and it is danced as such. The movie deals with the dancers and what happens to them while rehearsing and exercising the ballet. Incidentally, the female principal dancer bears the same name, as the person she plays: Carmen. Indeed, an indistinguishability occurs between the thing to be danced and the events that befall to the dancers themselves. It is as if the dancers are 'infected' by the story they dance. For example, while rehearsing a seductive dancing scene of close bodily contact, the dancers have to play being affected by each other. But then this played affection becomes real, and, inevitably and irresistibly, spreads like a virus¹² throughout their personal lives, and effectuates a true Carmen story to take place between the dancers themselves, until its dramatic end. (Thus far, nothing is implied in regard of the kind of relationship the movie actors themselves might have had, while working on these movie scenes of working on the ballet scenes of 'Carmen'). Now this kind of infection is also to be effectuated in the interview with a therapist. We will turn to this now.

If we are to measure the events of a psychotherapeutic interaction, and find out that, irrespective of what we measure, the interpretation of our findings will suffer from psychologist's fallacies/ confusions of domains, and will not cover the thing itself, then something might be wrong with this 'covering' notion itself. This issue has been discussed by Maturana (Maturana, 1987; Mendez, Coddou & Maturana, 1988) in terms of 'objectivity in parenthesis', a notion inspired upon phenomenology. We adopt this approach here. It implies a different concept of 'validity', as we shall see.

If an object that a researcher wants to study and describe is qualified by its own process of generation, according to organizational closure (see sections 2.4 and 3.3), then it is impossible to generate such an object in a different way, a way that does not qualify the object according to this organizational closure. This however, is what is attempted by a researcher who aims at describing a therapeutic interaction in terms of objects and processes, without his research activities themselves being related, according to organizational closure, to the object they generate.

The alternative that we suggest at this place can also be formulated positively: the researcher/interviewer has to act in such a way that the object generated is qualified by its process of generation, in such a way that organizational closure emerges. This is also what therapists often do in regard of their patients' feelings. Merely to report and discuss properties of a feeling amounts to distorting it rather than to clarifying

¹²This reference to viral infection in regard of self-reproduction is borrowed from Hofstadter (1979).

it¹³. What the patient's feelings are to the therapist, is the therapeutic interaction to the researcher. The same kind of closure is the case (cf. section 3.1).

In regard of patients' feelings, Mahrer (1983) describes the efforts a therapist may take to enter into the domain of personal experiences of a patient. He recommends that the therapist not only has the patient outline to the therapist what the objects look like that come to his (patient's) mind, but also learns from the patient how to behave bodily, in order to allow similar bodily sensations to arise. In Mahrer's terms, it is a matter of sharing the patient's attentional center, as well as sharing the patient's bodily sensations (p. 233).

Thus, there are two aspects: arriving at the same objects, and performing the same bodily acts. That which we suggest the researcher is to do, highly resembles what the therapist in a therapy session has to do according to Mahrer. The first of these aspects can be found in Elliott's work (e.g. 1984). In order to obtain data that are in tune with the participants' viewpoints, Elliott, as a therapy process researcher, compares the participants of a therapeutic interaction with local inhabitants of an unknown territory, whose guidance is important for the researcher, if he is to understand the therapy processes studied. His procedure leads to interviews in which the participants of therapeutic sessions (both patients and therapists) show the moments in therapy sessions that, according to them, are of critical importance for the therapeutic process. This procedure can be compared to Mahrer's sharing the patient's attentional center.

The other component that Mahrer mentions, viz. to do what the patient does, also may find a counterpart in interviews with therapists. What is crucial in the approach that we suggest here, is that the interviewer is also to act such as to allow organizational closure to arise in the interaction between interviewer and interviewed therapist. The initial object of discussion of this therapist-researcher interaction (concerning the processes and objects of the interaction between therapist and patient) may be dealt with in a way that resembles the way in which an object of discussion is dealt with in therapy sessions. Thus: the interviewer, like the therapist in the therapy session, is to search for resemblances between object and process of the interview. If he finds some, object and process may merge into indistinguishability, as in therapy sessions. Naming the process that takes place then may occur simultaneously to executing the object of discussion. The interviewer, together with the therapist, is entering into a process of exploration of their common exploration activities. The things that were inexpressible for an interviewed therapist, then are put into the

¹³See Lefebvre (1982) and Folse (1975) for a discussion of this phenomenon in terms of Bohr's principle of complementarity.

scene of the interview session.

Now the result of this approach is an organizationally closed interaction that takes place between interviewer and therapist in the interview session. There is no attempt to 'cover' validly the therapy session, by means of a research process that generates an empirical description of it. What is obtained, however, is a reenactment of the organizational closure of the therapy session. It is as if some vital properties of the therapy session are transferred upon the interview. Indeed, this is the very same transference phenomenon that often occurs in therapy sessions. But now, not some early or recent personal history is, in one way or other, relived by a patient, but a recent therapy session is relived by the therapist. We do not obtain a valid 'picture' of what has happened in the therapy session, but the generation, performed by therapist and interviewer, of the vital properties of the therapy session that constitutes its organizational closure, elaborated as properties of the interaction in the interview session. Then the features of the research process itself (i.e. the interaction in the interview with the therapist) are considered as properties of the object studied (cf. Devereux, 1967). An empirical account of such an approach of psychotherapeutic interactions has been given recently (Goudsmit & Mowitz, 1987).

In this way the therapy, if one likes, 'infects' the interview. The crucial question then is no longer if the research data are valid, i.e., whether the researcher's representation of the therapy does reflect its vital properties; it does not, these properties cannot be 'covered' validly in a researcher's description. Instead, the new task is to conduct the interview such as to reinstate these properties in the interview interaction itself. The kind of 'understanding' of the therapeutic interaction that an interviewer obtains in this way is not a representation, but a reenactment. This we may regard as a truly pragmatist kind of understanding: not by watching events but by doing things in a way that fits with the therapeutic interaction, can the researcher/interviewer obtain some understanding of it.

4. References.

- Austin, J.L., How to do things with words. London: Oxford Univ. Press, 1962.
- Barlow, D.H., S.C. Hayes, R.O. Nelson, The scientist practitioner. Research and accountability in clinical and educational settings. New York: Pergamon, 1984.
- Bronowski, J., The origins of knowledge and imagination. New Haven/London: Yale Univ. Press, 1978.
- Denzin, N.K., On understanding emotion. San Francisco: Jossey-Bass, 1984.
- Devereux, G., From anxiety to method in the behavioral sciences. The Hague: Mouton, 1967.

- Elliott, R., "A discovery-oriented approach to significant change events in psychotherapy: interpersonal process recall and comprehensive process analysis", in: L.N. Rice, L.S. Greenberg, Patterns of change. New York: Guilford Press, 1984.
- Folse, H.J., The philosophy of Niels Bohr. The framework of complementarity. Amsterdam: North-Holland, 1975.
- Frankl, V.E., Psychotherapy and existentialism. Harmondsworth: Penguin, 1973.
- Goudsmit, A.L., "Organizational closure, the process of psychotherapy and the psychologist's fallacy". Working paper #88-6, Center for Systems Research, Univ. of Alberta, 1988. Also to appear in: G.J. Dalenoort (ed.), The paradigm of self-organization. New York: Gordon & Breach, 1989.
- Goudsmit, A.L., J.H. Mowitz, "Over inhoud en proces in psychotherapieonderzoek. Een methode van onderzoek naar therapeutisch handelen in ontdekkende therapieën" [On content and process in psychotherapy research. A research method on therapeutic performance in uncovering therapies], Handelingen, (1987), 1,4.
- Heidegger, M., The basic problems of phenomenology. Bloomington: Indiana Univ. Press, 1982.
- Hofstadter, D.R., Gödel, Escher, Bach: an eternal golden braid. New York: Basic Books, 1979.
- James, W., The principles of psychology. New York: Dover (1890), 1950.
- Laing, R.D., Self and others. Harmondsworth: Penguin, 1969.
- Lefebvre, V.A., Algebra of conscience. A comparative analysis of western and soviet ethical systems. Dordrecht: Reidel, 1982.
- Levenson, E.A., The fallacy of understanding. An inquiry into the changing structure of psychoanalysis. New York: Basic Books, 1972.
- Löfgren, L., "Towards system: from computation to the phenomenon of language", in: M.E. Carvallo (ed.), Nature, cognition and system, I. Dordrecht: Reidel, 1988.
- Löfgren, L., "The partiality of self-reference", in: E. Rosseel, F. Heylighen, F. de Meijer (eds.), Self-steering and cognition in complex systems. New York: Gordon & Breach, 1989, (this volume).
- McCulloch, W.S., "A heterarchy of values determined by the topology of nervous nets", in: Embodiments of mind. Cambridge, Mass.: MIT Press, 1965.
- Mahrer, A.R., Experiential psychotherapy. New York: Brunner-Mazel, 1983.
- Maturana, H.R., "Stratégies cognitives", in: E. Morin, M. Piatelli-Palmarini (eds.), l'Unité de l'homme. Paris: Ed. du Seuil, 1974.
- Maturana, H.R., "The organization of the living: a theory of the living organization", Int. J. of Man-Machine Studies, (1975) 7, 313-332.
- Maturana, H.R., "Biology of language: the epistemology of reality", in: G.A. Miller, E. Lenneberg (eds.), Psychology

- and biology of language and thought. Essays in honor of Eric Lenneberg: conference, Ithaca, 1976. New York: Academic Press, 1978.
- Maturana, H.R., "The biological foundations of self consciousness and the physical domain of existence", in: E.R. Caianiello (ed.), Physics of cognitive processes. New Jersey: World Scientific Press, 1987.
- Maturana, H.R., F.J. Varela, Autopoiesis and cognition. The realization of the living. Dordrecht/Boston: Reidel, 1980.
- Mendez, C.L., F. Coddou, H.R. Maturana, "The bringing forth of pathology. An essay to be read aloud by two", Irish Journal of Psychology, 9 (1988), 1, 144-172.
- Polanyi, M., Personal knowledge. Toward a post-critical philosophy. London: Routledge & Kegan Paul, 1958.
- Tomm, K., "Interventive interviewing: part II. Reflexive questioning as a means to enable self-healing", Family Process, 26 (1987), 167-183.
- Varela, F.J., Principles of biological autonomy. New York: North Holland, 1979.
- Varela, F.J., "Two principles of self-organization", in: H. Ulrich, G.J.B. Probst (eds.), Self-organization and management of social systems; insights, promises, doubts, and questions. Berlin: Springer, 1984.
- Watts, A.W., The supreme identity. An essay on oriental metaphysic and the christian religion. (1950) New York: Vintage Books, 1972.