METHODS FOR EVALUATING NORMAL AND PATHOLOGICAL COUPLES AND FAMILIES ACCORDING TO THE ELEMENTARY PRAGMATIC MODEL

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Summary. - Following the interactional view of the problem of human communication and relation, as developed by many authors in past years, a review of the research in the field of the relational test is briefly described. In particular, an interaction test which permits automatic data collection and processing is designed, which derives from the Elementary Pragmatic Model by De Giacomo et al. A low cost minicomputer system is an adequate support, being the implemented procedures self consistent ones.

KEY WORDS: family therapy, relational tests, elementary pragmatic model.

Riassunto (Metodi per la valutazione di coppie e famiglie normali e patologiche secondo il Modello Pragmatico Elementare). - Considerando il problema della comunicazione e delle relazioni umane da un punto di vista interattivo, così come molti autori hanno fatto nel passato, viene fatta una breve rassegna della ricerca nel campo dei test relazionali. In particolare viene illustrato un test interattivo, derivato dal Modello Pragmatico Elementare di De Giacomo et al., che permette sia una raccolta, sia una elaborazione automatica dei dati. Sono sufficienti per lo scopo un sistema di elaborazione a basso costo e delle semplici apparecchiature.

PAROLE CHIAVE: terapia familiare, test relazionali, modello pragmatico elementare.

Introduction

A set of tools and methods for diagnosing systems and evaluating results during therapy are necessary in order to develop systemic theories. Up to now, number of relational tests have been proposed to further this aim. They represent the experimental expression of a philosophy which considers the minds from the point of view of a system of relationships rather than as individual entities. They provide an operative system of measurement, with both a theoretical and a practical bearing, and a basis for evaluation of therapy.

In general we can state that the greater or lesser validity of a test depends on the extent to which it is derived from a unitary theory. Test should be derived from well defined models, as measurement cannot exist without a theory confirming its value. From this point of view diagnosis and therapy must represent the final stage of a defined theory and not continuous experimental trials.

In fact when “categories of judgement” are missing, as well as their place in a theoretical model, tests cannot be used as a guideline for therapy. For instance, if we search into aggressive behaviour, the quantification only means something within the limits of a defined theoretical model. We can therefore state that it is indispensable for a test to be derived from a theoretical idea, which must at least be coherent, even if not complete.

Relational tests

From a historical point of view, relational tests date back to the development of systemic theories. They satisfied the need for research instruments which were able to identify and quantify the characteristics of human systems (couple, partial family, complete family), either for diagnostic purposes or for the evaluation of changes during therapeutic treatment.

Previous theoretical and methodological statements led a division of the family system into four parameters [1]:

1) the individual characteristics of the family members, with the emphasis on the personality of each member of the system were emphasized;
2) the correspondence of roles and the structure of the group where the family was studied as a whole;

3) the characteristics of communication among family members, where family was evaluated in terms of processes of information exchange. According to this parameter, the characteristics of a normal family are clear communication, few conflicts and disagreements and a scheme of interaction;

4) the working group aspect, whereby the family is able to focus together on one task. From this point of view, a normal family operates and exchanges information in an efficient way bringing its work to an end in positive and rapid way, with less "fuss".

The first attempts in research on human relations essentially used the first two ways of investigation: in fact they borrowed methods and definitions traditionally used for the study of personality from experimental psychology and sociology.

Afterwords, thanks above all to the contributions of Kenkel [2], Levinger [3], Olson [4, 5], Turk and Bell [6], who pointed out the enormous difference between data that an individual could give about himself and his relation with others, and data which an outsider observer could obtain about relational behaviour of the same individual and other interacting subjects in a defined situation, research pointed toward ways of investigation which provide the most objective data as possible. To this aim, over the years, traditional tests were elaborated (TAT, Rorschach, etc.) to enable new tests closely derived from precise theories (e.g. from the General Theory of Systems) to be evaluated.

This means that at the time we have relational tests based on two fundamental methods of approach:

- self-report method, which gathers information from the members of the system (insiders);

- method of observation, which gathers information about the family from external observers (outsiders).

Self-report methods have been more extensively used until now. They consist of questionnaires, standardized tests, interviews, etc., which supply information on the experiences and subjective feelings of the individual, either if he is a member of the system or if he is an outsider. In order to restrict variables connected to a subjective point of view, methods of observation and codification were inserted in this class of tests, as well as a scale of classification, for obtaining the most objective data possible, even within the limits of subjective judgement. Among methods that provide objective data too, the "behavioural self-report" is included too, where "objective" observations are made by the same member of the system being examined about his own and other people's behaviour at the moment.

Data we can obtain are: objective, in the case of non-projective tests of personality or tests based on perceived interaction, and subjective, in the case of projective tests of personality or based on inferred interaction, i.e. as it is interpreted by the observer.

Methods of observation (through mirror, by videotapes, by standardized play scores, etc.) aim to examine rather than to investigate in a subjective way the perception of the member's own behaviour or other people's. These methods may be classified according to the subdivision into four categories as suggested by Cromwell et al. [7], or according to applied techniques [8].

According to categories we distinguish:

a) problem solving. In this category there is the "Simulated Family Activity Measurement" by Strauss and Tallman [9], "Sculpting Families" by Papp, Silverstein and Carter [10], "Ravich Interpersonal Games Test" [11, 12], etc.;

b) decision taking. In this category there is the "Wechsler", "TAT and Rorschach joined", the "Family Index of Tension" by Wells and Rabiner [13], the "Unrevealed Differences Questionnaire" by Ferreria and Winter [14], etc.;

c) conflict solving. There is the "Inventory of Marital Conflict" by Olson and Ryder [15], the "Parental Assessment of Intimacy in Relationship" by Olson and Sprenklo [16], the "Blame Technique" which is a part of the structured Family Interview by Watzlawick and others [17], the "Relationship World Index" by Stephens and Markman [18], etc.;

d) daily tasks. There is the "Home Observation" by O'Rourke [19], etc.

According to techniques we distinguish:

1) expressive techniques. In this class there are the "TAT" by Sherr [20], Rubin [21], etc., the "Family Sculpting" mentioned before, the "Puppet Interview" by Irving [22], etc.;

2) techniques of play. There is for instance the "Interpersonal Game Test" by Ravich, already mentioned, etc.;

3) techniques using standardized interviews or questionnaires. There are the "Family Interaction Scales" by Riskin and Faunce [23], the "Conjoint Diagnostic Interview" by Wells and Rabine [13], the "Questionnaire" by Winter and Ferreria [14], etc.;

4. - new procedures. In this class there are the "New Procedures" by Erickson and Rogers [24] and other modern systems of codification.

Self-report methods and methods of observation

Although a number of tests have been proposed by various authors, their validity and reliability must be one of the very first consideration.

As Snyder, Wills and Keiser [25] report about studies led by Strauss and Brown in 1978, there are over 813 techniques for family evaluation which can be classified in the psychometric approach (the main tests used at the time are reported). Yet, as these Authors point out, "an important distinction must be made between those instruments usually set up using methods imagined "at the table", by which you can achieve great deductive conclusions with little or none supporting evidence, and those instruments whose reliability and correlation to important external criteria are precisely investigated using well defined techniques of psychometric theory".
The second consideration regards the criterion of choice between self-report methods and methods of observation.

Certainly, as Cromwell and Olson report [26], a review of methodological research emphasizes a great difference in results between self-report methods based on observation. Nevertheless, in reality, important differences between these two kinds of measurement do not mean that one method is better than the other. Attempts made to invalidate one method using measurements derived from the other - these Authors reply - have little value and are disputable, because it is like the comparison between “apples and oranges”. Therefore, if we compare the assertive behaviour of a family group, achieved through codification by an outside observer, with what family members report about the same subject, we should expect a great difference in data.

Both these methods, however, suffer from limits which we can summarize as follows:

**Limits of self-report methods**

1) The subjects examined are required to be able to describe themselves and other people according to special parameters as required by the test. In reality, these people are not always accustomed to think of their relations in terms of behavioural categories;
2) people are often required to remember experiences which could have occurred months or years before. This may mean that memories can be misrepresented by forgetfulness and/or conscious or subconscious distortions;
3) tests often require that the people examined talk about themselves giving data which activate prejudice. One of the greatest prejudices is the tendency of individuals to give socially acceptable answers;
4) tests often investigate one family member. Instead, only by using data coming from all family members it is possible to obtain useful personal information about the running of the whole family system;
5) tests suffer from a “multidimensional” problem. Many taking decision techniques use the elaboration of a score based on the subject's answers given to a number of items theoretically considered able to measure the same variable being examined. Michel [27], on the other hand through a number of analyses, pointed out the scarce inter-items relation, resulting in an inconsistent and multidimensional kind of variables.

**Limits of the methods of observation**

1) The specific conditions of spontaneous situations in which behaviour occurs are often mistaken for situations caused by the methods themselves. A number of researchers using methods of behavioural observation are arranged in an experimental setting, in a laboratory, which is radically different from the natural one where usual family interactions occur;
2) the intrusion of the observer. The presence of the observer arouses people’s inhibitions, and his presence is often “incorporated” with the decisional members;
3) the observer’s sex. The observer’s sex often causes different judgments, as when you check the greater influence of wife or husband in couple decision taking [28];
4) observations made on hypothetical and unreal problems. On this point there are different opinions: some Authors [28] think that families seriously engage themselves in a problem or decisions even in unreal tasks, while others think that the same conditions lead families not to feel seriously involved, thus providing wrong answers;
5) improper procedures for obtaining data scores from the interaction. The categories of evaluation examined are often different and hardly comparable with each other.

In order to avoid problems connected in the choice of one or the other method as far as possible, a number of attempts have been made carrying out both these methods in the same test. This permits both self-report and observation data to be obtained, concerning the same variable being examined. We must bear in mind, as Cromwell and Olson report [26], that both these methods offer theoretical and methodological advantages and that the only guideline for researchers in their choice should be the primary evaluation of which view or method of research is more suitable for use in a specific field of investigation. Certainly the caution advised in using judgemental tests is correct and connected to non negligible remarks, such as: the arrangement of measuring techniques without an adequate theoretical support; the use of measuring instruments, even standardized, borrowed from other field of research and inadequate to describe family characteristics properly [29]; methodological carelessness, lack of controls, little interdisciplinarity integrability, little comparability, confusion among classifications concepts [30]; etc.

On the contrary, as Cromwell, Olson and Fournier confirm [7], the usual praxis which considers family therapy as an art and not as a science is incorrect: they believe it is a science which requires rigour and systematic approach. In fact, a diagnosis which is able to describe and classify individual and relational (interpersonal) dynamics helps the therapist to develop and evaluate a plan of treatment for the couple or the whole family.

In conclusion, by using adequate methods we can obtain, data for:
- describing and diagnosing the family or couple system before elaborating and acting on an intervention strategy;
- giving helpful information in the course of treatment;
- evaluating the efficacy of the relational interventions during and after the therapy sessions;
- evaluating which other therapeutic approaches are more effective in family or couple systemic treatment.

Experimental requirements in test elaboration certainly involve restrictive choices, first among which is a limitation of the communicative set in family members, in order to allow as exact a measurement as possible. Nevertheless, as Haley says [1], the more the behaviour of subjects under observation is limited the more possible a precise assessment is.
A basic model of human relations and the tests SISCI-1 and SISCI-3

In a perspective of research founded on the above mentioned principles our research group, constituted by Psychiatrists (De Giacomo, Pierrri and Corfì) and Informatics and Physics (Silvestri, recently deceased, Lefons and Tangorra) developed a relational test (derived from the Elementary Pragmatic Model by De Giacomo et al.), based on the method of observation and suited for giving objective data on interacting subjects’ relational behavior [31-43].

The kind of test we propose represents the attempt to consider a modality for constructing relational tests based on the perturbation of the initial psychological status of a subject after the interaction with the world of another subject. This second subject can be represented either by a standardized (randomized) psychic world, or by the world of the partner or son and so on.

The application of this general principle is actually performed according to the following procedure.

Test SISCI-1

Normal and pathological subjects, couples and whole families are tested. The initial procedure is the same. After the subject has been given a printed form, he/she is shown a series of 90 slides, obtained from the tables in Holtzman’s test (Fig. 1).

The subject is given an average of 20 seconds per slide to “make a good choice” which is marked on the sheet. At the end of this stage, the form is handed back. This represents the “world” of the subject before interaction. After a few minutes the subject is shown 40 out of the 90 slides, chosen at random, defined as “the pictures that most persons choose”. The experimenter comments on each slide, describing what most people see in it. This choice represents the world of the other subject. After this second stage, the subject is shown all 90 slides over again at a faster rate and is again asked to make a choice, noting down his/her choices on a second form. This choice defines the world of the subject after interaction. With couples the procedure is modified as follows: in place of the randomized slides, pictures chosen by the partner are shown, to see the perturbation of this choice on the world of the subject. Finally a concordate choice is requested from the partners on the whole set of 90 pictures.

Data are processed by computer and results show the relational pattern of single individuals and can be used to simulate interactions and to give suggestions for relational intervention.

Using the SISCI-1 test, in the basis of the four coordinates, normal subjects are shown to exhibit, on an average, the following pattern of the 16 functions or relational styles each one with its specific interactive significance (a sort of Mendeleev’s table of human interactions) (Fig. 2).

On the other hand, tests performed on 18 hospitalized subjects with schizophrenia, selected from a diagnostic point of view, provided, on an average, the pattern shown in Fig. 3.

Families tested as a whole (only one concordate choice for each picture) are shown to exhibit the pattern of normal subjects. This topic will be exposed in a future paper.

Further evolution of these tests are called SISCI-2, which allows one to calculate the mean value of functions (relational styles) directly and SISCI-3. Many papers treat the mathematical basis of these tests (see references).

Test SISCI-3

Compared with SISCI-1 test, this test allows an “experimental therapist”, which can use one or more precise relational styles, to interact with the subject examined everytime he makes a choice. This allows to evaluate if there has been some change after one interaction or after a certain number of interactions.

Fig. 2. - Pattern of normal subjects according to SISCI-1 test. It represents the percentage value of the 16 interactional styles.

Fig. 3. - Pattern of schizophrenic patients according to SISCI-1 test.
Fig. 4. - Fac-simile of Holtzman's tables shown in SISCI-3 test.

Eighty slides, each consisting of 4 Holtzman test's pictures, and an home computer are used. Slides are shown one at a time and 5 phases are foreseen in the test for each slide (Fig. 4).

In the first phase, after showing the slide, the subject is requested to make a choice of 2 among the 4 pictures shown.

In the second phase experimenter points at 3 of the 4 pictures (one equal and the other different from those chosen by the subject), saying that they have been chosen by the most of people submitted to the test.

During the third phase the subject is invited to make a new choice, still among the 4 pictures, but this time he is allowed to point at none or all four pictures.

In the fourth phase the experimenter, on the basis of a relational style that he chooses to interact with the subject, points at two pictures chosen by the most of people.

In the fifth phase subject is requested to make a further free choice (none or all the shown pictures).

In addition to the relational pattern of the subject, obtained in real time, it is possible to have suggestions for prescriptions for changing system.

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REFERENCES


