

# UNCONSCIOUS COMMUNICATION<sup>1</sup>

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**Key words:** body - communication - unconscious - words - transference

## I. Introduction

Describing communication, bodily and verbal, between two persons, I shall try to show that interaction is in fact an ocean of relevant interpersonal regulations which are mainly unconscious. At the end I try to clarify the position of transference phenomena in this realm. To achieve this, I discuss models derived from clinical practice and data obtained in experimental studies of nonverbal behavior. The proposition made here is that such a discussion is possible as long as one admits the specificity of each knowledge. Thus the conclusions we shall arrive at need to be confirmed by clinical data to be validated.

### *1.A. A theoretical clinical study*

When Freud proposed his model of the mind in terms of conscious/unconscious, sciences related to psychological phenomena and psychotherapy were just being created and had little data to go on. Since then these approaches have developed exponentially, yet discussions on unconscious phenomena are still elaboration on what pioneers such as Freud and Jung put forward, only rarely taking account of the considerable data now available to us. Furthermore I noticed that although the literature on bodily psychotherapy often uses the word unconscious, the meaning of this word is never discussed. Authors just rely on the fact that Freud and/or Jung defined the word elsewhere. The literature also inherited uncritically from a slip which occurred in Reich's books: Reich uses the word unconscious, but only describes how material is repressed, and what may happen both psychologically and organically when repressed material is freed. Our research on repressed material is one of the main reasons why body psychotherapy is known today ... but nobody is willing to develop the theoretical consequences of these findings.

I realize that one of the main difficulties for such a reevaluation is that it implies a model of

- a. psychological phenomena, and
- b. a model of the relation between psychology and other levels of reality, mainly physiological and social.

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<sup>1</sup> Originally: Heller M. 1992: Unconscious communication. In Maul B. (ed), Body Psychotherapy or the Art of Contact. Berlin: Verlag Bernhard Maul and Energy & Character. I presented this paper in the Strasburg EABP congress, and Bernhard Maul's book presents other interventions as well.

Such a task is clearly too complex to be carried out by a single individual, and as a field we have not yet learned to coordinate available resources. To encourage discussion I proposed (Heller 1992a) a first sketch, with the hope that others will improve on it. In this article I shall summarize those aspects of the model necessary for the present discussion, and develop aspects for which I did not have room in my previous article.

In the 70s' I learned to think of body/mind as a functional unit. Without going back to the body/soul polarity, the data available today requires a slightly more differentiated model than Reich's. I think of the psychological, behavior, and the somatic as modules linked by regulation systems. Let us take a few examples.

Psychophysicologists describe how thirst behavior is regulated by the angiotensin hormone. This hormone sends a message a) to the brain so that it starts a psychological urge to find something to drink, and b) order tissues to use less water. I propose that angiotensin could be considered as a regulator between the somatic (tissues) and the psychological (a sudden urge to drink beer).

In a similar way I distinguish between behavior and psychological modules. Regulators of these modules are reflexes such as those described by behaviorists, and emotions. This implies that behavior and thoughts are not considered to be two faces of a same coin. If angiotensin is partially responsible for the appearance of a glass of beer in my mind, other emotional factors will direct my behavior to go alone or with other people in a certain place ... where I might end up with a cup of tea.

This distinction implies that one restricts the meaning of the word psychological to the designation of modes of representation involving the neocortex (a restriction generally used both by Freud (1988; p. 84) and Reich (1976; p. 338 - 339, 367 - 368)). Thus a first definition of the word unconscious could be: representations involving the neocortex which are not easily available to consciousness. I specify the relation to the neocortex, because some authors also use the word representation for phenomena situated at other levels; for example to describe how the immune system recognizes cells which do not belong to our biological self (Fridman 1991; p. 17 - 22).

One aspect of Freud's model that is still relevant is the distinction between preconscious and unconscious phenomena. Let us take two people in close interaction: A and B. All the movements made by A can theoretically be seen by B. But given the small number of phenomena consciousness can manage simultaneously, B will only be aware of some of these movements. B is therefore not aware of most of A's movements (and of most of B's movements as well). These movements are nevertheless not unconscious but preconscious, because by redirecting his attention B could become aware of any movement he had not noticed previously. When Freud introduced the notion of unconscious phenomena, he had in mind phenomena we could not have access to by simply modifying the focus of our attention.

For example this morning I am angry with my girlfriend. I arrive at my practice and become aggressive with the first lady client I meet, without

realizing that I am putting this morning's anger on her. It is possible that I eventually become aware of this, or that I remain in a bad mood for the whole day, and do not become aware of it. A colleague, a friend, a supervisor, or even my client could focus my attention on this irrational anger; I would then realize that in fact I was still angry with my girlfriend. This anger may have a whole series of consequences on the course of the following sessions ... especially if I do not become aware of what happened (because I never paid attention to it, and that it then slipped out of my memory). Yet such anger has nothing to do with transference, or counter-transference: it is a pure preconscious phenomena. One would not need to read in the immense literature which attempts to define what transference is about to understand how I used my anger in the above-mentioned example. Transference and counter-transference go much deeper. It may only become conscious gradually, after a process has sorted out a whole web of relationships therapist and client were caught in (Heller 1987). Eventually, as we shall see, that preconscious anger might be part of a series of transference strategies ... but not necessarily. Only more knowledge on my relation with this client can tell.

I will say more on how I approach unconscious phenomena at the end of this article, after I have presented some experimental data that will illustrate what I would like to describe.

### *I.B. Experimental studies*

A few years ago André, Haynal asked me to create a small experimental laboratory dedicated to the study of nonverbal behavior and emotional exchange during psychiatric interviews, in the Geneva University Institutions of Psychiatry (I.U.P.G.). The data I shall present mostly comes from this laboratory, which is now called the L.A.C. (Laboratory of Affect and Communication). These studies have been carried out collectively by Christine Lessko, Véronique Haynal, Patricia Claus, Yvonne Gitnacht, and myself. Laurence Tricot helped us with statistics. Marc Archinard helped André Haynal to canalize, organize, and inspire our efforts.

The main direction of this laboratory can be found in André, Haynal's recent book (1991) on psychoanalysis and science. One of the questions asked by this book is how to study and understand what really happens during a psychotherapeutic process. Observing the same sessions a psychoanalyst will collect few objective observation, and many subjective ones; while a scientist may collect physiological and behavioral data to which the psychoanalyst has no access. Thus a scientist and a psychoanalyst observing the same process will derive different information, and therefore different models out of the same phenomenon. The unconscious, for example, is not a notion that can be studied experimentally today. Once this is admitted, dialogue on how these two research strategies can be used in a complimentary way can occur.

Generally speaking, one studies nonverbal behavior by coding what can be

seen on a video film. This yields an important mass of coded data which must be digested, usually with the help of a computer, and programs written to analyze certain aspects of what was coded. If everything goes well the researcher finds certain regularities in his data, which can be related to whatever variable(s) he is testing. He can then summarize his findings in a graph or a series of graphs which are publishable. For example, having coded all the movements made by depressives interviewed by psychiatrists, Frey and his collaborators (1983; p. 172 - 174) showed that there was a clear relation between recovery and complexity of the depressive's movements. Although these analyses may seem based on too reduced a view of behavior for body therapists, it is interesting to note that often results do not overlap. Experimental research often stresses what appears to be irrelevant for clinicians, and vice versa. In other words both approaches seem to focus on complementary aspects of behavior.

Not all the data presented here is ready for publication. I am mostly reporting "work in progress." In fact some of it is just out of the oven. But what I wish to discuss with you is precisely that part of our data which does not reach publication: it's sheer mass. For many this mass is impressive, difficult to manage, and without meaning. But I think that body psychotherapists are just the people who could start thinking on this mass in a constructive way, as it would be in fact a becoming aware of what they are dealing with professionally. My hope is that their future comments on this mass could be of great use for research. Research reports on all of this data should be available in 1992. We will then proceed to publish our findings in a more formal way.

## II. Data

### *II. A. Postural dynamics in a psychology faculty and in a nurse school*

#### II. A.1. Base postures

I asked six first year students to interview six first year students and six assistants, all members of the Geneva faculty of psychology, all female. My hypothesis was that one would notice differences due to status (student or assistant) and role (experimentalist or subject) in the participant's base posture behavior. Base posture is described as the list of parts of the body touching chair or floor at a given moment. I coded the following 26 parts of the body: right and left hands, wrists, arms, elbows, upper arms, shoulders, upper back, lower back, flanks, bottom, upper legs, lower legs, feet. For each part of the body I used a two-dimension code: 0 (no touch), 1 (touch). A base posture configuration is then described by a number such as: 0100110011001100110011, where the first two numbers are right and left hands, and the last two numbers are right and left feet. The average duration of these interviews was of nearly ten minutes. I checked the

position of each part of the body every half a second.

Protagonists sat facing each other. One asked questions, the other answered. Behavior was standard for such situations, which means probably less varied than in many others. These interviews occurred in the fairly impressive faculty video studios. Behind mirroring windows technicians were handling the cameras. For all the studies presented here current ethical procedures were used. The films cannot be shown to the public and at any moment a participant may require his or her film.

How many different ways of sitting were observed using such a simple code, in such a standardized setting? To answer this question, I just counted how many different configurations of 0 and 1 I had coded. The answer is 104 different configurations.

I then reproduced this study in a Geneva nurse school. 9 first year nurse students interviewed in the same way 9 first year nurse students and 9 of their teachers. All are female. These interviews unfolded in that school's video studio, chairs were similar. Each interview lasted approximately five minutes in average.

Nurses produced 261 base posture configurations. Of these only 16 had been observed in the university population. The main impression I got while analyzing the data is that every person brought its own set of configurations. These had common aspects ... for example in nearly all cases bottom touched seat. But nevertheless, all these relatively formal ways of sitting had their individual touch, as the 45 people observed in both experiments produced 346 different base postures. A less crude code would have yielded a much greater number of configurations. For example I could have distinguished hand touching the seat from hand touching back of a chair. Or fingers touching seat from palm touching seat, etc.

Another point to be stressed is the amount of information involved.

12430 seconds were analyzed. If one is willing to admit that static parts of the body are as meaningful as mobile ones, we can compute the amount of information contained in the coded data as  $(24860 \text{ half a second}) \times (26 \text{ parts of the body}) \times (2 \text{ coding dimensions for each part of the body}) = 1.292.720$  information. This is the amount of information my programs dealt with each time they had to compute such variables as the number of movements which occurred, or the mean number of parts of the body supported by chair and floor ... which is a mean value of 43.090,67 information per experimenter/subject dyad. This computation excludes more qualitative information on base posture I have also coded such as the way the pelvis is put on the chair. Of this information a lot seems to be relevant in various ways.

To study global postural posture I took into account other variables, most of all: autocontact surface (how many parts of the body are involved in autocontact), and surface of posture (how many parts of the body are freed by postural dynamics to participate in more directly objectal activity such as managing tools or specific communicative signals <mimics, hands illustrating words, speaking, etc.>). I coded these more complex aspects of postural behavior on the nurse school films.

Again the coding was kept as simple as possible. For autocontact I just coded if a part of the body touched or did not touch another part of the body ... but I did not even code which other parts of the body was touched. For base posture I needed to analyze 2 (left and right) x 13 parts of the body ... because only the back was relevant. For this more detailed coding an other 21 parts of the body were added (head, belly, etc.). I observed 984 configurations of autocontact, and 1501 different global postural configurations. Again, using a more sensitive code would lead to much larger numbers.

Although very simple, this code used 13 dimensions per part of the body: a part of the body could touch the chair, or could be in autocontact, or could touch nothing, or could touch the chair and a leg, etc.

13 dimensions of 47 parts of the body during 10688 half seconds were analyzed. Computing as before, we now have 6.530.368 information on 27 participants, and therefore 362.798,2 information per dyad for 297 seconds in average.

### II. A.3. Postural bricks

So much information contained in somewhat primitive forms of coding was so unexpected that I wondered if part of that multiplicity wasn't an artifact contained in the code. For example in posture some parts of the body are more stable than others. A person A may have what one could call postural bricks, e.g.:

\* Brick A: both feet touch the ground, bottom touches seat, and back touches back of chair.

\* Brick B: arms and hands take several positions while brick A remains static.

In the previous computation of postural configurations brick A would be included with each arm configuration. By distinguishing bricks the 346 base posture configurations are reduced to 190 bricks, but the 1501 global postural configurations generate 1696 different postural bricks. One may look at the data several ways, there still remains considerable diversity.

Table 1 shows the base posture bricks used by assistants, and the duration (in 1/100 second units) of its use. The repertoire of the assistants is of 26 bricks out of the 65 used by university participants. Only one brick is used by 4 of the 6 assistants: 47A. 47 and 48 stands for right and left foot, 'A' for base posture. The right foot is the one which is not between the assistant and her interviewer. So among 4 assistants right foot was used independently from all other parts of the body. This configuration is also observed on other participants. Apart from these 5 bricks are used by 2 assistants, and all the other by only one assistant.

41 and 42 stand for right and left bottom touching chair. So that there are 7 bricks which stand for basic ways of putting oneself on a chair. We here have an example of how individual behavior is, even when using the most reduced representation of base posture behavior possible.

## II. A.4. Discussion

These figures have several immediately perceptible consequences.

First of all they killed all hopes one could have of observing a set of 'typical postures' for students, a typical posture for assistants, a typical posture for nurses, etc.

Secondly, I was struck by the variety of individual behavior even in such a standardized situation. Few configurations were used by more than half of the participants, most were used by only one of them. What one really has here is data on individual bodily imagination. I don't know how many people I should film in such situation to observe a certain stabilization of the repertoire. Finally, I wondered if this data were not one of these rare cases where individuality appeared in behavior ... a notion that psychologists don't seem to like very much, as variance prevents easy management of data by producing what I call average behavior (or a typical behavior).

More reassuring was the observation that the information on social status and posture is mainly ongoing and redundant. One can focus on it at any time during the relationship, and needs to focus on it only for a certain time. To observe the whole process of regulations and negotiations leading to an equilibrium between status, one needs to analyze the first three minutes ... the fact that I coded the whole of each interview did not provide me with much more relevant information than if I had coded only the first three minutes; if I had coded shorter samples the major differences I observed would have appeared, but less strongly.

The results I shall publish (Heller 1992b) will show that there are patterns which correlated with institutions (university and nurse school), status (university students, university assistants, nurse students, nurse teachers), with roles (subjects or experimenters), and individuals. These patterns are highly diversified, and sometimes occur simultaneously in differentiated ways: there might be a base surface width (number of parts of the body touching the chair) typical of nurses, and an autocontact behavior typical of nurse teachers occurring simultaneously).

The patterns I observed followed laws more often than clear configurations:

\* Nurses had a tendency to sit more backwards, and therefore to have more parts of the body touching chairs than academics. This variable is independent from which parts of the body touched; in one case it could be arms and hands, in another the back.

\* Nurse teachers changed postural bricks more often than their pupils; again in one case legs were moving, in another arms, or back, or a combination provided those values. In the university it was the students that had a tendency to move more than the assistants.

These results show three things:

1. several variables influence simultaneously different parts of the

body;

2. most parts of the body are used by interpersonal regulatory mechanisms;

3. so that there is not only a problem of dealing with a high variety of behaviors, but also with a high variety of variables which group certain phenomena in relevant ways.

To summarize: Many things happen, and these things are coordinated by many different structures.

## *II. B. Facial behavior of suicidal patients*

### **II. B.1. General repertoire**

Dr. Yvonne Gitnacht, a psychiatrist, interviewed 17 patients of the I.U.P.G. 15 days after a suicide attempt. Among the suicidal population she chose those also having a major depression as defined by the DSM-III (Gitnacht 1989). The facial behavior of these patients was recorded on video during the whole interview. During the year that followed we noted down which of these patients attempted suicide again. Our idea was to compare the facial behavior of patients with reattempt and of patients without reattempt, and see if the facial behavior of our patients had given cues on the risk of a reattempt. 5 out of 17 patients had a reattempt, one of these was fatal. This sample is small, but that is all Dr. Gitnacht could film in one year.

Coding facial behavior is a demanding task. We therefore only analyzed two samples of approximatively 20 seconds per patient. One sample when patients were being asked if they might make a further attempt, and one sample where they are asked to talk on their self-confidence.

To code facial behavior we used the facial action coding system (FACS) developed in San Francisco by Paul Ekman and Wallace V. Friesen (1978). This coding system distinguishes 42 facial units, or action units (AU). 8 of these units are scored with a scale of 6 dimensions, the remaining 34 with a scale of 2 dimensions (on or off). Our time scale was of every 4/100th of a second, which is to say every video picture.

Let us take the same computations up again. Total coding time was 8127 time units ... 325.07 seconds. At each time unit we had  $8 \times 6 + 34 \times 2 = 116$  information. We therefore had 942.732 information to manage (55.454,82 in average per interview). This again using a code that only takes into account muscle movements (we did not use measures on the quality of the skin as proposed by Thorell (1987)), with a very short sample. If we had added head position and eye movement (data that we actually coded for the first question) we would have more impressive figures.

As shown on table 3, of these 42 units 6 were not observed in our samples. All subjects had eye blinks (units 41,42,43). 16 subjects parted lips when not speaking (units 25, 26, 27). 14 subjects had tense lips (units 23 and 24). 10 subjects showed dimples (unit 14), 9 smiled at least slightly (unit 12) ... the remaining 32 units were used by less than half of our sample. Of the

most used units, none were an issue allowing us to differentiate subjects with reattempt from those with no reattempt. Ellgring (1989, p. 76) had already noticed a certain prevalence of units 14, 24, and a few smiles among depressive patients.

Each patient used from 4 to 19 of these units, in highly differentiated combinations, in equally differentiated timing. These combinations are what is generally known as “facial expressions.” Ekman (with Friesen & O’Sullivan 1988), for example, distinguishes true smiles from “pseudo” smiles (true smiles produce wrinkles at the corner of the eyes). Smiles are unit 12, wrinkles at the corner of the eyes are unit 6. A true smile is therefore a series of action units including the combination 6 + 12. In this highly standardized and stressful situation, on 17 patients who were clearly not very expressive, on a very small time sample (40 seconds per patient), 131 different combinations (or facial expressions) have been observed. 95 of these combinations are used once by one subject. 50 combinations are only used when discussing on self-confidence, 56 combinations are only used when discussing on suicide. 25 combinations are used in both subjects of discussion.

So that diversity is here again the rule. Every new subject widens the repertoire, and the more one observes a subject the wider his repertoire appears. Here again, as for posture, we may ask oneself how much of a person must be observed to know what his main repertoire is in a given situation, and how many persons must be observed to know the main repertoire used in this situation. Only on this back ground could one have the means to relate individual repertoire to specific variables.

## II. B.2. Behavioral repertoires

Again our variables could not be related to specific expressions: there was no typical facial expression(s) of patients who reattempted suicide. On the other hand our variables could be related to different repertoires:

\* Topic: Upper lid raise (unit 5), nasolabial deepen (unit 11), cheek puff (unit 13), tongue show (unit 19), mouth stretch (unit 27) are used at least once by subjects when talking on their self-confidence, and never when they talk on suicide. Action units used at least once by some subjects when talking on suicide, and never when they talk on their self-confidence, are mostly global jaw / lip movements: lips towards (unit 8), lower lip depress (unit 16), lip funnel (unit 22), lip suck (unit 28), jaw thrust (unit 29), jaw sideways (unit 30), bite (unit 32), cheek puff (unit 34). And nose dilate (unit 38).

\* Suicidality: units 1, 4, 5, 8, 10, 11, 13, 19, 22, 27, 28, 30, 34, 37, 44 are used by A (no further attempts) patients only; while AUs 16, 32, 38 are used by patients R-S (with recurrence) patients only. This first series of exclusive AUs is observed on 8 of the 12 A patients.

\* Suicidality and topics: While talking on self-confidence units 1, 2, 4, 5, 10, 11, 13, 17, 19, 24, 27, 37 are used by some A (no further attempts) patients only; while AUs 7 (tightening around the eyes) is used

by patients R-S (with recurrence) patients only. This series of exclusive AUs is observed on 9 of the 12 A patients. While talking on suicide units 1, 4, 7, 8, 10, 22, 26, 28, 30, 34, 37, 44 are only used by A subjects (8 out of 12). No facial AUs is only observed among R-S (with recurrence) subjects. In this way 9 out of 12 are selected.

Units 1 to 9, and 44, involve muscles around the eyes. One notices in those results that patients with reattempts tend to include less of these units in their repertoire. Looking at configurations one notices that 1+2 (lifting eye brows) is never used by subjects with reattempt. It is therefore possible to talk of a certain form of “eye block” for reattempt subjects, which is strengthened in the discussion on suicide.

I give here only a brief and incomplete survey of results, to show that difference between the two groups is fairly strong if one is willing to admit that it is the availability of a repertoire which is relevant. All patients who use units around the eyes had no reattempt, but absence of these units was observed in both groups. The fine point here is that a repertoire does not imply a specific signal. It only means that in one group patients had access to a series of possible expressions, while in the other group they had access to another series of possible expressions. This does not mean that a patient in one group will use all the accessible expressions during the interviews. Each individual relates differently to the repertoire he has access to. This notion of repertoire rather than specific signals makes sense with my clinical experience for two reasons:

\* It puts a finger on the difficulty I, and many others I have spoken with, have with people who believe that life is so simple that such a complex and varied experience as suicidal tendencies would only require a specific expression (or a set of them) to communicate (Frey 1991). If we really functioned this way studies on non-verbal behavior would already have yielded much more spectacular results than what is published. In fact I believe that culturally we all tend to have a laziness in us which makes us hope that things would be that simple. On the other hand there is a general feeling that we do manage to feel if the other is depressed, auto-destructive, schizoid, etc., and that there must be some sort of a communicative device on which these feelings can rely. Communication by repertoire leaves room for a) the fact that something seems to be communicated, b) the fact that there is a difficulty to put one's fingers on what sign communicates what, and c) that such communications seem to be only partially reliable.

\* Repertoire is related to context. When I put myself in a situation I have a vague notion that this situation has certain requirements, but I seldom behave exactly in the same way in the same situation, or know exactly what I should do in this situation. I also have a feeling that certain ways of laughing are not appreciated in the same way if I am attending at a burial, or am drinking with friends. I have not been at many burials in my life. Burial rituals are partially consciously structured (I am told where to stand for example), but nobody ever told me exactly how I should behave in such a situation. And yet I somehow have a not very precise feeling of what sort of behaviors I dare use, and which I wouldn't even dream of using. Access to repertoire in such a

standardized situation as a burial is not quite the same thing as knowing exactly what to do. That only comes by improving with experience and/or training my relation with the accessible repertoire.

Such a model could be useful to reevaluate the problematic relation between expression and emotion. Since Darwin (1965) research has shown (Buck 1988, p. 19 - 20, Ekman & Friesen 1984, p. 23 - 31) that emotions have probably a 'hard wired repertoire' of facial expressions ... in a similar way than with monkeys and dogs. But when you look more closely at how things happen, you notice that this emotional repertoire is relevant in some situations and not in others. Ekman (Ekman, Friesen & O'Sullivan 1988) has to put people in front of horrible films "showing amputations and burns intended to elicit strong unpleasant emotions". Lowen pushes people into stressful positions, encourages them to shout and hit a mattress, with the hope that they feel that organic relation between emotions and 'apish' behaviors. It would seem that Darwinian repertoire of emotional expressions is available to all (thus indeed innate), but mostly used in some situations only. Thus in certain psychotherapy groups, or in certain moments of crisis in family life, the use of this repertoire may be a way of showing how involved you are in belonging to the group. On the other hand, these apish behaviors are clearly inefficient in our industrial societies, if one considers emotions in their traditional phylogenetic function (in the sense of aggression leads to attacking an enemy, fright helps one to escape an enemy, etc.) (Laborit 1990, p. 117). Aggressivity is sometimes more efficiently expressed by a good joke, which provokes your opponent into a 'Darwinian' anger, and makes him appear ridiculous to others. Thus even with such bio-psychological phenomena as emotions, it may be relevant to suppose that people have access to several repertoires, and that choice of repertoire must be understood before one can understand choice within a repertoire.

### II. B.3 : Specific signs as repertoire

Even specific signs can function as a repertoire rather than on a current signifier / signified mode. Let us take a particular moment. Doctor asks: do you still want to commit suicide? Then there is a silence, then the patient answers. During the silence after the doctors' questions 4 out of 5 patients with reattempt had slightly parted lips (unit 25), while none of the patients with no reattempt used that unit at that particular moment. Looking closer at these 25 units we noticed that they were functionally very different. In one case the patient had chronically parted lips, apparently related to slightly hypotonic muscles around the lips. Another one appeared to say something with lips but no sound, closed her lips, and then answered with lips and sound. A patient parted lips before talking, hesitated, closed lips then started talking. And finally a patient parted lips remaining silent for a while, then jaws parted to speak.

### *II. C. Words and faces: communication and depression*

Let us now look at a more complex experiment on depression, we carried out with Professor Klaus Scherer's department of the Geneva Faculty of Psychology (FAPSE). Of this laboratory Hervine Siegwart helped Christine Lessko, Veronique Haynal and myself to code the facial expressions of these patients.

A patient is seen five times, at two-week intervals, by his current psychiatrist, for a semi-standardized interview lasting approximately 20 minutes, in French. He is asked to describe the last time he was happy, the last time he was angry, the last time he was sad, and by what means he arrived at the service. After each of these topics, the doctor asked the patient to look on a board, on which these words were typed: well (bien), sad (triste), angry (fâché), disgusted (dégouté), worried (inquiète). He was asked to describe how he felt using these words, and qualifying the one(s) he chose by a bit, medium, a lot. He could also use another word if it was absolutely necessary. At each of these moments the doctor wrote his impression of how the patient felt, and how he himself felt, using the same scale. After each interview patients passed a Hamilton and a Beck test for depression.

We managed to have 9 patients willing to participate in all five interviews. Doctors and patients were of both sexes.

## II. C.1. General repertoire

For each patient, we coded 20 seconds of each of the four topics. Although depressives are reputed for not being the most expressive people (Ellegring 1989, p. 58), we still found ourselves with 369 different facial expressions (defined as for the previous experiment). In each situation we observed between 120 and 143 different expressions; which is to say an average of 73.8 expression per situation observed in no other, but also the beginning of a stabilization of the repertoire, as we have more than 50 expressions shared by at least two situations. This data is fresh out of the computer, so that I may not say more on it yet, but we here have an observation showing that width of repertoire could be a manageable notion.

If we now look at all our facial data, we notice that 427 facial expressions are used: 60 expressions by members of all groups of patients, 308 expressions exclusively in our 214 depressive samples, and 56 expressions exclusively in our 34 suicide samples. Here again we have the beginning of a repertoire stabilization.

## II. C.2. Words

Until now we have considered phenomena for which we have no semantic dictionary. We have counted how many occurred, and we shall discuss in a moment why it points to unconscious communication. The unconscious communication we have been describing only allows one to show that the existence of that realm is highly probable, immense, and highly varied. But none of this data allows us to think in terms similar to the present (Haynal 1992) psychoanalytical model of transference. We shall now see that data

which could at least be related to a phenomena similar to transference requires something like semantic meaning on top of functional meaning.

As mentioned previously we asked depressive patients to describe how they felt using a repertoire of 5 words, covering what we thought were the main emotional states. Doctors had to describe in the same way how the patient felt, and how they felt. This assessment occurred four times in each interview. Other words could be suggested.

Most of the time participants used the proposed words (well, sad, angry, disgusted, worried), but sometimes other words were used. Of these other words (33 were used), only 3 referred to emotions: disgusting, another word for anger (en colère), fright ... each being used once by patients on themselves, never by doctors. The words proposed more than 5 times were tired (14 times), nervous (9 times), agitated (8 times), stressed (8 times), anguished (7 times), tense (7 times), calm (6 times), anxious (4 times). The word depression, depressed, depressive was never used.

Apart from the three 'emotional' words, the remaining 30 proposed words describe experiences which clearly do not belong to what one usually calls an "emotion." How they can be grouped is not something I can propose alone. But what appears clear to me now is that to the question 'how do you feel', those who participated in our experiment felt the need to pick words in at least two repertoires: one consisting of emotional words, and one that seems more connected with intra-psychoic phenomena related to such polarities as well/unwell, tired/awake, calm/excited, anxiety, etc. Given that emotions are usually a fairly fast phenomena, and that the other repertoire relate to phenomena that can last a long time, a mood seems to be something that requires a combination of two words, one describing a fast phenomenon and one describing a slow one. For example anger as a mood cannot exist except if it is related to anxiety, or being tired, or feeling empty, etc.

So that we actually have at least three phenomena distinguished when talking of one's feelings:

- a. emotions (fast events),
- b. possibly slow events such as feeling tired, and
- c. moods (a combination of a & b).

This analysis mostly showed how poorly structured our cultural semantic repertoire related to describing one's inner state is (even among researchers). Clearly one needs purely semantic research on different layers of self-experience before one is really able to carry out efficient research on what can be generally called "affects."

We grouped these words in four categories (described in table 2), using a fairly current procedure in academic psychology, which is Osgood's (1975) measurement of meaning. Then, Laurence Tricot and myself computed correlations between patient's self-report, doctor's report on patients, and doctor's self-report. Laurence Tricot found the following results:

- \* First interview: the more the patient mentions anxiety, the more

the doctor judges the patient to be angry, and the more the doctor reports anxiety for himself. In other words during this interview tends to perceive anxiety as an aggressive act, and through this misreading tends to find himself in the same state as his patient. The Hamilton score correlates mostly with the doctor's report of anxiety in the patient's feelings ... which is to say that the Hamilton test for depression really measured what the doctor reports as anxiety. When talking of the patient, doctors distinguished three types of words: words on feeling happy, words on being aggressive, and words on negative feelings. Feeling well is not clearly opposed to certain categories of words.

\* Last interview: A sort of "emotional soup" is observed in the relation. The same feelings are observed in all three types of reports, and several words are used to describe a state, so that progressively more and more significant correlations appear in the results. The strongest correlations concerns anger. The more anger there is in the patient, the more angry he is perceived and the angrier the doctor feels. There seems to be a consensus between what categories are related to feeling well and what categories are opposed to feeling well. One also notices that the more interviews they are the more agreement there is between what the Hamilton score says and what is said by both patients and doctors.

Here again the analysis is not finished. But what seems to emerge are the following trends:

\* As the therapeutic relation advances, the patient learns and interiorises how psychiatrists of this institution define feeling well and feeling bad. This observation can be perceived in two ways: a) a conformism of patients to the institution's norms, b) the patient is putting order in his feelings and is beginning to have a more differentiated view of himself.

\* As this process of organization of the relation in function of norms establishes itself, a curious mixture of emotions invades the relation; one has the impression of feelings dissolving in the situation and penetrating protagonists as if by osmosis. Anger seems to be a prime carrier of emotional contagion. Such a phenomenon, now that we have spotted them, could be studied in more details (I see no methodological problem). It does point to a mode of functioning within which notions such as unconscious transfer and counter transference are plausible.

### III Unconscious, preconscious, conscious

The data I have just described is not here to prove the validity of the model I will summarize, but added to the evidence I have already mentioned in my previous article (Heller 1992a), it may help to strengthen and illustrate certain aspects of it. For example it clearly shows why one should distinguish between conscious and preconscious.

### *III. A. Preconscious / Conscious*

“The study of the distribution of consciousness shows it to be exactly such as we might expect in an organ added for the sake of steering a nervous system grown too complex to regulate itself”. (William James, quoted in Baars 1988, p. 3.)

I have just shown that in a one-hour session there is probably more than a million easily perceivable bodily signals which are exchanged. If one considers the general trend of research on non-verbal communication one can surmise that most of these exchanges are relevant; that the figures I arrived at are probably smaller than what really is exchanged in therapy sessions; it is probable that several messages are shared simultaneously and sometimes independently (Heller 1992b). Given these considerations, it is probable that our consciousness may not be aware of all that occurs at a given moment, although each event is accessible to our consciousness when one focuses on it. This distinction covers the classical distinction between conscious and preconscious (available to consciousness, but not in our field of awareness).

Nevertheless, even here, one probably has to postulate more independence between the two systems than what Freud had thought. Consciousness has ways of coordinating in a very precise and flexible way few data at the same time. Preconsciousness has to deal with an immense quantity of data in an immediately efficient way. What I arrived at, is the idea that in preconsciousness we may have many modules who analyze very quickly specific aspects of reality, independently from other modules. Each of these modules having a fairly rigid way of functioning. One must also suppose that preconsciousness has various means of coordinating modules in function of certain aims (for example in habitual behaviors). Definition of words can be used as an example. It would seem that preconsciously we have a highly refined way of knowing to what object a word can be attributed, and to what object it cannot be attributed. On the other hand consciousness has a lot of problems defining the meaning of a word in a way that can be managed by consciousness (try to describe in words how to knot a tie!). Clearly, defining a word is a mental operation that requires the management of more items than what consciousness may manage. Baars (1988, pp. 33-39) suggests that when an idea enters consciousness, all modules of the preconscious become aware of it, and have to be coordinated to it by those mechanisms coordinating modules of preconsciousness; while purely preconscious ideas are treated relatively independently from each other.

### *III. B. Preconscious / Unconscious*

“No amount of introspection could tell us that we know, or recognize, or use certain rules or principles of grammar, or that use of language involves mental representations formed by these rules and principles. We have no privileged access to such rules and representations... The creative use of language is a mystery that eludes our intellectual grasp... Where ideas are generated by mental chemistry,

as distinct from association on a mechanical model, it is presumably impossible to resolve them into their constituents by introspection". (Chomsky 1980, p. 128, 222, 243)

If preconscious events often function independently of our awareness, they are not of a quality which one could relate to what one talks of when one discusses of transference / countertransference. For that we need to go deeper. I have just shown that any bodily phenomena (clenching a fist, moving nervously a foot, pulling a face, etc.) is preconscious, because always accessible to consciousness when focused.

Deleuze (1979) has suggested that structure is by definition unconscious. It will remain unconscious even when one attempts to focus on it. For example no one can contact with consciousness the whole of the English language and thus perceive its structure. One only has a sort of magical access to grammatical rules, semantic repertoires, etc. Any individual aspect of language can come into consciousness when required, a bit like a pull down menu on a computer program. Consciousness does not know by what modalities it has access to these pull down menus, nor of how they are organized.

In the same way I have no possibility of perceiving the whole structure of the culture I live in, or even of my family, or of the relation I am having with some one. In a way a psychotherapeutic process can be perceived as a patient recapitulating all the pull down menus he can manage, until he can - with the help of a therapist - start to have a general picture of the structures he was involved in, and which used him to incarnate themselves. As everyone knows, such a conscious access to structures may take years.

Freud showed that in a similar way we have no conscious access to physiological structures, or structures involving lower levels of material organization. In other words consciousness has no direct access to structures, but may be fed information on elements of structures. This does imply that something connects preconsciousness to structure ... which, I presume, is what we call "unconsciousness." Here again I postulate mechanisms which function differently from consciousness and from preconsciousness. Probably even more data can be processed in human unconscious, in an even more rigid way. I also wonder if unconscious processes are not less involved in defending points of view related to how we define ourselves.

#### IV The realm of consciousness

At the end of my conference I was able to live that wonderful moment which ought to occur in all colloques, of having a person who not only asked interesting questions, but mostly helped me to see what I did not dare to see in my data. I must thank George Downing for supporting my wish to really take the consequences of the matter I am dealing with. This article, and especially this section of the article, has greatly benefited from our discussion. Those who attended my conference will notice that in this article I have managed to become clearer of what my theme is, to focus on it, and to

propose conclusions I had not dared to think so clearly. I, of course, take full responsibility for the final formulations in this article, but wish to thank George Downing for some of the best ideas it contains.

#### *IV. A. Aqualidology*

Defining the realm of the unconscious as our contact with structures leads us to an even more complex approach of communication. For example timing of each movement, order in which they occur has not been considered when I attempted to compute how many informations we deal with during a therapy session. Clearly we are swimming in an ocean of regulating mechanisms, and this ocean at the same time touches us, and is mostly beyond conscious access ... except through such means as awareness of atmospheres.

It also leads to another definition of psychotherapy. Making the unconscious conscious is no more a valid aim of what we are trying to do. I would prefer to summarize my work as teaching people to discover how they would like to swim in the ocean of the unconsciousness. This I call aqualidology (aqualide = inner world).

Part of my work is using research tools to have more information on this ocean, on how it regulates itself with us, and how we can regulate with it. Another part of my work (through psychotherapy) is to find what way(s) of swimming in this ocean are comfortable for us, and through which way(s) we risk various forms of drowning.

Part of this work consists in trying to find out how consciousness is to be used if reality is close to what I have just described. Let us use an example. Some patients come to see me to obtain a sort of formula on how to find a sexual partner. In other words they hope to get a sort of magic incantation through which they can turn the other on. This is, in fact, a certain vision of the relations between consciousness and unconsciousness which I would call pathological (close to psychosis and psychopathy).

It is here assumed that

- a) decisions are taken by consciousness, and
- b) that once a decision is taken unconscious 'servants' deal with all the hardware problems.

Inspired by the I Ching (Wilhelm 1973, pp. 153-155), I would say things differently. What regulates seductive behavior is, first of all, a preconscious / unconscious regulation; what allows us to take the consequences of these regulations is mostly a preconscious/conscious process. In other words, the quality of our sexual relationship depends on how these three systems are coordinated. This is, for me, the central preoccupation of psychotherapy today. The image inspired by the I Ching I use for myself is the following: If a captain thinks he can change the course of the river to solve problems occurring between his boat and the river ... then he is likely to get stuck.

#### *IV. B. Transference*

Looking at relationships in this way, it becomes obvious for me that most of what is happening between psychotherapist and client has nothing to do with transference / countertransference. To avoid seeing this is just being coward. In the first part of this article I gave an example of an emotional assimilation of the client's behavior to the therapist's mood, saying that this was not transference. Now I can go farther, and say I think that so many things are happening between client and therapist, that to call all of them 'transference' is absurd. Calling all the therapist's feelings on patients counter-transference is just a way of not taking responsibility of one's feelings through the use of technical words. I therefore plead for a restricted definition of these terms. (Heller 1987)

From the perspective of what is discussed here I would like to use the following image to situate transferential phenomena. I have just mentioned that the modalities by which consciousness and structure (via unconscious and preconscious processing) regulate are probably crucial in psychotherapy. I now have in me an image of the general flow of communication as a nerve cell. This cell has an envelope. This enveloped has channels through which neurotransmitters may regulate the electrical flow of the nerve. Let us imagine that in communication there exists such channels through which consciousness may regulate the flow of information in structures. Then I would suggest that unconscious phenomena act a bit like neurotransmitters, by regulating the relation between consciousness and structures.

Let us go further with the neurotransmitter analogy. There are neurotransmitters, and neurotransmitter blockers. A substance can block a receptor by fixating itself on a channel, so that a certain neurotransmitter may no longer enter this channel and activate a nerve. When this occurs something in unconscious communication cannot happen anymore: its structure functions in a partial way. Interaction between unconsciousness and consciousness is blocked in this channel. Such a phenomenon could be accounted for by something like a transferential dynamic; part of which is totally unconscious (the part that triggers the structure's membrane), and part of which is accessible to consciousness (it is a preconscious procedure). As we are talking of communication this process invariably involves two persons, even if the block comes from a single person. This is my image for transference / countertransference dynamics. It notably accounts for the fact that usually, in practice, clients and therapists are only partially aware of what they are dealing with when they elaborate on a transferential actualization in their relationship.

The unconscious communicative flow between at least two persons is partially blocked, by a mutilation of a certain relation between conscious and unconscious communication. Releasing the blocked channel requires two persons, because that is the minimum unit which can perceive where the block is. Releasing this block should help consciousness to integrate the consequence of unconscious regulations it could not integrate previously (for

example the consequences of being a seductive person). The blocks, created by the patient's history are called transference, the effect on the other countertransference. The blocks, created by the therapist's history are called transference, the effect on the other countertransference. Once this block is removed, current mechanisms involved in regulating through this channel the relations between structure and consciousness may be re-established, provided that regulation mechanism still exists ... one can imagine that if not used for a certain while, a neurotransmitter or a receptor is not produced any more (this is another problem I shall not discuss here). As a therapy is not centered on the therapist, a supervisor is required so that the therapist learns to work taking his transferences into account.

But even if this analysis is accepted, I hope you have noticed that it is not implied that everything should become conscious ... part of the transference mechanism is by definition unconscious, related to what is unconscious by nature and not by pathology. Therapists sometimes hope clients can make them conscious of phenomena they themselves have not yet been able to become conscious of. This requirement has nothing to do with a psychotherapy contract.

Finally, I hope it also becomes clear now why I do not think that transference dynamics is central in psychotherapy. It is obviously a powerful and useful tool, required in certain cases. Notably because it is a means for the therapist to contact his client's unconscious with his own. But there are so many other relevant things happening at the same time, that one must think of which items it is worth passing time on with a client. Sometimes, re-establishing contact between bodily feelings and consciousness can, for example, be more important. The problem being that once you start analyzing transference dynamics, the relationship establishes itself in a certain atmosphere which is not always compatible with other techniques also used in bodily psychotherapy (for example working on the pulsation of the energy field, rebirth, relaxation, etc.).

#### *IV. C. The inner lab*

“The intense view of these manifold contradictions and imperfections in human reason has so wrought upon me, and heated my brain, that I am ready to reject all beliefs and reasoning, and can look upon my opinion even as more probable or likely than another... Most fortunately it happens that since reason is incapable of dispelling these clouds, nature herself suffices to that purpose, and cures me of this philosophical melancholy and delirium, either by relaxing this bent mind, or some avocation, and lively impression of my senses, which obliterate all these chimeras. I dine, I play a game of backgammon, I converse, and am merry with my friends; and when after three or four hours' amusement, I would return to these speculations, they appear so cold, and strain'd, and ridiculous, that I cannot find in my heart to enter into them any farther.” (Hume 1984, p. 317)

Another consequence of what precedes is what I could call everyone's “inner lab.” At the L.A.C. it takes us at least a year to analyze data extracted from a

few interviews, and through this we only obtain a highly simplified image of what occurred. Each one of us processes nonverbal cues much more efficiently all day long. In other words we have to postulate that we all have an interface which is more efficient than any laboratory existing today. Furthermore, given the difficulties all the laboratories have of knowing how to approach the analysis of communication, we must also postulate that consciousness is not able to contact this interface directly. At the most it has access to some of the results, this interface brings into pre-consciousness.

This analysis confirms what most therapists already know: that access to their unconscious is their best means for obtaining information on their client ... it is the best mode of access to all aspects of the client, not only his unconscious. We have just shown that even the overt visible behavior is inaccessible to consciousness only.

Without access to our inner labs, it would be impossible to gather the knowledge and techniques required to help people, as experimental techniques are not yet able to help therapists in a convincing way. This is why working on oneself to open the relations between our consciousness and our unconscious is the first and indispensable step to become a therapist. Just as essential is a capacity to live with this openness, and to learn how to swim in the ocean of reality without needing to understand everything. Paradoxically, this openness leads us to a firmer relation with structures, which is to say with knowledge, tradition, laws, and the transformational flux of structures which create our history. This need is all to the honor of therapists, but is not part of what we require from most of our patients if we want to help more people than just those walking on the same road as ourselves.

I conclude with these remarks, because in the actual political context our profession is in, I find it important to stress that in the definition of our profession, access to our inner labs, and the state it is in, should be the prime requirement.

\* \* \* \* \*

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Table 2:

	Le patient	Le médecin	Le médecin		Le patient	Le médecin	Le médecin
	sur lui-même	sur le patient	sur lui-même		sur lui-même	sur le patient	sur lui-même
bien-être				agressivité			
amélioré	1	1	1	nerveux	9		
bien	87	90	146	en colère	1		
calme	2	2	2	agité	4	4	
confiant	1	1		fâché	46	64	40
espoir	1			impatient			2
euphorie	1	2		tot	60	68	42
soulagé	1	1		count	4	2	2
tot	94	97	149				
count	7	6	3	angoisse			
				angoissé		3	4
depression				anxieux		4	
ne sait pas	1			coupable	1	1	
pas à l'aise	1			mal	4		
nul	1			remué	1	1	1
triste	86	145	82	stressé	4	4	
vide	2	1		tendu	2	5	
déçu	1			contrarié		1	
las		1		dégouté	48	63	30
dérouté			1	dégoutant	1		
endormi			1	peur	1		
ennuyé			1	inquiet	100	118	111
fatigué	9	1	4	tot	162	200	146
fermé		1		count	9	9	4
inhibé			1				
inutile	1						
tot	102	149	90				
count	8	5	6				
pour l'ensemble							
tot	418	514	427				
count	28	22	15	total : 38 mots			
In this table we show how many times each word was used.							
The words are grouped in 4 categories, we obtained through an Osgood semantic analysis.							

Table 3:

Subjects :	tot	count	ODB	PDC	QDD	RDE	SDF	TDG
Variable :			D	D	D	D	D	D
Combinations								
23A	7395	1						7395
31A+ 32A	14495	1					14495	
31A+ 32A+ 35A+ 36A+ 41A+ 42A+ 43A+ 47	50705	1	50705					
41A+ 42A+ 43A	70100	1					70100	
41A+ 42A+ 43A+ 48A	6805	1					6805	
32A+ 35A+ 36A+ 41A+ 42A+ 43A+ 47A	60005	1		60005				
42A	21800	1						21800
33A+ 34A	23105	1					23105	
24A+ 32A	2500	1		2500				
24A+ 36A	11000	1						11000
34A	2200	1					2200	
24A+ 28A	3695	1		3695				
35A+ 36A+ 41A+ 42A+ 43A+ 44A	76065	1				76065		
35A+ 36A+ 41A+ 42A+ 43A+ 47A	65250	1			65250			
35A+ 36A+ 47A	25105	1					25105	
35A+ 47A	26400	1	26400					
35A+ 36A	41300	1					41300	
45A	13705	1					13705	
39A+ 40A+ 41A+ 42A+ 44A+ 48A	47260	1						47260
29A	195	1					195	
32A	36495	2		14890				21605
24A	13505	2		13305				200
47A+ 48A	37045	2				36795	250	
28A	10890	2		10790				100
48A	35270	2				25970		9300
47A	90175	4	5			22665	56900	10605
Tot :	792465	34	77110	105185	65250	161495	254160	129265
Count:	26	26	3	6	1	4	11	9
Mean :	30479	1.308	25703	17531	65250	40374	23105	14363
row 1 : name of subjects. Last letter : M = mal , F = female. row 2 : variable. D for different status, E for equal status.								
65 bricks were used by all university participant								
other rows : Duration of each Au Combination or each subject.								

