

## **An Essay on Provocative Therapy and Neurobiology Humour affects the Limbic System**

In the long, dim and quiet hallways of our holy places of wisdom – our universities! – humour is still considered as dangerous as a lethal virus and therefore it is usually exterminated. Many psychotherapists too still look upon humour as something evil in their work, because, when the client laughs, this means that he is not serious enough. Even if humour is not considered as that bad, for many therapists humour still is nothing more than a cause for a mild and forgiving smile about the clumsy colleague who believes in humour's power! – Nevertheless, for decades humour and laughter have been considered crucial for personal change in Provocative Therapy. Recent research about the brain gives good reasons to use a lot of humour in psychotherapy, because humour affects the limbic system of the brain which is an important system for the organization of our behaviour.

### **Change in the Networks of the Brain is equivalent to Change in our Emotions**

All of our behaviour is organized by complex neuronal networks in the brain. This applies to psychological and psychosomatic disturbances too, which can be seen as expressions of conflicts or of "faulty" emotional conditionings. They correspond to specific neuronal networks in the limbic system. Once established these networks might continue to exist for our whole life. Each time one is activated it will be strengthened, e.g. by each remembering of a bad experience. Even if the brain should be unable to forget a fact, it will remain able to build new networks compensating older ones till our last day on earth. Our brain has inconceivable possibilities for building fresh connections which shows its immense capacity of learning, adapting and healing itself. As specific emotions correspond to these networks a change in the networks has to go along with a change of the corresponding emotions. Thus, change is possible when a person who is experiencing a negative emotion of a conflict or a restricting conditioning is able to have a positive emotion at the same time. This new experience can be seen as cause for the growth of new neuronal connections in the limbic system around an already existing network. Then change can happen easily and happens on an unconscious level, which means without any further efforts. Probably only this will lead to stable change. Strong positive emotions in the right moment are crucial. Of course, the stronger the existing network the more repetition of this process will be needed in order to achieve permanent change. Gerhard Roth concludes that the positive effect of psychotherapy might be a consequence of positive transference. While talking about something that makes him feel bad the client also feels secure and safe with his therapist at the same time and therefore he trusts him.

Now, what can we conclude from that for the meaning of humour in psychotherapy? Evidently humour is a positive emotion and easier to observe than the quiet development of positive transference, because laughter is an external, loud and instant sign of an inner state. When Frank Farrelly provokes laughter over and over again while clients are in a restricted inner state – feeling fear, anxiety, anger or having tears in their eyes – sure enough new neuronal connections are going to build up in the limbic system at the same time. And because in Provocative Therapy humour is thoroughly provoked around specific negative emotional states, these connections are built up exactly at the right place.

Clients often tell me, that in these moments they are able to see themselves from outside and have to laugh about the absurdity they discover, when they look at their behaviour from that new point of view. Now this point of view is the perspective of the Neocortex, because only this structure in our brain allows us to look at ourselves from outside. Provocative Therapy not only affects the limbic system with adequate emotions for change at the right moment, it also affects the structure of the brain, which is the most developed one and which allows deeper understanding.

### **Fight and Flight – Using the strong Power of the oldest Structure of the Brain to Provoke Change**

In Provocative Therapy you often see clients defend themselves and protest against or run away from their own inadequate behaviour. Such reactions – like laughter – can be understood as specific effects of this method. To interpret them referring to Neurobiology it is necessary as a first step to understand how three basic and very different systems are cooperating constantly in our brain.

### **The Neocortex – Location of Consciousness**

The largest, youngest and most developed system or part of the brain – the Neocortex – is the location of consciousness. Here those events are represented, which happen outside of us – what we see, hear, smell, taste and perceive kinaesthetically – as well as everything that happens inside of us –

bodily sensations, feelings, dreams, imaginations and wishes. The Neocortex enables thinking, memorizing, language, the experience of time and certain structures in the frontal lobe enable creativity, intuition and cooperation.

### **The Limbic System – Location of Emotions and Feelings**

The limbic system is an older part of the brain, which we share with all mammals. Here is the origin of social behaviour, brooding, caring and playing. The limbic system operates partially on the basis of inherited programs; partially it is able to learn by conditioning – which means by reward or punishment. One main function of the limbic system is to compare constantly each single experience with former experiences and to guide our behaviour this way. This happens before we can build thoughts about a momentary experience. The limbic system operates unconsciously. We are becoming aware of this process through emotions and feelings with a short delay, which means after having already reacted, and we are becoming aware only of parts of this process.

### **The Brainstem – Location of Reflexes for Survival**

The third and oldest part of the brain is integrated in the limbic system and regulates the most important functions of survival of the individual and of the species. This system works unconsciously, automatically and exclusively on the basis of inherited reflexes. It regulates the very strong functions of fighting, defending and fleeing and further of nutrition, digestion, breathing and reproduction.

Of course the three systems are connected together and are mutually influencing each other all the time. So you may imagine that the older systems, which operate unconsciously and automatically on the basis of fixed programs, could temporarily dominate the conscious process of thinking located in the Neocortex. In that moment they could restrict the activity of the Neocortex to simple loops of 'thinking', which we would repeat over and over again. As the older systems operate unconsciously we could be aware of our thoughts in such a moment, but without being aware of what is happening to our thinking right then!

### **Case study – Desperate Fighting against Laziness**

How does the brain of a person operate who complains that she "desperately fights her laziness" instead of starting to do her work? The word "fight" is the representation of an activity of the brainstem in the Neocortex, the word "laziness" the representation of an activity of the limbic system. "Laziness" summarizes one or several undesired habits. These are based on conditioning in order to avoid frustration. In German we have a special noun for this – the 'innere Schweinehund'. This represents the 'marriage' of two mammals inside of us – of a pig and a dog. As the brain of mammals essentially consists of the limbic system, the origin of this noun seems more than symbolic or accidental! – In our case the Neocortex seems to serve as a stage for a fight between the activities of two different structures of the brain: of the strong brainstem and the limbic system. A person fighting against her laziness has no chance to ever change her behaviour this way. On the contrary her intention to start her work will systematically be weakened this way. This is why she is feeling desperate.

### **Fighting and Fleeing in Provocative Therapy**

In Provocative Therapy one often uses the strong power of the brainstem, however, in the opposite direction. One possibility is to direct the fight back against its source to produce a 'mental short circuit'. The therapist praises the necessity of strongly fighting against oneself until the client begins to oppose. The other possibility is to provoke the client to run away from an inadequate behaviour, which also implies the use of a strong reflex built up for survival. – While listening to a student once who was talking about his fight against laziness I had the disgusting image of a little grey poodle with his hair done in a slushy way, wrapped in a pink blanket, smelling like sweet perfume, whining in a piercing tone and jumping up at the student's blue jeans trying to sniff his genitals while salivating. The student cracked up with laughter and also reacted with a terrified and disgusted look. The sicker he looked the more detailed I imagined the horrible little dog. Repeatedly he requested me to stop talking about the poodle. Of course this only encouraged my imagination. Immediately after this session he started to study harder. He had run away from his laziness and therefore lost the orientation which had helped him to avoid work... So what else could he do now than to start working?

The fantastic thing about using the powers of fight and flight is that you use very strong, natural powers. Once you have cranked them up they will work by themselves. Why? I suppose because it is just the way our brain operates. Fight and flight are very old reflexes, which - once started - always

work automatically. Thus, it is brilliant and comfortable at the same time to use these mechanisms in order to provoke change.

Now, this works really well, however, I suppose that simply reversing the direction of fighting or using fleeing is not always sufficient in order to create permanent change. Why? Looking at the example of the student you can figure out easily, that the laziness and all its conditionings have not really disappeared from his life. They are still very close – in the brain! How long will the change last? That might depend on how rewarding the student will experience his work. Will this experience be positive and strong enough to allow stable new networks to establish in the limbic system after a certain time? If not, he will fall back into fighting against himself.

Fighting against oneself implies conflict. The automatic responses of fighting and fleeing may be intelligent reflexes of the brainstem, when our body is suddenly confronted with danger coming from outside. The intelligence of the limbic system consists in its ability to simplify daily life by using well adapted clusters of behaviour which – once established - will also work automatically after a certain time. However, can this be an intelligent solution to reduce the immeasurable Neocortex to an area for a battle among representatives of the two other systems of the brain? In the first place fighting against oneself leads to a waste of energy. Then fighting always strengthens the 'enemy', which here is another part of oneself! Third, remember that the repetition of an activity of the brain strengthens the network of all involved neuronal routines, in our case thoughts (activity of the Neocortex) about fighting (reflex of the brainstem) an undesired habit (conditioning in the limbic system). The logical consequence is that we will never solve a conflict this way, but, that we preserve, complicate and even strengthen it! Fourth, with our "solution" we have obviously added a lot of new problems to the original one, which consisted of the fact of avoiding work. Fantastic, isn't it?

### **Liberation of the Neocortex of restricting Conflicts**

This liberation assumes the end of the conflict and happens when the client no longer identifies alternately with one or the other side of a conflict but begins to see himself or herself and the whole conflict from outside – a process which is probably induced by the specific method of Provocative Therapy to mirror the client's way of life in short vivid sceneries. And what is to be seen from outside? Strange but true: nothing else but the fact, that and how a person uses her brain to artfully construct a conflict in her mind! That is absurd and thus we laugh. This discovery seems to liberate the Neocortex immediately of the activity of neuronal connections, which restrict our thinking, and is opening it to a better utilization... Isn't that a good reason to feel joy and to laugh?

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(Improvement of language by Anke Könemann, Munich)

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In English the title means: "Magic mirror – the Magic of Mirroring. About symmetric and antisymmetric Mirroring in Communication." Unfortunately only available in German. Translation pending...

Posted by Ash Bostock at 10:52

## Provocative Therapy and Antisymmetric Mirroring

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### First 'Case Study': At the Palace of Louis XIV

One day a Marquis entering his room found his wife in the arms of a bishop. He went to the window calmly and started to bless the people down in the street. Scared his wife asked: "What are you doing?" – "Monsignore is executing my duties, so I execute his duties", answered the Marquis. (Reported by Hargittai István und Magdolna in their book Symmetrie, Reinbek bei Hamburg, Rowohlt Taschenbuch Verlag 1998)

### Antisymmetric Mirroring – What is that?

Mirroring is a concept of natural science and geometry, which has a lot to do with symmetry and therefore with aesthetics too. Since decades it has also been used in a simplified manner by social science to describe certain aspects of relationships between two or more individuals. Once somebody knows the concept he also can use it to improve relationships. Mirroring posture and gestures is a well known nonverbal technique. Carl Rogers's technique of verbalization is a way of mirroring with words the inner process – especially feelings – of another person. Because we believed that mirroring was just mirroring, we have overseen the differentiation of symmetric and antisymmetric mirroring and therefore identified all the time mirroring only with one of its possibilities: with symmetric mirroring...  
...except Frank Farrelly of course! Having observed him over years at work I had some ideas about his method, but there still remained a number of answers he gave, which I never was able to put in its proper place, when I was looking for a system. Long time for those statements there seemed to be no system at all.

I gathered many, many examples of such miraculous sentences, till one day I discovered the principle of antisymmetric mirroring. Suddenly I knew: That's what Frank does, when I don't understand anything more!

### Visualization of the Two Principles of Mirroring

Symmetric mirroring    Antisymmetric mirroring

### In Words

In both forms of mirroring the form is kept up, in symmetric mirroring also all other qualities like colour, patterns etc. In antisymmetric mirroring at least one quality is reversed into its opposite; in our example white turns into black.

### Second Case Study: Mobbing or How to Deal with a difficult Boss.

If you have a boss persistently devaluing you, nagging at you everyday and criticizing little details of your behavior whenever possible, the most common reaction is to protect and defend yourself. But this still leads to a larger disaster. Confronted with someone, who wants you to feel like a stupid little child, this person will do everything to let you know, that you are wrong, whatever you do. So by defending yourself you have a good chance to lose again and to finally end up in feelings of helplessness. Imagine using symmetric mirroring:

If your boss criticizes you, when you don't deserve it...  
...now you are going to criticize him also, when he doesn't deserve it!

Ups! Well if you want to ruin your career, go for it. That will certainly work. Of course there are other possibilities of symmetric mirroring, finer ones as many psychologists taught us, where you carefully seek for the right words to say it... I wouldn't recommend them either. They may work in the idealistic

atmosphere of a psychological seminar, but in real life?

Now imagine using antisymmetric mirroring. How to do that? – Wait patiently until your boss does obviously a big mistake that nobody can oversee – all of us do such faults, bosses also! That will give you a nice chance to give him a compliment in public, which he really doesn't deserve. The formula:

If your boss criticizes you, when you don't deserve it...  
...now you are going to praise him, when he doesn't deserve it!

One of my clients exploded in laughter already by imagining the reactions of his narrow-minded and mean boss, when he would excuse him for having distributed money to several people in the wrong moment. With a warm smile on his face my client would interpret this fault as a sign of great generosity.

The nice thing of this way of answering is that you remain polite and friendly and your behaviour can always set an example to others. At the same time such an answer is so crazy and distorted, that our restricted brain simply must start to look for new possibilities of understanding and reacting. Antisymmetric mirroring therefore is recommended in highly difficult relationships – not only in therapy! That means, when you have to deal with or even are victim of another person making excessive abuse of projection, denying and devaluation.

### **Frank Farrely's artful way to transform presuppositions of clients statements into the opposite**

When the client complains about suffering from the worst evil possible expecting relief from the therapist...  
...the therapist explains the suffering as the best possibility of the client warning him in a friendly tone that he could only hope the disaster would not get worse!

Examples: "Some people wouldn't have any luck at all if they would not at least have bad luck."  
"Your future? – At fifty years of age, you're future is all behind you, my Irish daddy used to say."

"Without this symptom you could get disoriented."

"You would like to overcome your phobia of deep water and you would like to swim there? You must be crazy. At least you have already thought of the dangers in the deep water. But there is more to it than that. Have you ever considered that even in the pool for non-swimmers you could slip and drown? And this is only one of many, many possible hazards."

Are you getting curious about this phenomenon and want to know more? Then read my book *Zauber-Spiegel Spiegel-Zauber. Spiegeln in der Kommunikation: symmetrisch und antisymmetrisch*. Paderborn: Junfermann Verlag 2006. In English the title means: "Magic mirror – the Magic of Mirroring. About symmetric and antisymmetric Mirroring in Communication." Unfortunately only available in German. Translation pending...

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