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**Dr Andrea LAU (D)**

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(English translation: Lois-Cordelia Bülow-Osborne)

## Animal-assisted Therapy - A creative medical treatment

Ladies and Gentlemen, dear Colleagues,

Many thanks for your invitation to this conference. Time and again, I am asked to deliver lectures on the theme of animal-assisted therapy. The theme of your congress and your request for me to report on animal-assisted therapy as a creative medical treatment has nevertheless caused me to reflect anew on what it actually is that we do in our clinic with the aid of dogs and horses. What actually is creative about animal-assisted therapy? I had never asked myself this, prior to being requested to address you today.

In an effort to find the connection between creativity in therapy and my understanding of animal-assisted therapy, I first asked myself what I understand by creativity, and then did some research into how else creativity is defined. In Wikipedia, I found that creativity is a feature of living systems. People perceive stimuli in their surroundings and actively process them - that is to say, 'they compose', so to speak, their world, in that they think or create something new, whether consciously or unconsciously. It is assumed that creativity always consists in a system of an individual and surroundings that acknowledge him. This encouraged me a lot from the start, since at the root of animal-assisted therapy a relationship exists between patient, animal and doctor.

I further discovered that, in terms of etymology, the word 'creativity' is derived from the Latin word '*creare*', which means to create something new, to discover something, to generate something, that is, to produce. Additionally, the word 'creativity' contained also the root of the Latin word '*crescere*', which refers to happening and growth. This ambivalence of creativity between actively doing and passively allowing something to happen is also found in modern concepts of creativity.

Historically, humankind has been concerned with being creative since its beginning. In creation myths, people come to an understanding of themselves and their place in the world. In this way, the interplay of order and chaos, of disciplined work and free association, runs as a thread through the mythologies and thought patterns of history. Likewise in modern neurobiology, there is a dialectic between order-bringing formation and chaos-bringing disorientation of the familiar in the creative process. It must be taken into consideration that these statements of creativity research only apply to so-called normal creativity.

Unusual creativity, that is to say the genius, is not easy to examine empirically, psychologically or experimentally. However, this is irrelevant to our topic, because we intend to focus on normal creativity as regards animal-assisted therapy. That is to say, we base our approach on the viewpoint of the American psychologist Joy Paul Guilford (1897 – 1987), who at first devoted himself to intelligence research, before coming to the long neglected topic of creativity and since about 1950 researched on this theme. He rejected the prevailing paradigm of highly gifted people, and opened up the door to a wider understanding of creativity. Quotation: 'Every person is creative!'

In terms of scientific theory, since the time of Guilford, there is an emphasis on thinking, that is to say, creativity as a special form of thinking, and creative achievements are generally not recognized as such until they are shown to be in some way useful for others, when creative processes are assessable and applicable. Here is the boundary of my understanding of animal-assisted therapy, where creative processes are applicable and useful, but not necessarily assessable. Herein we touch on a very current topic, most especially for psychotherapy research. Is only that which is assessable useful? What does therapeutic relationship count for, whether it be in the patient-therapist dyad, or in the patient-therapist-animal triad?

So much then for a first attempt to theorize about creativity and to establish its connection with animal-assisted therapy.

For a long time, the general consensus in psychiatry, child and youth psychiatry, was that only music therapy, art therapy and dance therapy could be understood as creative therapies.

Animal-assisted therapy had already been well established for some time in the USA and also in some other countries, but in Germany it lived a miserable existence, and that, despite the fact that a German institution, namely the "Bodenschwingschen Anstalten" in Bethel, was the first hospital on the European continent to introduce animal-assisted therapy in the 19<sup>th</sup> century and they have offered it to their patients ever since. At the end of the eighties, a few societies and organizations in Germany began to implement animal visiting services in hospitals and nursing establishments. The notion of animals in establishments of public healthcare triggered concerns among many people.

Yet animals had already played an important role for Sigmund Freud, even though it wasn't until his 69<sup>th</sup> year that the first dog moved in with the Freud family. From the sayings of his daughter Anna, we know what Freud valued so highly in dogs, namely their unconditional charm, loyalty and devotion, and likewise that they lacked any degree of ambivalence in their relationships towards human beings. They were for him the symbol of perfect love. Freud also saw a great affinity between animals and children. In moments of difficult communication with Anna, both slipped into the role of a dog, in order to be able to communicate with each other in poetic form. This allowed them to express things that would have been only very difficult to express without the 'dog' resource. According to his housekeeper, Freud had his chow-chow-bitch Jofie with him in some of his therapy sessions.

The standard work of modern animal-assisted therapy is by Boris Levinson: 'Pet-oriented child psychotherapy', dating from 1962.

The child psychiatrist Levinson describes how he receives into his practice for the first time a boy who had been treated without success over a long period by several of his colleagues: there, at the surgery, his retriever Jingles was also running about. Jingles goes straight to the parents and the boy, wagging his tail, snuffles at the child and licks his hands. The child, otherwise completely detached from the world, does not shrink back in fright, in contrast to his parents' guarded reaction, but rather he heads over to the dog and strokes his fur. Levinson, who had previously been sceptical about whether he should take on the case, decides to start with letting the boy play alone with the retriever for several sessions. He is only partially present himself, rarely involved in the play between the two. The dog has broken the ice, and the child-psychiatrist decides to use him step by step as a bridge towards the uptake of human inter-personal contact. The dog facilitates first encounters, a gradual opening up of the self, a building up of trust, the establishment of a mutual basis of communication and interaction for the therapy. The boy gradually comes out of his reserved resistance, which has caused every previous attempt at treatment to fail, and becomes more open to child-psychotherapeutic efforts. Levinson begins systematically to incorporate his retriever and later also other pets as co-therapists in his psychotherapy, most especially in the case of children and young people with emotional and affective development disorders. During treatment at the surgery, and likewise while playing in the garden and going for walks, he sticks to the enduring principle of first building up a relationship with the animal and then to enable a sensitive relationship transfer to the therapist. In this way, the dog presents manifold possibilities in terms of identification and projection for young patients. Following these experiences, Levinson is one of the first also to prove the relaxing and calming effects of his animal co-therapists on his patients through physiological measurements. The pivotal functions of the 'ice-breaker' and the 'contact bridge', as well as the 'communicative opening', especially among autistic patients, are emphasized and elaborated on in later studies.

In 1973, having chanced to observe a dove taking off and flying away, which fascinates an autistic girl with her otherwise self-introspective gaze, who then follows the dove, imitating its wing movements, the French veterinary surgeon Condoret institutes animal helpers in therapy processes.

My experience with animal-assisted therapy began in 2003, when a new social worker was assigned to the practice for which I was responsible as senior physician. She proposed horse-riding to improve the therapeutic services on offer. I had a great resentment towards this proposal, but I discovered that patients could begin to open up with the horse's help, that beneficial therapeutic relationships were more easily forged, and how children expanded their social skills and their self-esteem was strengthened.

In the theoretical debate on this theme, the desire arose to appoint a therapy companion dog. In November 2006, the Labrador-bitch Laila, then aged 14 months, rejected by her previous family, anxious and emaciated, arrived for the first time at the day clinic. Our junior doctor had caught her sort of on her way to the animal sanctuary, but she could not keep the dog herself, hence she laid her more or less at the feet of her senior physician. Some months later, in early 2007, we began a training course at the 'Academy for Therapeutic and Disabled Companion Dogs'. This was completed successfully at the end of January 2008 with a comprehensive theoretical and practical examination. A recertification was successfully completed two years later.

In the following years, we formed a network with other institutions that operate on an animal-assisted therapy basis, in order to foster a regular professional exchange, and visited for example the Human-Animal-Congress at the Berlin Humboldt University, to have links with scientific foundations of animal-assisted therapy.

In the following years, in addition to our experiences with horses and dogs, we gained experience of working with goats and rabbits, which lived in the garden behind the clinic. However, it rapidly became clear that therapeutic relationship work is essentially to be achieved with dogs and horses. In the meantime, Laila and I had had a change of employer, and were able to establish a new day clinic for child and youth psychiatry. At this clinic, we specialize in working with dogs and horses, among other things. Besides Laila, we appointed three more specifically trained therapy companion dogs.

Internationally, one now proceeds on the assumption that animal-assisted therapy can be defined as targeted interventions in the context of a multimodal therapeutic concept, which involves animals. That being so, the following preconditions must be met:

1. A concrete therapy target to be achieved in the animal-assisted therapy must be defined, and, with the aid of a treatment plan, is put into practice.
2. The therapy is carried out and led by a trained professional.
3. The therapy is documented.

It is essential in this context that the appointed animal does not work and function alone and for itself, but rather as a helper for the doctor and therapist. For this reason, I consider it important to speak of a therapy companion dog, and not – as we often hear – of a therapy dog.

In our concept of treatment, we use as a basis not only the abovementioned definitions, but also the model of biophilia, the love of living things, a term coined by Willson for the condition of being fascinated by Nature and the activity that emerges from this, based on this fascination, of any interest in communicating with one's surroundings. Even babies already show an interest in their surrounding, and especially for anything that moves, without their curiosity or interest having to be externally initiated in any way. Carl Rogers explained in the relationships theory for 'Person-centred Psychotherapy' that, for the human being, as a social organism, an instinctive need for love and affection is the fundament of human development.

But the human being has been fascinated by the power and special abilities of animals, not only in terms of the individual's development, but also concerning the history of civilization. He did much to emulate the animals, as for example the swift and graceful flight of birds. Human cultural

development is closely linked with our immediate living environment, which, for thousands of years has always included contact with and dealing with animals. This interest in fauna and flora seems to be genetically rooted in us human beings. Some peculiar technological fields of science have developed, such as bionics, in which Nature is mimicked. The human being has learned from birds and penguins how to build energy efficient aeroplanes. Nanotechnology helps with surfaces, which mimic the lotus effect, meaning that modern surfaces in a sense clean themselves.

Whoever lives with animals will be convinced that communication is possible between human and animal. Psychologists and biologists have discovered that dogs essentially understand human facial expressions and gestures better than do chimpanzees, which are in actual fact genetically closer to us. Not only adult dogs, but even 8 week old puppies do better in non-verbal communication tests than do primates and are superior in this regard to the ancestor of all dogs, the wolf. This may be seen as evidence that these faculties must have become rooted since that time in the dog's genome. Hungarian ethologists have proven that dogs become just as much attached to us as we to them. They have shown that the results described by Ainsworth in his research on bonding between parents and infants apply also for social pets such as dogs in their bonding with people.

On this theoretical foundation, the introduction of animals in animal-assisted therapy should create realms of experience for our patients, in which they have the opportunity to learn for themselves, to develop self-confidence, and likewise to build and establish relationships. The patient should become able to communicate with animals in as many different ways as possible, for example, to observe them, to stroke them, or to feed them. We proceed on the assumption that animals, through their being completely genuine, create an atmosphere in which trust can grow. In dealing with animals, traits such as the assumption of responsibility and dependability are learned. Animals set clear signals and definite boundaries therewith. They wield a great fascination and have a highly stimulative nature. Animals awaken our curiosity and inspire us towards mindfulness. They deal with human beings in an unprejudiced way. Animals have a relaxing and stress-reducing effect on us, and have turned out to be a valuable medium in integrative work, because they are capable of non-verbal dialogue. Animals motivate us and improve our quality of life. Dealing with animals promotes respect for living things, thoughtfulness, empathy and a sense of responsibility, and reinforces our awareness of environmental conservation.

In 2005, an assessment of existing conditions and future needs for animals in German in-patient child psychiatry was carried out, by surveys of all child- and youth-psychiatric institutions in Germany. With a response rate of 62.5 %, 64 % of the clinics that responded stated that they allowed their patients contact with animals. 59 of these institutions carried out animal-assisted therapy, i.e. S. Of all the types of animal employed, horses were most frequently cited, at around 90 %. Dogs are employed in about 20 %.

In 2007, Nimer and Lundahl published a meta-analysis of 49 linked studies. From this, it could be deduced that dogs, as man's best friend, are the best choice according to scientific evaluation of the effects of animal-assisted therapy. Indeed, we must ask ourselves, in that case, why horses are most frequently employed in clinics. My personal theory is that, overall, horses are complicated to look after, yet clinic support-workers prefer them, because they are kept externally. Dogs are closer to us, always want to be with us, and are therefore more complicated for the therapists, because ultimately they are not only tools for the therapy, but rather – if we decide upon them – they belong in our lives completely, even at weekends and holidays. This also touches on the ever present question of health risks and hygiene restrictions. In addition, animal welfare regulations and financial outlays have to be taken into consideration.

The Robert Koch Institute issued a review 'Keeping Pets – Opportunities and Risks for Health', on the basis of which a hygiene plan for clinics can be established. The authors from the Robert Koch Institute argue unanimously in aid of the opportunities to promote health through animals in healthcare institutions. However, we must also take note of contraindications for the introduction of animals in hospitals. From a medical standpoint, contact with animals is inadvisable in the case of severe disorders of the immune system with marked allergies, bronchial asthma, serious forms of neurodermatitis, and likewise for every type of severe immunodeficiency disease. Likewise in the case of serious mental disorders, there are contraindications.

In 2010, Anke Prothmann from Munich published a study about the current state of animal-assisted therapy in children's hospitals in Germany. Only 12 % of the 322 children's clinics consulted offer animal-assisted therapy. 62 % of the senior consultants expressed interest in further information about the introduction of animal-assisted therapy in children's clinics. This introduction is currently happening predominantly in physiotherapy, psychotherapy and occupational therapy. On the other hand, objections consist mostly as regards hygiene and potential health risks, in addition to financing.

How then are animals applicable in therapy?

Seeing as my professional roots lie in paediatrics and also in child and youth psychiatry, I will try to answer this question for you from my subject-specific knowledge, whereby what I report applies equally to the fields of psychiatry and geriatrics. Neurological clinics also report again and again about the positive effects, especially those that support physiotherapy. The widest ranging experience with animals is probably in the field of psychotherapy. According to Klosinski, psychotherapy is a healing treatment with psychological methods, but also a nurturing and service for the soul. In the middle stands the human being with his relationships, peculiarities of communication and social structure. The relationship between the patient and the therapist counts as the most scientifically assured power factor in a treatment.

Boeck-Singelmann and others have clarified that a healthy childhood development is only possible in the form of and within the process of relationship. Psychotherapy is therefore a place in which to gather new experiences, which also concerns personal relationships and bonds.

In a study, Schneider and Harley examined 85 participants, to find out how an animal can influence potential patients' perception of the person of the therapist. Therapists were assessed as more trustworthy and more attractive if they were seen in video clips with their dog. These videos also made the subject group more willing to open up about things. From this, it was concluded that animals have an influence on how patients see us as therapists.

When there is an animal in the therapy room, not only the patient but also we as therapists interact with the animal. In this moment, we reveal ourselves to the patient, we show something of our manner of dealing with other individuals and hence we become more transparent. The younger our patients are, the more important this transparency is for the trust on which the therapeutic relationship depends.

Animal-assisted therapy may be used in individual and group settings. In an individual setting, for example, non-directive animal-assisted play-therapy is indicated. In this setting, the patients should have the maximum freedom possible, as, in view of the self-actualisation tendency thematised by Carl Rogers, it is assumed that children in therapy create for themselves an atmosphere that best fulfills their development needs. Added to this, animals have the most obvious influence in situations where they interact in a free and unforced manner with people. The prerequisite is the desire, that is to say, the agreement of the child and the patient's parents to work with the dog. The child can then decide for itself what to do with the dog. Commands are only given by the dog handler when this cannot be avoided. The dog handler is, in the first instance, an emotional support for the dog. Patients are given as an instruction for the therapy that they can do anything that they and the dog want to do, as long as both they and the dog are happy with it and that no one gets hurt. A basket of toys is put at the disposal of both. The dog handler stays in the background, offering support when needed.

A further possibility of animal-assisted therapy is animal-assisted behavioural therapy, for example for the treatment of specific phobias. The animal can act as a support in the context of the exposition of the fear-evoking situation, when the therapist has already been able to take a step back, though the patient does not yet feel confident enough to venture into the situation completely alone. The dog encourages relaxation and conveys the feeling of security. Beyond this, the dog can be employed as a positive reinforcer.

Another possibility is behavioural modification through the behaviour of the dog itself. For example, in the case of restlessly moving or impulsive patients, the dog will distance itself from them when faced with behaviour that oversteps the limits. By contrast, in a restful, relaxed situation, it allows itself to be stroked. These immediate, prompt, non-judgemental reactions of the dog allow the patients to modify their problem-behaviour.

Most experiences in animal-assisted family therapy involve horses. The horse as a herd animal seems particularly suitable for family-related work, because it seeks – just like the human being – connection with others, and the togetherness of the horse-family often reveals typical aspects of family-interplay, and the way that the family interprets the behavioural patterns of the horses often represents projections of the family's dynamics.

Animals can also be employed in a group-therapy setting. In our clinic, we have a dog mobility group, whereby the sports group exists not for the sake of the dogs, but rather so that psychomotor activities are carried out with the patients. In particular, patients with motor-coordination disorders or other motor-handicaps, who in the past have found over and over again that they fail at tasks that involve movement, can be motivated through the dogs' collaboration and gain new positive experiences of self-efficacy.

In the literature, there was also the mention of a group-therapy programme for girls aged between 9 and 13 who had been sexually abused. In this case, the dog had simultaneously both a fear-eliminating and communication-promoting effect, which helped the girls to accomplish the transition from passively enduring victim to active achiever. Very often, the children first spoke about their traumatic experiences to the dog, before they were able to thematise them within the group. The dog is perceived as one hundred per cent trustworthy. Whatever you tell him remains in confidence with him.

According to another study, children who have experienced abuse speak particularly well with animals that have come from an animal sanctuary and have themselves previously experienced abuse. This opens up possibilities of talking about relationships, boundaries, setting of boundaries and responsible care. I have witnessed this myself many times with my Labrador-bitch, who had in her past experienced rejection by her first family and in the meantime has been afflicted for several years with arthrosis. In particular for children who have had similar experiences of chronic illness or being unloved in their family of origin, this can be a vehicle in the therapy for making contact with their own psychological or even somatic problems, and then to reflect on how much sense it makes, in spite of these problems, not to become socially reclusive, and nevertheless to attend school, to achieve something and develop future prospects – when they hear that Laila, for example, in spite of her past, has completed her training and has a purpose in her life.

As mentioned previously, our dogs work specifically according to indication. As explained just a moment ago, we appointed Laila specifically in the cases of patients who had suffered trauma very early on in life, had relationship disorders and depression. Paul is a 5 year old male Labrador, also known as Power-Paul, who has great fun playing football with hyperactive boys and letting off steam. On the other hand, he clearly demonstrates to our hyperactive and socially dysfunctional boys that it is possible to be a real man and still be sensitive. Ruby, the sheltie bitch, is particularly suitable for anxious patients. As a sheepdog, she has an additional strength in being protective, to hold the group together. Another young bitch has just recently successfully passed her examination and works with her mistress, one of our clinic psychologists, above all as a positive reinforcer in behavioural therapy. Having luxurious fur, she loves being stroked.

In what follows, I want to consider once more which clinical pictures animal-assisted therapy is particularly effective for, according to previously existing scientific findings.

In the abovementioned meta-analysis of Nimer and Lundahl dating from 2007, high levels of effectiveness were found especially in the modification of autistic behaviour. Similarly, in Mrs. Prothmann's research, it was shown that children with autistic spectrum disorder often demonstrate socially motivated modes of behaviour with the animal, which they do not

demonstrate towards people. Frequently, they not only perceived accurately the animal's feelings and needs, but also lacked any aggressive impulses in dealing with the animal. Mrs. Prothmann carried out a study in Leipzig with 14 autistic children, to determine what direct influence a dog can exert on the communication and interaction of autistic children. The children with autistic disorders demonstrated of their own accord a keen interest in dealing with the dog and became far more intensively and enduringly close to the dog than to their human interaction-partner. As one would expect, the ones who were happiest to interact were the children with Asperger's syndrome.

Particularly in the case of internalizing disorders, that is to say, depression and anxiety, there were medium to good levels of effectiveness for behavioural and somatic variables, and small to medium effects for improvements in mental state. These effects also did not wear out over the course of time. It is interesting that, in the case of depressive patients who are socially withdrawn and have low levels of activity, the therapy companion dogs do not avoid the children, although at first these do not respond to the dogs' offers of interaction. The dogs remain nearby and seek bodily contact. As soon as an initiative comes from the child, they react promptly and willingly and hence they reinforce in an ideal way the desired behaviour.

As regards the efficacy of animal-assisted interventions in the case of anxiety disorders, observations of interaction in the context of diagnostics show that children with anxiety disorders sought very keenly to be close to the dog and stroked it intensively. Presumably, in the first instance, affection serves to calm oneself. When we experience pleasant bodily contact – such as stroking – our body releases large amounts of the hormone oxytocin. Oxytocin has an anxiety-reducing, relaxing effect, and simultaneously curbs production of stress-related hormones.

Odendahl studied the cases of 18 dog owners and their pets and how the interaction between human and dog affects stress-related hormones, in comparison with reading a book. He found that beta endorphin, oxytocin, prolactin and dopamine increased significantly during interaction with the dog, whereas the stress hormone cortisol decreased significantly. These changes occurred not only in the human being, but also in the animal. Lately, there have been several reports in the press about US-American and German soldiers, who, following their deployment in Afghanistan, suffered post-traumatic stress disorders, yet were able, with the help of their therapy companion dogs, to cope with their symptoms and find their way back into ordinary life. This is also particularly well known among people traumatized by sexual abuse. People who were abused by those whom they trusted have often lost trust in their fellow human beings, and hence animals offer a fear-free opportunity for closeness and affection. This moreover leads to the release of calm-inducing hormones.

Greater challenges for the dog's endurance are presented by the appointment of therapy companion dogs for patients with attention deficit hyperactivity disorder and social behavioural disorders. In animal-assisted therapy, children with these clinical pictures need more structure and guidance than do patients with internalizing disorders.

Besides therapeutic work with the dogs in our clinic, individual patients are given the opportunity to participate in therapeutic horse-riding. In therapeutic riding, we strive to work in the here and now. In the first instance, there exists a sense of well-being in being in contact with the horse and sitting on the horse's back.

In the phase of making this first contact, the patients learn to see the horse as a living creature with all its needs and idiosyncrasies. Particularly in this phase, the therapist presents himself as an example, in that he offers among other things his assistance in leading and caring for the horse. Initiating bodily contact is made easier through caring for the horse. Keeping the horse clean promotes the increase of the patient's awareness of responsibility.

During the riding phase, and in the ensuing follow-up discussion, the important questions include: 'What do I want to gain from this riding session?', 'How do I sit comfortably on the horse?', 'What speed do I feel comfortable riding at?', 'Where and how do I have contact with the horse?'

During horse-riding, practice sessions can also be offered, which are borrowed from vaulting. Patients can allow themselves to be led and simply speak freely, or specific questions and problems can be addressed. Beyond this, we can now offer our patients in individual cases therapeutic vaulting and parent-child-interaction therapy with the horse.

Just as described for the work with the therapy companion dogs, we mostly use horses when working with patients who have anxiety, depression, or autism, as well as patients with post-traumatic stress disorders.

Animal-assisted therapy with dogs and horses is extremely important for our clinic, also in the context of experience-pedagogic activities and trips to visit other departments.

It may be said in conclusion that there is a bio-psycho-social 'impact panorama' of beneficial animal effects. On the one hand, we've described mental and psychological effects, which promote emotional wellbeing, positive self-image, self-esteem and self-confidence, promote control of self and surroundings, assurance and self-assurance and the reduction of anxiety, promote psychological stress-reduction, calming and relaxation, promote social integration, possibilities of regression, projection and relief, promote anti-depressive and anti-suicidal effects, as well as promote mental achievements and skills.

Beyond all of this, social impacts exist with the elimination of loneliness and isolation in the very act of being in contact with an animal and as the producer of contact in communicating with others, promoting closeness, intimacy and bodily contact, conveying conversational topics and reducing aggression, boosting trust, promoting empathy, as well as improving the atmosphere for interaction by promoting the social climate, for example in hospital departments, promoting cooperative interactions and reducing aggression and hyperactivity.

Thirdly, we've described mental, that is to say, psychological effects, which reduce cardio-vascular risk factors, attributable to lowering of blood pressure, lowering of breathing rate and regulation of heart rate and pulse, biochemical changes and neuroendocrine effects, with lessening of pain, relaxation and euphorogenic effects caused by the release of beta endorphins and increase of dopamine during cuddling, stroking, and due to a calming sense of trust, that is to say, predictability of behaviour. Additional effects include muscular relaxation and the improvement of motor function, as well as general state of health, as for example through promoting regularity and structuring of the day.

To come back to the theme of creativity, it becomes clear, I think, that working in animal-assisted therapy is to work in a system of an individual and recognized surroundings, as described at the outset for creativity. Beyond this, we see the ambivalence of creativity - between actively doing and passively letting happen - particularly clearly in animal-assisted therapy, in which I can perhaps passively enjoy being in contact with the therapy companion dog through cuddling and stroking, just as I can be passively carried by the horse. On the other hand, I can apply myself actively as a patient in the care of the animals, for example by feeding and brushing.

In particular, work in child- and youth-psychotherapy may be understood as promoting development in the case of children who are slow to mature emotionally and socially. To initiate and promote new development steps in a patient has a clearly creative component in my opinion. From the patient's point of view, these new discoveries in their personal development perhaps represent something like an invention or a new composition. Hence, in particular, the therapy companion dog and the therapy horse represent means of creativity.

From my experience with dog and horse-assisted therapy courses, I have been particularly impressed by the abovementioned assertions of creativity research on the dialectics between order-bringing formation and disorder-bringing disorientation of the familiar in the creative process, as well as the interplay between disciplined work and free association.



In the case of the tripartite team, consisting of patient, doctor and the animal that is appointed in the therapy process, I always see a striving together for achievement of a therapeutic sub-goal, for example in the *in vivo* exposition of patients with anxiety, and otherwise, especially in the case of depressive and traumatized patients, one that sets off to discover new, less dysfunctional patterns of thought and behaviour, in order to be able to face with more freedom and functionality the challenges of everyday life in school or work, in one's circle of family and friends.

More so than in psychotherapeutic-psychiatric work with adults, a child- and youth-psychiatrist or psychotherapist – just like a paediatrician – requires tools on the treatment level, because working with children in particular (the more so, the younger the children are) is based less on speech than on doing something together. Usually, this involves painting, craft and music activities, or playing games. Of course, at our clinic we use all these methods as well. But in these last ten years or more, our experiences with the presence of dogs and horses in the therapy team for our therapeutic work have essentially given us new and pioneering incentives for the individual patient, as likewise for the development of our clinic itself.

As a therapeutic team, we strive to keep on developing our work creatively and imaginatively, with the integration of dogs and horses. Within the last year, the concept of the dog mobility group emerged, and we drove with our patients to an equestrian yard, for an intensive scheme. This was an exhausting time for human and animal alike, but in most cases it spurred our patients to make big steps of progress in terms of their emotional maturity and their social skills. There are plans in particular for the introduction of reinforced parent-child-interaction therapy and multi-family therapy.

I hope that I have been able, via my remarks, to give you an understanding, on the one hand, of the possibilities of animal-assisted therapy, especially in the context of its main fields of application, therapeutic work with children and young people, and that I have managed to make clear in particular the aspect of the creativity of this form of treatment.

Thank you for listening.