TREATING PHOBIAS OR TREATING PEOPLE? OF ACRONYMS AND THE SOCIAL CONTEXT

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ABSTRACT

Phobias are some of the most common disorders brought to the attention of treatment agents. Classically, the treatment of choice was SD (systematic desensitisation), sometimes combined with hypnosis. More recently, VR (virtual reality) procedures and EMDR (eye movement desensitisation reprocessing) emerged as exciting alternatives. SD and the VR procedures are operationalisations of CBT (cognitive behaviour therapy) and are based on learning theory, while EMDR is usually viewed from a psychoneurological perspective. The generally good results obtained with the methods known by these acronyms are often taken to confirm the soundness of the particular underlying theory. However, these theories under-represent the interpersonal or social aspects of phobic behaviour. Adding an _inter_-personal focus to the generally _intra_-personal view of this behaviour much more fully explains both the success of the usual treatment procedures and the relatively rare failures. Using case illustrations, this paper highlights the way in which phobic behaviour is often embedded in a matrix of interpersonal and social influences and suggests the more deliberate and effective utilisation of these in the treatment of phobic sufferers.

OPSOMMING

Fobies is van die mees algemene versteurings wat onder die aandag van terapeute en dokters kom. Die klassieke behandeling van keuse was SD (sistematiese desensitisasie), soms in kombinasie met hipnose. Meer onlangs het VR- (virtuele realiteit) prosedures en EMDR (oogbeweging desensitisasie herprosessering) na vore gekom as opwindende alternatiewe. SD en die VR-prosedures is operasionaliserings van kognitiewe gedragsterapie (CBT) en is op leerteorie gebaseer terwyl EMDR gewoonlik vanuit 'n psigoneurologiese perspektief beskou word. Die oorwegend goeie resultate wat met die metodes behaal word waarna hierdie akronieme verwys, word dikwels gebruik om die geldigheid van die onderliggende teorie te bevestig. Hierdie teorieë onderverteenwoordig egter die interpersoonlike of sosiale aspekte van fobiese gedrag. Deur 'n _inter_-persoonlike fokus by die algemene _intra_-persoonlike beskouing van fobiese gedrag te voeg, word beide die sukses van die gewone behandelingsmetodes en die relatief-rare mislukkings meer volledig verklaar. Deur gevalle as illustrasies te gebruik, werp hierdie artikel lig op die wyse waarop fobiese gedrag dikwels ingebed is in 'n matriks van interpersoonlike en sosiale invloede en stel dit die meer gerigte en effektiewe benutting hiervan in die behandeling van fobielyers voor.

INTRODUCTION

Many people come to treatment agents complaining about irrational fears or phobias. These range along the whole alphabet, from arachnophobia (fear of spiders) to zoophobia (fear of animals). As the names indicate, these fears are linked to certain objects, certain places, or certain events. The fear is considered to be irrational if the person fears something that most other people do not fear, or if the intensity of the fear is higher than in most other people. An example of the first would be a fear of paper (papyrophobia), which most people do not experience, and an example of the second would be a fear of snakes (ophidiophobia), which most people do experience, but not to the degree of always being on the lookout for snakes.

The conventional or lay explanation for the existence of phobias, namely that the person must have been frightened earlier in life by the noxious object, has been legitimised and formalised by the emergence of learning theory and the resultant cognitive behaviour therapy (CBT). The concepts of generalisation and reinforcement could now clarify why somebody who was bitten by a big dog as a child could as an adult be scared of all dogs, big or small. The reinforcement effect of avoidance also became clear.

Based on learning theory, treatment of phobias became fairly straightforward and successful (Nolen-Hoeksema, 2004:178-202). One possibility is to expose the sufferer to the noxious stimulus, without the possibility of escape, until the fear disappears (as in flooding). Another, gentler, way is to expose the sufferer in a step-by-step way to increasing amounts of the noxious stimulus until it no longer brings about any fear. This latter method is systematic desensitisation (SD), which became somewhat of a standard treatment for phobias.

SD is based on the observation that one cannot experience two opposing emotions simultaneously: by getting a sufferer to be calm and relaxed in the presence of the noxious stimulus, the fear response is extinguished (Barlow & Durand, 2005:23-24). By repeating the experience the sufferer unlearns to be anxious in the presence of the particular stimulus which previously brought about the anxiety. This procedure was first used by Wolpe (1958:1-239) at the University of the Witwatersrand many years ago.

SD can be conducted *in vivo* by letting the sufferer relax and simultaneously move closer and closer to a dog, for instance, until the dog can be touched without apprehension. Alternatively, SD can be done by means of imagery (*in vitro*) where the dog is replaced by a mental image of a dog. The degree to which the noxious stimulus is perceived as "real", is generally seen as very important to the success of an SD procedure. In this sense *in vivo* SD is considered by some to be inherently superior to SD through imagery, although the latter does have certain benefits, such as the possibility of using a wider variety of noxious stimuli. Often SD through imagery is followed by *in vivo* SD in order to maximise its effectiveness.

As hypnosis can be an excellent vehicle for relaxation as well as for working with imagery, SD is often conducted in hypnosis (for example, Bourgeois, 1982:509-517). Seeing that the supposed superiority of *in vivo* SD lies in the difference between a real noxious stimulus and an imagined one (for example, a real dog as opposed to an image of a dog), the "reality" of the stimulus has become very important to the success of an SD procedure. This is one of the reasons underlying the use of a combination of SD and hypnosis: images can sometimes be much clearer and more "real" in hypnosis as compared to SD without hypnosis.

The development of computer technology gave rise to an even better way to improve the "reality" of SD images. This is so-called virtual reality (VR) which, in sophisticated form, is often considered to be the next-best thing to the "real" object of the fear. VR integrates real-time computer graphics, body tracking devices, visual displays, and other sensory input devices to immerse patients in a computer-generated virtual environment. No longer must the dog, for example, be imagined, it can now be seen almost as clearly as if it were in fact a real dog. More, it can be heard, felt, even smelled, depending on the sophistication of the technology (Rothbaum, Hodges, Kooper, Opdyke, Williford & North, 1995:626-628; Vincelli, 1999:241-248).

Another, rather controversial, treatment modality for phobias, and one not founded on CBT, is EMDR or eye movement desensitisation reprocessing. This procedure, "discovered" more or less coincidentally by Francine Shapiro in the late 1980s, was initially applied mostly to post-traumatic stress disorder, but soon also came

to be employed in the treatment of many other problems, including phobias. In contrast to SD this is not based on learning theory. Rather, it theorises about the way in which information is processed in the brain: it states that generally the human information processing system processes the multiple elements of experiences to an adaptive state, but if the information related to a traumatic experience is not fully processed, the initial perceptions, distorted thoughts and emotions will be stored as they were experienced at the time of the event. Such unprocessed experiences cause current disorders and dysfunctional behaviours. EMDR alleviates these by re-processing the components of the distressing memory. Rhythmic lateral eye movements are used to engage the client's attention to an external stimulus, while the client is simultaneously asked to focus on internal distressing material.

All these treatment modalities seem to produce good results, although the evidence is less clear for EMDR. SD and variations of exposure-based treatment have had a long history of success (Barlow & Durand, 2005:141-148; Nolen-Hoeksema, 2004:178-202; Zinbarg, Barlow, Brown & Hertz, 1992:235-267) which need not be repeated here.

As a relatively recent development, the effectiveness of VR is still being investigated. In one study conducted in Holland by researchers from Delft University of Technology and the University of Amsterdam, no differences in effectiveness of *in vivo* SD and a low-budget VR procedure were found (Emmelkamp, Krijn, Hulsbosch, De Vries, Schuemie & Van der Mast, 2002:509-516). Both treatment modalities led to significant and equal improvement in fear of heights and this improvement was sustained at six months follow-up. In another study on acrophobia Rothbaum *et al.* (1995:626-628) found that treatment with VR graded exposure was successful in reducing fear of heights. In a review article Krijn, Emmelkamp, Olafsson and Biemond (2004:259-281) concluded that, while VR has so far been shown to be effective for fear of heights and for fear of flying, for other phobias research to date is not conclusive.

There is a lot of controversy about EMDR, and its role in the treatment of phobias is no less controversial than that regarding other disorders. In a review De Jongh, Ten Broeke and Renssen (1999:69-85) concluded that studies on the application of EMDR with specific pho-

bias demonstrate that EMDR can produce significant improvements within a limited number of sessions. For instance, in the treatment of childhood spider phobia, EMDR has been found to be more effective than a placebo control condition, but less effective than exposure *in vivo*. These authors warned, therefore, that the empirical support for EMDR with specific phobias is still meagre and that one should therefore remain cautious. Later, however, the De Jongh team (De Jongh, Van den Oord & Ten Broeke, 2002:1489-1503) presented four case studies in all of which two to three sessions of EMDR treatment seemed to produce clinically significant results: all patients underwent the dental treatment they feared most within three weeks following the treatment. In contrast, in a review of 34 studies, Davidson and Parker (2001:305-316) concluded that EMDR appeared to be no more effective than exposure techniques, and evidence suggested that the eye movements integral to the treatment, and to its name, were unnecessary. In attempting to control for the effects of attention, Goldstein, De Beurs, Chambless and Wilson (2000:947-956) found that differences between EMDR and an attention placebo control condition in the treatment of panic disorder with agoraphobia were not statistically significant on any of a number of measures.

It seems safe to conclude then that, as of now, all the treatment methods referred to by the mentioned acronyms can be effective in the treatment of at least some phobias. Exposure-based treatment, whether *in vitro*, *in vivo*, or in virtuality, seem able to relieve phobic symptoms. While the jury is still out on EMDR, indications are that this modality might also produce acceptable results. While the CBT philosophy underlying exposure-based treatment is thereby confirmed, the same cannot as yet be said of the memory processing view on which EMDR is based.

Both of these views, however, focus in different ways on that which is supposed to occur *within* the individual mind without paying focussed attention to the social matrix in which the affected person lives and in which the phobic behaviour comes to the fore. They are intrapsychic theories rather than systemic in emphasis; their primary focus is *inside* the individual and not *between* people. Even though both CBT and the memory-processing view acknowledge that phobias occur in the social world - as long as thirty years ago Hallam (1976:97-119) showed that social factors influence pho-

bic behaviour - the nature of the theories themselves is such that the social aspects of phobic behaviour get little more than passing attention and can easily be brushed aside either as "mere" secondary gain or as "mere" contributing factors. This is not a criticism of practitioners holding these views, most of whom are certainly aware that phobias do not exist in a social vacuum. The consideration here is rather on the CBT and memory processing views which as *theories* underemphasise the interpersonal elements of phobic behaviour as do most research reports involving SD, VR and EMDR (for example De Jongh *et al.* 1999:69-85; Emmelkamp, Krijn, Hulsbosch, De Vries, Schuemie & Van der Mast, 2002:509-517; Rothbaum *et al.* 1995:626-628). It is not *whether* social factors are considered by these approaches, but *how* they are considered.

Adopting a systemic and social constructionist perspective (Hoffman, 1990:1-12; Loos & Epstein, 1988:149-167) it is the aim of this paper to illustrate how phobic behaviour is often embedded in a network of social relationships, an embeddedness which is not sufficiently considered in the application of any of the acronymic methods, even though both CBT and the memory processing view acknowledge that behaviour (including phobias) is socially informed (for example Barlow & Durand, 2005:141-148). Consider the following two case illustrations:

CASE ILLUSTRATIONS

The examples presented here are not case *studies* in which for example, the course of treatment and outcome is described. While they are real cases which presented for treatment, they are used here only as *illustrations* of the way in which phobic behaviour is often embedded in a social context.

Case 1: Jane

Jane (pseudonym) was a 38-year old unmarried professional woman who had spent her time between work and caring for her elderly and sickly widowed mother. About a year before Jane was seen in psychotherapy, the mother died. While Jane obviously missed the mother, she reported that at the time she had decided that she was now "free" and that she would in future live a "full" life.

To put this into action, she indulged herself in a seaside holiday. On the flight back, however, she started experiencing an "uneasiness": apprehensiveness about being in the aircraft and shortness of breath. Back at work, a similar feeling started emerging. She worked on the fifth floor of an office building and had to pass along a walkway which ran around the inside of an enclosed atrium. Peering over the railing she could see the entrance foyer far below. She had been working in the same office for more than five years without experiencing any discomfort, but now she dreaded walking to her office door. And it became steadily worse. Eventually she could only get to and from the office if she was being led by the hand by a colleague while hugging the wall and keeping her eyes firmly closed. When inside the office, the door had to be kept closed whenever possible. No longer could she go out during her lunch break as she used to do. She spent evenings and weekends at home, being too apprehensive to have a social life. And the time spent at home became a time of misery as she could not stop thinking about going to work the next day. Obviously her work deteriorated. And she could forget her new resolve to get to live a "full" life. All this was a great embarrassment to her. Her colleagues and friends knew her as a strong and caring person and now she was weak and dependent on others for her every movement.

While the mother's death was supposed to change Jane's life from that of a home-bound spinster to that of a professional woman living to the full, the emerged phobia acted as deviation-counteracting feedback, keeping Jane imprisoned, but also protecting her against the uncertainties awaiting her in the wide world she thought of entering. While she had the phobia to contend with, she was protected from having to deal with men, for instance, and with her own sexuality which was kept dormant in the past. It was as if the phobia was a replacement for the absent mother, keeping Jane "safe" from the world out there.

Given this situation, it was unlikely that exposure-based treatment of the phobia alone would have resolved the problem. More than SD, VR or EMDR was called for.

Case 2: Jack

Jack was a 47-year old senior executive working for a big banking conglomerate; married, and with two teen-

age children. He was not quickly ruffled and dealt fairly easily with the stresses of his work. His family life was happy and he managed to organise his job in such a way that he often worked from home, in that way being more available to his family. Some three years earlier, however, he found himself reluctant to go to one of the business meetings he regularly had to attend overseas. He sent somebody else in his place, but the next time he was even more reluctant to go. In fact, he realised that he was positively apprehensive of the long flight. But this time he could not be absent from the meeting and he managed to attend with the help of some anxiolytics prescribed by his doctor. After his return, he continued taking the medication for some time and the fear of flying disappeared completely, even during subsequent flights.

However, in the last while the fear had returned and it had spread to other situations. Sometimes now, when business meetings became tense, he could feel an apprehensiveness similar to the fear of flying, something which did not happen before. Also travelling by car in peak traffic, which he had to do in order to get to the office, began to bring on a similar fear. He had no explanation as to where the phobia originated, but in talking to him, the following picture gradually appeared: While Jack was quite successful and generally respected in his work, he was fast becoming of an age which is not fashionable in banking circles. According to him, at the age of 40 one starts to be defined as beyond your prime; the young people are the prominent ones in the organisation and Jack was very conscious of several bright young people waiting in the wings to take his place. While he had no financial concerns about the future, he was acutely aware that his performance at work was under constant and increasing scrutiny by people who would be only too observant of any mistakes he might make. In the light of this, it was noticeable that the phobia came to the fore in work-related circumstances, such as flying to attend business meetings.

This is a good example of the conservation of ambivalence which has been shown before to underlie different forms of symptomatic behaviour (Fourie, 1996:53-70, 2003:51-59). Business meetings provided an excellent opportunity for Jack to be seen to make mistakes; avoiding them therefore made sense, but eroded his position. By keeping him from attending such meet-

ings the phobia therefore (but of course ineffectively) kept him safe from losing the competition with his younger colleagues. One could therefore say that Jack wanted to be seen as successful, but also feared being put to the test. The presence of the phobia reflects this ambivalence between wanting to prove himself, but suspecting that he might be found wanting.

DISCUSSION

While some phobias could easily be explained as the result of earlier conditioning, for example a dog phobia occurring as a result of being bitten by a dog as a child, many phobias occur in socially complex situations and need more complex explanations than the CBT and memory processing views are geared to provide. The two cases described here illustrate this. In both cases interpersonal links, either real or imagined, were at the core of the occurrence of these phobias. Without a focus on these, pure exposure-based treatment is not likely to be sufficient.

Furthermore, interpersonal factors are important not only in the formation of phobias, but also in their treatment. On reading accounts of SD, VR or EMDR such as the ones referred to earlier, one could almost be forgiven if one were to think that these modes of treatment do not involve any people other than the phobic. Most such accounts focus on the treatment technique as if the presence of the therapist or treatment agent is of little consequence. There usually is a strong implication that it is the technique on its own which leads to a lessening of symptoms. The interpersonal relationship between the phobic and the therapist – which most therapists of these schools are quite aware of - seems to be taken for granted to such an extent that it is seldom acknowledged. So let us look briefly at what this relationship entails.

One of the commonalities between SD, VR and EMDR is that the phobic is requested to think about or imagine the noxious situation. In the case of SD and VR the phobic is then taught in a stepwise way to relax in the face of the imagined noxious situation, while in EMDR the phobic has to follow with the eyes the rapid movements of the therapist's finger while thinking about the noxious situation. So, where the phobic in ordinary circumstances would avoid the noxious situation, now in all three of these modalities he/she is led by a con-

cerned and caring expert to confront the feared stimulus. Therefore in these cases the relationship is one in which the therapist in an empathic way leads the client to face rather than to avoid the feared situation. This is the kind of "benevolent ordeal", a paradoxical therapeutic situation Haley (1963:187-188) and others (for example Watzlawick, Weakland & Fisch, 1974:110-157) wrote about many years ago.

No matter which of the therapeutic modalities is used, it is of necessity preceded by an explanation to the client as to how the therapist sees the problem and as to why and how a particular method would be applied. This is the kind of therapeutic reframing, followed by action deemed appropriate to this "new" understanding, which was shown earlier (Fourie, 2000:24-26) to be inherent to all forms of psychotherapy and which contributes to the therapeutic outcome.

Consider the two mentioned cases in such an interpersonal setting. Even though it is clear that both cases would require more than just the application of one of these treatment modalities, the interpersonal aspects present in SD, VR or EMDR would in themselves constitute factors conducive to improvement of the phobic symptoms. The ambivalent autonomy Jane seemed to conserve, first through the presence of the mother and later by means of the phobia, could be described as one of wanting to live life to the full, but simultaneously being afraid of life. First the mother's presence and later that of the phobia kept her from living to the full, keeping her "safe" from life. In treatment the therapist would confirm her as a person by respecting and accepting both poles of the ambivalence, but simultaneously and paradoxically he/she would also "accompany" Jane in confronting the fear. She would not be allowed to avoid the fear: for instance, the session would not be terminated before the fear had subsided. In this way the ambivalent process which kept the phobia alive by avoiding the feared circumstances, would be disrupted. This is precisely what happens in the application of any one of the methods under discussion here.

Similar aspects could be noticed in the case of Jack. He would not be able to avoid "performing" at the current (therapeutic) task by being fearful - the ambivalent autonomy he increasingly seemed to conserve as he grew older. Although Jack's actions would be judged by the therapist, all of these actions would be accepted and respected. However, they would not be allowed to lead him to escape the feared situation, again disrupting the ambivalent process.

In all three of these therapeutic modalities, therefore, over and above the merits of the particular techniques themselves, certain interpersonal factors can be identified which have been known for many years to be powerfully therapeutic. These flow not only from the therapist, but from the way in which therapy is usually organised. One example is that the therapist takes the lead in all three of the modalities under discussion and leads the client through the various actions which are required, indicating what has been called a complementary relationship where one person leads and the other follows (Watzlawick *et al.* 1974:110-157). Another example of such a commonality is that all these therapeutic methods can be seen to disrupt the systemic process of conservation of ambivalence which underlies the phobic behaviour (Fourie, 2003:51-59). This can be seen as a paradoxical situation: in order to overcome anxiety the client has to experience anxiety. And the rationale for this procedure is presented as a typical reframing (Fourie, 2000:24-26).

So, while certain curative interpersonal factors clearly operate in all of these acronymic treatment modalities, research reports dealing with SD, VR and EMDR (such as those referred to earlier) typically under-emphasise the role of such factors both in the formation and maintenance of phobias and in their treatment. For instance, accounts of SD, VR and EMDR treatment generally do not mention reframing as an inherent aspect of the treatment and neither do they indicate that reframing was strategically done in order to achieve a specific aim. Such reports often give the impression that it is the phobia which is treated rather than the phobic and that the presence of the therapist is almost incidental. This is probably a natural outflow from the intrapsychic focus of the underlying CBT and memory processing paradigms.

Coming to these techniques from a social or systemic perspective, however, may soften this extreme of reductionism by emphasising the therapeutic relationship and therefore the humanity and the presence of the two (or sometimes more) protagonists in this relationship. Again, it is not suggested here that therapists do not know this, but merely that they do not usually

acknowledge it in their research reports, probably because the CBT and memory processing views do not have it in central focus.

It is becoming increasingly clear then that psychotherapeutic treatment of phobias (and other disorders) should no longer be guided exclusively by relatively narrow theories such as those underlying the methods discussed here. Theories which focus on intrapsychic events, valuable as they are in their own right, cannot fully account for the social complexities of life even when they acknowledge these. Such theories are valuable as generators of creative and effective techniques, but they need to be part of a larger framework of understanding which not only acknowledges the social world, but in which social interaction is central.

Two related conclusions therefore seem warranted. The first is that the treatment of phobias should not consist only of the application of one of the acronymic methods even though these embody certain interpersonal curative factors. The social context in which the particular problem is embedded needs to be considered much more fully, as was illustrated by the two cases discussed here.

The second conclusion is that, when SD, VR or EMDR is applied, this should not be done as a matter of routine, but that the particular method should be presented as an action coherent with a systemically co-constructed reframing of the problem (Fourie, 2000:24-26), thereby therapeutically and strategically utilising the social elements in the therapeutic situation much more deliberately than is currently suggested in the research literature. This necessitates a more encompassing perspective than that provided by the CBT and memory processing views.

REFERENCES

BARLOW, DH & DURAND, VM 2005: Abnormal psychology: An integrated approach. Belmont: Wadsworth/Thomson.

BOURGEOIS, P 1982: From systematic desensitization to cognitive changes under hypnosis. **Annals of Medical Psychology**, 140(5):509-517.

DAVIDSON, PR & PARKER, KCH 2001: Eye movement desensitization and reprocessing (EMDR): A meta-analysis. **Journal of Consulting and Clinical Psychology**. 69(2):305-316.

DE JONGH, A; TEN BROEKE, E & RENSSEN, MR 1999: Treatment of specific phobias with eye movement desensitization and reprocessing (EMDR): Protocol, empirical status, and conceptual issues. **Journal of Anxiety Disorders**, 13(1-2):69-85.

DE JONGH, A; VAN DEN OORD, HJM & TEN BROEKE, E 2002: Efficacy of eye movement desensitization and reprocessing in the treatment of specific phobias: Four single-case studies on dental phobia. **Journal of Clinical Psychology**, 58(12):1489-1503.

EMMELKAMP, PMG; KRIJN, M; HULSBOSCH, AM; DE VRIES, S; SCHUEMIE, MJ & VAN DER MAST, CAPG 2002: Virtual reality treatment versus exposure in vivo: A comparative evaluation in Acrophobia. **Behaviour Research and Therapy**, 40(5):509-516.

FOURIE, DP 1996: Being stuck: Somatic symptoms and the conservation of ambivalence. **Journal of Family Psychotherapy**, 7(2):53-70.

FOURIE, DP 2000: First new meaning, then new action…: Hypnosis as reframing. **New Therapist**, 10:24-26.

FOURIE, DP 2003: Limited options: Symptoms as expressions of ambivalence. **American Journal of Family Therapy**, 31(1):51-59.

GOLDSTEIN, AJ; DE BEURS, E; CHAMBLESS, DL & WILSON, KA 2000: EMDR for panic disorder with agoraphobia: Comparison with waiting list and credible attention-placebo control conditions. **Journal of Consulting and Clinical Psychology,** 68(6):947-956.

HALEY, J 1963: Strategies of psychotherapy. New York: Grune & Stratton.

HALLAM, RS 1976: A complex view of simple phobias. (**In**: Eysenck, HJ **ed**. 1976: Case studies in behaviour therapy. London: Routledge & Kegan Paul, pp 97-119.)

HOFFMAN, L 1990: Constructing realities: An art of lenses. **Family Process,** 29(1):1-12.

KRIJN, M; EMMELKAMP, PM; OLAFSSON, RP & BIEMOND, R 2004: Virtual reality exposure therapy of anxiety disorders: A review. **Clinical Psychology Review**, 24(3):259-81.

LOOS, VE & EPSTEIN, ES 1988: Conversational construction of meaning in family therapy: Some evolving thoughts on Kelly's sociality corollary. **International Journal of Personal Construct Psychology**, 2(2):149-167.

NOLEN-HOEKSEMA, S 2004: Abnormal Psychology. New York: McGraw Hill.

ROTHBAUM, BO; HODGES, LF; KOOPER, R; OPDYKE, D; WILLIFORD, JS & NORTH, M 1995: Effectiveness of computer-generated (virtual reality) graded exposure in the treatment of acrophobia. **American Journal of Psychiatry**, 152(4):626-628.

VINCELLI, F 1999: From imagination to virtual reality: The future of Clinical Psychology. **CyberPsychology and Behavior**, 2(3):241-248.

WATZLAWICK, P; WEAKLAND, J & FISCH, R 1974: Change: Prin-

ciples of problem formation and problem resolution. New York: Norton.

WOLPE, J 1958: Psychotherapy by reciprocal inhibition. Stanford: Stanford University Press.

ZINBARG, RE; BARLOW, DH; BROWN, TA & HERTZ, RM 1992: Cognitive-behavioral approaches to the nature and treatment of anxiety disorders. **Annual Review of Psychology**, 43:235-267.