

## RETURN TO THE MARKET PLACE: STRUCTURAL CHANGE IN PERSONAL CONSTRUCTION ON RECOVERY FROM THE EXPERIENCE OF AGORAPHOBIA

Nigel J. Hopkins

Formerly Consultant Clinical Psychologist, Sheffield Health Authority, U.K.

A group of women, who avoided travel away from their home, agreed to participate in a programme of therapy and assessment that extended over a period of one year. On recovery, they demonstrated a tightening of personal construction and a greater sense of closeness to others and a more positive view of others and themselves. A non-agoraphobic group of volunteer participants, who were otherwise equally depressed and displaying a similar profile of complaints, displayed contrasting changes. On recovery their personal construction loosened and their judgemental view of themselves and others did not change significantly on the measures used, save for their perceiving an increase in their own capacity to care for others. The agoraphobic participants placed greater emphasis upon a need to demonstrate caring and unselfish behaviours than did the non-agoraphobic participants. The results appeared to be consistent with the notion that a major disruption of core structure could be causally linked to the mobilisation of a set of protective responses that might underlie agoraphobic avoidance.

*Key words:* Agoraphobia, core structure, threat, attachment, narrative disruption

### INTRODUCTION

The model of agoraphobia set out in Hopkins (1995) describes a hypothetical process of personal construct system reorganisation that could be seen in instances where there have been unexpected and sudden breaks in experience. In PCT (Personal Construct Theory) terms the agoraphobic 'syndrome' is conceptualised as a set of protective responses brought into play by a person who wishes to preserve the validity of their construct system when faced with this discontinuity in their anticipation of events.

Cases of bereavement, and other traumatic events including those that sometimes lead to suicide, display parallels with agoraphobic avoidance in that each deal with the struggle to comply with the joint demand to preserve and regrow in the face of changed circumstances. It is in this sense that it is suggested that the prolonged nature of the response seen in the agoraphobic person is akin to that seen in the unresolved grief reaction or the suicidal person who is unable to accept a new 'reality' brought about

by their changed circumstances. (cf. Neimeyer, 2000, 2009)

Winter and Gournay (1987) point out that agoraphobic avoidance is a good example of the PCT process of 'constriction'. Constriction is seen as a deliberate attempt to protect the integrity of a person's construct system against sources of information that cannot be comprehended, or worse, threaten the predictive validities of their system. It is a way of avoiding anxiety by shrinking the world attended to, to a size that can be managed. The extremely anxious person who stops listening to the news or reading newspapers to avoid distress provides an example of constriction.

*Is PCT 'threat' the basis of the 'panic' seen in agoraphobia?*

The hypothesis put forward here is that, in the case agoraphobia, in addition to the 'constriction' identified by Winter and Gournay, the PCT condition of 'threat,' that is, "the awareness of imminent comprehensive change in one's core

structures” (Kelly, 1955, Vol. I, p. 489), has been created. The suggestion is that this comes about owing to the scale of the redefinition of their core structure that the agoraphobic person anticipates they will need to make in order to accommodate a new construction of themselves and their world. This ‘elaboration’ of meaning becomes necessary when we are confronted with a need to take on board new circumstances. (cf. Dunnnett, 1988)

The self-characterisation study reported in Hopkins (1995, 2012) indicated that many people who have become agoraphobic have a ‘nurturant’ self-image and typically say that they would “do anything for anyone”. This self-image contrasted with the self-descriptions of most of the control group of non-agoraphobic patients.

Hopkins (1995) linked this ‘nurturant’ role activity to the onset of agoraphobic avoidance via the invalidating impact of certain life events (cf. Faravelli, 1985; Roy-Byrne et al., 1986). The mechanism of this invalidation process arises from role change stemming from alterations to the person’s life situation. It is suggested that the core structure under threat arises out of a particular attachment style, and earlier investigators have linked agoraphobic responding to attachment (Guidano & Liotti, 1983; Liotti, 1991; Strodel & Noller, 2003). The inner narrative here could be: “I must show that I am putting others first in order to receive the security provided by my principal carers.” This attachment-linked mechanism could be so vital to the person that elaboration away from this self-definition cannot be contemplated. To protect their construct system against invalidating information there may be consequences not only of Kellian constriction (Winter & Gournay, 1987), but also of PCT ‘hostility’ (Kelly, 1957, 1964), which may also come into play in the form of the person striving to argue the case for their now partially invalidated views and values.

The disappointment accompanying their reluctance to change may be diverted towards others around them, rather than be understood as a sign of resistance to accepting the invalidation of part of their construct system in order to move on and construe the new circumstances. This disappointment may take the form of the agora-

phobic feeling to be let down by other people’s failure to care for them now they are in need. This negative view of theirs is in itself difficult for the agoraphobic person to handle for as Winter and Gournay (1987) found they tend to ‘submerge’ the low ‘tenderness’ pole.

The unacceptable ‘frame of mind’ the agoraphobic may find themselves in is given further colour if Stanley’s (1985) finding is considered. It seems that offenders are likely to characterise themselves as being ‘socially alienated’, describing few people as being similar either to themselves or their ideal self. If, as proposed, agoraphobics are socially alienated in a similar way, then their experience of themselves in this anti-social frame of mind will be incompatible with their core structure and be very likely to contribute towards the conditions for ‘threat’. (The *socially alienated* person has a dim view of both themselves *and* other people, whilst *the self alienated* person has a dim view of themselves, but perceives others as being much more like “the way they would like to be themselves.”)

## OUTLINE OF THE STUDY

*Measures of distances between elements* (in PCT this relates to the degree of similarity-dissimilarity between people!).

The above loss of role and possible loss of faith in others was hypothesised to be reflected in PCT measures developed by Norris and Makhoul-Norris (1976) from ‘distance between elements’ data produced by a principal components analysis of individual repertory grids using the INGRID programme devised by Slater (1972). These authors describe a self-identity system having three major components: the actual self, the social self and the ideal self. The identity status of a person can be described through four measures derived from a consideration of the way in which these components inter-relate. The four measures are:

- Self-Alienation
- Social-Alienation
- Actual Self-Isolation
- Self-Convergence.

These can be composed from measures of 'distances' between the *self* and *ideal self* and other people in the subject's life as defined by the overall degree of similarity between scores on the various construct dimensions.

*'Social alienation' occurs when the person's self and ideal self is represented as being unlike all other people. Both Actual Self and Ideal Self are separated from all but two non-self elements by a distance of 0.80 or greater.*

For this study a 'continuous' measure of 'social alienation' was developed from the Makhoul-Norris discrete definition described above calculated as follows: 20 minus the number of self-other and ideal-self other distances closer than a distance of 0.80, i.e. larger scores if the number of distances less than 0.8 are less.

*'Self-Alienation' takes place when the Actual self and Ideal self are completely dissimilar, but others may be more similar to the person's Ideal self. (This can be expected to be seen in cases of social anxiety). Actual self is separated from Ideal self by a distance of 1.2 or more and there are not more than two non-self elements more distant from the Ideal self than is the Actual self.*

In this study a continuous measure of 'self-alienation' was defined as the self - ideal-self distance divided by 1 plus the number of ideal-self - other distances above 1.2.

*'Actual Self Isolation' means the Actual Self is isolated and has little basis for social interaction.*

#### *'Tenderness'*

Construct pole descriptions meeting Landfield's post-coding criteria for 'tenderness' were identified by the author using Landfield's post coding manual. No systematic reliability check was carried out, although Landfield's coding directions are explicit and coding 'tenderness' content

seemed to be an unambiguous process; Landfield's manual indicates an interjudge agreement for 'tenderness' in excess of 75%.

Landfield (1965) codes both 'nurturant' and 'motherly' as high 'tenderness', and on-going 'social interaction' and 'tenderness' was used in this study as a measure of a nurturant dimension. 'Tenderness' (p.12 of the 1965 coding manual):

*"Any statement denoting susceptibility to softer feelings towards others such as love, compassion, gentleness, kindness, considerateness".*

#### *'Looseness-Tightness'*

The initial and then repeated experiences of unexpected and disruptive life events may be capable of providing the conditions for what Bannister (1960, 1962, 1963, 1965) described as 'serial invalidation'. People who have their judgments consistently confirmed, or validated, tend to tighten their construing with the effect of sharpening up their discriminating powers in relation to the accuracy of their anticipations. But if a person's predictive judgments are disconfirmed or invalidated, then they tend to loosen their construing to make their predictions less precise and therefore less open to further invalidation. The loosening of construction, then, can indicate a construct system that is being subjected to an invalidating process (cf. Lawlor & Cochran, 1981).

The measure of loosened construction, elsewhere described as an 'intensity' score, was defined in Bannister's series of studies on invalidation cited above as the extent to which constructs correlated with each other, and in this study the count was of correlations significant at the 1% level.

Stefan (1977) considers the function of our core role structure and likens it to a strategy that shapes our life in the way it influences our perceptions and choice. Faced with 'uptown' a person with an invalidated core structure may lack the sense of purpose that gives focus and direction to attentional processes especially important in environments that present many distractions

and uncertainties. The sense of depersonalisation and unreality and other perceptual disturbances, that are reported to be experienced away from the familiarity of home, may be a direct reflection the loosened construction and loss of linkage with other people that is a consequence of the invalidation at the level of core structure.

Both constriction and loosened construction, although limiting a person's ability to function, are viewed as methods of protecting a construct system under challenge. When constriction is not in play the conditions develop for 'threat' to occur, for example when away from home.

Measurement of various dimensions of personal construction whilst a person is agoraphobic would, whilst demonstrating important differences between them and other non-agoraphobic patients, fail to discriminate between 'state' and 'trait' characteristics. A partial solution to this problem could be to measure these personal construction processes again once the person has recovered from agoraphobia. The design of a study would then include the incorporation of a substantial programme of therapy. Such an investigation was undertaken (Hopkins, 1995). This paper describes a study that attempts to test out the predictions of the heuristic PCT model outlined above by comparing agoraphobic patients' construct systems with those of non-agoraphobic patients, with an otherwise similar pattern and intensity of symptomatology, both before and after the completion of a successful therapeutic programme.

## **HYPOTHESES**

### **Hypotheses pre-therapy**

- (a) Overall there would be little initial difference between the two clinical groups in terms of their level of distress and the pattern of presenting symptom 'scatter'. The obvious exception being that agoraphobics would be more 'phobic', and additionally, as previous clinical observation of agoraphobic people suggested that they may be expected to enjoy social interaction, they might be less socially anxious than the contrast group. The two

groups were expected to be equally depressed.

- (b) Agoraphobic patients will have experienced major life events in the twelve month period prior to the onset of their complaint.
- (c) Agoraphobics will have looser construct systems than non-Agoraphobic patients.
- (d) Agoraphobics will be more 'socially alienated' whereas the contrast group, who might have a more positive view of others than of themselves, will be more 'self alienated' (Makhlouf-Norris & Jones, 1971; Stanley, 1985).
- (e) Personal construct elicited grid analysis of agoraphobic construction content will emphasise higher levels of preoccupation in caring about others as evidenced by a greater frequency of construct poles coded as 'tenderness' using Landfield's post coding manual (Landfield, 1965; 1971).

### **Hypotheses post-therapy**

- (a) The former agoraphobic participants will evidence a tightening of construction and a reduction in their level of social alienation.
- (b) They will maintain their greater levels of preoccupation with 'tenderness' construction as this is thought to be an enduring characteristic rather than a state variable.
- (c) Non-agoraphobic participants, due to the nature of their presenting complaints, were expected to have formerly construed aspects of their life and others in a more rigid and limited manner and following therapy will show a loosening of construction, and a reduction in self-alienation.
- (d) Both groups will demonstrate reduced levels of depression.

## METHOD

### Procedure

#### *Participants*

Sixteen women referred by a number of GPs in the northeast of Sheffield satisfied the DSM III criteria for a classification of agoraphobia with panic disorder. This group completed therapy and provided a full set of data. The mean age of this group at the time of first interview was 37.00, SD= 13.21, median 35.5, range 18-61.

Fourteen non-agoraphobic female patients referred from the same general practitioners also completed therapy and provided a full set of data. The mean age of this group at the time of first interview was 34.5, SD=12.11, median 34.00, range 19-59.

There was no significant difference in age between the two groups. ( $t(28) = 0.537$  N.S.)

#### *Initial interviews*

The first interview initially focused on obtaining a description of the person's complaint and was informed by the approach to differential diagnosis in agoraphobia set out by Gorman et al (1984). The patient was also asked to complete a range of questionnaires and rating scales.

#### *Characterising measures*

Several measures were chosen to provide tests of equivalence between the two patient groups and also to serve as measures of variables of expected change.

The *Crown-Crisp Experiential Index* (CCEI) (Crown and Crisp, 1979), provides an overall measure of symptomatology by totalling data on six individual sub-scales each of which provide usefully descriptive indices of disturbance.

The degree of agoraphobia was measured using an adaption of Johnston et al.'s (1984) Guttman Scale measures of agoraphobic avoidance, described here as *Cumulative Agoraphobia Scales* (CAS).

Depressed mood was measured by the *Beck Depression Inventory* (BDI) (Beck et al, 1978), and social anxiety was measured by Watson and Friend's *Social Avoidance and Distress* (SAD) and *Fear of Negative Evaluation* (FNE) scales (Watson and Friend, 1969).

#### *Life Events prior to the onset of agoraphobia.*

A review of life event studies indicated the likelihood of life events being associated with the onset of agoraphobia and the model of agoraphobia proposed here predicts the presence of significant life events in the twelve months period leading up to an established onset date. Hopkins (1995) confirms that both agoraphobic avoiders and the contrast group reported such life events. (cf. Faravelli, 1985; Roy-Byrne et al., 1986).

#### *Construct system measures derived from repertory grid technique*

- (a) Loosened construction
- (b) Social Alienation
- (c) Self Alienation
- (d) Further combinations of 'distances' between elements (people).
- (e) Consideration of 'raw' grid ratings of elements on the construct pole of *Tenderness*, in particular 'self' and 'ideal self', and non-self elements 'others'.

Comparison between the two groups of the average number of high scoring ratings on 'high tenderness' (1-2 or 6-7 dependent on whether the emergent or contrast pole was coded as 'high tenderness') per construct, were applied to the 'myself as I am' element, on a simple counting of only those constructs with one pole coded as measuring 'tenderness'. For 'others' elements, comparison between those participants with ratings of 'tenderness' by consideration of above average scores on that 'tenderness' pole (counting ratings of 123 or 567, dependent on whether 'tenderness' is on the emergent or contrast pole)

### *Grid administration*

Elicitation of constructs for the repertory grid began during the second interview and the scoring of the grid took place during the third session.

In the case of the agoraphobics, a graded hierarchy of situations associated with their avoidance was obtained at this point.

Kelly (1955) described several methods of eliciting constructs; and these are reviewed by Fransella and Bannister (1977). The method selected for this investigation was the Minimum Context Card Form, which uses triadic elicitation; a seven point rating scale was used to place each element on each bi-polar construct dimension. The resultant matrix was subject to a principal components analysis using the 'customised' INGRID programme produced by Slater (1972).

All constructs were elicited with twenty as the goal. Eighteen elements were specified with the option to add two more and this was encouraged, e.g. "anyone you know well missing?" The supplied element titles were: myself now, how I would like to be, my former self, father, mother, brother, sister, (or other close relatives, cousins for example), good friend, person in authority, spouse, liked teacher, neighbour, disliked person, trusted person, successful person, attractive person, happy person, son or daughter, (or nephew or niece, or other known young person.)

### *Therapeutic programme*

The agoraphobic patients' therapy programme involved:

- (1) An anxiety management programme.
- (2) Incremental exposure 'in vivo', as individuals and along with other group members, to those situations described by the patient as being associated with the threat of an occurrence of the disturbing experiences they sought to avoid.

Each group member was issued with a copy of a programmed guide for part of her course of

treatment (Mathews, Gelder & Johnston, 1981). A commercially produced set of relaxation exercises on audiocassette was provided with instruction to practice daily in appropriate surroundings.

The therapy programme for the 'contrast' or comparison group of non-agoraphobic patients consisted of individual 'constructivist' psychotherapy sessions that worked to help an 'elaboration' of the nature of their complaint. This included, but went beyond the treatment of symptoms towards the construction of a psychological framework or context within which their wider experiences could be better understood by themselves, so that they could resolve issues and plan for the future.

## **RESULTS**

### **Pre-therapy comparisons between the agoraphobic and contrast groups**

#### *Symptoms*

Table 1 indicates that the two groups were equivalent in terms of their overall initial levels of symptomatology as measured by the CCEI: the agoraphobic group had a total score of 55.06 and the contrast group had a score of 55.5 ( $t(28) = 6.66E-02$ , NS).

The groups differ on two of the sub-scales: as predicted the agoraphobic group is more phobic, but the contrast group mean score is higher on the hysteria sub-scale. This last result is in the opposite direction to that suggested by the Chambless and Goldstein (1982) studies and this unexpected difference on the CCEI hysteria scale requires explanation. The CCEI norms (Crown & Crisp, 1979) indicate that the average score of 5.31 achieved by the agoraphobia group is about what might be expected in female anxiety and phobic populations (6.1 and 5.5 respectively). A Personality Disorder group ( $N = 81$ ) scored 6.7. Whilst this suggests that the contrast group is slightly more disturbed in this direction (Average Hysteria = 7.57), although compared to agoraphobics at this pre-therapy stage, the median scores of each group are equal at 6.5.

Table 1: *Crown-Crisp experiential Index (CCEI)*

	means	means		
Subscale	N=16 Agora	N=14 Non-ag.	t (28) or Mann-Whitney	p 2 tail
Free floating anxiety	12.31 (2.65)	12.43 (1.74)	0.139	NS
Phobic anxiety	11.94 (2.17)	8.07 (3.81)	U=42.5 U'=167	0.001 1 tail
Obsessionality	8.56 (2.68)	9.86 (3.28)	1.189	NS
Somatic	8.50 (2.85)	7.79 (3.29)	0.945	NS
Depression	8.63 (2.22)	9.79 (3.47)	1.106	NS
Hysteria	5.31 (2.77) (median 6.5)	7.57 (3.25) (median 6.5)	2.05	<0.05
Total level	55.06 (11.06)	55.50 (10.69)	6.66E-02	NS

Table 2 indicates that there was no significant difference between the two groups on the Beck Depression Inventory (BDI), both groups being moderately depressed with the agoraphobic group's mean being 17.30 compared to the contrast group's mean of 18.57. There was no initial difference between the two groups on the scale of Social Avoidance and Distress (SAD) or on the Scale Fear of Negative Evaluation (FNE). Both groups then were pre-therapy socially avoidant and feared personal criticism. As expected, the groups differed markedly on the measure of agoraphobic avoidance.

Thus, prior to therapeutic intervention, the two clinical groups were equivalent on seven of the ten measures used and of the three significant differences, two reflect the avoidance and phobic characteristics of the agoraphobic group. The

ambiguous hysteria scale difference may indicate that the contrast group possess a marginally higher level of this trait or are responding more in this way due to their level of stress.

With the above qualification in mind, the contrast group could serve as a valid control for a series of comparisons in symptom change and co-variation. The underlying assumptions were (1) that the two groups have arrived at this same level of poor mental health by different routes and may reverse this process as they recover, and (2) that the recovered profiles of these two groups may be a more accurate reflection of their earlier more enduring construction of others and events.

*Structural change in recovery from the experience of agoraphobia*

Table 2: *Pre-therapy measures of symptoms*

	N = 16		N = 14	df = 28		
Variable	Agoraphobic Group		Non-agoraphobic (Contrast) group			
	Mean	s.d.	Mean	s.d.	t	p (1 tail)
Agoraphobic Avoidance	32.00	3.97	15.43	4.05	11.30	.0001
Beck Depression Inventory (BDI)	17.30	7.12	18.57	11.43	0.036	NS
Social Avoidance and Distress (SAD)	13.75	6.88	15.64	6.66	0.763	NS
Fear of Negative Evaluation (FNE)	17.81	6.91	21.29	6.29	1.431	2 tail 0.163 NS

*Measures of personal construction*

The mean number of constructs for the agoraphobic group was 19.31 and the mean for the non-agoraphobic group 19,  $t(28) = 0.55$ ,  $p = 0.59$  2 tail, NS; the mean number of elements for the agoraphobic group was 19.5 and the mean number for the non-agoraphobic group was 18.93.

A further check found there were no significant correlations between measures of the number of ‘tenderness’ constructs, ‘looseness-tightness’, ‘social alienation’, or ‘self-alienation’, and the number of constructs elicited and the number of elements elicited.

The ‘looseness-tightness’ of a construct system is measured by counting the number of correlations between constructs significant at the 1% level. As shown in Table 3, non-agoraphobic patients have significantly more correlations and therefore have tighter construct systems at this pre-therapy stage, Mann-Whitney (adjusted for ties), 1 tail  $p = 0.028$ . (t test not used as score variances were unequal.)

The ‘looseness-tightness’ or ‘intensity’ measure used here refers to tightness in a proportional way and so where in seven cases subjects produced less than twenty constructs – three agoraphobics with 15, 16 and 18 thereby reducing

their group mean number of constructs to 19.31, and five members of the contrast group with 16,17,17,17 and 19 constructs giving a group mean of 19 constructs – a count of significant correlations between constructs would underestimate their relative tightness and a correction factor was required. It was decided to increase the scores of these six people by multiplying their correlation count by the ratio found by having the total construct pairings in a 20 x 20 grid (190) divided by the number of construct pairings in their grid. In the case of a 16x16 grid this would be 120 and the multiplier would be 1.58. This allowance increased the ‘looseness-tightness’ mean of the agoraphobic group by 0.90 and increased the ‘looseness-tightness’ mean of the contrast group by 3.00. The significance of the difference between the groups was not affected by this correctional procedure as this difference of 17 was considerable.

The ‘social alienation’ measure distinguished between the two groups with agoraphobic patients being more socially alienated. ( $t(28) = 2.48$   $p < 0.01$ ),  $r = 0.43$  a medium effect size. The distance between elements measure of the ideal self-other dimension described earlier (number of elements less than 0.80 from the ideal self), also distinguishes between the two

treatment groups. (agoraphobic and non-agoraphobic means = 4.06 and 5.79 respectively,  $t(28) = 1.90, (p=0.032, 1 \text{ tail}, r = 0.29, \text{ a small to}$

medium effect.) ‘Social alienation’ correlates  $r = -0.92$  with the ideal self/other dimension.

Table 3: Pre-therapy measures of grid analyses, INGRID and GAB programmes

Variable	Agora N = 16	Non-Agora N = 14	df=28	
	Mean (s.d.)	Mean (s.d.)	t/Mann-Whitney	p (1 tail)
Tightness	32.19 (14.51)	49.29 (27.05)	U=158 U'=52	Adjusted for ties 0.028
Social Alienation	14.94 (2.84)	12.71 (1.94)	2.47	0.01
Self Alienation	0.35 (0.24)	0.51 (0.34)	1.48	NS
Ideal self/Other (distances <0.8 count measure)	4.06 (2.84)	5.79 (1.97)	1.90	0.032
Self now/Ideal self (distance)	1.26 (0.29)	1.32 (0.33)	0.48	NS
Spouse/Others (distances <0.8 count)	4.19 (2.46)	4.36 (2.68)	0.181	NS
Spouse/ideal self (distance)	1.03 (0.24)	0.87 (0.23)	1.56	NS
Spouse/self now (distance)	1.29 (0.28)	1.27 (0.32)	0.15	NS
Self/Others (distances <0.8 count)	1 (1.36)	1.36 (1.69)	0.70	NS
‘Tenderness’ construct pole count	2.63 (1.86)	1.43 (1.28)	2.02	0.026
‘Tenderness’ high score poles count (unequal variances)	2.14 (2.11) N = 14	0.50 (0.71) N = 10	U=34.5 U'=85.5	Adjusted for ties. 0.02
‘Tenderness’: average of high scores per construct pole.	0.60 (0.43) N = 14	0.25 (0.35) N = 10	2.10	0.024

*Structural change in recovery from the experience of agoraphobia*

These results suggest that non-agoraphobic patient participants have a higher regard for others than do agoraphobics at this pre-treatment stage.

The ‘self alienation’ measure did not distinguish between the two groups at the pre-therapy stage.

*Tenderness*

A simple count measure of the number of ‘tenderness’ construct poles elicited gave the agoraphobic group a mean score = 2.63 (S.D.= 1.86), and the non-agoraphobic contrast group’s mean score = 1.43 (S.D.= 1.28), 1 tail p = 0.026, r = .36 (i.e. 13% of the variance), a medium effect. This result is consistent with the self-characterisation findings reported by Hopkins (1995, 2012).

Comparison at this pre-therapy stage between the two groups of the average number of high scoring ratings on ‘high tenderness’, (1-2 or 6-7 dependent on whether the emergent or contrast pole was coded as ‘high tenderness’) per construct, applied to the ‘myself as I am’ element, on a simple counting of only those constructs with one pole coded as measuring ‘tenderness’ (agoraphobics N=14, non-agoraphobics N = 10, for participants with at least one tenderness pole) gave an agoraphobic mean = 0.60 (S.D. = 0.43)

and a non-agoraphobic mean = 0.25 (S.D. = 0.35), 1 tail p = 0.024, again demonstrating a contrast between the two groups as to how they describe themselves before therapy.

A measure of the extent to which the non-self ‘others’ elements were rated on the ‘tenderness’ construct dimensions was defined by a count of the higher than average ratings made in the ‘tenderness’ direction (123 or 567 depending on whether the ‘tenderness’ pole was the emergent or contrast pole.) The mean agoraphobic participants score for N=14 was 26.93 and the mean contrast group’s was 15.1 for N=10.

**Post-therapy measures**

*Symptoms*

Table 4 shows that on completion of therapy the agoraphobic group were still significantly more avoidant, but less depressed than the contrast group. At the post-therapy point, agoraphobics had become significantly less fearful of negative evaluation (FNE) than the contrast group (means of 15.28 versus 20.61, t (28) = 2.063 1 tail p = 0.024), suggesting a relative recovery of composure, or ‘self confidence’.

Table 4: *Post-therapy variables*

Variable	agoraphobic group N=16	contrast group N=14		
	mean (s.d.)	mean (s.d.)	t (28)	p (1 tail)
Agora Av	20.85 (6.48)	16.38 (6.46)	1.83	p<0.05
BDI	8.00 (6.01)	14.84 (12.64)	1.82	p<0.05
SAD	14.14 (8.02)	14.07 (7.64)	0.02	NS
FNE	15.28 (8.19)	20.61 (7.26)	2.063	p = 0.024

Table 5 indicates that post-therapy there was no difference between the groups on the measure of ‘looseness-tightness’, but the agoraphobic group

perceived their husbands/partners as being closer to others than the contrast group, (measured by the counting of ‘other’ elements closer than

0.80). Aside from this last result, the two groups were more similar post-therapy. The ‘tenderness’ results, using the elicited personal construct technique, although in line with previous findings, that agoraphobic avoiders demonstrate ‘tenderness’ construction content with greater frequency than do the non-agoraphobic comparison group, also suggest that, following therapy,

when non-agoraphobic people *do* consider whether they are considerate and caring, thoughtful about and understanding of others they rate themselves just as highly as the agoraphobic participants. The difference is that such a question is not one that they ask of themselves quite as often as the agoraphobic person appears to.

Table 5: *Post-therapy measures of grid analyses: INGRID and GAB programmes*

	Agora N = 16	Non- agora N = 14	df = 28	
Variable	Mean (s.d.)	Mean (s.d.)	t/Mann- Whitney	p (1 tail)
Tightness	40.23 (21.27)	36.15 (21.60)	0.37	NS
Social Alienation	12.81 (4.32)	11.57 (4.11)	0.80	NS
Self Alienation	0.29 (0.24)	0.39 (0.14)	1.34	NS
Ideal self/Others (distances <0.8 count)	4.71 (2.87)	6.28 (3.24)	1.26	NS
Self now/Ideal self (distance)	1.04 (0.42)	1.18 (0.40)	1.27	NS
Self/Others (distances <0.8 count)	2.5 (2.99)	2.14 (2.88)	0.332	NS
Spouse/Others (distances <0.8 count)	5.75 (2.84)	3.43 (2.14)	2.50	p<0.01
Spouse/Ideal self (distance)	0.94 (0.30)	0.91 (0.37)	0.28	NS
Spouse/Self now (distance)	1.11 (0.33)	1.17 (0.30)	0.68	NS
Tenderness: average of high scores per elicited tenderness construct pole.	0.73 (0.36)	0.60 (0.46)	0.808	NS

### Pre-to post-therapy comparisons

#### *Reduction in agoraphobic avoidance*

Agoraphobic avoidance was reduced in the case of the agoraphobic group from a CAS score of 32 down to 20.85  $t(15) = 6.55$ ,  $p < 0.0001$ , effect size  $r = 0.86$ , a large effect. The contrast group scores were not significantly different.

#### *Reduction in depression*

Both groups were less depressed following therapy, with the agoraphobic participants scoring a mean of 8.19 on the BDI compared to a pre-therapy score of 17.31,  $t(15) = 4.67$ ,  $p = 0.0002$ , effect size  $r = 0.77$ , a large effect; and the contrast group mean scores were 18.57 down to 13.50,  $t(13) = 2.015$ ,  $p = 0.032$ , effect size  $r = 0.49$ , a medium to large effect.

*Tightening of construction*

On recovery, there was a tightening of construction in the case of the agoraphobic group (40.23 from 32.19,  $t(15) = 2.45$ ,  $p = 0.014$ ,  $r = 0.53$ , a large effect.), whereas the contrast group showed a loosening effect (49.28 to 36.15,  $t(13) = 2.64$ ,  $p = 0.01$ ,  $r = 0.59$ , a large effect). At the post-therapy point there was no difference between the two groups on this measure (agoraphobics mean = 40.23, contrast group 36.15,  $t(28) = 0.55$ , NS).

*Social alienation and closeness of self and ideal self to others.*

Recovered agoraphobics, who were more socially alienated than the contrast group at the pre-therapy state, no longer are, the previously agoraphobic participants now demonstrating significantly reduced scores on this measure whilst the post-therapy contrast group show no significant change. (agoraphobic scores 14.94 down to 12.81,  $t(15) = 2.376$ ,  $p = 0.016$ ,  $r = 0.52$ , a large effect.) This composite measure of ‘social alienation’ reflects not only the perceived gap between other people and the rater’s ‘ideal’ self, but also the gap between themselves ‘self now’ (as agoraphobics initially) and others. These findings indicated that pre-therapy the agoraphobic participants not only view themselves as not living up to their own self-ideals, something they have in common with the contrast group (in addition to feeling themselves to be different to others), but also that when agoraphobic they had taken a much dimmer view of the significant people in their lives than did the non-agoraphobic contrast group participants.

Post-therapy the previously agoraphobic participants perceive their husbands/partners as being closer to others with means of 4.19 to 5.75 (distances <0.08 count)  $t(15) = 3.65$ , 1 tail  $p = 0.0012$ , and closer to their ideal self with means of 1.03 to 0.89 (distance measure)  $t(15) = 1.84$ , 1 tail  $p = 0.04$ . Further, they perceive their spouse to be more similar to (or less unlike) themselves, with means of 1.29 down to 1.13,  $t(15) = 1.85$ , 1

tail  $p < 0.05$ . They also perceive themselves as closer to others (as reflected in the ‘social alienation’ measure), with means of 1 up to 2.5 (distances <0.08 count),  $t(15) = 2.02$ , 1 tail  $p = 0.03$ , although they do not rate others as being closer to their ideal self.

However the non-agoraphobic contrast group does not show movement on their partners closeness to others, and no change in their partners closeness to their ideal self; neither do they perceive that their partner has become closer to themselves.

*Self now*

Agoraphobics rated their ‘self now’ more highly on tenderness constructs post-therapy than did the contrast group.

The agoraphobic group trend was towards even higher ratings post-therapy, but this did not reach a significance level.

The contrast group did rate their ‘self now’ as being significantly more tender minded post-therapy than they did pre-therapy, with means of 0.50 to 1.2,  $t(9) = -2.09$ , 1 tail  $p < 0.05$

Table 6: Pre-therapy: Average number of high rating scores (1 and 2, 6 and 7) on high tenderness pole of construct.

			Mann-Whitney	
	agoraphobic	contrast	U, U'	1 tail p
	N = 14	N = 10		
Self-now	2.14	0.50	34.5, 85.5	0.02

Table 7: Post therapy: Average number of high rating scores (1 and 2, 6 and 7) on high tenderness pole of construct.

			t	
	agoraphobic	contrast		1 tail p
	N = 14	N = 10		
Self-now	2.36	1.2	1.96	0.032

### *'Tenderness'*

'Tenderness' traits in 'others' were rated more highly to a greater extent post therapy by agoraphobics with a mean increase of 7.90 in number of above average (i.e. 567 or 123) ratings (N=14), compared to a mean increase of 1.6 in above average ratings of others by the contrast group (N=10). For related measures  $t(13) = 2.54$ , 1 tail  $p = 0.012$  for agoraphobic participants and  $t(9) = 1.163$ , 1 tail  $p = 0.137$ , NS.

### *Self now and ideal self discrepancy*

On recovery the mean 'self now' and 'ideal self' distance was reduced in the case of the agoraphobics indicating an increase in the similarity of these two self-descriptions (mean pre-therapy = 1.26, SD = 0.29, mean post-therapy = 1.04, SD = 0.42,  $t(15) = 3.44$ ,  $p = 0.002$ , 1 tail,  $r = 0.66$ , a large effect). In the case of the contrast group there was no significant decrease in this distance measure (mean pre-therapy = 1.31, SD = 0.33, mean post-therapy = 1.17, SD = 0.40,  $t(13) = 1.15$ , NS).

### *Co-variation of change in measures with recovery*

Subtraction of the post-therapy 'self-ideal self' distances from the pre-therapy distances provided a measure of the extent of the increase in similarity and as predicted this correlated significantly with the changes in Fear of Negative Evaluation (FNE) in the case of both the agoraphobic group and the contrast group ( $r = 0.78$ ,  $t(14) = 4.11$ ,  $p < 0.001$ , 1 tail, and  $r = 0.53$ ,  $t(12) = 2.19$ ,  $p < 0.25$ , 1 tail, respectively).

Another difference between the two groups is seen in the reversal of the relationship between the ideal self/other distance reduction (indicated by an increase in the number of 'other' elements less than 0.80 distant.), and the BDI score reduction. The agoraphobics BDI improvement correlates  $r = +0.53$  ( $df = 14$ ,  $p < 0.05$ , 2 tail), with the perceived increase in closeness of others to their ideal self descriptions, whereas this covariation

of changes on these measures in the contrast group was in the opposite direction ( $r = -0.59$ ,  $df = 12$ ,  $p < 0.05$ , 2 tail). As non-agoraphobics perceive others as being closer to their ideal so they appear to be more depressed, a function of social anxiety and lowered self esteem perhaps. Put another way perhaps, as their mood improves their idealisation of others lessens.

The expected covariation between looseness and tightness changes, social-alienation changes, and ideal self-other distance change was not found suggesting a degree of independence between the processes underlying these measures.

### *Covariation of agoraphobic avoidance and depressed mood*

Improvement in agoraphobic avoidance and improvement in BDI measures of depression correlated  $r = 0.75$  ( $df = 14$ ,  $p < 0.001$ ) in the case of agoraphobics and  $r = 0.84$  ( $df = 12$ ,  $p < 0.001$ ) in the case of the contrast group. (In this instance the agoraphobic avoidance measure CAS was probably functioning more as a measure of the contrast group's avoidance due to social anxiety than agoraphobia).

The idea that a loosening of construction is closely implicated in the process of becoming agoraphobic is supported by the finding that the degree of recovery from agoraphobia (defined in terms of a reduction in the CAS measure of agoraphobic avoidance) correlates significantly with the extent of the tightening observed ( $r = +0.46$ ,  $df = 14$ ,  $p < 0.05$ ).

## **DISCUSSION OF RESULTS**

The model of personal construct theory put forward suggested that, in the case where a condition of 'threat' exists, signs of protective processes would be evident and these would include loosened construction and Social Alienation. Compared to the non-agoraphobic contrast group the agoraphobic group did show looser constructing, and on recovery there was a tightening of construction.

The 'social alienation', evident when agoraphobic, is greatly reduced post therapy suggesting the return of a more positive view of others and the self. In particular, they perceive their husbands/partners as being closer to others and closer to their ideal self. Further, they perceive their partner to be closer to themselves.

Both of the above changes could reflect a return to their pre-agoraphobic way of being, loosening and social alienation being agoraphobic 'state' variables.

Agoraphobic avoidance itself can be seen as a good example of the 'constriction' of the person's perceptual field, and this is also a protective device. In this case we know that this is a state variable having not been evident prior to the person's difficulties.

Consistent with the self-characterisation findings of Hopkins (1995) the elicitation procedure resulted in a greater emphasis on 'tenderness' construction for the agoraphobic group compared to the non-agoraphobic controls. On recovery this difference in emphasis is maintained supporting the possibility that this quality forms an important part of the core structure of people in this avoidant group, the disruption of which in turn may be a significant causal part of the threat/panic mechanism. The developmental pathways leading to the elevated importance of caring for others might include particular attachment experiences that relate to a sense of security and these have been incorporated into core (or self) structure which might then be especially sensitive to an absence of opportunities to validate it as might occur if life events create social disruption.

In general the impact of the largely behavioural programme of therapy seems to have helped in a return to the agoraphobic participants pre-avoidance approach to their life. Other elaborations of core structure cannot of course be discounted, but vulnerabilities may remain.

Non-agoraphobic participants in contrast loosened their construing, but showed no change on the 'social alienation' measure. Neither did they, post therapy, demonstrate the increases in closeness of their partner to others, or to their own self and their ideal self.

Whilst both groups were less depressed following their therapy, and reached a mutual agreement along with the therapist that their therapy programme could end, the above results suggest qualitatively different outcomes were achieved.

In the case of the agoraphobics, the largely behavioural approach may have resulted in a 'slot rattling' process and a return to a form of personal construction similar to that utilised prior to developing agoraphobic avoidance. The loosened construction observed in the non-agoraphobic group could indicate a reduction in rigidity perhaps by finding ways of escaping from the 'cage' of their former construing. That is they found a way of understanding their past and were freed to develop solutions and move on with their lives.

Clinical observation suggested that something along these lines was achieved, but the present study was not designed to highlight this possibility. In the case of both groups of participants a fresh elicitation of personal construction post therapy might have clarified the extent of any reconstruction that had been made, but the re-rating of the initial pre-therapy grid was chosen in order to provide the pre and post comparisons.

Neimeyer (2006) presents the idea of 're-storying loss' following a life experience that produces a traumatic discontinuity in a person's anticipation of events. If a core construction of the self, developed through a particular attachment relationship, were threatened, as is suggested in the case of agoraphobia, such a discontinuity could be a result, and a constructivist approach to restoring and developing that person's self narrative may form part of the appropriate therapy. (cf. Winter & Metcalfe (2005) and Winter, Metcalfe & Rossotti (2006)).

This study considered the case of women and it is likely that males with agoraphobic problems similarly develop this complaint through the experience of a 'panic attack,' construed here as the experience of 'threat', but their imminent comprehensive change in core structure may relate to disruptions, other than the loss of opportunities to express tenderness towards others, in the validation of their anticipations. For example, such discontinuities caused by job loss,

relationship breakdowns, bereavements and other life events might disrupt major maintenance functions for their 'male' core structure, whatever that may be.

Naturally, both men and women may also be affected by the same life changing events, and similar aspects of core structure invalidation. The 'caring for others' emphasis focused on in this study is likely to be one of a number of dimensions found in a persons core structure.

Although the behavioural programme reduced agoraphobic avoidance, further help to elaborate the participants personal construction, had it been undertaken, could have led to an increase in the range of anticipations beyond that which currently gives their lives direction.

The generalisability of this study is limited by the small sample sizes and the marked differences in the therapeutic approach taken for each group. Set against this weakness the effect size of many of the statistical comparisons were in the medium to strong range which suggests the findings had significant clinical relevance, at least for this subset of participants. A larger and more stratified sample of the population would give an improved sense of the generalisability of these results.

The therapeutic aim was the same for both groups, that is, to reduce each person's stated complaint and at least return them to their prior more stable lives. In the main this goal was realised, but more may have been possible.

In essence this investigation is a pilot study made under clinical conditions, and whilst the results are encouraging they require cautious interpretation and further more powerfully controlled studies are required.

## REFERENCES

- Bannister, D. (1960). Conceptual structure in thought disordered schizophrenics. *Journal of Mental Science*, 106, 1230-1249.
- Bannister, D. (1962). The nature and measurement of schizophrenic thought disorder. *Journal of Mental Science*, 108, 825-842.
- Bannister, D. (1963). The genesis of schizophrenic thought disorder. A serial invalidation hypothesis. *British Journal of Psychiatry*, 109, 680-686.
- Bannister, D. (1965). The genesis of schizophrenic thought disorder: A re-test of the serial invalidation hypothesis. *British Journal of Psychiatry*, 111, 377-382.
- Beck, A. T., Rush, A. J., Shaw, B. F. & Emery, G. (1978). The Beck Depression Inventory in 'Cognitive Therapy of Depression'. New York: Guilford.
- Chambless, D. L., & Goldstein, A. J. (1982). (Eds.) *Agoraphobia: Multiple perspectives on theory and treatment*. New York: Wiley.
- Crown, S., & Crisp, A. H. (1979). *Manual of the Crown-Crisp Experiential Index*. London: Hodder and Stoughton.
- Dunnett, G. (1988). Phobias: A journey beyond neurosis. In F. Fransella, & L. Thomas (eds.), *Experimenting with Personal Construct Psychology*. (pp. 319-328). London: Routledge and Kegan Paul.
- Faravelli, C. (1985). Life events preceding the onset of panic disorder. *Journal of Affective Disorders*, 9, 103-105.
- Fransella, F. & Bannister, D. (1977). *A manual for repertory grid technique*. London: Academic Press.
- Gorman, J.M., Liebowitz, M.R., & Klein, D.F. (1984). Panic disorder and agoraphobia. Current Concepts, a Scope Publication.
- Guidano, V. F. & Liotti, G. (1983). *Cognitive processes and emotional disorders*. New York: Guilford Press.
- Hopkins, N.J. (1995). *On the Origin of Panic in Agoraphobic Women*, Ph.D. Thesis, University of Sheffield.
- Hopkins, N.J. (2012) Is there a typical agoraphobic core structure? *Personal Construct Theory and Practice*, 9, 19-27.
- Johnstone, M., Johnstone, D.W., Wilkes, H., Burnes, L.E., & Thorpe, G.L. (1984). Cumulative scales for the measurement of agoraphobia. *British Journal of Clinical Psychology*, 23,133-143.
- Kelly, G. A. (1955). *The Psychology of Personal Constructs*, Vols. I and II. New York: Norton.
- Kelly, G.A. (1957). *Hostility*. Paper prepared for Kelly's Presidential Address in 1957 to the Clinical Division of the American Psychological Association.
- Kelly, G. A. (1964). *The threat of aggression* (prepared for a conference on humanistic psychology, Old Saybrook, Connecticut, November 27-29th, 1964).
- Landfield, A. W. (1965) Rep. Test Content Rating Manual. *Functionally independent construction*, University of Missouri.

- Landfield, A. W. (1971). *Personal construct systems in psychotherapy* Chicago: Rand McNally
- Lawlor, M. & Cochran, L. (1981). Does invalidation produce loose construing? *British Journal of Medical Psychology*, 54, 41-50.
- Liotti, G. (1991). Insecure attachment and agoraphobia. In C. M. Parkes, J. Stevenson-Hinde, & P. Marris, (Eds.) *Attachment across the life cycle* (pp. 216-233). London: Routledge.
- Mathews, A.M., Gelder, M.G. & Johnston, D.W. (1981) *Programmed practice for agoraphobia*. New York: Guilford Press.
- Makhlouf-Norris, F. & Jones, H.G. (1971) 'Conceptual distance indices as measures of alienation in obsessional neurosis, *Psychological Medicine*, 1 381-7
- Neimeyer, R.A. (2000) Narrative disruptions in the construction of self. In R. A. Neimeyer & J. Raskin (Eds.), *Constructions of disorder: Meaning making frameworks for psychotherapy* (pp. 207-241). Washington, D. C.: American Psychological Association.
- Neimeyer, R.A. (2006) Re-storying Loss: Fostering growth in the post-traumatic narrative. In L. Calhoun & R. Tedeschi (Eds) *Handbook of post-traumatic growth: Research and practice*. (pp.68-80) Mahwa, NJ: Lawrence Erlbaum.
- Neimeyer, R.A. (2009) *Constructivist psychotherapy: Distinctive features*. Routledge, Hove, U.K.
- Norris, H., & Makhlouf-Norris, F. (1976). The measurement of self identity, in P. Slater (Ed.), *Explorations of intrapersonal space*. (pp. 79-92). Chichester: Wiley.
- Roy-Byrne, P. P., Geraci, M., & Uhde, T. W. (1986). Life events and the onset of panic disorder. *American Journal of Psychiatry*, 143, 1424-1427.
- Slater, P. (1972). *Notes on INGRID '72'*, unpublished manuscript, London: St George's Hospital.
- Stanley, B. (1985). Alienation in young offenders. In N. Beail (Ed.), *Repertory grid technique and personal constructs*. (pp. 47-60). London and Sydney: Croom Helm
- Stefan, C. (1977) Core structure theory and implications. In D. Bannister (Ed.), *New Perspectives in Personal Construct Theory* (pp.281-298). London: Academic Press
- Strodl, E. & Noller, P. (2003). The relationship of adult attachment dimensions to depression and agoraphobia. *Personal Relationships*, 10, 171-185.
- Watson, D. & Friend, R. (1969). Measurement of social evaluation anxiety. *Journal of Consulting and Clinical Psychology*, 33, 448-451.
- Winter, D. & Gournay, K. (1987). Construction and constriction in agoraphobia. *British Journal of Medical Psychology*, 60, 233-244.
- Winter, D., Gournay, K., & Metcalfe, C. (1996). An investigation of the effectiveness of a personal construct psychotherapy intervention. In J.M. Fisher and D.J. Savage (eds.) *Beyond Experimentation into Meaning*. (pp. 146-160). Farnborough: EPCA Publications.
- Winter, D., Gournay, K., Metcalfe, C., & Rossotti, N. (2006). Expanding agoraphobics' horizons: an investigation of the effectiveness of a personal construct psychotherapy intervention. *Journal of Constructivist Psychology*, 19, 1-29.
- Winter, D.A. & Metcalfe, C. (2005). From constriction to experimentation: personal construct psychotherapy for agoraphobia. In D.A. Winter & L.L. Viney (eds.). *Personal construct psychotherapy: Advances in theory, practice and research*. (pp. 148-164). London: Whurr.

## Postscript

The author had the privilege of studying Personal Construct Theory under the guidance of the late Dr Gavin Dunnnett prior to the design of the current study and many of the ideas presented here arose out of our discussions.

This study was carried out whilst the author was working as a Consultant Clinical Psychologist at Sheffield's Northern General Hospital. It is an aspect of a broader investigation into the problems of panic and agoraphobia using a Personal Construct Theory approach submitted to the Faculty of Medicine of the University of Sheffield in part fulfillment of the degree of Doctor of Philosophy.

## ABOUT THE AUTHOR

*Nigel Hopkins*: After completing training in Clinical Psychology at Birmingham University England in 1971 I worked for the next twenty-five years mainly with adults. In 1996 I took up posts based in forensic settings. From 2005 I worked in Cornwall with adolescents in Residential Care, and then, in Plymouth, I practised as the team psychologist. Starting out in 1971 with

behavioural skills, and like many others supplementing these, first with Rogerian approaches and then with Rational Emotive Therapies, I moved onto Beck, and Cognitive Behavioural inspired ways of working. Around 1982 I began to take a serious 'look' at Personal Construct Theory and, following substantial training, made PCT my default starting point when putting case formulations together.

*Contact:* nigel.hopkins4@btinternet.com

## **REFERENCE**

Hopkins, N. J. (2014). Return to the market place: Structural change in personal construction on recovery from the experience of agoraphobia *Personal Construct Theory & Practice, 11*, 38-54, 2014

(Retrieved from <http://www.pcp-net.org/journal/pctp14/hopkins14.pdf>)

Received: 31 October 2013 - Accepted: 1 June 2014 – Published: 9 October 2014.