Relationships between self, others and persecutors in individuals with persecutory delusions:

A Repertory Grid Analysis.

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Abstract

The purpose of the current study was to examine the way individuals with persecutory delusions construe the self, others and their main persecutor with reference to the constructs of malevolence and omnipotence, and examine the extent to which these interpersonal beliefs link to distress, self-esteem and delusion conviction. Repertory grid methodology was used to explore interpersonal beliefs about malevolence and omnipotence in a sample (N=30) of individuals with current persecutory delusions (mean age 36.4 years; 62% male and 53% of white ethnicity). Participants also completed measures of emotional distress (depression and anxiety) and self-esteem. The findings suggested that persecutors were construed as more omnipotent and malevolent than both the self and others; others in turn were construed as more omnipotent and malevolent than the self. Beliefs about self as powerful were associated with lower anxiety, depression and higher self-esteem, and beliefs about persecutors’ omnipotence predicted delusion conviction. As with voices, the concepts of power/omnipotence and malevolence/benevolence appear to be important constructs when seeking to understand the relationship between individuals and their perceived persecutors. These findings support working therapeutically with negative schematic beliefs about self, others and persecutors, which is consistent with a person-based cognitive therapy model of distressing psychosis.

Keywords: Interpersonal Beliefs, persecutory delusions, Anxiety, Depression, repertory grid.
Interpersonal beliefs about the self and others are important, both theoretically in the formation and maintenance of persecutory beliefs and in clinical practice as important targets in cognitive-behavioural therapy (Chadwick et al, 1996; Garety et al, 2001, Freeman et al, 2002; Trower & Chadwick, 1995). The first empirical study of interpersonal beliefs was conducted by Chadwick and Trower (1997), who compared individuals with current persecutory beliefs (n=23) with people with depression (n=22) and matched controls (n=23). The study found negative other-self (e.g. other people see me as a bad person) and self-evaluative beliefs (e.g. I am a bad person) were highest in those with depression; those with persecutory beliefs were higher than nonclinical controls. Negative self-other beliefs (e.g. other people are worthless) were higher in those with persecutory delusions than in both other groups, who did not differ on this dimension. Further research suggests that the significance of negative interpersonal beliefs is through their link with both delusional and emotional distress (Smith et al, 2006), such that individuals with more negative beliefs about themselves and others were also more preoccupied with, and distressed by, their delusion. In addition, exposure to an urban environment has been shown to be associated with more negative views of others in individuals with persecutory delusions (Ellett, Freeman & Garety, 2008). These studies support the proposal by Chadwick et al. (1996, Chapter 1) that distress in psychosis results from a combination of ‘delusional’ and negative interpersonal beliefs.

Where much of the research on auditory hallucinations has explored people’s relationship with their voices, research has yet to examine interpersonal beliefs as one aspect of people’s relationship with their perceived persecutors. In relation to voices, Chadwick and Birchwood (1994) described how individuals’ relationships with voices are understandable once key beliefs about voices are laid bare. For example, the majority of voices in clinical settings are perceived as both omnipotent and malevolent, key dimensions in terms of
understanding a person’s behavioural and emotional relationship with voices (Birchwood & Chadwick, 1997). Only one study has been conducted that examined individuals’ beliefs about the power of their persecutors (Green et al, 2006). The majority of participants (77.3%) perceived their persecutor to be more powerful than they themselves – though persecutors in this study were not typically attributed the omnipotence so commonly attributed to voices – and the power differential between self and persecutor was significantly associated with depression. This is consistent with empirical evidence in the voices literature, which suggests that individual beliefs about the omnipotence (power) and malevolence of voices are associated with both distress and behavioural disturbance (Birchwood & Chadwick, 1997).

The present study uses repertory grid methodology, developed from Personal Construct Theory (PCT: Kelly, 1955), to explore in a dynamic way people’s interpersonal relationships with their perceived persecutors. A fundamental premise behind PCT is that people actively construct their social worlds by organising experience according to bipolar constructs – for example, good-bad, malevolent-benevolent, or attractive-unattractive. According to PCT, two key motivations for this construction are a wish to predict and to control the world. A person’s construct system is a complex social template made up of relationships among key constructs, which are tested and refined through experience. Within PCT, the main methodology for understanding a person’s construct system is use of the repertory grid technique. This is an interviewing technique for identifying the ways in which a person construes, or makes sense of, their experiences. There are different applications of repertory grid technique, though all involve rating key people (termed elements) against key bipolar constructs. The data generated consist of a set of Likert ratings, which allows for both individual and collective analysis. Data can be presented visually to create a map of a
person’s construct system – for example, depicting spatially the respects (i.e. constructs) in
which one person (e.g. a persecutor) is similar to and different from another (e.g. self). It is
this unique combination of individual richness allied to statistical analysis of group data that
makes repertory grid technique so valuable. Also, the structure inherent in the methodology
minimises researcher interpretation and bias. A final benefit of the methodology is in its
simplicity and ease of use. Repertory grid methodology has been used extensively in
psychopathology research to study depression (Haltenhof et al., 1996), obsessive compulsive
disorder (Rigdon & Epting, 1983), phobias (Sanz et al., 1996), schizophrenia (Bannister,
1965; Bannister & Fransella, 1965) and more broadly within the context of research into
psychotherapy (Winter, 2003c) - but never before with individuals with persecutory
delusions.

The aim of the current study was to use repertory grid methodology to explore
similarities and differences in how individuals construe themselves, their main persecutor,
other people in general, and how they believe others construe their main persecutor. Beliefs
known to be important in the voices literature, namely the concepts of malevolence and
omnipotence (Chadwick & Birchwood, 1994; Birchwood & Chadwick, 1997) were used as
supplied constructs to address the following research questions: (1) is there a difference in the
way individuals with persecutory delusions construe the self, others and their main
persecutor, in terms of the constructs of malevolence and omnipotence? (2) is there a
difference between the way individuals view their persecutors, and how they believe other
people view their persecutors? (3) are the constructs of malevolence and omnipotence
associated with emotional distress (depression and anxiety), and self-esteem? and (4) do
beliefs about the malevolence and omnipotence of persecutors predict delusion conviction?
Method

Participants

Participants with persecutory delusions were recruited from inpatient (n=15) and outpatient (n=15) services in two London NHS Foundation Trusts. In total, 80 people were approached to take part in the study; 22 did not meet criteria for presence of a current persecutory delusion. Of those eligible for the study, 30 (52%) gave consent. The primary inclusion criteria were diagnosis of a psychotic illness, as identified for the purposes of the research by a Consultant Psychiatrist in the participant’s clinical team, and a current persecutory belief, established through clinical interview and a score of 3 or above on item 8 (persecutory delusion item) of the Scales for the Assessment of Positive Symptoms (SAPS; Andreasen, 1984). Exclusion criteria were a primary diagnosis of alcohol or substance misuse, intellectual disability and known brain injury. Mean length of illness was 11.6 years (sd=8.53), with an average of four episodes (range = 2-10, sd=2.09). Sample size was based on published repertory grid research.

Measures

Positive and Negative Syndrome Scale (PANSS; Kay, 1991) – Positive Symptom Subscale. To assess for the presence of the positive symptoms of psychosis, the positive subscale of the PANSS was administered. The PANSS is a semi-structured interview measuring 32 symptoms divided into three groups: positive symptoms, negative symptoms and general psychopathology. Symptoms are measured over the past 72-hours on a seven-point Likert scale (anchored absent to extreme). Each scale contains a detailed description for each symptom and rating point. For the purpose of the present study, only the positive subscale was used. Kay et al. (1987) reported good internal consistency for the positive scale.
(α = .73), and test-retest reliability (0.8 across a 3 to 6 month period). Further studies reported satisfactory inter-rater reliability, criterion rated validity and construct validity (Kay et al., 1988). Internal consistency for the positive scale was found to be acceptable in the present sample (α = .70).

Psychotic Symptom Rating Scales (PSYRATS; Haddock et al., 1999). The PSYRATS is a 17-item multidimensional measure of delusions (6 items) and auditory hallucinations (11-items). The researcher rates the dimension being measured on a 5 point scale (0-4) according to how the participant felt over the past week. Higher scores reflect higher levels of the dimension being measured. Inter-rater reliability for the scale is regarded as very good (intra-class correlation coefficients for items range from 0.79 to 1.0). For the purpose of the present study, only the conviction item on the delusions scale was used. The delusions scale is reported to correlate significantly with the PANSS delusion item (0.43), positive subscale (0.20) and total score (0.18) indicating satisfactory concurrent validity (Drake, Haddock, Tarrier, Bentall & Lewis, 2007). Ratings were made by two doctoral researchers, who both received training in how to administer the measure prior to data collection.

Depression Anxiety and Stress Scale (DASS; Lovibond & Lovibond, 1995). The DASS is a self report scale with three subscales designed to measure the negative emotional states of depression, anxiety and stress. The 42-item measure was used in the current study, although only the subscales of depression and anxiety were used. Each subscale consisted of 14-items with a 0-3 scale, with higher scores representing higher levels of emotional distress. The Depression scale assesses dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest/involvement, anhedonia, and inertia. The Anxiety scale assesses autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect. Participants are asked to rate the frequency/severity of each item over the past week. Clinical cutoff scores for the two scales are as follows: Depression: normal (0-9); mild (10-
The scales of the DASS have been shown to have high internal consistency with Cronbach’s alpha for anxiety and depression, .90 and .95 (Crawford & Henry, 2003). The DASS has previously been used in studies with people with persecutory delusions (Freeman et al., 2005). Internal consistency was high in the present sample for both the depression (α = .96) and anxiety (α = .88) subscales.

**Rosenberg Self-Esteem Scale (RSES: Rosenberg, 1965).** The RSES is a measure of global self-esteem and consists of 10 items. Participants indicate the extent to which they agree with each item on a scale of 1 “strongly agree” to 4 “strongly disagree”. The RSES has good psychometric properties, with test-retest correlations ranging from .82-.88 and Cronbach’s alpha ranging from .77-.88 (Rosenberg, 1986). In the present sample, Cronbach’s alpha was good (α = .85).

**Repertory Grid (Kelly, 1955).** A repertory grid matrix was developed by the researchers, based on the principles of repertory grid construction, which contained four basic components: the topic, elements, constructs and ratings (Jankowicz, 2004). The topic represents the focus of the investigation, and in the present study this corresponded to negative interpersonal beliefs.

**Element Selection.** Elements are the objects that are the focus or examples of a particular topic. The elements included in the current study were predefined by the researchers in order to evaluate relationships of interest based on previous literature (e.g. Smith et al., 2006), and in order to allow statistical analysis across multiple participant grids. The participant’s relationship with the persecutor was the primary interest, and therefore
represented one element. We were also interested in how the persecutor was construed against ratings of both the self and other people in general. In addition, participants were asked to make judgements about how they believed other people would rate their persecutor. Therefore, in the current study, there were four elements: the self, others in general, main persecutor and others’ view of main persecutor.

Construct Selection. Constructs are the units of description or ideas that are held about the elements - in the current study, there were two identified constructs, beliefs about malevolence and omnipotence. Constructs were predefined by the researchers in order to allow statistical analysis across multiple participant grids. This approach to construct selection (i.e. using predefined constructs as opposed to eliciting them directly from participants) is typical when making comparisons between participants’ responses on a particular set of elements (Edwards et al., 2009), and is acceptable provided that they are relevant to the area of interest, unambiguous, and meaningful (Fransella et al, 2004). To ensure the constructs were relevant to the area of interest they were derived from an established measure of interpersonal beliefs in the voices literature, the Beliefs About Voices Questionnaire – Revised (BAVQ-R, Chadwick et al, 2000), which specifically measures omnipotent and malevolent beliefs about voices. Each construct was therefore measured using six bipolar items with two contrasting poles. The six bipolar items measuring the malevolence construct were: kind-evil; protective-threatenin; harmless-dangerous; friendly-hostile; respectful-disrespectful; helpful-unhelpful. The six items measuring omnipotence were: weak-powerful; inferior-superior; submissive-dominant; gentle-controlling; unimportant-important; unknowledgeable-knowledgeable. Items from the BAVQ-R were therefore used to define the emergent construct pole (i.e. evil, dangerous etc) for malevolence and omnipotence items. To define the contrasting pole, opposite descriptors were used (i.e.
kind, harmless), which is typical when supplying constructs to facilitate statistical analysis (Edwards, McDonald & Young, 2009).

Ratings. Individuals were required to rate each element against each bipolar item, on a Likert scale from one to five. Items were scored such that the emergent construct pole (e.g. evil, threatening, dangerous) always had a rating of 5 and the contrast pole always had a rating of 1. Total scores for the two construct groups were calculated by summing Likert ratings for each of the six bipolar items. Total scores for each construct therefore ranged from 6-30, with higher scores indicating higher levels of malevolence and omnipotence.

Reliability of constructs

We conducted three analyses to assess reliability of constructs. First, to calculate inter-rater reliability, two independent raters were given the list of 12 bipolar items and asked to assign them to either the malevolence or omnipotence construct. This revealed a kappa value of 0.86, indicating a very good level of agreement between raters (Altman, 1991). Second, we calculated internal consistency of the six bipolar items measuring each construct, which we would expect to be high. This revealed alpha coefficients of .76 for malevolence and .84 for omnipotence, indicating good internal consistency (alpha coefficients of 0.7 or above are classed as acceptable – see Kline, 1999). Third, reliability of constructs was assessed by computing an intensity correlation for each of the two constructs, as recommended when conducting repertory grid analyses (e.g. Fransella et al, 2004). An intensity correlation measures the degree of integration of the individual bipolar items (e.g. kind-evil, weak-powerful etc) that form each construct (malevolence & omnipotence), such that the average correlation coefficient across all participants is taken to determine how integrated the constructs are. We would therefore expect the coefficients to be moderate-
high, reflecting the degree of integration of the bipolar items. This revealed correlation coefficients (Pearson’s $r$) of .59 for malevolence, and .47 for omnipotence. This indicates a high degree of correlation among bipolar items pertaining to each of the two constructs. Taken together, these analyses suggest the items forming the two construct groups reliably measure each construct.

**Procedure**

The study received full ethical approval, and all participants gave written informed consent. Fifteen community-based Mental Health Teams and fifteen Inpatient Teams were approached to identify participants who met the initial inclusion criteria. Participants were approached by their keyworker and provided with an information sheet that outlined the study and permission was sought to be contacted by the researcher regarding the study. If permission was gained, an initial meeting was arranged to determine eligibility and provide the participant with a clear description of the study and an opportunity to ask questions.

Participants took part in a standardised structured interview with one of two doctoral researchers. Prior to data collection, both researchers received training in repertory grid methodology by the supervisor to ensure consistent and standardised administration. Participants were all offered the same introductory information prior to commencing the interview. The structured interview consisted of three parts: (1) To elicit their persecutory belief, participants were first asked to describe the harm that was occurring or about to occur, which included asking them to identify their main persecutor. This ensured that the main persecutor was identified reliably prior to participants completing the repertory grid; (2) participants then completed the supplied repertory grid, and were asked to rate the 12 bipolar items for each of the four elements (self, main persecutor, others in general, others’ view of
persecutor) on a scale of 1-5. Prior to conducting the ratings, the researcher confirmed the
main persecutor identified by the participant in the first part of the interview, and clarified
that “others in general” referred to any persons that did not form part of their persecution (i.e.
so that others did not include secondary or tertiary persecutors), and (3) following completion
of the repertory grid, participants then completed all remaining measures.

Data Analysis

All analyses were conducted using IBM SPSS Statistics 19.0 (2010). First, to address
research question one concerning differences between beliefs about self, others in general and
the main persecutor, all 12 bipolar items were analysed using an individual difference
unfolding solution. This is a form of multidimensional scaling, in which distances are
calculated between the constructs (malevolence, omnipotence) and elements (self, others,
persecutor) across participants, and organised in a multi-dimensional space. This provides a
visual representation of the relationship between the elements and construct groups across the
entire dataset. Next, scores for the two construct groups were calculated by summing the
Likert ratings for each of the six bipolar items. Therefore, total scores for each of the two
constructs ranged from 6-30. Differences between the elements (self, others, persecutor)
across the two construct groups (malevolence & omnipotence) were then computed using
one-way analysis of variance (ANOVA). To address the second research question regarding
whether individuals with persecutory delusions believe that other people share the same view
of their persecutor, paired samples t-tests were conducted to examine differences between the
two elements (persecutor and others’ view of persecutor) across the constructs of
malevolence and omnipotence. To address the third research question concerning whether
there were any associations between the three elements (self, others in general and main
persecutor) and clinical measures (anxiety, depression & self-esteem), a series of correlations
were computed. Finally, to address the fourth research question about whether beliefs about persecutor malevolence and omnipotence predicted conviction in delusions, a multiple regression analysis was performed. All hypothesis testing was two-tailed.

Results

Clinical and Demographic Data

Demographic and clinical data are presented in Table 1. Participants were aged between 23 and 64 years of age, \( M_{\text{age}} = 39.6, \text{sd} = 11.1 \), the majority were male (62%), of a white ethnicity (55%), unemployed (93%) and with a diagnosis of Paranoid Schizophrenia (76%). In terms of the clinical characteristics of the sample, mean total scores indicated that the sample reported moderate levels of both depression and anxiety.

Insert Table 1 about here

How do individuals with persecutory delusions construe the self, others and their main persecutor?

To determine how individuals with persecutory delusions construe the self, others and their main persecutor in relation to the constructs of malevolence and omnipotence, the repertory grid data were analysed using an individual differences unfolding solution. This is a form of multidimensional scaling, and provides a visual representation of the relationship between constructs and elements across the entire dataset. First, it is necessary to determine the goodness of fit of the solution, which is determined by calculating a stress score (\( \phi \)) and the percentage of variance accounted for by the solution. The stress score is calculated using a phi coefficient, in which scores range from zero to one (Kruskal & Wish, 1978). The stress score is essentially a sum of the inaccuracies in the solution, therefore a lower score represents a better fit. The solution produced an acceptable stress score (\( \phi = 0.12 \)).
percentage of variance accounted for by the solution was high (93%), suggesting that the two
dimensions of the solution adequately captured the relationship between the constructs and
elements across the dataset (Sturrock & Rocha, 2000).

The individual differences unfolding solution (see Figure 1) allows the distances
between the constructs and elements across participants to be calculated and organised into a
two-dimensional space. The elements and constructs are both represented as points in the
solution, and the rating of an element on a particular construct is reflected in how close the
two are in space, such that elements or constructs that were rated similarly appear closer
together, and those rated differently are further apart. It is clear from visual inspection of the
solution in Figure 1 that the elements of self, other and persecutor are distanced apart from
each other, which suggests that they were construed quite differently amongst participants.
This is perhaps most evident when comparing the elements of self and persecutor, which
have the most distance between them. When examining the elements in relation to the
bipolar items forming the two construct groups, it is clear that malevolence and omnipotence
items were most closely associated with the persecutor, as they are positioned more closely
with this element, compared with both self and others. Items that were most closely
associated with the persecutor were dangerous, controlling, evil and threatening. There were
four items that were not closely associated with any of the three elements, which included
superior, important, unhelpful and disrespectful, as these were not visually close to any of the
three elements.

Do individuals with persecutory delusions construe the self, others and their main
persecutor differently?
Whilst the individual differences unfolding solution provides a visual representation of the relationship between constructs and elements, we also wanted to determine whether there were differences in how the elements (self, others, persecutor) were construed across the two construct groups (malevolence & omnipotence). Therefore, two one-way ANOVA’s were computed. Descriptive statistics for each of the elements against each construct are shown in Table 2.

There was a significant difference between elements across the construct of malevolence ($F(2, 56) = 74.07, p<0.001$). Persecutors were seen as more malevolent than both the self ($t(28) = 11.65, p<0.001$) and others ($t(28) = 6.91, p<0.001$). In addition, others were seen as more malevolent than the self ($t(28) = 5.65, p<0.001$). There was also a significant difference between elements across the construct of omnipotence ($F(2,56) = 28.77, p<0.001$). Persecutors were seen as more omnipotent than both the self ($t(28) = 6.39, p<0.001$) and others ($t(28) = 5.27, p<0.001$). In addition, others were seen as more omnipotent than the self ($t(28) = 3.70, p<0.001$).

Do participants believe others share their own views of their persecutor?

To determine whether individuals with persecutory delusions believe that other people share the same view of their persecutor, paired samples t-tests were conducted to examine differences between the two elements (persecutor and others view of persecutor) across the constructs of malevolence and omnipotence. There was a significant difference across the constructs of malevolence ($t(28) = 8.03, p<0.001$) and omnipotence ($t(28) = 5.54, p<0.001$), with individuals with persecutory delusions believing others would see their persecutor as
less malevolent ($M=15.5$) and omnipotent ($M=14.9$) than they themselves see them
(malevolence $M=23.8$, omnipotence $M=22.7$).

**Are there associations between elements and clinical outcome measures across construct groups?**

Correlations between elements (self, persecutor, others) and clinical measures across construct groups were computed (see table 3). To protect against familywise error, a Bonferroni corrected alpha level of 0.002 (i.e. 0.05/18) was employed. Of note is that the more individuals saw themselves as omnipotent or powerful, the lower their anxiety and depression, and the higher their self esteem. In addition, others being construed as malevolent was associated with increased anxiety, although this effect did not remain significant following Bonferroni correction.

*Insert Table 3 about here.*

**Do beliefs about persecutors’ malevolence and omnipotence predict delusion conviction?**

A multiple regression was conducted, with delusion conviction as the dependent variable and beliefs about persecutor’s malevolence and omnipotence as predictor variables. The aim was to see what the combined predictive power of these variables was and also to determine the extent to which persecutor malevolence and omnipotence accounted for variance in delusion conviction, after the effects of anxiety and depression had been accounted for. Therefore, anxiety and depression were entered as the first step in the model, and were not found to explain a significant amount of variance in delusion conviction ($F(2,28) = .609, p=.55, R^2 = .045, \text{ adjusted } R^2 = .029$). More importantly, the predictor variables
entered at step 2 (persecutor malevolence and omnipotence) contributed a significant increase in variance explained from 4% to 36% (adjusted $R^2 = .247$), a change that was significant ($F(2,28) = 3.29, p = 0.027$). In the final equation, beliefs about persecutor omnipotence made a significant unique contribution to explaining delusion conviction ($t(28) = 2.804, p = 0.01$), and beliefs about persecutor malevolence was a trend ($t(28) = 1.82, p = 0.08$).

**Discussion**

The present study involving people with current persecutory delusions, used repertory grid methodology to examine the construed interpersonal relationships among self, main persecutors, and other people in general. Specifically, these relationships were examined with reference to omnipotence and malevolence, and the extent to which these interpersonal beliefs link to distress, self-esteem and delusional conviction. Individuals with persecutory delusions construed their persecutors as significantly more malevolent and omnipotent than themselves – replicating and extending the findings of Green et al (2006). The present study provides the first data to show that people with persecutory delusions construed their persecutors as more omnipotent and malevolent than other people in general. Thus, participants’ construct systems revealed how persecutors are perceived as more powerful and malevolent than others, who in turn are perceived as more powerful and malevolent than the self. This finding clarifies that people with persecutory delusions face two challenges – that is, first, living with their perceived persecution at the hands of specific powerful persecutors, and second, living in a social world where they experience people in general to be more powerful and malevolent.

One of the strengths of repertory grid analysis is that it displays visually the degree to which different people are perceived as being like or unlike one another. Whilst it might have been expected that participants would locate themselves and their persecutors far apart
on the grid, it is striking that they also felt very different from other people in general. This finding may shed light on the sense of social isolation and mistrust that so characterises paranoia (Cameron, 1959). The finding that others in general, and not only specific persecutors, were seen as more malevolent and omnipotent than the self can be understood in terms of a distinction between schematic and symptomatic paranoia (Chadwick, 2006). Symptomatic paranoia refers to specific delusional beliefs about specific persecutors. Schematic paranoia is a general cognitive/affective template (or schema) underpinned by a central assumption that other people in general are hostile or malevolent. Although the findings clearly need to be replicated, data from the current study show for the first time the presence and potential impact of both symptomatic and schematic paranoia in individuals with persecutory delusions.

The present study also examined empirically for the first time the degree to which those with persecutory delusions believe that their views of their persecutors are shared by other people. The data showed that for the present sample, participants believed that other people viewed their persecutor as less malevolent than they themselves viewed them, and there was a trend towards seeing them as less omnipotent – though as raw scores and the grid template show, participants still believed that others would recognise persecutors’ malevolence and power, even if in an attenuated form. This finding indicates that whilst bizarreness and falseness might be attributes used to conceptualise delusions, at least in the eyes of the person, aspects of their beliefs about their persecutor are congruent with other people’s perception, which may serve to maintain delusion conviction. Again, and in a similar vein, participants construed themselves in very similar ways to how they believed others saw them – that is, their self-self and other-self perceptions (Chadwick & Trower, 1997) were comparable. This congruence is consistent with both exploring and working
directly with negative self-schematic beliefs in psychological therapy for psychosis (e.g. Chadwick, 2006).

We also examined whether the concepts of malevolence and omnipotence were associated with emotional distress (anxiety and depression), self-esteem and delusion conviction. Three key findings emerged. First, beliefs about others’ malevolence were associated with increased anxiety. This provides the first evidence of an association between schematic paranoia (i.e. beliefs that others in general are hostile, Chadwick, 2006) and distress, and supports recent empirical and theoretical emphasis on examining anxiety processes in persecutory delusions (e.g. Freeman et al, 2002, 2011; Ellett et al, 2008). This also has potentially important clinical implications. Reality testing has long been recognised as a key element in alleviating paranoia (e.g. Cameron, 1959), and research has explored its direct effect on delusional dimensions (Chadwick et al., 1994). Consistent with the findings from the present study, future research might usefully determine whether reality testing schematic beliefs about the malevolence and power of other people in general (i.e. not the specific persecutor) might also offer a means to ease distress without the need to focus on specific paranoid delusions. Acceptance-based approaches, which have been gaining increasing support in the psychosis treatment literature, may also be appropriate (e.g. Gaudiano et al, 2010). Second, the more people construed themselves as powerful, the less they felt anxious and depressed and the higher their self-esteem. When working with voices, it has been argued that a central first challenge is to decrease a voice’s perceived omnipotence, and increase a person’s sense of personal control and autonomy (e.g. Chadwick & Birchwood, 1994; Chadwick et al., 2000). The data from the present study suggest that a similar focus on increasing personal control and autonomy may be an important early therapeutic focus when addressing paranoia, though this will need to be demonstrated in
future research. Consistent with a person-based cognitive therapy model of distressing psychosis (e.g. Chadwick, 2006; Dannahy et al, 2011; Ellett, 2013), the findings also suggest that working therapeutically to strengthen positive beliefs about the self might help to reduce negative affect and increase self-esteem. Third, consistent with findings in the voices literature (e.g. Birchwood & Chadwick, 1997), beliefs about persecutors’ omnipotence and malevolence (the latter was a trend only) were found to predict delusion conviction. When working with voices, a central aspect of therapy involves working with individuals’ beliefs about their voices (e.g. Chadwick & Birchwood, 1994). The findings from the present study suggest that a similar focus on working with beliefs about persecutors might also be helpful, and might serve to reduce conviction in delusional beliefs. Taken together, these findings provide preliminary evidence of the importance of working therapeutically with beliefs about self, others and persecutors, which is consistent with a person-based cognitive therapy model of distressing psychosis (Chadwick, 2006; Dannahy et al., 2011; Ellett, 2013).

It is interesting in the present study that persecutor malevolence and omnipotence were not found to be associated with either depression or anxiety. This is perhaps especially surprising given the finding that power and malevolence are linked to depression amongst individuals who hear voices (Birchwood & Chadwick, 1997). However, the present study did not examine relationships with persecutors and others with reference to the distinction between Poor Me and Bad Me paranoia (Trower & Chadwick, 1995). This is important because we would expect depression to be more closely associated with Bad Me paranoia, in which the individual believes their persecution is deserved. It might be that significant relationships between persecutor malevolence, omnipotence and emotional distress would have emerged, had we distinguished between these two paranoia subtypes.
There are a number of limitations of the study that need to be considered. Although the sample size was small (meaning that the study may have been underpowered), it is comparable with other repertory grid studies, which generate very rich data. The findings also need replication, and as with any cross-sectional study, no inferences regarding causality can be drawn. Given the recent interest in exploring the stability of paranoid beliefs over time (e.g. Melo & Bentall, 2012), longitudinal studies are needed to determine the stability of interpersonal beliefs about self, others and persecutors, perhaps especially when conviction in paranoid beliefs changes, or when persecutory delusions are not active. Given the diagnostic heterogeneity of the sample, lack of information regarding any co-morbid diagnoses, and the focus of the study on the primary persecutor only, the study is silent about any disorder-specific effects on the variables measured, and the generalizability of findings to both multiple persecutors and other samples. Although it was clarified in the structured interview that “others in general” referred to any persons that didn’t form part of the persecution, it is nevertheless possible that “others” may have included secondary or tertiary persecutors. Lastly, outcome research is needed to reveal change processes among the different interpersonal beliefs.

**Conclusion**

The current study offers empirical evidence that people with persecutory delusions construct relationships with their main persecutors and with others characterised by interpersonal beliefs about omnipotence and malevolence. The construct systems revealed how participants felt their views of their persecutors were at least partially upheld by people in general. As is true for relationships with voices (Birchwood & Chadwick, 1997), interpersonal beliefs about malevolence and omnipotence were associated with differences in distress, belief conviction and self-esteem.
References


Andreasen, N.C. (1984). The *scale for the assessment of positive symptoms (SAPS).* University of Iowa: Iowa City, IA.


The psychology of persecutory ideation I: A questionnaire study. *Journal of Nervous and Mental Disease, 193*, 302-308.


<table>
<thead>
<tr>
<th></th>
<th>Mean Age (sd)</th>
<th></th>
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<tbody>
<tr>
<td><strong>Gender (%)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>18</td>
<td>(62)</td>
</tr>
<tr>
<td>Female</td>
<td>12</td>
<td>(38)</td>
</tr>
<tr>
<td><strong>Ethnicity (%)</strong></td>
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<tr>
<td>White</td>
<td>16</td>
<td>(53)</td>
</tr>
<tr>
<td>Black Caribbean/African</td>
<td>3</td>
<td>(10)</td>
</tr>
<tr>
<td>Asian</td>
<td>8</td>
<td>(27)</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>(10)</td>
</tr>
<tr>
<td><strong>Education level achieved (%)</strong></td>
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<td></td>
</tr>
<tr>
<td>Up to secondary (age 16)</td>
<td>16</td>
<td>(53)</td>
</tr>
<tr>
<td>Further education</td>
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<td>(27)</td>
</tr>
<tr>
<td>Higher education</td>
<td>6</td>
<td>(20)</td>
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<tr>
<td><strong>Employment status (%)</strong></td>
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<tr>
<td>Unemployed</td>
<td>27</td>
<td>(93)</td>
</tr>
<tr>
<td>Long Term Sick Leave</td>
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<td>(7)</td>
</tr>
<tr>
<td><strong>Diagnosis (%)</strong></td>
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<td></td>
</tr>
<tr>
<td>Paranoid Schizophrenia</td>
<td>23</td>
<td>(76)</td>
</tr>
<tr>
<td>Schizoaffective Disorder</td>
<td>2</td>
<td>(7)</td>
</tr>
<tr>
<td>Residual Schizophrenia</td>
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<td>(3)</td>
</tr>
<tr>
<td>Delusional Disorder</td>
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<td>(7)</td>
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<tr>
<td>Schizophrenia</td>
<td>2</td>
<td>(7)</td>
</tr>
<tr>
<td><strong>Mean PANSS Positive Subscale Score (sd)</strong></td>
<td>21.28</td>
<td>(3.73)</td>
</tr>
<tr>
<td><strong>Mean Depression (sd)</strong></td>
<td>16.6</td>
<td>(13.4)</td>
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<tr>
<td><strong>Mean Anxiety (sd)</strong></td>
<td>13.3</td>
<td>(10.3)</td>
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<tr>
<td><strong>Mean Self-Esteem (sd)</strong></td>
<td>15.4</td>
<td>(5.8)</td>
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</table>
Figure 1. Individual differences unfolding solution.
Table 2

Descriptive statistics for elements (self, other, persecutor) across constructs.

<table>
<thead>
<tr>
<th></th>
<th>Malevolence</th>
<th></th>
<th>Omnipotence</th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Mean (sd)</td>
<td>Range</td>
<td>Mean (sd)</td>
<td>Range</td>
</tr>
<tr>
<td>Self</td>
<td>12.4 (4.6)</td>
<td>6-24</td>
<td>15.9 (4.1)</td>
<td>7-23</td>
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<tr>
<td>Other</td>
<td>17.9 (4.4)</td>
<td>12-30</td>
<td>19.3 (3.1)</td>
<td>14-26</td>
</tr>
<tr>
<td>Persecutor</td>
<td>23.8 (2.9)</td>
<td>15-28</td>
<td>22.7 (3.7)</td>
<td>14-30</td>
</tr>
<tr>
<td>Other-Persecutor</td>
<td>15.5 (4.4)</td>
<td>6-24</td>
<td>14.9 (5.4)</td>
<td>6-26</td>
</tr>
</tbody>
</table>
Table 3

Associations between elements and clinical outcome measures across construct groups.

<table>
<thead>
<tr>
<th></th>
<th>Depression</th>
<th>Anxiety</th>
<th>Self Esteem</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Malevolence</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self</td>
<td>.008</td>
<td>-.042</td>
<td>-.268</td>
</tr>
<tr>
<td>Other</td>
<td>.349</td>
<td>.435*</td>
<td>-.310</td>
</tr>
<tr>
<td>Persecutor</td>
<td>-.081</td>
<td>-.013</td>
<td>.055</td>
</tr>
<tr>
<td><strong>Omnipotence</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self</td>
<td>-.587**</td>
<td>-.605**</td>
<td>.707**</td>
</tr>
<tr>
<td>Other</td>
<td>.124</td>
<td>.107</td>
<td>-.100</td>
</tr>
<tr>
<td>Persecutor</td>
<td>.066</td>
<td>.023</td>
<td>-.204</td>
</tr>
</tbody>
</table>

Significance Level: *p<0.01, **significant following Bonferroni correction.