Maintaining delusional beliefs as means for the satisfaction and protection of psychological needs

Opinion Paper

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Word count: 3'106

Abstract

Affiliation, control and self-esteem are psychological needs that human beings attempt to satisfy and protect (Epstein, 2003; Grawe, 2002). From a motivational perspective, behaviours, attentional and cognitive biases as well as symptoms can have an instrumental function for need satisfaction and protection (Caspar, 2011). In this opinion paper, we elaborate the idea that the *maintenance* of delusions could be a motivated process. This approach helps to view the maintenance of delusional beliefs as purposeful, yet mostly non-conscious, and not completely adaptive attempt to satisfy and protect psychological needs. Conclusions for case formulations, therapy planning, and the therapeutic relationship building are drawn within the framework of cognitive-behavioural therapy for psychosis. In addition, limitations of the approach and future research avenues are discussed.

Keywords: schizophrenia; motivation; instrumentality; avoidance; delusion; maintenance

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Schizophrenia is a mental disorder that is accompanied by a severe individual and societal burden (Nordstroem, Talbot, Bernasconi, Berardo, & Lalonde, 2017; Rössler, Salize, van Os, & Riecher-Rössler, 2005). Today, there are evidence-based psychological treatments for individuals with schizophrenia (see Lincoln & Peters, in press; Turner, van der Gaag, Karyotaki, & Cuijpers, 2014). The development of these treatments has bas been supported by the considerable progress of basic clinical psychology research in understanding the underlying mechanisms of formation and maintenance of single psychotic symptoms such as delusions and the associated distress (e.g, Garety & Freeman, 2013). However, by focusing on symptoms, lack of skills (e.g., emotion regulation difficulties; O'Driscoll, Laing & Mason, 2014; Westermann & Lincoln, 2011) and pathological mechanisms (e.g., safety behaviours; Tully, Wells & Morrison, 2017), the approach tends to transport a deficit-oriented view of schizophrenia and to neglect individual resources (Moritz et al., in press).

A perspective that takes into account both deficit- and resource-oriented aspects of human experience and behaviour (including symptoms) needs some kind of reference. In contrast to a normative, third-person reference such as level of social functioning or involvement in work (e.g., Liberman, Kopelowicz, Ventura, & Gutkind, 2002), we put forward an individual, first-person reference in this opinion paper: the satisfaction of psychological needs and their protection from threat and violation (Westermann, Moritz, Caspar, & Cavelti, 2015). We will outline in what sense the maintenance of delusions could be a resource (i.e., serving a psychological function) and how this knowledge could inform both therapy planning and the therapeutic relationship building. Importantly, we do *not* formulate a new theory of psychosis or a specific psychotic symptom, but only shed light on

existing models and findings from a motivational perspective. This new perspective might help to integrate existing findings and stimulate novel directions for research.

Psychological needs can be specified as "the necessary conditions for psychological health or well-being" (Deci & Ryan, 2000, p. 229). Epstein (2003) suggested four basic needs: *affiliation*, *orientation and control*, *self-esteem*, as well as *pleasure*, which largely overlap with other concepts of needs (Deci & Ryan, 2000; McClelland, 1987). According to the motivational perspective of Plan Analysis (Caspar, 2011), individuals with and without psychopathology satisfy and protect their needs by means of instrumental behaviours. For example, refusing to take medication might be a means for experiencing oneself as autonomous or to avoid being patronized. Thus, a problematic behaviour such as non-adherence to medication can serve the need for autonomy and is not necessarily driven by a deficit in insight into illness - and fighting off insight can also be seen as instrumental (see Westermann, Cavelti, Heibach, & Caspar, 2015). In Plan Analysis (Caspar, 2011), the interplay of concrete behaviours and needs can be represented as hierarchical structure of nested, so-called Plans. Contrary to the word's use in everyday language, most Plans are not conscious. Each Plan has a goal or purpose (e.g., "*avoid being patronized"*) and a means (e.g. *"refuse medication"*). The relation between the means and the goal is instrumental: one or more means serve a goal. In a 2-dimesionallay drawn Plan structure, superordinate Plans (purpose; e.g., *„avoid being patronized"*) are displayed above subordinate Plans (means; e.g., *"reject medication"*). Solid lines represent the instrumental relation between Plans. Importantly, a Plan (e.g., *„avoid being patronized"*) is often not only guiding subordinate Plans or behaviors, but is also – looking upwards in the instrumental hierarchy – the means for another, hierarchically higher Plan (e.g., *"avoid being controlled"*). Graphically represented a Plan structure emerges, in which needs are on top. They are the motivational component of the highest Plans. In turn, behaviours are the means and components of the

lowest Plans. In other words, the Plan structure represents the whole of instrumental strategies between needs and behaviours (see Figure 1 for a hypothetical example). Approach Plans serve the generation of appetitive experiences (e.g., being autonomous) and avoidance Plans serve the prevention of aversive experiences (e.g., being lonely).

A number of empirical studies have investigated Plan structures and their clinical application in mental disorders such as borderline personality disorder, depression, and bipolar disorder (Berthoud, Kramer, de Roten, Despland, & Caspar, 2013; Brüdern et al., 2015; Kramer et al., 2011, 2014; Kramer, Berger, & Caspar, 2009). For instance, in a study with 85 patients with borderline personality disorder, Kramer et al. (2014) reported an additional reduction of general problems (e.g., social problems) and an increase in the therapeutic alliance in a condition with a manual-based short variant of the general psychiatric management treatment amended with motive-oriented therapy relationship building based on Plan Analysis, compared with general psychiatric management alone. In contrast, research applying Plan analysis to schizophrenia and related disorders has been scarce so far. According to the two empirical studies that have investigated the Plan structures of patients diagnosed with schizophrenia (Gantenbein, 2016; Hellener, 1997), two Plans seem to be characteristic for this patient group: *avoidance of dependence* and *avoidance of self-esteem violation*. Overall, these Plans (see Table 1) correspond to findings from basic clinical psychology research (e.g., the self-esteem literature; Udachina, Varese, Oorschot, Myin-Germeys, & Bentall, 2012) and to clinical experiences from the therapeutic work with patients (e.g., importance of autonomy; Westermann et al., 2015). In contrast, typical Plans in patients with – for example – borderline personality disorder involve support seeking and being in control/protecting oneself (Berthoud, Kramer, de Roten, Despland, & Caspar, 2013). The potential instrumentality of the maintenance of delusions for the

satisfaction and protection of psychological needs, such as the need for autonomy or the need for self-esteem, has not been investigated yet.

- Table 1 about here -

Potential instrumental functions of maintaining persecutory delusions

An instrumentality of maintaining paranoid delusions might seem counterintuitive at the first glance. Wherefore do individuals maintain paranoid beliefs? In the following, we outline that the maintenance of paranoid beliefs could be instrumental for the protection and satisfaction of psychological needs.

According to Plan Analysis, a Plan such as *"Maintain belief that you are persecuted"* is both a goal for *sub*ordinate Plans and a means for *super*ordinate Plans (see Figure 1). Subordinate means for this Plan are the concrete behaviours, attentional biases, thinking styles, etc. that serve the purpose of maintaining the delusional belief. For example, the bias against disconfirmatory evidence (McLean, Mattiske & Balzan, 2007; Moritz & Woodward, 2006) and safety behaviours (Tully, Wells & Morrison, 2017) can be understood as means for the maintenance of a delusional belief from a motivational perspective. Here, we will focus on the other direction, on purposes rather than means: what might be the advantage of maintaining persecutory delusions for superordinate Plans? Potential instrumentalities are formulated as self-directed imperatives and elaborated in the next paragraphs.

"Have explanations for unusual experiences". The need for orientation and control is likely to be violated by unusual experiences such as arousal or anomalous experiences (e.g., hearing voices). In line with the core assumptions of the cognitive models of psychosis (Freeman, 2016; Garety et al., 2001) and the model of paranoid thinking as heuristic to avoid harm (Preti & Cella, 2010), the maintenance of a persecutory belief could be understood as instrumental for the satisfaction of the need for orientation and control, because the belief

helps to understand and to attach meaning to otherwise anomalous experiences. Consequently, directly disputing the belief through cognitive and behavioural techniques (i.e., cognitive restructuring and reality tests) is expected to be experienced as a threat (conscious or not) for the need for control in patients with such a Plan, when no other means for explaining unusual experiences are at hand. To circumvent this problem, in CBT an individualized cognitive model that explains unusual experiences is established as an alternative belief system that coexists with the delusional belief in the beginning (Lincoln, 2006). Only afterwards, the disputation of the delusional beliefs might be facilitated, making sure that the patient has an explanation for his or her experiences during the whole time.

"Protect and repair self-esteem". A growing body of research indicates that maintaining delusional beliefs can act as a means to protect or repair self-esteem violations (Bentall, Corcoran, Howard, Blackwood & Kinderman, 2001; Lincoln, Stahnke, & Moritz, 2014; Thewissen et al., 2011). Bentall and colleagues (2001) argue that external-personal attributions for negative events prevent negative self-schemas from being activated. For example, losing a job or a daily hassle such as a missed bus connection can be attributed to an external, personal source (blaming others), so that the malevolent persecutors are responsible for the problems, and not oneself. According to a recent experience sampling study, this protective function might only be present in individuals with so-called 'poor-me' paranoia who believe that their experienced persecution is unjustified (unlike 'bad-me' paranoia where persecution is experienced as deserved; Trower & Chadwick, 1995) in face of social stressors (Udachina, Bentall, Varese & Rowse, 2017). In this case therapists could adapt to a Plan like "*Protect and repair self-esteem"*, which potentially underlies paranoid thinking, in a motive-oriented way. They could do so for example, by using the term "thinking style" (cognitive bias) instead of "thinking error", when gently drawing the patient's attention to the function of their paranoid belief for their self-esteem (Westermann et al., 2015). In addition,

interventions aiming at increasing the self-esteem (e.g., by establishing new means for this purpose) could be taken into account during therapy planning (Moritz, Berna, Jaeger, Westermann, & Nagel, 2016).

"Avoid loss of face". Patients have often shared or even enthusiastically defended their paranoid beliefs and experiences against objections from family members, health professionals, and so on. Acknowledging that the delusional beliefs could be inappropriate is likely to be a threat to their self-esteem, because a loss of face might lead to experiences of shame. Consequently, maintaining a delusional belief might serve the goal to avoid loss of face, even if the individual is no longer convinced of this belief. There is evidence that people with a diagnosis of schizophrenia experience more shame than controls (patients with a somatic disease; Keen, George, Scragg, Peters, 2017) and that shame mediates the relationship between (experienced and perceived) stigma and self-reported depression in people with schizophrenia spectrum disorders (Wood, Byrne, Burke, Enache, Morrison, 2017). In addition, the stigma model of social anxiety in schizophrenia (Birchwood, Trower, Brunet, Gilbert, Iqbal, & Jackson, 2006) predicts that catastrophic shaming beliefs (e.g., "They're going to discover I'm mentally ill"; Birchwood et al., 2006, p. 1035) motivate safety behaviours (including hiding) and avoidance. Thus, shame and its avoidance seem to be important in people with psychosis. A Plan such as "*Avoid loss of face"* is expected to be crucial in psychological therapy and, if so, should be taken into account by the therapist. For example, (1) the therapist could simply refrain from the question whether the patient still holds the belief (as it is not a goal of therapy to make the patient *admitting* that his or her belief was delusional), (2) the therapist could use self-disclosure and mention situations in which he or she had problems to concede a misunderstanding, or (3) – more explicitly –, the therapist and the patient could discuss the short- and long-term advantages and disadvantages of maintaining a belief in order to avoid loss of face, and (4) the therapist could conduct role

plays in which the patient can explore how to respond to questions regarding the former delusional belief by family members, friends, etc., which guarantee the maintenance of a positive self-esteem. If however, such a Plan is existent, but not addressed in psychological therapy, it is expected that the patient will socially withdraw in order to avoid loss of face and anticipated shame, which can have many adverse "side-effects" on the long run (e.g., seclusion, job loss).

"**Gain benevolent supporters".** Usually, a persecutory delusion polarizes the social world into a malevolent and benevolent part. If maintaining a delusional belief serves the goal to pull benevolent people on one's side (such as the therapist), the delusional belief could be understood as a means to mobilize help if feeling threatened. Although there is no empirical evidence for this as far as we know, clinical experience suggests that it is possible that *therapists* are threatened by such patients' Plans, which are expected to induce a goal conflict in therapists: On the one hand, when I comply with helping my patient the way he or she wants (e.g., call the police), I'm benevolent in his or her experience, but I also confirm his or her delusional beliefs by doing so. On the other hand, when I refuse to help my patient the way he or she wants (e.g., call the police), I maintain my professional role, but the patient sees me as yet another malevolent person or even as a collaborator of the persecutors, and thus, I reinforce his/her maladaptive schemata. By using standard techniques from cognitive behaviour therapy for psychosis such as validation (Lincoln, 2006) or using motive-oriented relationship building (Westermann et al., 2015) it might be possible to overcome this dilemma.

- Figure 1 about here -

Summary. The elaboration of potential instrumental functions of the maintenance of persecutory beliefs above illustrates that this symptom could be seen as a resource in the

sense that it is a means for the satisfaction and protection of universal psychological needs. Importantly, Plan Analysis neither presumes that delusions have a single instrumentality nor that all individuals diagnosed with schizophrenia have the same Plan structure. In addition, it is not assumed that the formation of a delusional belief is final for its later instrumentality. In other words, we do not intend to provide a theory explaining the *emergence* of psychotic symptoms like delusions. A persecutory belief can emerge as explanation for unusual experiences in line with cognitive models (Freeman et al., 2002), and later also develop an instrumental function for self-esteem or affiliation. However, one would not necessarily assume that the delusional belief was originally formed in order to serve self-esteem protection in the first place.

Implications for psychological therapy

Exemplary implications for therapy planning and the therapeutic relationship building have been outlined in the previous paragraphs (e.g., establishment of novel means for satisfying self-esteem and affiliation prior to the disputation of delusional beliefs). Importantly, the Plan Analysis approach is not a set of interventions but a tool for case formulation (Caspar, 2011). An individual Plan Analysis allows therapists to combine existing approaches such as CBT for psychosis, motive-oriented therapy relationship building (Westermann et al., 2015), other CBT interventions (e.g., for social phobia or depression), or even interventions from other therapeutic approaches in order to meet patients' idiosyncratic needs. Nevertheless, four general principles can be deduced from the motivational approach outlined above that could help clinicians to flexibly adapt to patients' individual needs.

Firstly, if necessary, establish alternative means for important Plans and needs prior to the disputation of delusional beliefs (e.g., a personalized cognitive model that explains psychotic experiences and behaviour).

Secondly, use the patient's superordinate, unproblematic Plans as motivational resources to facilitate therapeutic interventions. For example, help a patient with a high need for control and orientation to experience the usage of an ABC schema as a means for gaining control and orientation with regard to his or her thoughts and emotions.

Thirdly, attempt to infer important avoidance Plans in order to prevent unintended violation of the underlying needs by your therapeutic actions. For example, a psychoeducation intervention that explains intrapsychic processes would be optimal for a patient with a high need for orientation and control, but has to be applied more cautiously to a patient with a high need for autonomy, as he or she might experience the intervention as disabusing and patronizing and could profit from a more non-directive approach. A thorough case formulation including a Plan Analysis could help to increase the therapist's understanding of the patient's important avoidance Plans.

At last, use the therapeutic relationship as a vessel for providing corrective experiences for your patient. For example, when a patient defends his or her boundaries by rejecting medication after receiving a new prescription without prior shared decision making, the therapist could highlight and validate the patient's ability and courage to stand up for his/her opinion, which is likely to be a corrective experience (e.g., *"The therapist respects my boundaries and even likes that I am able to defend myself"*).

Limitations

The motivational, Plan analytic perspective put forward in this paper is informed by empirical findings from basic research and also by experiences with patients and therapists in psychological therapy training workshops. However, the underlying assumptions and the deduced therapeutic implications have not been empirically tested so far. Therefore, the content of this paper including the principles for practice reflects the opinion of the authors

253 but is not (yet) evidence-based. In addition, viewing psychotic symptoms as potentially
254 adaptive or resource-like is not completely new. For example, Preti and Cella (2010)
255 highlight that paranoia as heuristic to avoid harm might be adaptive under certain
256 circumstances.

257 **Future research directions**

258 A motive-oriented cognitive behavioural therapy for people with schizophrenia that includes
259 idiographic Plan analyses for each patient (for more details see paragraph "Implications for
260 psychological therapy'" and Westermann et al., 2015) is expected to result in better treatment
261 outcomes, fewer unwanted side effects of therapy (e.g., alliance ruptures), and less dropouts
262 during treatments as well as a better therapeutic relationship, compared to standard cognitive
263 behaviour therapy for psychosis. This hypothesis can be tested with randomized controlled
264 trials in the future following an add-on design just like in the study with patients with
265 borderline personality disorder by Kramer et al. (2013).

266 In addition, theory development and integration could potentially gain from a
267 motivational perspective. Paranoia as a result of a self-serving bias (Bentall et al., 2001) and
268 as an attempt to find meaning and orientation in face of unusual experiences (Freeman, 2016)
269 are two theoretical assumptions that do not contradict each other, but have both explanatory
270 and clinical value in the framework proposed in this opinion paper.

271 **Conclusion**

272 In this opinion paper, we used the established Plan Analysis approach to shed a novel,
273 motivational light on existing theories and findings on persecutory delusions instead of
274 propagating another theory of persecutory delusions. The motivational perspective of need
275 satisfaction and violation allows to view symptoms of schizophrenia and related processes as
276 problems or deficits *and resources* at the same time. Given future empirical support, this

277 perspective could have the potential to improve cognitive behaviour therapy for psychosis
278 and to enrich the mainly nomothetic approach in psychological schizophrenia research with
279 an idiographic, person-centred approach. In addition, recovery-oriented cognitive approaches
280 (e.g., Grant, Reisweber, Luther, Brinen & Beck, 2014) might be extended so that also
281 symptoms and associated processes are viewed as resources: purposeful yet not completely
282 adaptive attempts to satisfy and protect psychological needs.

283 **Acknowledgements**

284 We thank the editor and both reviewers for the helpful comments on an earlier version
285 of this manuscript.

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Table 1

Frequent plans of 16 patients with a schizophrenia-spectrum disorder (Gantenbein, 2016). Only Plans with a frequency above 80% are displayed (interrater reliability: Cohen's kappa=0.87; overall number of Plans: 77). Plan captions translated from German by the first author.

Plan	Frequency (%)
Avoid dependence/heteronomy	16 (100%)
Avoid violation of self-esteem	16 (100%)
Achieve something/be successful	15 (94%)
Avoid being not acknowledged	15 (94%)
Avoid feelings and thoughts that reduce self-esteem	15 (94%)
Increase your self-esteem	15 (94%)
Avoid being attacked/criticised	14 (88%)
Avoid being lonely/being left alone	14 (88%)
Be independent/decide for yourself	14 (88%)
Keep control over situations	14 (88%)
Receive recognition	14 (88%)

Figures

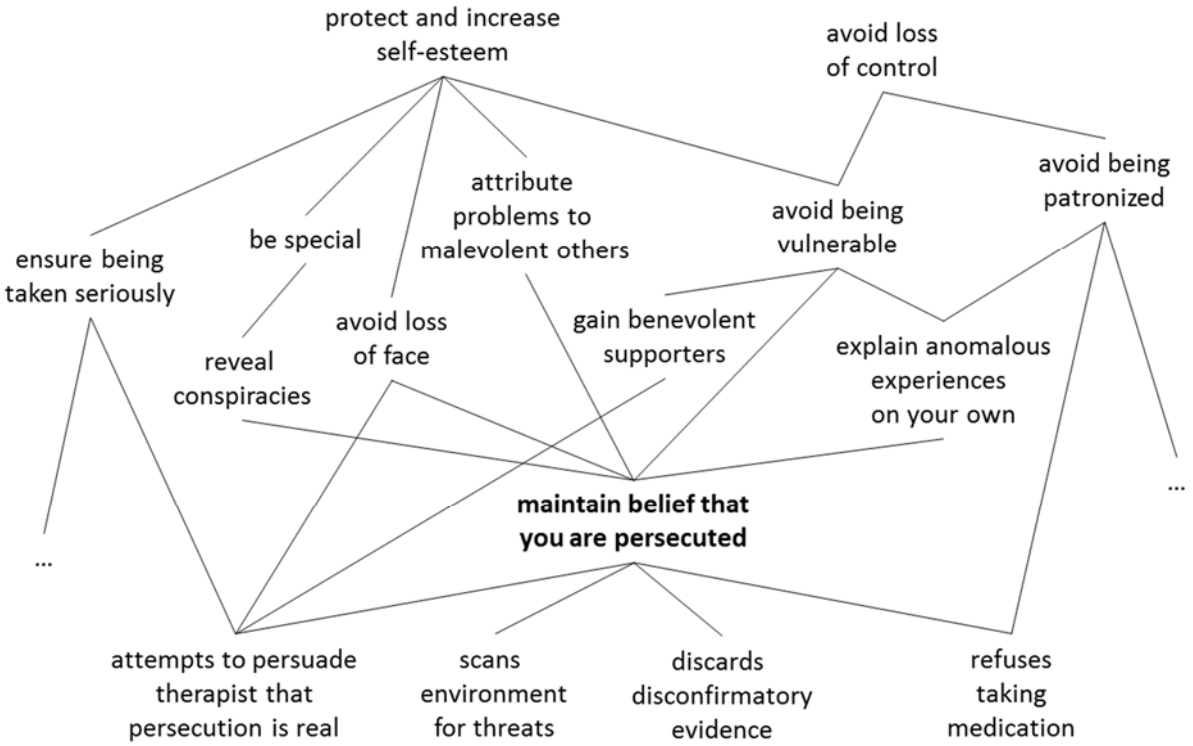

Figure 1. Hypothetic Plan structure of an individual with persecutory delusions. The Plan structure is a fragment and not as differentiated as in clinical practice. Ellipses (i.e, "…") represent Plans that were omitted for greater overall clarity. A Plan consists of a purpose (e.g., *"avoid being patronized"*) and one or more means (e.g., *"refuses taking medication"*). This means-end relation is represented by a line that connects the means of a Plan (below) to its purpose (above) in a Plan structure. Importantly, the purpose of a Plan (e.g., *"avoid being patronized"*) can serve as means for another superordinate Plan (e.g., *"avoid loss of control"*). The means at the lowest level in a Plan structure are concrete behaviours, whereas the purposes at the highest level are similar to psychological needs.