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

*Opinion Paper*

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*Word count: 3'106*

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*Abstract*

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

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



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

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

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

87         A number of empirical studies have investigated Plan structures and their clinical  
88 application in mental disorders such as borderline personality disorder, depression, and  
89 bipolar disorder (Berthoud, Kramer, de Roten, Despland, & Caspar, 2013; Brüdern et al.,  
90 2015; Kramer et al., 2011, 2014; Kramer, Berger, & Caspar, 2009). For instance, in a study  
91 with 85 patients with borderline personality disorder, Kramer et al. (2014) reported an  
92 additional reduction of general problems (e.g., social problems) and an increase in the  
93 therapeutic alliance in a condition with a manual-based short variant of the general  
94 psychiatric management treatment amended with motive-oriented therapy relationship  
95 building based on Plan Analysis, compared with general psychiatric management alone. In  
96 contrast, research applying Plan analysis to schizophrenia and related disorders has been  
97 scarce so far. According to the two empirical studies that have investigated the Plan  
98 structures of patients diagnosed with schizophrenia (Gantenbein, 2016; Hellener, 1997), two  
99 Plans seem to be characteristic for this patient group: *avoidance of dependence* and  
100 *avoidance of self-esteem violation*. Overall, these Plans (see Table 1) correspond to findings  
101 from basic clinical psychology research (e.g., the self-esteem literature; Udachina, Varese,  
102 Oorschot, Myin-Germeys, & Bentall, 2012) and to clinical experiences from the therapeutic  
103 work with patients (e.g., importance of autonomy; Westermann et al., 2015). In contrast,  
104 typical Plans in patients with – for example – borderline personality disorder involve support  
105 seeking and being in control/protecting oneself (Berthoud, Kramer, de Roten, Despland, &  
106 Caspar, 2013). The potential instrumentality of the maintenance of delusions for the

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

109 *- Table 1 about here -*

### 110 **Potential instrumental functions of maintaining persecutory delusions**

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

115 According to Plan Analysis, a Plan such as *“Maintain belief that you are persecuted”*  
116 is both a goal for *subordinate* Plans and a means for *superordinate* Plans (see Figure 1).  
117 Subordinate means for this Plan are the concrete behaviours, attentional biases, thinking  
118 styles, etc. that serve the purpose of maintaining the delusional belief. For example, the bias  
119 against disconfirmatory evidence (McLean, Mattiske & Balzan, 2007; Moritz & Woodward,  
120 2006) and safety behaviours (Tully, Wells & Morrison, 2017) can be understood as means for  
121 the maintenance of a delusional belief from a motivational perspective. Here, we will focus  
122 on the other direction, on purposes rather than means: what might be the advantage of  
123 maintaining persecutory delusions for superordinate Plans? Potential instrumentalities are  
124 formulated as self-directed imperatives and elaborated in the next paragraphs.

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

131 helps to understand and to attach meaning to otherwise anomalous experiences.  
132 Consequently, directly disputing the belief through cognitive and behavioural techniques (i.e.,  
133 cognitive restructuring and reality tests) is expected to be experienced as a threat (conscious  
134 or not) for the need for control in patients with such a Plan, when no other means for  
135 explaining unusual experiences are at hand. To circumvent this problem, in CBT an  
136 individualized cognitive model that explains unusual experiences is established as an  
137 alternative belief system that coexists with the delusional belief in the beginning (Lincoln,  
138 2006). Only afterwards, the disputation of the delusional beliefs might be facilitated, making  
139 sure that the patient has an explanation for his or her experiences during the whole time.

140         **“Protect and repair self-esteem”**. A growing body of research indicates that  
141 maintaining delusional beliefs can act as a means to protect or repair self-esteem violations  
142 (Bentall, Corcoran, Howard, Blackwood & Kinderman, 2001; Lincoln, Stahnke, & Moritz,  
143 2014; Thewissen et al., 2011). Bentall and colleagues (2001) argue that external-personal  
144 attributions for negative events prevent negative self-schemas from being activated. For  
145 example, losing a job or a daily hassle such as a missed bus connection can be attributed to an  
146 external, personal source (blaming others), so that the malevolent persecutors are responsible  
147 for the problems, and not oneself. According to a recent experience sampling study, this  
148 protective function might only be present in individuals with so-called ‘poor-me’ paranoia  
149 who believe that their experienced persecution is unjustified (unlike ‘bad-me’ paranoia where  
150 persecution is experienced as deserved; Trower & Chadwick, 1995) in face of social stressors  
151 (Udachina, Bentall, Varese & Rowse, 2017). In this case therapists could adapt to a Plan like  
152 *“Protect and repair self-esteem”*, which potentially underlies paranoid thinking, in a motive-  
153 oriented way. They could do so for example, by using the term “thinking style” (cognitive  
154 bias) instead of “thinking error”, when gently drawing the patient’s attention to the function  
155 of their paranoid belief for their self-esteem (Westermann et al., 2015). In addition,

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

159       **“Avoid loss of face”**. Patients have often shared or even enthusiastically defended  
160 their paranoid beliefs and experiences against objections from family members, health  
161 professionals, and so on. Acknowledging that the delusional beliefs could be inappropriate is  
162 likely to be a threat to their self-esteem, because a loss of face might lead to experiences of  
163 shame. Consequently, maintaining a delusional belief might serve the goal to avoid loss of  
164 face, even if the individual is no longer convinced of this belief. There is evidence that people  
165 with a diagnosis of schizophrenia experience more shame than controls (patients with a  
166 somatic disease; Keen, George, Scragg, Peters, 2017) and that shame mediates the  
167 relationship between (experienced and perceived) stigma and self-reported depression in  
168 people with schizophrenia spectrum disorders (Wood, Byrne, Burke, Enache, Morrison,  
169 2017). In addition, the stigma model of social anxiety in schizophrenia (Birchwood, Trower,  
170 Brunet, Gilbert, Iqbal, & Jackson, 2006) predicts that catastrophic shaming beliefs (e.g.,  
171 “They’re going to discover I’m mentally ill”; Birchwood et al., 2006, p. 1035) motivate  
172 safety behaviours (including hiding) and avoidance. Thus, shame and its avoidance seem to  
173 be important in people with psychosis. A Plan such as “*Avoid loss of face*” is expected to be  
174 crucial in psychological therapy and, if so, should be taken into account by the therapist. For  
175 example, (1) the therapist could simply refrain from the question whether the patient still  
176 holds the belief (as it is not a goal of therapy to make the patient *admitting* that his or her  
177 belief was delusional), (2) the therapist could use self-disclosure and mention situations in  
178 which he or she had problems to concede a misunderstanding, or (3) – more explicitly –, the  
179 therapist and the patient could discuss the short- and long-term advantages and disadvantages  
180 of maintaining a belief in order to avoid loss of face, and (4) the therapist could conduct role





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

### 215 **Implications for psychological therapy**

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

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



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.

286

## References

- 287 Bentall, R. P., Corcoran, R., Howard, R., Blackwood, N., & Kinderman, P. (2001).  
288 Persecutory delusions: a review and theoretical integration. *Clinical Psychology Review*,  
289 *21*(8), 1143-1192. doi:10.1016/S0272-7358(01)00106-4
- 290 Berthoud, L., Kramer, U., de Roten, Y., Despland, J. N., & Caspar, F. (2013). Using Plan  
291 Analysis in psychotherapeutic case formulation of borderline personality disorder.  
292 *Clinical Psychology and Psychotherapy*, *20*(1), 1–9. doi:10.1002/cpp.784
- 293 Birchwood, M., Trower, P., Brunet, K., Gilbert, P., Iqbal, Z., & Jackson, C. (2007). Social  
294 anxiety and the shame of psychosis: a study in first episode psychosis. *Behaviour*  
295 *Research and Therapy*, *45*(5), 1025-1037. doi:10.1016/j.brat.2006.07.011
- 296 Brüdern, J., Berger, T., Michel, K., Maillart, A. G., Held, I. S., & Caspar, F. (2015). Are  
297 suicide attempters wired differently? *The Journal of Nervous and Mental Disease*,  
298 *203*(7), 514–521. doi:10.1097/NMD.0000000000000321
- 299 Caspar, F. (2011). Plan analysis. In T. D. Eells (Ed.), *Handbook of psychotherapy case*  
300 *formulation* (2nd ed., pp. 251–289). Guilford Press.
- 301 Cechnicki, A., Bielańska, A., Hanuszkiewicz, I., & Daren, A. (2013). The predictive validity  
302 of Expressed Emotions (EE) in schizophrenia. A 20-year prospective study. *Journal of*  
303 *Psychiatric Research*, *47*(2), 208–214. doi:10.1016/j.jpsychires.2012.10.004
- 304 Deci, E. L., & Ryan, R. M. (2000). The “ what” and “why” of goal pursuits: Human needs and  
305 the self-determination of behavior. *Psychological Inquiry*, *11*(4), 227–268.  
306 doi:10.1207/S15327965PLI1104\_01
- 307 Epstein, S. (2003). Cognitive-experiential self-theory of personality. In T. Millon & M. J.  
308 Lerner (Eds.), *Handbook of psychology* (pp. 159–184). Hoboken, NJ: Wiley & Sons.

- 309 Freeman, D. (2016). Persecutory delusions: a cognitive perspective on understanding and  
310 treatment. *The Lancet Psychiatry*, 3(7), 685-692. doi:10.1016/S2215-0366(16)00066-3
- 311 Freeman, D., Garety, P. A., Kuipers, E., Fowler, D., & Bebbington, P. E. (2002). A cognitive  
312 model of persecutory delusions. *British Journal of Clinical Psychology*, 41(4), 331–347.  
313 doi:10.1348/014466502760387461
- 314 Gantenbein, V. (2016). Prototypische Planstrukturfragmente von Menschen mit  
315 Schizophrenie [Prototypical Plan structure fragments of people with schizophrenia]  
316 (master's thesis). University of Bern.
- 317 Garety, P. A., & Freeman, D. (2013). The past and future of delusions research: From the  
318 inexplicable to the treatable. *British Journal of Psychiatry*, 203(5), 327–333.  
319 doi:10.1192/bjp.bp.113.126953
- 320 Garety, P. A., Kuipers, E., Fowler, D., Freeman, D., & Bebbington, P. E. (2001). A cognitive  
321 model of the positive symptoms of psychosis. *Psychological Medicine*, 31(2), 189–195.  
322 doi:10.1017/S0033291701003312
- 323 Grant, P. M., Reisweber, J., Luther, L., Brinen, A. P., & Beck, A. T. (2014). Successfully  
324 breaking a 20-year cycle of hospitalizations with recovery-oriented cognitive therapy for  
325 schizophrenia. *Psychological Services*, 11(2), 125-133. doi:10.1037/a0033912
- 326 Grawe, K. (2004). *Psychological Therapy*. Hogrefe Publishing.
- 327 Hellener, D. (1997). *Typische Pläne bei Schizophrenen [Typical Plans of patients with*  
328 *schizophrenia]*. Eberhard-Karls-Universität Tübingen.
- 329 Keen, N., George, D., Scragg, P., & Peters, E. (2017). The role of shame in people with a  
330 diagnosis of schizophrenia. *British Journal of Clinical Psychology*, 56(2), 115-129.  
331 doi:10.1111/bjc.12125

- 332 Kramer, U., Berger, T., & Caspar, F. (2009). Psychotherapeutic case conceptualization using  
333 plan analysis for bipolar affective disorder. *Journal of Clinical Psychology*, *65*(4), 352–  
334 367. doi:10.1002/jclp.20557
- 335 Kramer, U., Berger, T., Kolly, S., Marquet, P., Preisig, M., de Roten, Y., ... Caspar, F.  
336 (2011). Effects of motive-oriented therapeutic relationship in early-phase treatment of  
337 borderline personality disorder: a pilot study of a randomized trial. *The Journal of*  
338 *Nervous and Mental Disease*, *199*(4), 244–250. doi:10.1097/NMD.0b013e3182125d19
- 339 Kramer, U., Kolly, S., Berthoud, L., Keller, S., Preisig, M., Caspar, F., Berger, T., de Roten,  
340 Y., Marquet, P., & Despland, J.-N. (2014). Effects of motive-oriented therapeutic  
341 relationship in a ten-session general psychiatric treatment of borderline personality  
342 disorder: a randomized controlled trial. *Psychotherapy and Psychosomatics*, *83*(3), 176-  
343 186. doi:10.1159/000358528
- 344 Liberman, R. P., Kopelowicz, A., Ventura, J., & Gutkind, D. (2002). Operational criteria and  
345 factors related to recovery from schizophrenia. *International Review of Psychiatry*,  
346 *14*(4), 256–272. doi:10.1080/0954026021000016905
- 347 Lincoln, T. M. (2006). *Kognitive Verhaltenstherapie der Schizophrenie*. Hogrefe.
- 348 Lincoln, T. M., & Peters, E. (in press). A systematic review and discussion of symptom  
349 specific cognitive behavioural approaches to delusions and hallucinations.  
350 *Schizophrenia Research*. doi:10.1016/j.schres.2017.12.014
- 351 Lincoln, T. M., Stahnke, J., & Moritz, S. (2014). The short-term impact of a paranoid  
352 explanation on self-esteem: An experimental study. *Cognitive Therapy and Research*,  
353 *38*(4), 397–406. doi:10.1007/s10608-014-9600-5
- 354 McLean, B. F., Mattiske, J. K., & Balzan, R. P. (2017). Association of the jumping to



- 355 conclusions and evidence integration biases with delusions in psychosis: A detailed  
356 meta-analysis. *Schizophrenia Bulletin*, 43(2), 344–354.  
357 <http://doi.org/10.1093/schbul/sbw056>
- 358 McClelland, D. C. (1987). *Human motivation*. CUP Archive.
- 359 Moritz, S., Berna, F., Jaeger, S., Westermann, S., & Nagel, M. (2016). The customer is  
360 always right? Subjective target symptoms and treatment preferences in patients with  
361 psychosis. *European Archives of Psychiatry and Clinical Neuroscience*, 267(4), 335–  
362 339. doi:10.1007/s00406-016-0694-5
- 363 Moritz, S., Mahlke, C. I., Westermann, S., Ruppelt, F., Lysaker, P. H., Bock, T., & Andreou,  
364 C. (in press). Embracing psychosis: a cognitive insight intervention improves personal  
365 narratives and meaning-making in patients with schizophrenia. *Schizophrenia Bulletin*.  
366 doi:10.1093/schbul/sbx072
- 367 Moritz, S., & Woodward, T. S. (2006). A generalized bias against disconfirmatory evidence  
368 in schizophrenia. *Psychiatry Research*, 142(2–3), 157–165.  
369 doi:10.1016/j.psychres.2005.08.016
- 370 Nordstroem, A. L., Talbot, D., Bernasconi, C., Berardo, C. G., & Lalonde, J. (2017). Burden  
371 of illness of people with persistent symptoms of schizophrenia: A multinational cross-  
372 sectional study. *International Journal of Social Psychiatry*, 63(2), 139-150.
- 373 O’Driscoll, C., Laing, J., & Mason, O. (2014). Cognitive emotion regulation strategies,  
374 alexithymia and dissociation in schizophrenia, a review and meta-analysis. *Clinical  
375 Psychology Review*, 34(6), 482–495. doi:10.1016/j.cpr.2014.07.002
- 376 Preti, A., & Cella, M. (2010). Paranoid thinking as a heuristic. *Early Intervention in  
377 Psychiatry*, 4(3), 263–266. doi:10.1111/j.1751-7893.2010.00190.x

- 378 Read, J., van Os, J., Morrison, A. P., & Ross, C. A. (2005). Childhood trauma, psychosis and  
379 schizophrenia: A literature review with theoretical and clinical implications. *Acta*  
380 *Psychiatrica Scandinavica*, *112*(5), 330–350. doi:10.1111/j.1600-0447.2005.00634.x
- 381 Rössler, W., Salize, H. J., van Os, J., & Riecher-Rössler, A. (2005). Size of burden of  
382 schizophrenia and psychotic disorders. *European Neuropsychopharmacology*, *15*(4),  
383 399–409. doi:10.1016/j.euroneuro.2005.04.009
- 384 Thewissen, V., Bentall, R. P., Oorschot, M., à Campo, J., van Lierop, T., van Os, J., & Myin-  
385 Germeys, I. (2011). Emotions, self-esteem, and paranoid episodes: An experience  
386 sampling study. *British Journal of Clinical Psychology*, *50*(2), 178–195.  
387 doi:10.1348/014466510X508677
- 388 Tully, S., Wells, A., & Morrison, A. P. (2017). An exploration of the relationship between  
389 use of safety-seeking behaviours and psychosis: A systematic review and meta-analysis.  
390 *Clinical Psychology and Psychotherapy*, *24*(6), 1384–1405.  
391 <http://doi.org/10.1002/cpp.2099>
- 392 Turner, D. T., van der Gaag, M., Karyotaki, E., & Cuijpers, P. (2014). Psychological  
393 Interventions for Psychosis: A Meta-Analysis of Comparative Outcome Studies. *The*  
394 *American Journal of Psychiatry*, *31*(3), 697–704. doi:10.1176/appi.ajp.2013.13081159
- 395 Trower, P., & Chadwick, P. (1995). Pathways to defense of the self: A theory of two types of  
396 paranoia. *Clinical Psychology: Science and Practice*, *2*(3), 263-278. doi:10.1111/j.1468-  
397 2850.1995.tb00044.x
- 398 Udachina, A., Varese, F., Oorschot, M., Myin-Germeys, I., & Bentall, R. P. (2012).  
399 Dynamics of self-esteem in “poor-me” and “bad-me” paranoia. *The Journal of Nervous*  
400 *and Mental Disease*, *200*(9), 777–83. doi:10.1097/NMD.0b013e318266ba57

- 401 Udachina, A., Bentall, R. P., Varese, F., & Rowse, G. (2017). Stress sensitivity in paranoia:  
402 poor-me paranoia protects against the unpleasant effects of social stress. *Psychological*  
403 *Medicine*, 47(16), 2834-2843. doi:10.1017/S0033291717001362
- 404 Westermann, S., Cavelti, M., Heibach, E., & Caspar, F. (2015). Motive-oriented therapeutic  
405 relationship building for patients diagnosed with schizophrenia. *Frontiers in*  
406 *Psychology*, 6, 1294. doi:10.3389/fpsyg.2015.01294
- 407 Westermann, S., & Lincoln, T. M. (2011). Emotion regulation difficulties are relevant to  
408 persecutory ideation. *Psychology and Psychotherapy: Theory, Research and Practice*,  
409 84(3), 273–287. doi:10.1348/147608310X523019
- 410 Westermann, S., Moritz, S., Caspar, F., & Cavelti, M. (2017). Unmet psychological needs in  
411 patients with schizophrenia. *Psychosis*, 9(1), 86–89.  
412 doi:10.1080/17522439.2016.1223743
- 413 Wood, L., Byrne, R., Burke, E., Enache, G., & Morrison, A. P. (2017). The impact of stigma  
414 on emotional distress and recovery from psychosis: The mediatory role of internalised  
415 shame and self-esteem. *Psychiatry Research*, 255, 94-100.  
416 doi:10.1016/j.psychres.2017.05.016

417 **Table 1**

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

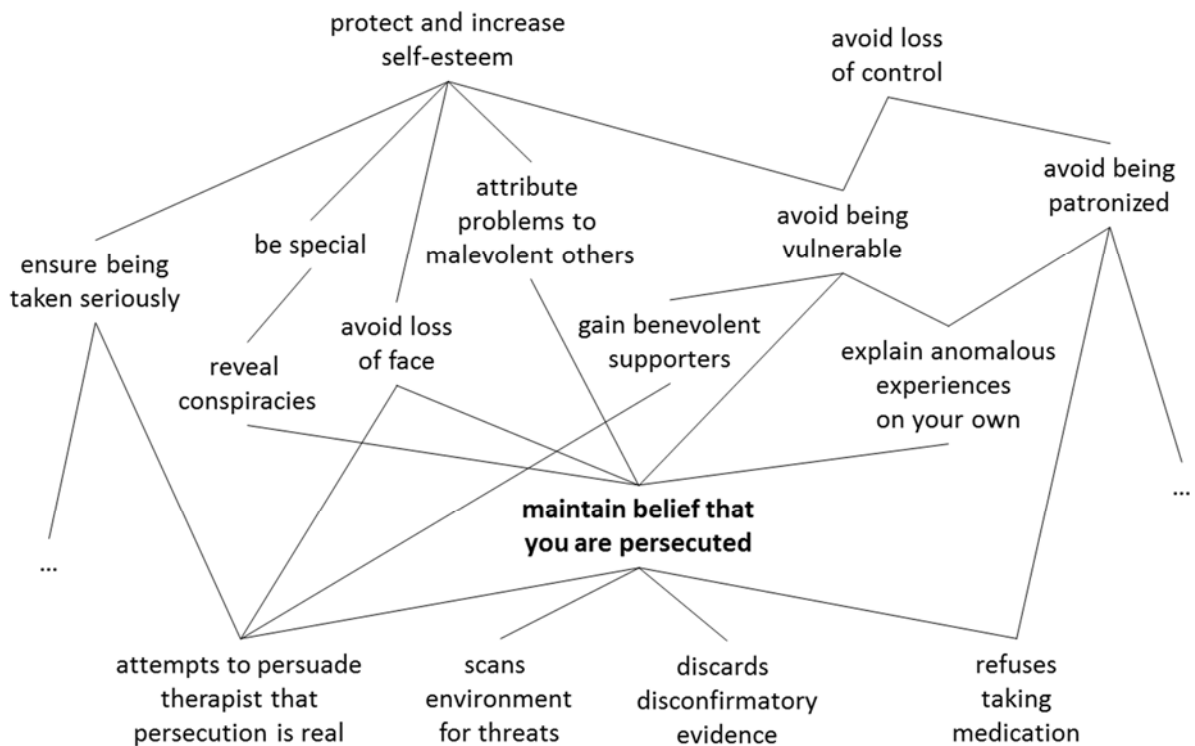
<b>Plan</b>	<b>Frequency (%)</b>
Avoid dependence/heteronomy	16 (100%)
Avoid violation of self-esteem	16 (100%)
Achieve something/be successful	15 (94%)
Avoid being not acknowledged	15 (94%)
Avoid feelings and thoughts that reduce self-esteem	15 (94%)
Increase your self-esteem	15 (94%)
Avoid being attacked/criticised	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%)

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423

**Figures**

424



425

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