

RELATIONSHIP BETWEEN PARANOIA AND HOSTILITY: THE ROLE OF META-BELIEFS

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Abstract

Paranoia is a common phenomenon that covers a continuum from slight everyday suspicion to severe delusions of persecution. It is considered helpful for survival because it protects individuals from the malevolent intentions of others, but over-reliance on this mechanism impairs individual functioning. Paranoid beliefs are associated with a harmful and malevolent view of others and an external attribution style that would help reduce a sense of internal threat. The paranoid thought process is associated with several metacognitive dysfunctions, such as difficulties with decentralization, cognitive fusion, and personalization bias. Several researchers have found associations between paranoia, self-hatred, and self-persecution, which is the most damaging form of self-criticism and most linked to psychopathology. Furthermore, paranoia is associated with aggressive attitudes, leading others to react in a way that confirms the belief that they intend to harm. Given the lack of clarity in the interplay between paranoia, self-hatred, and aggression and the relevance of investigating the antecedents of interpersonal violence, the present study set out to clarify the relationship between these variables. A sample of 564 participants ($M = 35.12$, $SD = 12.8$), including 389 females and 175 males, were recruited from the general population. They were asked to fill out online questionnaires designed to investigate the presence of specific symptomatology, levels of self-criticism, and meta-beliefs about it. Since self-criticism is an internal hostility mechanism that reinforces negative beliefs about oneself by increasing the sense of external threat from which the individual feels he/she must defend him/herself, the first hypothesis was that self-hatred would partially mediate the relationship between paranoia and hetero-directed hostility. Furthermore, given the relevance of the role of negative self-evaluation in psychopathology and in order to assess the factors that exacerbate the perceived sense of threat leading to aggression, it was hypothesized that the relationship between paranoia and hostility would change as a function of positive meta-beliefs about self-persecution. Mediation analysis showed that self-hatred partially mediates the relationship between paranoia and hostility, supporting the hypothesis of a sense of inferiority and worthlessness regulated through external attribution. In addition, the belief that one deserves self-persecution and self-punishment was found to moderate the relationship between paranoia and hostility, confirming that for higher levels of positive meta-beliefs about self-criticism, the relationship between paranoia and hostility is stronger. Given the evidence of associations between suspicious attitudes towards others, characterized by anger and impulsivity, and subsequent violent behavior, it is of paramount importance to study the antecedents of such risky behavior, which is extremely harmful to society, to develop more effective prevention interventions.

Keywords: *Paranoia, hostility, hated-self, meta-beliefs, interpersonal violence.*

1. Introduction

Paranoia indicates a tendency towards excessive or irrational distrust of others characterized by the belief that harm will happen and the belief that it will be caused by others (Freeman & Garety, 2000). Paranoia has evolutionary value, as supported by research postulating the existence of evolved systems focused on social threat detection (Green & Philips, 2004), as it protects the individual from threats from potentially malevolent others (Matos et al., 2013; Gilbert et al., 2005). Paranoid experiences are every day for many people (Freeman et al., 2005) and stem from real past situations, constituting rational responses to threatening life environments (Tone & Devis, 2012).

Several theoretical models have been proposed to explain the development and maintenance of paranoia. One of the best-known is that of Bentall and colleagues (2001), who postulated that in paranoia, there is an increased sensitivity to threats to the self that the individual tries to regulate through an externally focused explanatory style. In contrast, Freeman and colleagues (2002) developed a cognitive model of paranoia that emphasizes the central role of emotions rather than the self and is based on the central process of threat. The authors observed how anxiety and hostile beliefs about the expression of emotions represent predisposing factors for paranoia (Freeman et al., 2005). In this regard, positive beliefs about paranoia, e.g. “not trusting other serves to protect me”, are also relevant, increasing the likelihood that the individual will use this coping strategy to deal with perceived threats (Morrison, 2001). Research in recent years has investigated the relationship between self-criticism and paranoia by focusing, on the one hand, on the function that paranoia takes on concerning negative beliefs about oneself and, on the other hand, on the cognitive distortions that foster paranoid beliefs. Self-criticism can act as a process that maintains and reinforces negative self-perceptions, fuelling the idea that others can attack and punish (Shahar et al., 2015). At the same time, self-criticism links to dysfunctional thought processes, such as rumination (Dunn & Luchner, 2022), and cognitive distortions, such as mind-reading and catastrophizing, which can lead to an over-focus on oneself and potential threats (Ghasempeyvandi & Torkan, 2023), fuelling paranoia. Paranoid beliefs have been associated with a highly self-critical style and difficulty in being kind and reassuring to oneself (Mills et al., 2007), but especially with hatred and self-persecution (Boyd & Gumley, 2007; Hutton et al., 2013). Hate-filled self-aggression with a self-persecutory function has been linked to an increase in subclinical paranoia (Mills et al., 2007). Concerning this, some researchers have suggested that self-attack triggers a deep sense of threat that activates the threat-focused 'paranoid mind' and misattributes it to the actions of others (Gumley & Schwannauer, 2006), leading to distrust and interpersonal distance (MacBeth et al., 2008; Pickering et al., 2008). Paranoid individuals generate causal attributions of guilt towards others, interpret ambiguous stimuli as threatening (Pinkham et al., 2011), and tend to jump to conclusions (So et al., 2012), so it is reasonable to hypothesize that the belief that others intend harm may predispose to aggressive behavior to cope with the perceived threat (Bjørkly, 2002).

In light of these data and the importance of understanding the factors predisposing to interpersonal aggression, the study aims to clarify the role of self-criticism, particularly self-hatred, and positive meta-beliefs about it in the relationship between paranoia and hetero-directed hostility. The hypothesis was that self-hatred would mediate the relationship between paranoia and hostility and that this relationship would change as a function of positive meta-beliefs about self-criticism.

2. Method

2.1. Participants

The study involved 564 participants recruited from the general population, including 175 males and 389 females, with an average age of 35.12 years. Participants met the following inclusion criteria: age 18 years or older, good knowledge of the Italian language, education level of secondary school or higher, and easy access to the Internet. All subjects with suicidal ideation or who had been diagnosed with clinically severe disorders (e.g., schizophrenic spectrum disorders and other psychotic disorders, bipolar and related disorders, dissociative disorders) were excluded from the sample. Recruitment took place by word of mouth and sharing information on major social networks (e.g., Facebook and Instagram). Participants completed an online survey aimed at collecting socio-demographic informations and standardized questionnaires designed to investigate levels of self-criticism, paranoid ideation, and hostility. In addition, they completed an ad hoc questionnaire to assess meta-beliefs about self-criticism.

2.2. Materials

The FSCRS (The Forms of Self-Criticizing/Attacking and Self-Reassuring Scale; Gilbert et al., 2004; Italian adaptation by Petrocchi & Couyoumdjian, 2016) was used to measure self-criticism. It is a 22-item questionnaire composed of three subscales: reassured-self (FSCRS-RS), inadequate-self (FSCRS-IS), and hated-self (FSCRS-HS), which assesses a more extreme form of self-criticism characterized by feelings of self-repugnance and the desire to hurt oneself in response to failures and setbacks. For the hated-self subscale used in this study, the Cronbach's alpha value was 0.79.

Participants answered an ad hoc questionnaire designed to investigate meta-beliefs about self-criticism. It consisted of 6 open-ended questions in which subjects were asked how true, logical, useful, beneficial, deserved, and right their self-criticism was. Participants responded on a 5-point Likert scale: for example, a score of 1 corresponded to 'not true' and a score of 5 to 'true'. The Cronbach's alpha value for overall scale reliability was 0.83.

SCL-90-R (Symptom Checklist-90-Revised, Derogatis, 1975; Italian validation by Sarno et al., 2011) was used to assess symptomatology. It is a self-report questionnaire that assesses a broad spectrum of psychopathological symptoms, including hostility and paranoid ideation. The paranoid ideation subscale assesses persecutory nature, suspiciousness, and distrust of others with a tendency to interpret their actions as malicious. The hostility subscale reflects thoughts, emotional states, and behavioral patterns characteristic of anger, and items include the experience of intense aggressive impulses, displays of physical and verbal aggression directed at objects or persons, critical attitude towards others, irritability, and resentment. In the present study, Cronbach's alpha of the 'Paranoia' dimension was .81, and of the 'Hostility' dimension was .83.

3. Results

Statistical analyses were conducted using the Jamovi software version 2.3.28. A mediation model was estimated by including hostility as a dependent variable, paranoid ideation as an independent variable, and hated-self as a mediator.

Table 1. Mediation analysis: indirect and total effects.

Type	Effect	Estimate	SE	β	z	p
Indirect	PAR \rightarrow HS \rightarrow HOS	0.0873	0.01399	0.101	6.24	< .001
Component	PAR \rightarrow HS	0.0243	0.00244	0.386	9.93	< .001
	HS \rightarrow HOS	3.6009	0.44837	0.263	8.03	< .001
Direct	PAR \rightarrow HOS	0.4760	0.02819	0.552	16.88	< .001
Total	PAR \rightarrow HOS	0.5633	0.02749	0.654	20.49	< .001

Table 1 shows that paranoia significantly predicts hated-self ($\beta=.39$, $p<.001$), and hostility ($\beta=.55$, $p<.001$). Paranoia in conjunction with hated-self significantly predicts hostility ($\beta=.10$, $p<.001$). According to the results, hated-self has a partial mediation role in the relationship between paranoia and hostility. Subsequently, Pearson's correlation analysis was used to understand the relationship between hated-self and meta-beliefs about self-criticism. The results showed that hated-self correlated significantly negatively with perceived usefulness ($r=-.185$, $p<.01$) and perceived advantageousness of criticism ($r=-.240$, $p<.01$). In contrast, the hated-self dimension shows a significantly positive association with perceived deserving of self-criticism ($r=.98$, $p<.05$).

To investigate the second hypothesis, a moderation model was then constructed by including hostility as the dependent variable, paranoia as the independent variable, and the belief in deserving criticism as the moderating variable.

Table 2. Moderation and Simple Slope estimates.

	Estimate	SE	z	p
PAR	0.5643	0.0272	20.722	< .001
Des.	0.2685	0.2853	0.941	< .001
PAR*Des.	0.0679	0.0230	2.946	< .001
Average	0.564	0.0274	20.6	< .001
Low (-1SD)	0.487	0.0377	12.9	< .001
High (+1SD)	0.642	0.0383	16.7	< .001

Table 2 shows the effect of the predictor (paranoia) on the dependent variable (hostility) at different levels of the moderator (belief of deserving self-attack). In the relationship between paranoia and hostility, the results show an interaction effect for both high and low levels of the meta-belief of deserving self-criticism ($p<.001$).

4. Discussion

The results of the study show how hated-self plays a mediating role in the relationship between paranoia and hetero-directed hostility. This result supports theories that hold that beliefs in paranoid ideation have a psychic function for the individual rather than being just a consequence of perceptual or reasoning deficits.

Several studies have attempted to assess implicit self-representations in paranoid patients, with results suggesting that these subjects have more negative beliefs about themselves than ordinary people (Bentall et al., 2001). Indeed, while Bentall and colleagues (2001) suggested that the paranoid person exhibits exaggerated prejudice and a tendency to attribute adverse events to others who are considered powerful, Trower and Chadwick (1995) argued that there is a subgroup of paranoids who exhibit shame and a feeling of being bad. This distinction is significant as the study's results support the idea of a sense of unworthiness in the paranoid condition that could lead to the interpretation of others as threatening. Of great relevance is that paranoia can be a risk factor for interpersonal violence. The individual can cope with feelings of being criticized and devalued by others through externalization and counter-attack, which are associated with feelings of defensive anger and revenge fantasies through an external attribution style aimed at preserving a sense of safety of self and the world (Castilho et al., 2015). Results from the MacArthur Study of Violence Risk reveal that a generally suspicious attitude significantly predicts subsequent violent behavior, including physical and verbal aggression (Appelbaum et al., 2000). Understanding this relationship opens up space for various implications for clinical practice and the prevention of aggressive behavior.

Positive metacognitive beliefs contribute to the maintenance of dysfunctional attitudes (Wells, 2011), and the result that appears to be most interesting concerns the role of metacognitive beliefs related to hated-self. Indeed, it was found that hated-self correlated significantly with the idea of deserving self-attack and self-punishment, consistent with Gilbert's model (2004). Considering that the belief that one deserves criticism can moderate the relationship between paranoia and hostility, it may be relevant to act on this meta-belief and how the individuals have developed and consolidated it in their lives to reduce feelings of anger towards others and the resulting behaviors.

The present study has several limitations: Firstly, it is a cross-sectional study, so it is impossible to make inferences about the direction of the associations emerging from the results. Secondly, the variables were measured in the general population, so the data cannot be generalized to the clinical population of paranoid patients. Furthermore, the responses to the self-report questionnaires may have been influenced by contingent factors. Not least, other constructs that could explain the relationship between the examined variables, such as cognitive bias and other variables reflecting dysfunctional beliefs about self, in addition to self-criticism, were not measured. Nevertheless, the strength of the research lies in opening the way for the study of further variables that may intervene in the relationship between paranoia and aggression. Future research should elucidate the factors that intervene and reinforce this relationship, making it possible to develop more effective psychotherapeutic treatments and prevention interventions.

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