

Belief Flexibility: Its Relationship with Bias Against Disconfirmatory Evidence in  
Delusions and a Transdiagnostic Exploration in Depression

ZHU, Chen

A Thesis Submitted in Partial Fulfilment  
of the Requirements for the Degree of  
Master of Philosophy  
in  
Psychology

The Chinese University of Hong Kong

July 2016

Thesis Assessment Committee

Professor CHIU Chui De (Chair)

Professor SO Suzanne Ho Wai (Thesis Supervisor)

Professor CHAN Agnes Sui Yin (Committee Member)

### Abstract

Belief flexibility (BF) refers to one's reasoning ability to reappraise existing delusional beliefs in face of contradictory information. It has been commonly measured by clinical interview assessment (e.g., Garety et al., 2005; Freeman et al., 2004) and experimental task (the BADE task; e.g., Woodward et al., 2006). The concept is originally developed in delusions research, and has been shown as a measurable and distinctive construct depicting one aspect of the delusional experience.

Over years, BF as conceptualised as a crucial factor in the development and maintenance of delusions has been increasingly studied in both cross-sectional correlational studies, longitudinal studies, and clinical trials. Although BF has been shown to be negatively related to global severity of delusions and delusional dimensions, in the context of a multidimensional view of delusions and considering the unique value of each dimensions in contributing our understanding of delusional experiences, it remains unclear how BF is related to other dimensions of delusions. In addition, there is a lack of enough information as to whether the strong (negative) relationship between BF and delusions are specific to delusions only. Last but not least, it was also of current interest how similar the two measures of BF could be in terms of the relationship they captured.

Therefore, we conducted two studies. In the first meta-analytic review based on data from existing studies ( $N = 16$ ), results showed a stronger association between BF and delusional convictions than preoccupation and distress of delusions, and some difference between the two measures in dimensions of delusions but not global severity of delusions. In the second cross-sectional study, we measured BF by both assessments and

## BELIEF FLEXIBILITY & DELUSIONS

tested its relationship with delusions, depressive cognitions, and personally-relevant beliefs in a clinical group with delusions ( $N = 40$ ), a clinical group with depressive disorders ( $N = 14$ ), and a community control group ( $N = 30$ ) respectively. Preliminary results found no significant difference in BF between clinical groups. After controlling state emotions, IQ, and set-shifting ability, BF was significantly related to delusional conviction in regression analysis.

Overall, our results suggested a potential of a specifically strong relationship between BF and delusional conviction compared with other dimensions of delusions as well as of other kind of strongly-held beliefs, although the phenomenon of belief inflexibility may not be restricted to the delusions populations but other clinical populations as well. Limitations, implications, and plausible future research directions were discussed.

論文摘要

失驗思考靈活性（Belief flexibility）指人們在面對同已有妄想不一致的信息時重新評鑒前者的思考能力。已知文獻中，臨床訪談評估和實驗性測試是兩種常見的評估該靈活性的方法。失驗思考靈活性起源于妄想的研究領域，作為確切、可量度的概念，能夠幫助描述和測量妄想經驗。

近年來，失驗思考靈活性被視為促成和維持妄想的模型中一個重要因素。越來越多不同類型的實證研究將這一概念納入數據分析。儘管已有文獻支持失驗思考靈活性與妄想的整體嚴重程度及妄想確信度均具有負相關性，該靈活性與多維視角下其他妄想維度的關係尚不明確。另外，關於失驗思考靈活性和妄想的負相關關係是否只存在於妄想的情境中，現有文獻並不能夠充分說明這一問題。最後，已知現有文獻沒有關於兩種測量失驗思考靈活性的方法的統計相似性的討論。

本論文包含兩項研究。在第一個元分析研究中，基於 16 篇已有文獻的整合結果顯示，靈活性與確信度的相關性明顯強於沉溺度和痛苦；兩種不同測量方法得到的靈活性結果在多維視角下存在差異而在單維視角下相似。在第二個橫向研究中，我們測量了靈活性及它在妄想，抑鬱向認知和與個人相關的信念三種不同情況下與三者各維度（確信度，沉溺和痛苦）的關係。實驗在 40 位妄想患者、14 位抑鬱症患者和 30 位普羅大眾中進行。初步結果顯示，實驗思考靈活性在臨床組別中沒有顯著差異。控制協變量后，靈活性與妄想確信度顯著相關。

## BELIEF FLEXIBILITY & DELUSIONS

綜上所述，本研究結果顯示，無論與其他妄想維度或是其他信念相比，靈活性和妄想確信度的高相關性都具有特殊性，而（缺乏）靈活性這一現象本身可能不局限於妄想。研究局限、研究揭示及未來研究建議亦於報告中討論。