Abstract of thesis entitled:

The Effect of Dialectical Thinking on Attribute Framing: The Roles of Processing Modes and Associations

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## Abstract

Frames are lenses through which we see the world. Attribute framing refers to presenting logically equivalent information in semantically different ways. Typically this results in a corresponding change in judgment, such that the positively framed attribute is evaluated more favorably than the negatively framed attribute (e.g. beef introduced as 80% *lean* (positive frame) is typically evaluated more positively than beef introduced as 20% *fat* (negative frame)). The goals of this dissertation were to investigate 1) how dialectical thinking—the thinking style that tolerates contradiction and accepts the co-occurrence of opposing elements— influences attribute framing effects, and 2) the processes that account for this influence.

The studies in this dissertation were conducted to this end. Study 1A, 1B, and 2, were conducted to establish the moderation effects of thinking style on attribute framing. The results from these studies showed that, compared to the linear thinking and the control condition, the dialectical thinking condition enhanced attribute framing effects. Specifically, compared to the two other conditions, dialectical thinking engendered in more favorable evaluations in the positive frame, and less favorable evaluations in the negative frame.

Study 3, 4A and 4B were conducted to investigate the potential mechanisms underlying the enhancement of attribute framing by dialectical thinking. Drawing upon research suggesting that dialectical thinking might be associated with relying more on heuristic processing (and consequently less on systematic processing), Study 3 tested whether individual differences in engagement in systematic processing mediated the enhancement effect of dialectical framing. Although the evidence supported that systematic processing attenuated the magnitude of attribute framing effects, less engagement in systematic did not mediate the enhancement effect of dialectical thinking on attribute framing.

Study 4A and 4B were conducted in to examine the enhancement effect of dialectical thinking in respect to the associative account of attribute framing. This account proposes that attribute framing effects is a product of evocation valence-based "processing" in memory: positively valenced attribute labels evoke positive associations in memory, whereas negatively valenced attribute labels evoke negative associations. These valenced associations, in turn, carry over to eventual judgments. Study 4A tested this account, and found that only negatively, but not positively, valenced attribute labels mediated the effect of attribute frame on evaluations. Based on the findings of Study 4A, Study 4B examined the associative explanation under thinking style manipulation. The results suggested that the mediation of framing effects by negative associations were only observed in the dialectical, but not in the linear condition. Specifically, fewer negative associations were generated in the positive frame compared to negative frames only in the dialectical, but not in the linear condition.

In sum, this dissertation demonstrated that dialectical thinking enhanced attribute framing effects by enhancing the generation of frame-consistent association. Implications of these findings for research on thinking style, the associative account of attribute framing, and real-life decision-making are discussed.

## 摘要

框架是我們領會世界的透鏡。屬性框架效應指的以不同語義呈現,同是邏輯上 相等的信息。一般上,這會造成不同的判斷:以正向框架呈現的屬性會得到比負向框 架呈現的屬性得到更正面的判斷。本論文的目的是研究1)辯證思維對於屬性框架效 應的影響,以及2)解釋此效應的中介心理加工過程。

本論文的實驗意在研究以上的問題。實驗 1A, 1B, 及 2 研究了思維方式對於屬 性框架效應的基本影響。這一系列的實驗結果顯示,相較於線性思維組及對照組,辯 證思維增強了屬性框架效應。也就是說,在正向框架下,辯證思維造成了更正面的判 斷,而在負向框架下,辯證思維造成了更負面的判斷。

實驗 3,4A 及 4B 研究了辯證思維方式增強屬性框架效應的機制。鑒於研究支 持辯證思維和捷徑思維之間的正面關係,實驗 3 研究了辯證思維是否通過捷徑思維增 強了屬性框架效應。研究結果複製了辯證思維對於框架效應的增強效果,但並未支持 捷徑思維為解釋增強效應的機制。

實驗 3,4A 及 4B 研究了辯證思維方式是否通過喚起聯繫概念增強屬性框架效 應。這個理論提出屬性框架效應來自於相同效價聯繫概念的喚起。正向框架更有可能 喚起正向聯繫,而負向框架更有可能喚起負向聯繫。相應的,這些聯繫依次影響最終 判斷。實驗 4A 發現只有負向聯繫,而非正向聯繫,中介了框架效價對於判斷的影 響。基於實驗 4A 的成果,實驗 4B 操縱了思維方式。實驗結果顯示現思維方式調節了 負向聯繫對於框架效應的中介。