

The role of fate in schema change:

Fate attributions mediate the effect of vastness on cognitive accommodation

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Introduction

Cognitive accommodation (CA; スキーマ変更) occurs when the structure of one's worldview changes in response to something that contradicts or confounds existing schemata (Piaget & Inhelder, 1966). Recently, CA has been investigated in the context of awe (畏敬・畏怖の念), the emotional response to things that are too vast (壮大) to assimilate into existing schema. In awe, vastness induces a perception that CA is necessary, which may then result in CA (Keltner & Haidt, 2003).

Research has indicated that in the context of awe, the effect of vastness on CA is fully mediated by causal attributions to fate (運命; Taylor & Uchida, 2018). The concept of "fate" proposes that events are "meant to be", i.e., predetermined by a purposeful, nonmaterial force beyond human control, typically to achieve a meaningful superordinate goal (Banerjee & Bloom, 2014). Attributing an event to fate leads it to be interpreted as an inevitable part of a larger pattern, thus giving meaning to inexplicable events (e.g., coincidences) (Kray et al., 2010), which may facilitate changes to relevant schemata (CA).

While evidence has indicated that fate mediates the effect of vastness on CA, this relationship has not been tested outside the context of awe. The goals of this study were to a) examine if vastness predicts CA outside the context of awe and b) to test if fate mediates this relationship.

Method

276 Japanese company workers (males = 118, $M_{age} = 44.65$; $SD_{age} = 13.66$, $Range = 21-69$) completed an online survey. Respondents wrote about a personal experience in which they felt fate was responsible for a coincidence and rated how much vastness (3 items, $\alpha = .77$, e.g., 壮大さを感じた), fate (1 item, 運命を感じた) and CA (2 items, $\alpha = .77$, e.g., 必然性を感じた) they felt during the event on 7-point scales (1=全く当てはまらない; 7=とてもよく当てはまる). To control for the effects of awe, participants rated feelings of respectful awe (畏敬) and fearful awe (畏怖; $\alpha = .85$).

To test the hypothesis that fate mediates the relationship between vastness and CA, a mediation analysis was conducted using the PROCESS macro for SPSS (Hayes, 2013). Vastness was the predictor variable, CA was the outcome variable, and fate was the mediator variable. Awe was included as a control variable.

Results

Controlling for awe, vastness predicted CA ($\beta = .65$, $p < .001$) and fate ($\beta = .64$, $p < .001$). However, controlling for the effects of fate on CA ($\beta = .36$, $p < .001$), the effect of

vastness on CA was significantly reduced ($\beta = .42$, $p < .001$), indicating partial mediation, $z = 6.52$, $p < .001$.

Discussion

It has been theorized that fate gives meaning to random events (Norenzayan & Lee, 2010), situating them in a larger, purpose-driven narrative that can shift concepts about one's life, identity and the world. This is supported by the current study, which indicated that fate helps drive the ability of vastness to change schemata (CA). Because both vastness and fate exceed the limits of human comprehension, the explanatory framework of fate may be particularly useful for restructuring schemata in response to vastness. Further, the quality of inevitability that is assumed by appraisals of fate increases hindsight bias (Kray et al., 2010), which may help to psychologically substantiate schema changes (CA).

However, in contrast to the full mediation observed in prior research on awe (Taylor & Uchida, 2018), the current study – which was conducted outside the context of awe and controlled for incidental feelings of awe – indicated only partial mediation. This may indicate that fate mediates the relationship between vastness and CA, but that this effect is greater in awe. Alternatively, the difference between the current and prior studies could be due to differences in fate concepts in the US and Japan stemming from culture (e.g., Norenzayan & Lee, 2010) or theistic beliefs (Banerjee & Bloom, 2014).

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