Greater Intolerance of Uncertainty Reduces Self-Control

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Background

- **"Intolerance of Uncertainty" (IU),** the extent to which people are distressed and impaired by the presence of uncertainty, has two components (Carleton et al., 2007):
  - ***Prospective IU*:** *approach-oriented* responses to uncertainty, desire for predictability, propensity for attempts to reduce future uncertainty, and preference for knowing what future events entail.
  - ***Inhibitory IU:*** *avoidance-oriented* responses to uncertainty and difficulties functioning in the face of uncertainty.

- IU is linked with internalizing conditions, including social phobia, panic disorder, worry, rumination, anxiety disorders, and depression (Gentes & Ruscio, 2011).
- One mechanism through which IU may lead to psychological disorders and impairment is that it may reduce individuals' capacities for self-control; when people feel uncomfortable with uncertainty, they may prefer immediate gratification and may struggle with self-regulation.

Does greater intolerance of uncertainty predict and cause self-control problems?

- Poor self-control under extreme stress of COVID-19 (Study 1)
- Delay of gratification (Study 2)

Abstract

Intolerance of uncertainty (IU)—an individual difference associated with multiple internalizing problems—consists of *prospective IU* (distress about uncertainty and attempts to manage future uncertainty) and *inhibitory IU* (difficulty functioning in the midst of uncertainty). Two studies (one experimental, one longitudinal) investigated the hypothesis that high IU, particularly its inhibitory component, reduces individuals' self-control and delay of gratification. In Study 1, college students (*N* = 205) completed a trait measure of IU in October 2019 or January 2020 and then completed follow-up measures of state IU and self-control in April/May 2020 during the pandemic. Inhibitory, but not prospective, IU assessed before the pandemic predicted multiple problems with self-control during the pandemic. In Study 2, college students (*N* = 253) underwent an experimental manipulation of IU and then completed a delay of gratification task. Participants with high trait levels of IU and low-IU participants induced to experience higher IU had more difficulty delaying gratification. Taken together, these two studies provide preliminary support for the claim that IU plays a causal role in reducing self-control.

Study 1

Participants and Procedures

- **Time 1:** College students (*N*=205) completed a trait measure of IU in Oct 2019/ Jan 2020, the **Intolerance of Uncertainty Scale (IUS-12; Carleton et al., 2007),** 12 items assessing prospective and inhibitory IU.
- **Time 2:** Participants completed an online follow-up study in April/May 2020 during the pandemic, including these measures:
  - **State Intolerance of Uncertainty:** IUS-12 focusing on the previous 2 weeks
  - **Self-Control Scale (Tangney et al., 2004):** 13-item scale assessing self-control over the previous 2 weeks.
  - **Procrastination Scale:** 3 items assessing procrastination on schoolwork.
  - **Coded self-control.** Participants answered 2 open-ended questions asking about impact of COVID-19 and coping mechanisms during the pandemic; answers were later coded for indicators of self-control, ranging from good self-regulation to significant problems.

Results

- Trait Inhibitory IU before the pandemic (T1) predicted self control problems during the pandemic (T2)
  - Self-control scale, $r = -.18$, $p = .011$
  - Procrastination, $r = .17$, $p = .013$
  - Coded self-control, $r = -.17$, $p = .019$
- Pre-pandemic trait IU and self-control problems during the pandemic were mediated by state levels of IU during the pandemic.

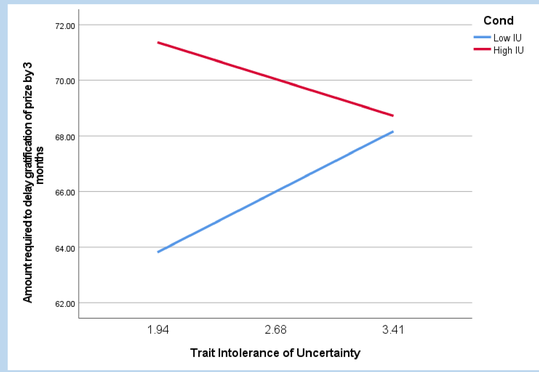
Study 2

Participants and Procedures

- **Pretesting:** College students (*N*=253) completed the **Intolerance of Uncertainty Scale (IUS-12)**.
- **IU manipulation:** During a subsequent online experimental session, participants underwent an experimental manipulation of IU by reading an article either increasing or decreasing their IU in the moment.
- **Dependent measure of delay of gratification:** Following the IU manipulation, participants completed a delay discounting task reflecting their willingness to wait for monetary rewards of varying amounts (Lerner et al., 2012)—as indexed by the **amount of a gift certificate required for them to be willing to wait 3 months to receive it**, rather than receiving it immediately.

Results

- **NOTE: LOWER delay of gratification = Higher amount required to be willing to wait 3 months for the gift certificate.**
- Participants in the low IU condition were more willing to delay gratification than participants in the high IU condition, F (1,251) = 6.88, p = .009.



- IU condition also interacted with trait IU to predict delay of gratification F(1, 220) = 4.14, p = .043 . High trait-IU participants had lower delay of gratification, regardless of IU condition. In contrast, low trait-IU participants delayed gratification less in the high IU condition than in low IU condition.

Conclusion

- IU may play a causal role in problems with self-control.
- People with IU may need additional support in developing greater skills in self-regulation, particularly during times of stress.