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# Uncertainty during the COVID-19 pandemic: who perceive the context as more resources demanding?

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# INTRODUCTION: WHAT IS « UNCERTAINTY » IN THE CONTEXT OF COVID-19?

Tell us: how are you dealing with uncertainty related to the pandemic?  
(The Guardian, The Canadian Press)



“Lockdown: Emmanuel Macron wants to put an end to **UNCERTAINTY**  
(Capital, French newspaper)

## Economic uncertainty in the wake of the COVID-19 pandemic

David E. Altig, Scott Baker, Jose Maria Barrero, Nicholas Bloom, Philip Bunn, Scarlet Chen, Steven Davis, Julia Leather, Brent Meyer, Emil Mihaylov, Paul Mizen, Nicholas Parker, Thomas Renault, Pawel Smietanka, Gregory Thwaites

(American Bank experts)

“During lockdown, our worst enemy is **UNCERTAINTY**, source of much anxiety” (Le Monde, French newspaper)

## INTRODUCTION: WHAT IS « UNCERTAINTY » IN THE CONTEXT OF COVID-19?



- Uncertainty is awareness of a lack of knowledge about something specific (Anderson, 2019)
- Uncertainty is generally aversive.
- Subjective uncertainty (lack important information, property of the mind)

→ Reduction of agentic effort

Uncertainty serves as a cue for conserving resources.

- psychological resources (e.g., energy, willpower),
- material resources (food, weapons, money),
- social resources.

- ≠ Objective uncertainty (Multiple alternatives are possible, property of the environment)

→ Increase of agentic effort (Alquist et al., in press)

One reason that uncertainty can elicit effort is that people expect their efforts will reduce the uncertainty.

- Uncertainty also increases attention, arousal, and emotional intensity and duration

→ Consumes energy

## INTRODUCTION: SOME TRAITS/DISPOSITIONS RELATED TO LOW RESOURCES



- **Vulnerability to depletion** refers to some inherent weakness in the self-regulatory system (André & Baumeister, in preparation).
  - Illness, aging, or sedentary lifestyle
  - Some form of expectancies that lead some people to voluntarily decrease the level of effort to avoid negative feeling or to conserve energy (Bertrams, 2020).
- **Neuroticism** is linked with an impaired ability to cope with stress and is an important risk factor for stress-related disorders (e.g., Mohiyeddin et al., 2015).
- Cognitive functioning decreases during **aging** and people are at risk of low cognitive resources.



## Research question

Managing (or dealing with) uncertainty consumes energy!

Do people with low resources perceive the pandemic context as more resources demanding?

# METHOD



## Population

122 participants completed the online questionnaires (56 low in managing uncertainty and 66 high in managing uncertainty). The mean age was 32.92 (SD = 17.64)

Online questionnaire using Limesurvey

## Instruments

**Managing Uncertainty:** Do you feel like you have to deal with the uncertainty associated with the pandemic? (1) not at all (5) yes, extremely.

**Vulnerability to depletion:** Depletion Sensitivity Scale (Salmon et al., 2014)

**Neuroticism:** Revised **NEO Personality Inventory** (NEO-PI-R) (Costa, McCrae, 1992).

## Data analysis

Correlation analyses and t-tests

Stepwise discriminant analysis was performed to determine if the two groups of participants could be discriminated based on the following variables: age, vulnerability to depletion, and neuroticism.

# RESULTS



## Descriptive analysis

High uncertainty group: 19 males and 47 females

Low uncertainty group: 21 males and 35 females

| Variables                  | High Uncertainty<br>(N=66)<br>Mean (SD) | Low Uncertainty<br>(N=56)<br>Mean (SD) | Correlation<br>coefficient | <i>p</i> |
|----------------------------|---|--|----------------------------|----------|
| Age                        | 33.75 (17.11)                           | 42.09 (18.18)                          | -0.21*                     | 0.01     |
| Neuroticism                | 3.29 (0.79)                             | 2.58 (0.86)                            | 0.37**                     | 0.0001   |
| Vulnerability to depletion | 48.06 (11.88)                           | 40.05 (11.00)                          | 0.28**                     | 0.0008   |

\*  $p < .05$ ; \*\*  $p < 0.001$

# RESULTS



## Discriminant analysis

| Predictors                        | Standardized coefficient | F ratio  | Rang |
|-----------------------------------|--------------------------|----------|------|
| <b>Age</b>                        | -0.303                   | 6.779*   | 3    |
| <b>Neuroticism</b>                | 0.705                    | 22.656** | 1    |
| <b>Vulnerability to depletion</b> | 0.372                    | 14.742** | 2    |
| Canonical Correlation             | 0.453                    |          |      |
| Eigenvalue                        | 0.259                    |          |      |
| Wilks Lambda                      | 0.794                    |          |      |
| $\chi^2$                          | 27.270; df = 3           |          |      |

\* $p < 0.01$       \*\*  $p < 0.001$

## Classification analysis

| Group            | Number of cases | Low uncertainty predicted | High uncertainty predicted |
|------------------|-----------------|---------------------------|----------------------------|
| Low uncertainty  | 56              | 45 (68.2%)                | 21 (31.8%)                 |
| High uncertainty | 66              | 16 (28.6%)                | 40 (71.4%)                 |

*69.7 % of the observations was correctly classified*



# DISCUSSION



- People high in neuroticism perceive the uncertainty of the pandemic as more resources demanding.
- Vulnerability to depletion which refers to weakness in self-regulatory system favors the perception of uncertainty as resources demanding.
- Young adults perceive the pandemic as more resources demanding than older adults.
  - Vicious circle
  - Resilience
  - Psychological disorders



Thank you !

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