Measuring Information Preferences

Emily H. Ho [1], David Hagmann [2], and George Loewenstein [2]
[1] Fordham University, Department of Psychology [2] Carnegie Mellon University, Social and Decision Sciences

Introduction

- To the extent that it can facilitate more efficient decision-making, information should always be sought (Stigler, (1961)
- Yet many empirical studies show a behavioral tendency to avoid information, even when it clearly is instrumental
  - Huntington's Disease testing (Oster, Shoulson, and Dorsey, 2013)
  - Unethical behavior of employees (Bazerman and Sezer, 2016)
- This may be explained by belief-based utility, where utility is derived from perceptions of the valence of information (Falk and Zimmerman 2014, Koszegi and Rabin 2006, Loewenstein 2006).
- Avoiding information can lead to adverse
- Currently, no systematic way of assessing (and determining prevalence of) information preferences across a variety of contexts
- Research questions: (1) Is information preference domain-specific or a general personality trait? (2) Can an Information Preference Scale predict consequential information acquisition or avoidance decisions?

Study 1: Psychometric Development of IPS

- In four pilot studies, we developed a scale that encompasses three domains: consumer finance, health, and personal, in addition to general information preference questions and contains scenarios that resemble typically encountered situations
- Example question: You have just participated in a psychology study in which all the participants rate one-anothers' attractiveness. The experimenter gives you an option to see the results for how people rated you. Do you want to know how attractive other people think you are?

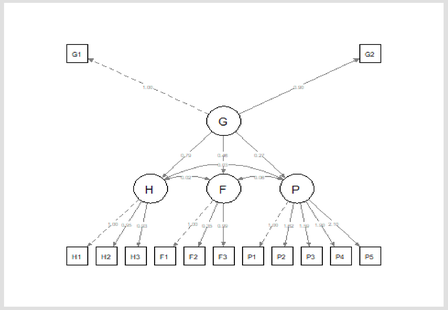
- Study 1A: Mturk participants (N=380) completed the IPS along with conceptually related scales
- Study 1B: Mturk participants (N=500) completed the IPS, along with additional scales, then re-took the IPS four weeks later

Convergent and Divergent Validity

- Cronbach's alpha = 0.83
- Test-retest reliability = 0.64

Divergent Validity Scale	Health	Consumer Finance	Personal	Sum Score Total
Need for Consistency	-0.06	0.03	-0.03	-0.07
Need for Closure	-0.07	0.04	0.04	-0.12 *
Receptiveness to Opposing Views	0.13 * *	-0.02	0.09 .	0.23 * *
Need for Cognition	0.12 *	0.09 .	0.15 * *	0.21 * *
General Risk	0.05	0.07	0.13 * *	0.12 *
Time Discounting	-0.07	-0.08	-0.12 *	-0.16 * *
BFI: Extraversion	0.00	0.11 *	0.13 * *	0.11 *
BFI: Agreeableness	0.02	-0.04	0.07	0.04
BFI: Conscientiousness	0.03	0.13 * *	0.04	0.14 * *
BFI: Neuroticism	-0.03	-0.08 .	-0.03	-0.17 * *
BFI: Openness	0.18 * *	0.10 *	0.18 * *	0.22 * *
Curiosity	0.13 * *	0.03	0.13 * *	0.22 * *
Self-Efficacy	0.14 * *	0.08 *	0.18 * *	0.21 * *
Learning Styles	0.23 * *	0.11 * *	0.25 * *	0.31 * *

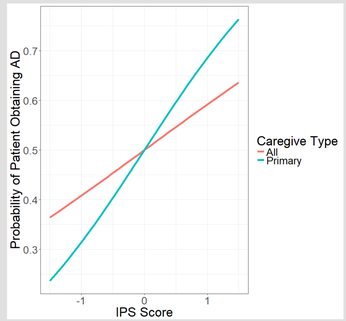
- Exploratory factor analyses in Study 1A suggested the IPS contained four correlated latent factors, with the domain items forming their own latent factor (e.g., Health items load onto Health factor)
- Confirmatory structural equation model in Study 1B yields good model fit (RMSEA = 0.03; TLI = 0.90, CFI = 0.99)



Comments & Questions: eho2@fordham.edu

Study 2: Information preferences in palliative care

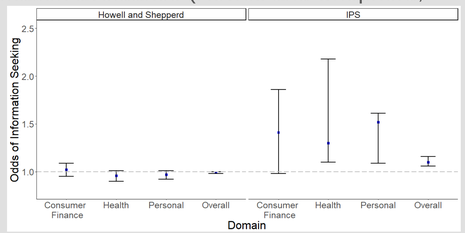
- 403 caregivers answered a series of questions relating to their want for information about their patient's prognosis



Caregivers' IPS scores significantly predicted the likelihood of the patient having an Advanced Directive in place ; this effect increased if the caregiver was either the sole or primary caregiver, suggesting information preferences may have downstream consequences (e.g., affecting the decision-making process for significant others)

Study 3: Predicting consequential decisions across all domains

- Participants completed the IPS and were randomly assigned to one of three information conditions: (1) Health: to be forwarded to a life expectancy calculator, (2) Consumer Finance: to be forwarded to a retirement saving calculator, and (3) Personal: to upload a picture so that an algorithm can predict your age
- Participants also completed an alternative measure of information avoidance (Howell and Shepherd, 2016)



Results

Study 1

- Psychometrically validate the IPS
- Prevalence of avoidance is high (M = 32.31%)
- Psychologically distinct construct (compared across 14 different scales)

Study 2

- Caregivers' information preferences can predict likelihood of patient obtaining an Advanced Directive, especially if caregiver is primary source of support

Study 3

- IPS predicts odds of seeking domain-related information within and across domains
- An alternative measure is theoretically similar to the IPS, but the IPS outperforms as a behavioral index

Conclusion

- Information avoidance is a burgeoning area of interest for researchers
- The current studies show that information preference is a psychologically unique construct and that it is domain-specific
- The Information Preferences Scale can be a useful tool for investigating questions in a variety of contexts, such as medical and financial decision-making

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