Components of Maximization and the Prediction of Decisional Search Behavior

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Introduction

When making decisions that require choosing from an array of options, often in time sensitive conditions, like choosing a college or buying a house, individuals explore choice options in very different ways. To measure self-reported individual differences in search patterns, the Maximization Scale was created (Schwartz et al., 2002). The scale assessed the extent to which individuals continue searching to try and find the very best option when making a decision, versus settling for a good-enough option.

More recently, a Maximization Inventory was developed that differentiates *three* separate components of search behavior: difficulty, alternative search, and satisficing (Turner, Rim, Betz, & Nygren, 2012). Until now, no research has addressed how these different components predict behavior. The purpose of this study is to test whether the three components of the Maximization Inventory predict predecisional information gathering in a decision making task.

Decision Making Task

To measure decision making behavior, a course selection simulation was used:

- **No-Cost Condition**: Ability to view up to five days worth of course options without risk of viewed courses filling seats
- **Cost Condition**: Ability to view up to five days worth of course options ***with*** risk of viewed courses filling seats

Course Selection Task: Day 1

	Seats Left	Meeting Time	Instructor Quality	Relevance to Goals	Amount of Work	Peer Evaluations	Interest in Topic
Course A	12	Acceptable	Poor	High	Preferred	Fair	High
Course B	14	Preferred		Moderate		Good	Low
Course C	13	Acceptable		Moderate	Ok but high	Fair	
Course D	14		Good			Fair	Moderate
Course E	13			High		Good	

This button won't work until you select a course.
Submit Choice
Go To Next Day
This button won't work after you get to last day.

Participants clicked in blank grid cells to gain information. To see more courses, they clicked "Go to Next Day" button for up to five days. They could select their desired course at any time by clicking "Submit Choice."

Dependent Measure: Number of days searched before choosing a course

The Maximization Inventory (MAX) Subscales

The Maximization Inventory is made up of three subscales:

•**Decision Difficulty** measures how challenging one finds making a decision when presented with many choices.

•**Alternative Search** measures the extent to which one will use resources (time, cognitive energy, etc.) to examine all possible options.

•**Satisficing** measures the tendency to derive comfort in making a choice that is merely satisfactory or "good enough."

Method

Participants

56 Wesleyan University students (37 women and 19 men); 18-22 years participated and were assigned to either the No-Cost or Cost condition.

Procedure

- Course simulation task
- Framed line task (not related to current work)
- Individual differences questionnaire (9 scales including MAX)

Results: Decision Making Task

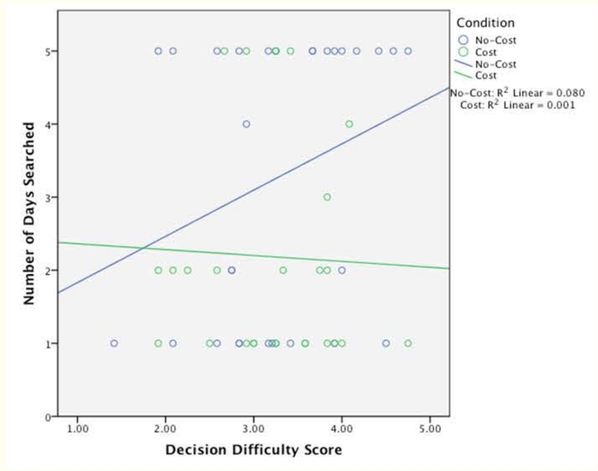
Predicting Number of Days Searched from Maximization Inventory Components

Predictor	β	t	Sig
Decision Difficulty	.39	2.32	.025
Alternative Search	-.29	-1.81	.077
Satisficing	-.07	-0.51	.611
Cost Manipulation	.41	0.43	.667
Difficulty x Cost	.36	0.53	.602
Alternative Search x Cost	-1.39	-1.86	.070
Satisficing x Cost	.33	0.51	.612
Conscientiousness*	.34	2.49	.016

*Conscientiousness was included in the regression model because it is an indicator of how seriously participants went about the study, and thus contributed to predicting number of days of search.

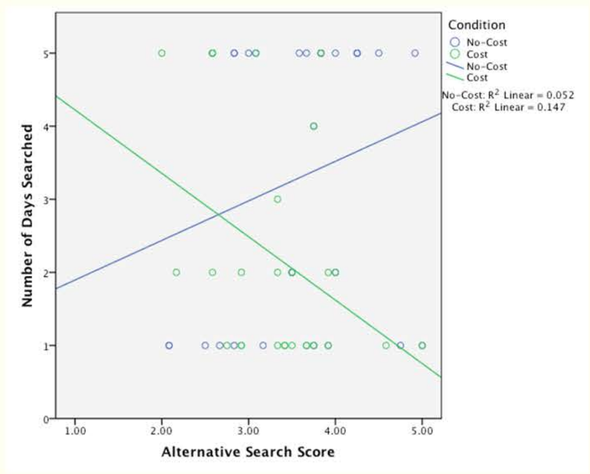
The overall fit of the model (excluding satisficing components and the decision difficulty cost interaction) was statistically reliable ($F(5,50) = 3.95$, $p = .004$).

Relationship Between Decision Difficulty and Number of Days Searched



It was found that the more difficulty individuals report in making decisions, the more likely they were to choose to look at additional days.

Relationship Between Alternative Search and Number of Days Searched



The greater an individual's self-reported tendency to expend resources searching for alternatives the more likely they are to search for more days in the No-Cost condition, and fewer days in the Cost condition.

Results: Individual Difference Measures

Individual Difference Scale	r^2	Sig
Decision Difficulty		
State Anxiety	.37	.005
Trait Anxiety	.57	<.001
Perfectionism: Concern for Mistakes	.45	.001
Perfectionism: Doubting of Actions	.61	<.001
Big Five Inventory: Neuroticism	.52	<.001
Alternative Search		
Perfectionism: Concern for Mistakes	.34	.012
Perfectionism: Doubting of Actions	.39	.003
Perfectionism: Parental Criticism	.31	.021
Perfectionism: Organization	.34	.010
Satisficing		
Behavioral Activation System: Drive	-.31	.018
Behavioral Activation System: Fun-Seeking	-.29	.032
Big Five Inventory: Openness	-.27	.041

- Decision difficulty is positively associated with negative thinking and behaviors.
- Alternative search is positively correlated with perfectionism.
- Satisficing is negatively related to drive towards positive stimuli.

The best fitting model for predicting search days that uses these component individual difference measures includes:

Predictor	β	t	Sig
Cost Manipulation	-.27	-2.32	.025
Perfectionism: Concern for Mistakes	-.34	-2.70	.009
Big Five Inventory: Neuroticism	.37	2.88	.006
Big Five Inventory Conscientiousness	.25	2.11	.040

The overall fit of the model was statistically reliable ($F(4,51) = 5.35$, $p = .001$).

Concern for mistake and neuroticism (defined as the tendency to experience emotional instability and upset) may underlie the alternative search and difficulty components of maximization.

Discussion

The goal of the work was to address the relationship between subscales of the Maximization Inventory and search behavior in situations that varied in whether or not there was a cost to continued search.

We found that individuals who report greater decision difficulty engage in more search regardless of cost. Additionally, those who report expending resources on decision making search more when there's no cost but, surprisingly, search less when there is a cost; and satisficing is not related to search.

Decision difficulty was associated with neuroticism and alternative search with concern for mistakes. Further research should continue to examine the role of decision related constructs relative to more basic personality traits in explaining variations in decision behavior.

References

Schwartz, B., Ward, A., Monterosso, J., Lyubomirsky, S., White, K., & Lehman, D. R. (2002). Maximizing versus satisficing: Happiness is a matter of choice. *Journal of Personality and Social Psychology, 83,* 1178-1197.

Turner, B. M., Rim, H. B., Betz, N. E., & Nygren, T. E. (2012). The Maximization Inventory. *Judgment and Decision Making, 7*, 48-60.