A Decision Theoretic Approach to Modeling Multiple Bounded Uncertainty Choice Data[1]

Proposed running title

Address correspondence to

Abstract

1. Introduction

e.g.

2. Review of Prior Findings: Respondent uncertainty and the multiple bounded uncertainty choice format

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V_i $F \cdot$

$$V_i = x_i! + "_i \quad x_i$$

$$"_i$$

$F \cdot$ $"_i$

$G_i \bullet$ i i

b

$P_i \, V_i \quad b \quad = \quad - \; G_i \, b \qquad V_i \qquad i$

$Pr \; event \; occurs \quad =$ $Pr \; event \; occurs \quad =$

i $b \;\; V_i \quad b$

$b \;\; P_i \, V_i \quad b \quad = \quad - \; G_i \, b \quad =$

individual

4.1 An optimal decision rule for continuous uncertainty responses

(1) $$R_i\, b = P_i\, V_i \quad b = \quad - P_i\, V_i \quad b = \quad - G_i\, b$$

$V_i \quad !$

$L \; ! \;\; v_i$ i

(2) $$Average\ \ loss\ \ of\ \# = E_i\ l\ L\ !\ \ v_i\ \ \#$$

(3) $$l\ L\ !\ \ v_i\ \ \# = L\ !\ \ v_i\ -\#$$

(4) $$= E_i\ \left(L\ !\ \ V_i\ - \# \right)$$

$\#$

(5) $$\#^* = E_i\ \ L\ !\ \ v_i$$

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(6) $$\#^{*} = E_i \quad L \;!\; V_i \quad = \mathop{}\limits_{-\infty}^{\infty} L \;!\; v \quad dP_i \, v$$

$$R_i \, b_k \; = P_i \, V_i \quad b_k \; = \quad - \, P_i \, V_i \quad b$$

(8) $$\$ = \{ -\infty \quad b \quad b \quad b \quad b_{K-} \quad b_K \quad b_K \quad \infty \}$$

$$= \{$$

$$\#^{*} = E_i \quad L \; ! \quad V_i \qquad = P_i \, V_i \qquad b \quad \cdot \qquad F$$

(11) $$WTP_i = \% + \&_i$$

$\&_i$ '

WTP_i % '

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i.e.

6. Conclusions

References

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J. Environ. Econom. Management

Journal of Forecasting **1**

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Figure 1: Multiple Bounded Uncertainty Choice Sample Response

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Table II: Estimation Results for Maine Moose Hunting Study[1]

	Definitely Yes Model	Probably Yes Model	Not Sure Model	Benchmark Decision Theory Model

Table III: Estimation Results for Maine Moose Hunting Study–Sensitivity of decision theory estimates to assignment of probabilities[1]

	Symmetric Assignments		Asymmetric Assignments	
	1, 0.99, 0.5, 0.01, 0	1, 0.6, 0.5, 0.4, 0	Benchmark[2]: 1, 0.75, 0.5, 0.15, 0	1, 0.99, 0.98, 0.5, 0

Table IV: Estimation Results for Glen Canyon Pilot Study[1]

	Definitely Yes Model	Probably Yes Model	Not Sure Model	Benchmark Decision Theory Model
Version 1				
Version 2				
Version 3