

Willingness-to-pay for Warnings: Pilot Results

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- Subjects put too much weight on the signal and too little weight on prior probabilities both in informed protection and belief elicitation
- Reported beliefs have less predictive power for protection choices than posterior probabilities
- Both the theoretical value of information and the value based on subject's choices are strong predictor of WTP for information
- WTP is overly sensitive to false positive and false negative rates

Informed Protection: Correlation

Table: Informed Protection

	(1) All	(2) All	(3) Smart	(4) Smart
Posterior prob.	.758*** (10.6)	.0522 (0.8)	.792*** (8.0)	.0124 (0.2)
Prior prob.		.279* (1.9)		.0795 (0.8)
Gremlin says Black		.655*** (8.8)		.734*** (9.6)
Constant	.283*** (9.6)	.172*** (4.0)	.274*** (7.0)	.192*** (3.7)
Observations	228	228	132	132
Adjusted R^2	0.42	0.53	0.43	0.58

t statistics in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table: Informed Protection: Response to Reported Beliefs

	(1) All	(2) All	(3) Smart
Belief	.608*** (4.6)	.0013 (0.0)	.352* (1.9)
Posterior prob.		.758*** (9.0)	.512*** (3.4)
Constant	.278*** (4.1)	.282*** (5.5)	.214*** (3.8)
Observations	228	228	132
Adjusted R^2	0.20	0.42	0.45

t statistics in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Informed Protection: Do Subject's Beliefs Matter?

Table: Informed Protection: Response to Reported Beliefs

	(1) All	(2) All	(3) Smart
Belief	.608*** (4.6)	.0013 (0.0)	.352* (1.9)
Posterior prob.		.758*** (9.0)	.512*** (3.4)
Constant	.278*** (4.1)	.282*** (5.5)	.214*** (3.8)
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t statistics in parentheses

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Belief Updating: Correlation

Table: Belief Elicitation: Belief vs Posterior

	(1) All	(2) Not_honest	(3) Good quiz
Posterior prob.	.587*** (13.1)	.778*** (19.9)	.41*** (6.6)
Constant	.277*** (9.1)	.177*** (6.0)	.343*** (10.0)
Observations	228	132	152
Adjusted R^2	0.42	0.68	0.23

t statistics in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

What Affects Beliefs?

Table: Belief Elicitation: Determinants

	(1) OLS	(2) FE	(3) Smart, FE
Posterior prob.	.0819 (1.0)	.0522 (0.8)	.0124 (0.2)
Prior prob.	.132 (0.8)	.279* (1.9)	.0795 (0.8)
Gremlin says Black	.634*** (8.5)	.655*** (8.8)	.734*** (9.6)
Constant	.208*** (3.9)	.172*** (4.0)	.192*** (3.7)
Observations	228	228	132
Adjusted R^2	0.49	0.53	0.58

t statistics in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Belief Updating: Decomposition

- Posterior probability $\mu = P(B|S = x)$ that the ball is black conditional on a hint $S = x$ can be written as:

$$\ln \left(\frac{\mu}{1 - \mu} \right) = \lambda_0 + S_B + S_W$$

- With $\lambda_0 \equiv \ln(p/(1 - p))$ representing (transformed) prior beliefs
- And S_B, S_W describing the effect of new evidence:

$$S_B \equiv I(S = B) \ln(P(s = B|B)/P(s = B|W))$$

$$S_W \equiv I(S = W) \ln((1 - P(s = B|B))/(1 - P(s = B|W)))$$

Belief Updating: Decomposition

Table: Belief Elicitation: Decomposition

	(1)	(2)	(3)
	OLS	FE	Smart, FE
lt_prior	.082 (0.4)	.0758 (0.7)	.135 (0.9)
signalB	.491 (1.3)	.89* (1.8)	1.56*** (3.7)
signalW	.399 (0.8)	0 (.)	0 (.)
Constant	-.279 (-0.6)	-.69** (-2.6)	-.998** (-3.3)
Observations	52	52	36
Adjusted R^2	0.13	0.19	0.47

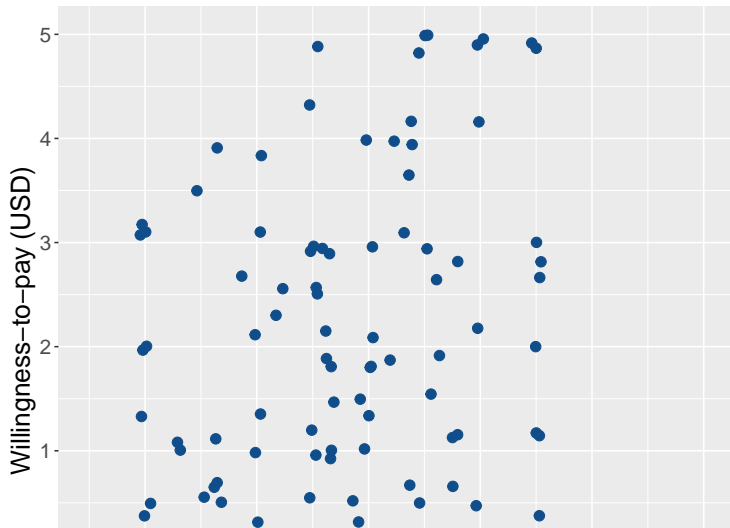
t statistics in parentheses

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WTP for signals

- Higher average WTP for more valuable signals

WTP for a signal vs predicted value



WTP for signals: Determinants

Table: WTP for Information

	(1)	(2)	(3)	(4)	(5)
	OLS	OLS	FE	FE	FE
value	.688*** (5.1)	.71*** (5.5)	.713*** (5.4)	.381*** (3.4)	.135 (1.3)
(sum) bp		-.452*** (-4.3)			
honest_treatment				1.26*** (3.1)	-.248 (-0.4)
False neg. rate					-3.94*** (-3.5)
False pos. rate					-6.08*** (-3.3)
Constant	.961*** (4.0)	2.11*** (5.5)	.918*** (4.1)	1.07*** (5.6)	3.21*** (6.6)
Observations	114	114	114	114	114
Adjusted R^2	0.18	0.25	0.29	0.41	0.53

t statistics in parentheses

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