Ambiguity and gender differences in financial decision making
an experimental examination of competence and confidence effects

Working Paper

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Figures and Tables
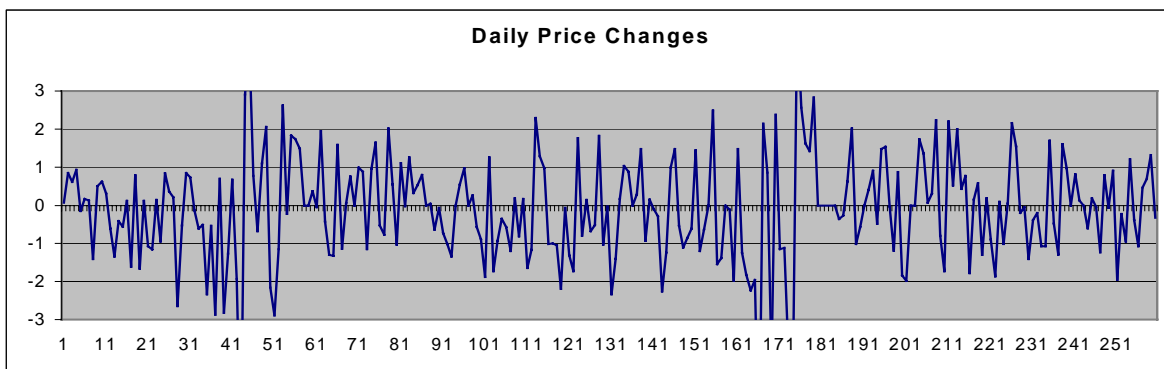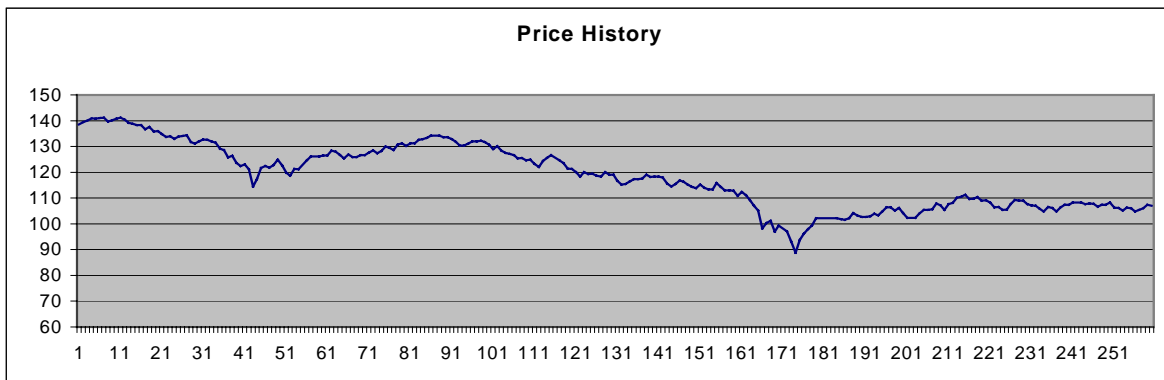
Trading Day	251	252	253	254	255	256	257	258	259	260
Daily Price	106.30	106.08	105.13	106.34	105.96	104.88	105.34	106.03	107.35	107.02
Change of Daily Price	-1.96	-0.22	-0.95	1.21	-0.38	-1.08	0.46	0.69	1.32	-0.33
(% change)	(-1.84)	(-0.21)	(-0.90)	(1.14)	(-0.36)	(-1.03)	(0.44)	(0.65)	(1.23)	(-0.31)

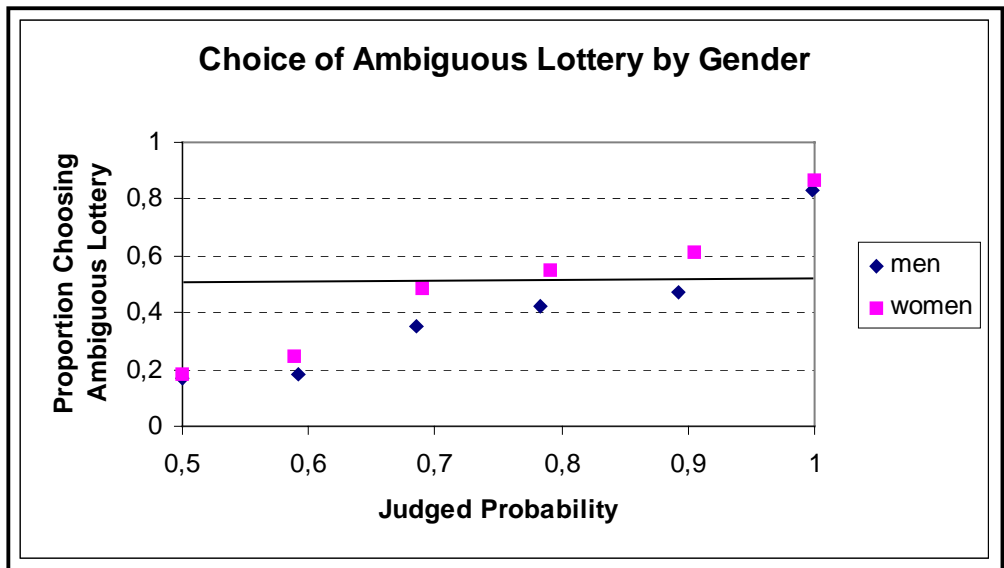Figure 1: Price information shown on decision sheet.

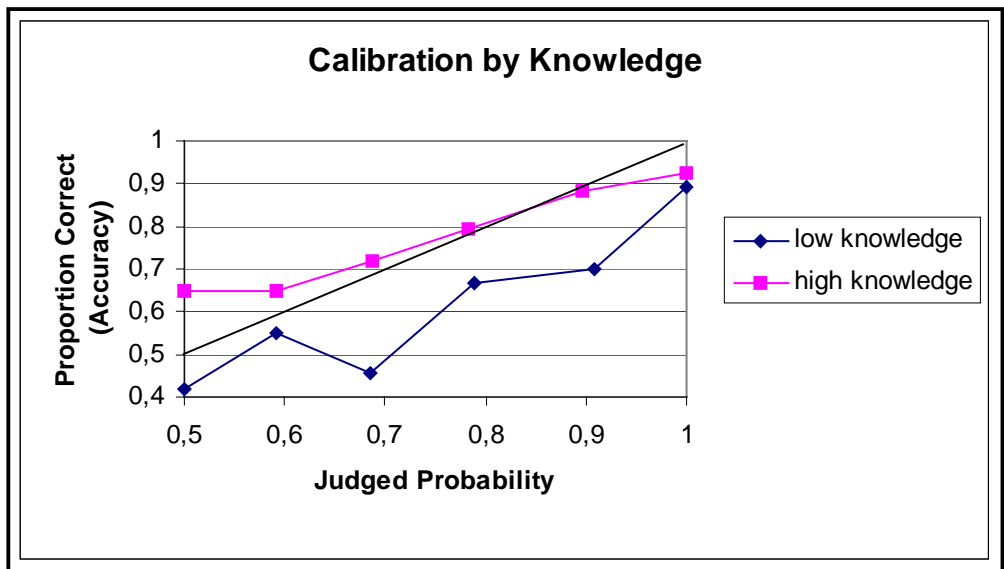Figure 2: Choice of Ambiguous Lottery by Gender[1]

Figure 3: Calibration by Knowledge

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[1] In our design we chose to offer the 95% lottery when individuals stated a judged probability of 96 to 100%. Interestingly, some individuals stated 100% and chose the lottery. This leads to the question of sensitivity which we will explore in future research.

Treatment Variable Names		L1	L2	L3	L4
Real Fund (RFI)	**Name**	Swiss Stock Fund	Euro Stock Fund	Swiss Rent (Bond) Fund	Swiss Small Stock Fund
	Sheet Number	Decision Sheet 1	Decision Sheet 2	Decision Sheet 3	Decision Sheet 4
	Frequency of Price change $\geq$ + 0.5%	Frequency: 33.6%	Frequency: 36.8%	Frequency: 0.4%	Frequency: 29.1%
Virtual Fund (VFI)	**Sheet Number**	Decision Sheet 8	Decision Sheet 5	Decision Sheet 6	Decision Sheet 7
	Frequency of Price change $\geq$ + 0.5%	Frequency: 30.3%	Frequency: 39.0%	Frequency: 3.4%	Frequency: 26.5%
	Probability of Price change $\geq$ + 0.5%	Probability: 32.3%	Probability: 37.1%	Probability: 4.8%	Probability: 29.1%
	Expected Value	EV = 12.9 CHF	EV = 14.8 CHF	EV = 1.9 CHF	EV = 11.6 CHF
Pure Risk Format	**Sheet Number**	Decision Sheet 10	Decision Sheet 12	Decision Sheet 11	Decision Sheet 9
	Probability of Price change $\geq$ + 0.5%	Probability: 30%	Probability: 35%	Probability: 5%	Probability: 25%
	Expected Value	EV = 12 CHF	EV = 14 CHF	EV = 2 CHF	EV = 10 CHF

Table 1: Description of Real, Virtual and Pure Risk Uncertainty Formats implemented in Part 2 of the Experiment.

Variable	Description	Range of Values	First Order Interaction Variables		Second Order Interaction Variables	
CE	Certainty Equivalent, Dependent Variable in the Regression	Range of 0 to 40				
L1	Dummy Variable for the Lotteries with EV=12	EV12 =1				
L2	Dummy Variable for the Lotteries with EV=14	EV14 =1				
L3	Dummy Variable for the Lotteries with EV=2	EV2=1				
L4	Dummy Variable for the Lotteries with EV=10	EV10=1				
RFI	Dummy Variable for the Real Information Format	RFI=1				
VFI	Dummy Variable for the Virtual Information Format	VFI=1				
Comp	Measure of competence	Scale of –1 to 1	CompR	Comp*RFI		
			CompV	Comp*VFI		
OC	Measure of overconfidence	Scale of –1 to 1	OverR	Over*RFI		
			OverF	Over*VFI		
Know	Measure of objective knowledge	Scale of 0 to 15	KnowR	Know*RFI		
			KnowV	Know*VFI		
Female	Dummy Variable for Gender	Male=0 Female=1	Fcomp	Female*comp	FcompR	Female* Comp*RFI
					FcompV	Female* Comp*VFI
			FOC	Female*Over	FoverR	Female* Over*RFI
					FoverV	Female* Over*VFI
			Fknow	Female*Know	FknowR	Female* Know*RFI
					FknowV	Female* Know*RFI

Table 2: Definition of Variables

Dependent variable CE Independent variables	Regression 1		Regression 2	
	Coefficient	P-Value	Coefficient	P-Value
Constant	32.48	0.00	5.24	0.00
L1	9.58	0.00	9.57	0.00
L2	11.89	0.00	11.92	0.00
L4	6.82	0.00	6.82	0.00
RFI	-8.7	0.004	-0.2	0.64
VFI	-4.02	0.19	1.02	0.017
Comp	0.79	0.76		
CompR	-2.36	0.02		
CompV	2.38	0.02		
OC	-38.65	0.001		
OverR	47.9	0.00		
OverV	20.04	0.00		
Know	-2.24	0.002		
KnowR	0.71	0.005		
KnowV	0.33	0.19		
Female	-53.79	0.00	-2.00	0.12
Fcomp	-4.16	0.44		
FcompR	6.59	0.003		
FcompV	-0.44	0.84		
FOC	76.73	0.00		
FoverR	-39.42	0.003		
FoverV	-13.13	0.061		
Fknow	4.7	0.00		
FknowR	-0.05	0.65		
FknowV	0.03	0.74		
	Number of observations: 600 R-squared. 0.481 Breusch Pagan Test: 394.72		Number of observations: 600 R-squared: 0.378 Breusch Pagan Test: 545.53	

Table 3: Regression analysis, not significant coefficients are marked in grey

	Constant		Competence		Overconfidence		Knowledge	
	Male	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
Risk	32.48	-21.31	n.s.	n.s.	-38.65	38.08	-2.24	2.46
RFI	23.79	-30.0	-2.36	4.23	9.25	46.56	-1.53	3.18
VFI	n.s.	n.s.	2.38	2.38	-18.61	44.99	-2.24	2.46

Table 4: Total Effects of the interaction terms

			Forecast CE			
			Male low	**Female low**	**Male high**	**Female high**
Risk	DS10	L2	18.39	15.77	16.18	18.29
	DS12	L1	16.08	13.46	13.87	15.98
	DS9	L4	13.32	10.70	11.11	13.22
	DS11	L3	6.50	3.88	4.29	6.40
RFI	DS1	L2	20.11	16.04	15.23	19.48
	DS2	L1	17.80	13.73	12.92	17.17
	DS4	L4	15.04	10.97	10.16	14.41
	DS3	L3	8.22	4.15	3.34	7.59
VFI	DS8	L2	21.01	16.90	17.07	18.64
	DS5	L1	18.70	14.59	14.76	16.33
	DS7	L4	15.94	11.83	12.00	13.57
	DS6	L3	9.12	5.01	5.18	6.75

Table 5: CE forecast out of the regression