Online Appendices

Appendix A: Supplementary Tables and Figures

Table A.1. The effect of background characteristics on attitudes towards risk and sources of uncertainty in Singapore subjects

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIABLES	risk	full ambiguity	interval ambiguity	disjoint ambiguity	full compound	p-q compound	home	foreign
female	-0.456	-0.142	-0.120	0.030	0.228	-0.164	0.078	0.294
	[0.136]	[0.173]	[0.168]	[0.187]	[0.183]	[0.189]	[0.150]	[0.150]
age	-0.997	0.484	-0.524	0.058	1.039	-0.282	-0.413	-0.896
	[0.798]	[1.013]	[0.983]	[1.096]	[1.077]	[1.111]	[0.880]	[0.881]
age^2	0.023	-0.010	0.013	0.000	-0.023	0.006	0.010	0.022
	[0.018]	[0.023]	[0.022]	[0.025]	[0.025]	[0.025]	[0.020]	[0.020]
father education	-0.042	-0.052	-0.053	-0.005	-0.021	0.029	-0.026	-0.038
	[0.040]	[0.051]	[0.049]	[0.055]	[0.054]	[0.055]	[0.044]	[0.044]
mother education	0.053	-0.023	-0.059	-0.028	-0.053	-0.024	-0.002	-0.012
	[0.043]	[0.055]	[0.053]	[0.059]	[0.058]	[0.059]	[0.047]	[0.047]
number of siblings	-0.040	-0.123	-0.113	-0.072	-0.150	-0.022	-0.101	-0.073
	[0.065]	[0.083]	[0.080]	[0.090]	[0.088]	[0.091]	[0.072]	[0.072]
family income	-0.000	-0.000	-0.000	-0.000	0.000	-0.000	-0.000	-0.000
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Constant	16.792	-2.435	7.426	0.176	-10.094	4.176	4.516	9.513
	[8.771]	[11.128]	[10.803]	[12.045]	[11.836]	[12.214]	[9.670]	[9.686]
Observations	1,797	1,779	1,775	1,776	1,773	1,776	1,772	1,779
R-squared	0.015	0.004	0.006	0.001	0.004	0.001	0.002	0.005

Table A.2. The effect of background characteristics on attitudes towards risk and sources of uncertainty in Beijing subjects

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIABLES	risk	full ambiguity	interval ambiguity	disjoint ambiguity	full compound	p-q compound	home	foreign
female	-0.499	0.127	0.080	0.163	0.173	0.239	0.301	0.443
	[0.145]	[0.180]	[0.173]	[0.195]	[0.178]	[0.198]	[0.154]	[0.150]
age	-0.518	0.117	-0.376	-0.387	-0.530	-0.974	0.025	0.002
	[0.435]	[0.537]	[0.517]	[0.583]	[0.533]	[0.591]	[0.468]	[0.450]
age^2	0.011	-0.003	0.009	0.009	0.013	0.023	-0.001	-0.000
	[0.010]	[0.012]	[0.012]	[0.013]	[0.012]	[0.013]	[0.011]	[0.010]
father education	0.012	0.044	0.057	0.020	0.099	0.161	0.165	0.231
	[0.069]	[0.085]	[0.082]	[0.093]	[0.085]	[0.093]	[0.073]	[0.072]
mother education	0.040	0.056	0.051	0.150	0.098	0.006	-0.137	-0.211
	[0.065]	[0.081]	[0.078]	[0.088]	[0.080]	[0.089]	[0.069]	[0.069]
number of siblings	0.021	0.092	0.074	0.009	0.080	0.070	-0.025	-0.025
	[0.058]	[0.072]	[0.069]	[0.078]	[0.071]	[0.079]	[0.062]	[0.060]
family income	-0.000	0.000	0.000	0.000	-0.000	0.000	0.000	-0.000
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Constant	11.522	0.026	4.257	3.853	5.651	8.468	-0.647	-0.367
	[4.804]	[5.931]	[5.710]	[6.445]	[5.890]	[6.531]	[5.182]	[4.971]
Observations	936	929	927	926	922	925	928	923
R-squared	0.018	0.005	0.005	0.010	0.013	0.016	0.011	0.022

Table A.3. Spearman correlations across the premium of each lottery

	A	**A1**	**A2**	**C**	**C1**	**N**
A1	*0.747*					
A2	*0.556*	*0.632*				
C	0.549	0.569	0.501			
C1	0.426	0.449	0.421	*0.485*		
N	0.445	0.468	0.472	0.464	0.407	
N1	0.441	0.450	0.441	0.450	0.383	*0.865*

Note: The premium is computed as the difference between the CE of the risky lottery and that of the corresponding lottery.

Table A.4. Attitudes toward uncertainty by cognitive ability

		Low Scores			High Scores			
	Lottery	Neutral	Aversion	Seeking	Neutral	Aversion	Seeking	p-value
A	Full Ambiguity	21.4%	63.8%	14.8%	22.6%	66.0%	11.4%	0.033
A1	Interval Ambiguity	24.3%	54.1%	21.7%	26.0%	57.3%	16.7%	0.074
A2	Disjoint Ambiguity	24.8%	50.8%	24.4%	21.8%	56.2%	22.1%	0.278
C	Full Compound Risk	24.1%	55.5%	20.4%	22.2%	57.0%	20.9%	0.292
C1	*p*-*q* Compound Risk	23.1%	42.2%	34.7%	24.4%	46.2%	29.4%	0.056
N	Natural Event (Home)	33.0%	37.3%	29.7%	38.5%	33.7%	27.8%	0.541
N1	Natural Event (Foreign)	32.2%	42.3%	25.5%	38.2%	37.5%	24.3%	0.574

Note: This table presents the percentage of different attitudes toward each lottery by low cognitive ability (scores $\leq$ 57, N = 1022) and high cognitive ability (scores $>$ 57, N = 1059). The last column reports the p-value using regression analysis with premium as dependent variable and score as independent variable.

Table A.5. Correlations across three types of uncertainty by cognitive ability

	Low Scores		High Scores	
	Ambiguity	Compound Risk	Ambiguity	Compound Risk
Compound Risk	0.813		0.837	
	(0.017)		(0.015)	
Natural Event	0.608	0.714	0.557	0.604
	(0.011)	(0.017)	(0.011)	(0.015)

Note: This table presents the correlations for attitudes toward the three types of uncertainty by low cognitive ability (scores $\leq$ 57, N = 1022) and high cognitive ability (scores $>$ 57, N = 1059).

Table A.6. Individual types by cognitive ability

Ambiguity	Compound Risk	Natural Event	Low Scores	High Scores	p-value
Non-Neutral	Non-Neutral	Non-Neutral	67.4%	63.4%	0.067
Non-Neutral	Non-Neutral	Neutral	19.1%	21.5%	0.203
Neutral	Neutral	Neutral	4.6%	6.6%	0.070
Non-Neutral	Neutral	Non-Neutral	2.3%	0.5%	0.001
Neutral	Non-Neutral	Non-Neutral	2.0%	1.4%	0.325
Non-Neutral	Neutral	Neutral	2.0%	2.4%	0.629
Neutral	Non-Neutral	Neutral	1.7%	3.3%	0.029
Neutral	Neutral	Non-Neutral	0.8%	0.9%	0.755

Note: This table presents the percentage of individual type classified by attitudes toward three types of uncertainty, by low cognitive ability (scores $\leq$ 57, N = 1022) and high cognitive ability (scores $>$ 57, N = 1059).

Table A.7. Attitudes toward uncertainty: Singapore and Beijing subjects

		Singapore			Beijing			
	Lottery	Neutral	Aversion	Seeking	Neutral	Aversion	Seeking	p-value
A	Full Ambiguity	22.0%	65.0%	13.0%	24.1%	63.0%	12.8%	0.000
A1	Interval Ambiguity	25.2%	55.8%	19.1%	25.7%	53.2%	21.1%	0.000
A2	Disjoint Ambiguity	23.2%	53.6%	23.2%	21.7%	52.0%	26.4%	0.001
C	Full Compound Risk	23.1%	56.3%	20.6%	25.1%	55.5%	19.4%	0.002
C1	*p*-*q* Compound Risk	23.8%	44.3%	32.0%	23.3%	31.5%	45.1%	0.000
N	Natural Event (Home)	35.9%	35.4%	28.7%	33.9%	34.3%	31.8%	0.207
N1	Natural Event (Foreign)	35.3%	39.8%	24.9%	33.4%	37.0%	29.6%	0.013

Note: This table presents the percentage of different attitudes toward each lottery, comparing Singapore and Beijing subjects.

Table A.8. Correlations across three types of uncertainty: Singapore and Beijing subjects

	Singapore		Beijing	
	Ambiguity	Compound Risk	Ambiguity	Compound Risk
Compound Risk	0.825		0.780	
	(0.012)		(0.015)	
Natural Event	0.580	0.657	0.601	0.618
	(0.008)	(0.011)	(0.012)	(0.016)

Note: This table presents the correlations across attitudes toward three types of uncertainty, comparing Singapore and Beijing subjects.

Table A.9. Individual types: Singapore and Beijing subjects

Ambiguity	Compound Risk	Natural Event	Singapore	Beijing	p-value
Non-Neutral	Non-Neutral	Non-Neutral	65.3%	68.5%	0.083
Non-Neutral	Non-Neutral	Neutral	20.4%	16.5%	0.012
Neutral	Neutral	Neutral	5.7%	4.0%	0.048
Non-Neutral	Neutral	Non-Neutral	1.4%	2.8%	0.005
Neutral	Non-Neutral	Non-Neutral	1.7%	1.9%	0.704
Non-Neutral	Neutral	Neutral	2.2%	3.1%	0.133
Neutral	Non-Neutral	Neutral	2.5%	2.1%	0.499
Neutral	Neutral	Non-Neutral	0.9%	1.0%	0.689

Note: This table presents the percentage of individual type classified by attitudes toward three types of uncertainty, comparing Singapore and Beijing subjects.

Table A.10. Attitudes toward uncertainty by cognitive ability (Beijing subjects)

		Low Scores			High Scores			
	Lottery	Neutral	Aversion	Seeking	Neutral	Aversion	Seeking	p-value
A	Full Ambiguity	25.2%	63.3%	11.5%	23.3%	62.8%	13.8%	0.698
A1	Interval Ambiguity	25.1%	54.7%	20.2%	26.1%	52.1%	21.8%	0.186
A2	Disjoint Ambiguity	20.7%	51.6%	27.7%	22.4%	52.2%	25.4%	0.122
C	Full Compound Risk	23.1%	59.4%	17.5%	26.5%	52.7%	20.8%	0.041
C1	*p*-*q* Compound Risk	20.5%	34.2%	45.3%	25.3%	29.7%	45.0%	0.394
N	Natural Event (Home)	31.9%	36.4%	31.7%	35.3%	32.8%	31.9%	0.031
N1	Natural Event (Foreign)	31.8%	38.1%	30.1%	34.6%	36.2%	29.2%	0.065

Note: This table presents the percentage of attitude toward each lottery for Beijing subjects, by low cognitive ability (scores ≤ 56, N = 526) and high cognitive ability (scores > 56, N = 663). The last column reports the p-value using regression analysis with premium as dependent variable and score as independent variable.

Table A.11. Correlations across three types of uncertainty by cognitive ability (Beijing subjects)

	Low Scores		High Scores	
	Ambiguity	Compound Risk	Ambiguity	Compound Risk
Compound Risk	0.788		0.776	
	(0.025)		(0.020)	
Natural Event	0.632	0.626	0.581	0.611
	(0.019)	(0.025)	(0.015)	(0.021)

Note: This table presents the correlations for attitudes towards the three types of uncertainty for Beijing subjects, by low cognitive ability (scores ≤ 56, N = 526) and high cognitive ability (scores > 56, N = 663).

Table A.12. Individual types by cognitive ability (Beijing subjects)

Ambiguity	Compound Risk	Natural Event	Low Scores	High Scores	p-value
Non-Neutral	Non-Neutral	Non-Neutral	72.3%	65.9%	0.032
Non-Neutral	Non-Neutral	Neutral	15.2%	17.4%	0.356
Neutral	Neutral	Neutral	2.5%	5.0%	0.043
Non-Neutral	Neutral	Non-Neutral	2.2%	3.3%	0.319
Neutral	Non-Neutral	Non-Neutral	1.5%	2.2%	0.386
Non-Neutral	Neutral	Neutral	3.2%	3.1%	0.941
Neutral	Non-Neutral	Neutral	2.0%	2.2%	0.764
Neutral	Neutral	Non-Neutral	1.2%	0.9%	0.575

Notes: This table presents the percentage of individual type classified by attitudes toward three types of uncertainty for Beijing subjects, by low cognitive ability (scores ≤ 56, N = 526) and high cognitive ability (scores > 56, N = 663).

Table A.13. Summary Statistics of Attitudes toward Types of Uncertainty in Experiment 2

A. Moderate Prospect

				relative to EV			relative to Risk		
Variable	Obs	Mean	Std. Dev.	Neutral	Aversion	Seeking	Neutral	Aversion	Seeking
Risk	149	8.000	3.811	15.4%	66.4%	18.1%			
Ambiguity	149	7.631	3.719	12.1%	72.5%	15.4%	41.6%	34.9%	23.5%
Compound	149	8.188	3.934	15.4%	63.8%	20.8%	44.3%	29.5%	26.2%
Natural Event	149	8.034	4.041	12.8%	66.4%	20.8%	47.0%	27.5%	25.5%

B. Moderate Hazard

				relative to EV			relative to Risk		
Variable	Obs	Mean	Std. Dev.	Neutral	Aversion	Seeking	Neutral	Aversion	Seeking
Risk	149	13.503	4.231	13.4%	18.8%	67.8%			
Ambiguity	149	13.168	4.504	12.8%	26.9%	60.4%	36.9%	38.9%	24.2%
Compound	149	12.779	4.346	12.1%	26.2%	61.7%	35.6%	38.9%	25.5%
Natural Event	149	12.953	4.261	13.4%	24.2%	62.4%	40.9%	38.3%	20.8%

C. Longshot Prospect

				relative to EV			relative to Risk		
Variable	Obs	Mean	Std. Dev.	Neutral	Aversion	Seeking	Neutral	Aversion	Seeking
Risk	149	12.047	4.474	15.4%	26.2%	58.4%			
Ambiguity	149	10.732	4.063	16.8%	35.6%	47.7%	32.9%	51.0%	16.1%
Compound	149	10.926	4.120	19.5%	36.9%	43.6%	34.2%	45.0%	20.8%
Natural Event	149	10.966	4.071	19.5%	34.9%	45.6%	31.5%	45.0%	23.5%

D. Longshot Hazard

				relative to EV			relative to Risk		
Variable	Obs	Mean	Std. Dev.	Neutral	Aversion	Seeking	Neutral	Aversion	Seeking
Risk	149	8.651	5.265	14.8%	59.1%	26.2%			
Ambiguity	149	8.993	4.893	14.8%	59.1%	26.2%	32.2%	32.9%	34.9%
Compound	149	9.195	5.283	7.4%	56.4%	36.2%	35.6%	30.9%	33.6%
Natural Event	149	9.409	5.100	12.8%	54.4%	32.9%	34.9%	26.2%	38.9%

E. Mixed Lottery

				relative to EV			relative to Risk		
Variable	Obs	Mean	Std. Dev.	Neutral	Aversion	Seeking	Neutral	Aversion	Seeking
Risk	149	8.369	4.897	8.1%	64.4%	27.5%			
Ambiguity	149	7.564	4.205	10.1%	73.2%	16.8%	34.9%	41.6%	23.5%
Compound	149	7.899	4.341	8.7%	71.8%	19.5%	30.9%	40.3%	28.9%
Natural Event	149	8.342	4.815	10.7%	64.4%	24.8%	32.9%	35.6%	31.5%

Table A.14. Summary Statistics of Attitudes toward Types of Uncertainty in Experiment 2 with full sample

A. Moderate Prospect

				relative to EV			relative to Risk		
Variable	Obs	Mean	Std. Dev.	Neutral	Aversion	Seeking	Neutral	Aversion	Seeking
Risk	208	8.096	4.538	13.9%	64.4%	21.6%			
Ambiguity	208	7.707	4.390	11.1%	70.7%	18.3%	39.4%	35.6%	25.0%
Compound	208	8.130	4.508	13.5%	63.5%	23.1%	43.3%	28.9%	27.9%
Natural Event	208	7.894	4.502	13.0%	65.9%	21.2%	44.7%	30.3%	25.0%

B. Moderate Hazard

				relative to EV			relative to Risk		
Variable	Obs	Mean	Std. Dev.	Neutral	Aversion	Seeking	Neutral	Aversion	Seeking
Risk	208	13.447	5.038	13.5%	20.2%	66.4%			
Ambiguity	208	13.192	5.064	12.5%	26.9%	60.6%	35.1%	37.0%	27.9%
Compound	208	12.870	5.016	12.5%	25.0%	62.5%	36.5%	36.1%	27.4%
Natural Event	208	13.029	4.886	13.9%	23.6%	62.5%	38.5%	37.0%	24.5%

C. Longshot Prospect

				relative to EV			relative to Risk		
Variable	Obs	Mean	Std. Dev.	Neutral	Aversion	Seeking	Neutral	Aversion	Seeking
Risk	208	11.784	5.466	13.0%	30.8%	56.3%			
Ambiguity	208	10.591	4.836	14.9%	38.5%	46.6%	36.1%	47.6%	16.4%
Compound	208	10.678	4.929	19.2%	38.0%	42.8%	33.2%	44.2%	22.6%
Natural Event	208	10.827	4.947	18.3%	37.5%	44.2%	36.5%	40.4%	23.1%

D. Longshot Hazard

				relative to EV			relative to Risk		
Variable	Obs	Mean	Std. Dev.	Neutral	Aversion	Seeking	Neutral	Aversion	Seeking
Risk	208	9.380	6.251	11.5%	56.3%	32.2%			
Ambiguity	208	9.841	5.872	12.0%	55.3%	32.7%	32.7%	33.2%	34.1%
Compound	208	10.120	6.302	7.7%	51.4%	40.9%	35.6%	29.8%	34.6%
Natural Event	208	10.159	6.131	11.1%	50.5%	38.5%	38.0%	26.4%	35.6%

E. Mixed Lottery

				relative to EV			relative to Risk		
Variable	Obs	Mean	Std. Dev.	Neutral	Aversion	Seeking	Neutral	Aversion	Seeking
Risk	208	8.346	5.244	7.2%	63.5%	29.3%			
Ambiguity	208	7.659	4.824	7.2%	72.1%	20.7%	34.6%	38.5%	26.9%
Compound	208	7.971	4.798	7.7%	68.8%	23.6%	31.3%	38.9%	29.8%
Natural Event	208	8.438	5.322	8.2%	63.0%	28.9%	32.2%	35.1%	32.7%

Table A.15. Correlations Across Three Types of Uncertainty in Experiment 2 with full sample

	A − C	**A − N**	**C − N**
moderate prospect	0.482	0.460	0.433
moderate hazard	0.632	0.492	0.618
longshot prospect	0.665	0.584	0.545
longshot hazard	0.594	0.546	0.590
mixed lottery	0.606	0.581	0.656
Average	0.596	0.533	0.569

Note: This table reports the Spearman correlations with full sample. N=208.

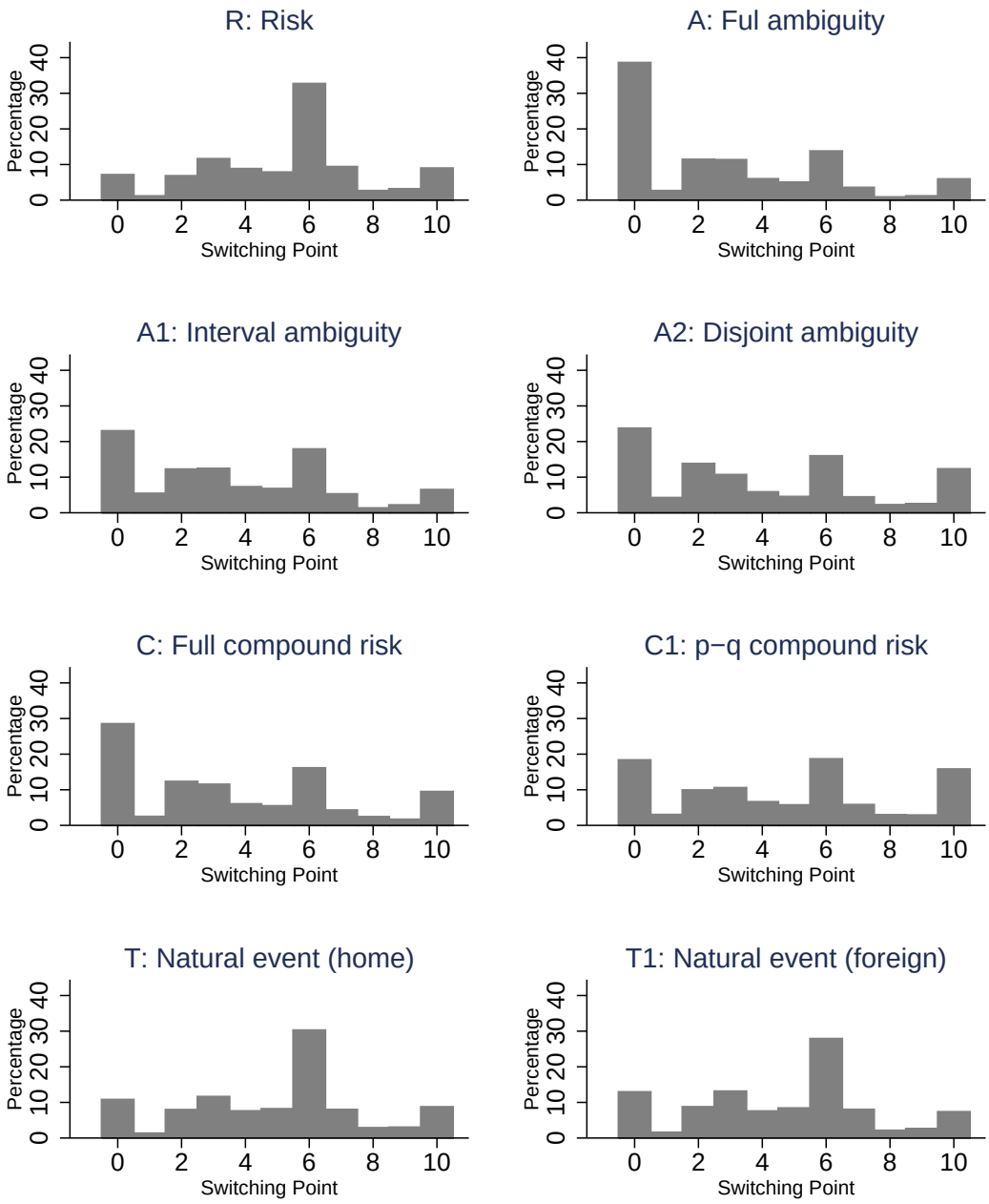

Figure A.1. Distribution of switching points for each lottery.

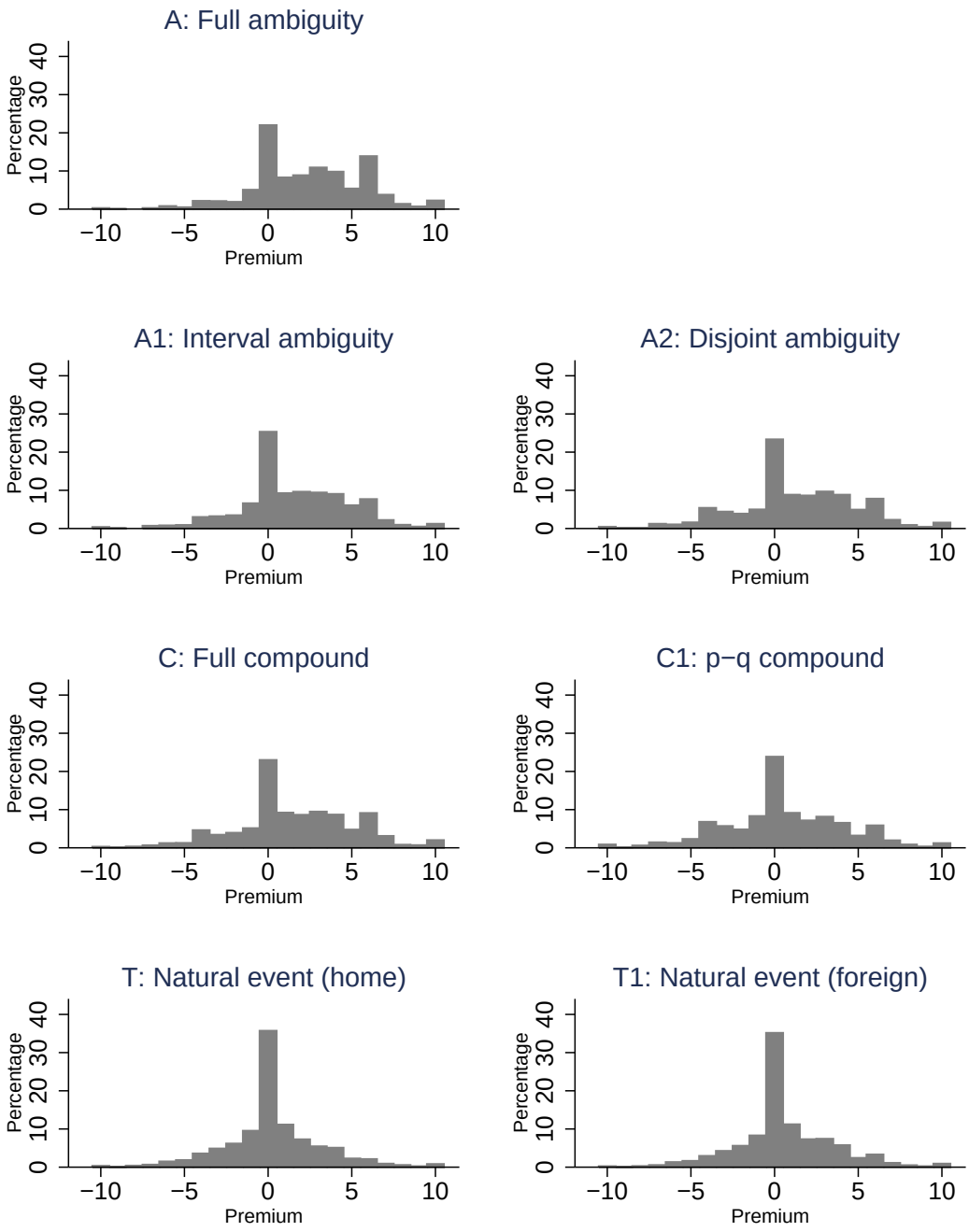

Figure A.2. Distribution of uncertainty premium for each lottery.