Information and the Bandit: Breakdown Learning in the Lab Online Appendix: Econometric Robustness Test

Johannes C. Hoelzemann Nicolas Klein

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As a further robustness test and to complement our previous analyses and key elements discussed, we run ordinary least-square regressions with random effects controlling for learning effects. In particular, we regressed experimentation intensity and individual payoffs on the treatment dummy Public, which is 0 for the privateinformation (unobservable-actions) treatment and 1 for the public-information (observable-actions) treatment. Recall that participants played the 25 games in random order and any order of these games that was used for participants in the public information sessions was replicated for participants in the private information sessions. In order to verify that participants treated the games they successively played as independent games rather than as parts of a larger super-game, we define a weighted learning function $\{g_o\} = \{1/o\}$ where $o \ (o \in \{1, \dots, 25\})$ corresponds to the random order in which each participant was exposed to each game. All regressions control for trends over time using this weighted learning function. The results do not qualitatively change when we replace the learning function with a linear version such that $\{g_o\} = \{o\}$. Further, the results do not qualitatively change either when we include controls for matching groups or sessions, age, gender, field of study as well as attempts needed to correctly answer the quiz questions at the start of the experiment. To account for the fact that behavior within matching groups is not independent, we treat each matching group as our units of statistically independent observations and cluster standard errors by matching group.

Table A1 lists the results from this analysis.

	Experimentation Intensity			Individual
	All	No Breakdown	Until Breakdown	Payoffs
Intercept	0.596***	0.586***	0.603***	418.199*
Public	(0.044) 0.157 ^{***}	(0.049) 0.170 ^{***}	(0.054) 0.280 ^{***}	(239.186) 1398.080 ^{***}
	(0.052)	(0.054)	(0.054)	(174.776)
Learning	0.034	0.040	-0.082	1059.966
	(0.026)	(0.029)	(0.106)	(1077.624)
σ_ϵ	0.287	0.268	0.293	8494.653
σ_{μ}	0.216	0.212	0.243	0
Ν	2600	1248	336	2600
(Between) R-squared	0.113	0.127	0.199	0.189

Table A1: OLS Estimations with Random Effects ofExperimentation Intensity and Payoffs.

For all estimations, robust standard errors are clustered at the session level and shown in brackets. ***Significant at the 1 percent level; **Significant at the 5 percent level; *Significant at the 10 percent

level

We find a strong positive effect of public information on experimentation intensity across all games, games without breakdowns, games with breakdowns before the last period, and payoffs.