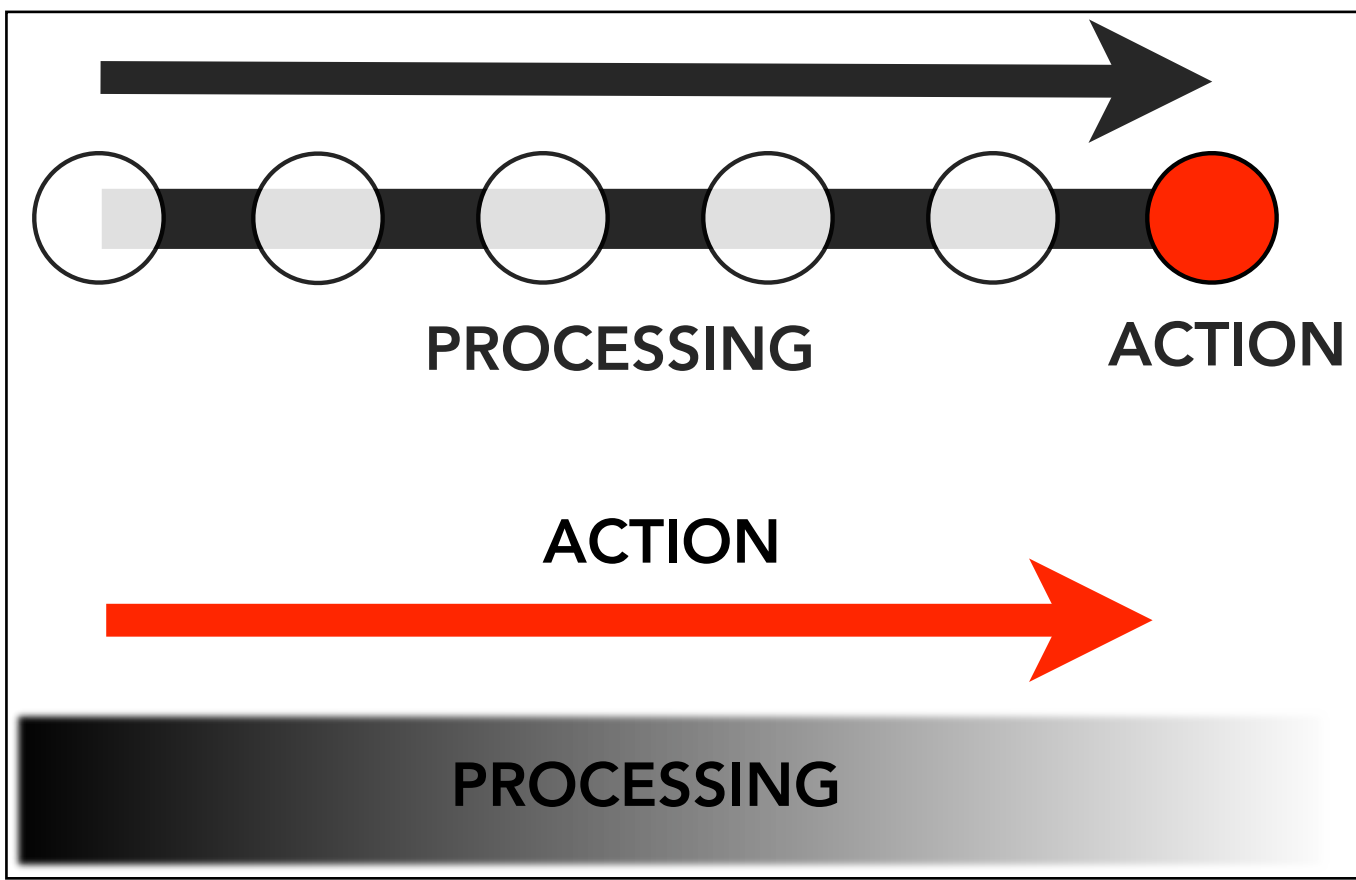


Lying in Public: Revealing the Microstructure of False Responding Through Action Dynamics

PRESENTER: Nick Duran

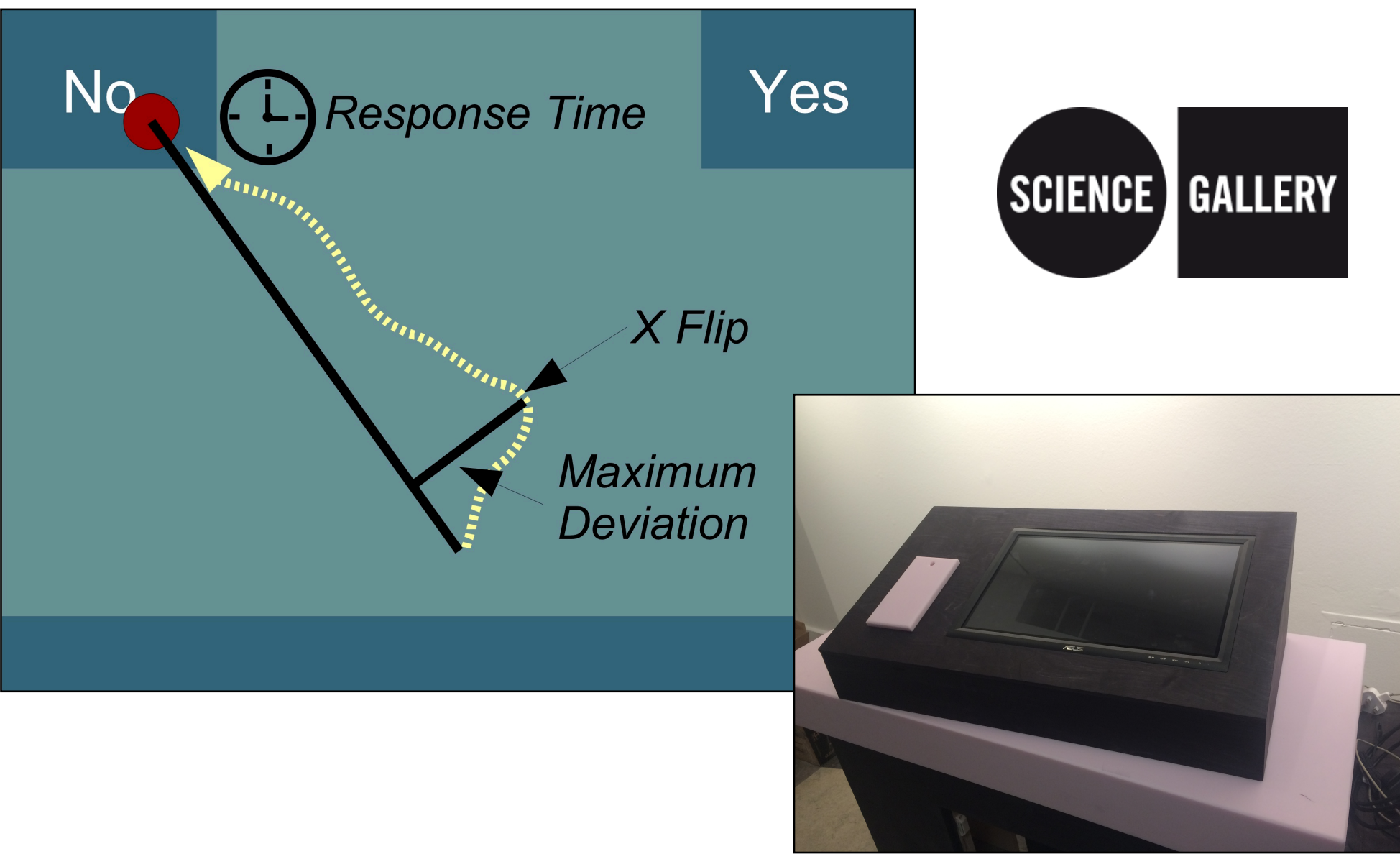
BACKGROUND

- Are there ways to detect deception that are accurate, robust, and easily deployable? Perhaps. Deception places greater demands on the control and coordination of mental activity. But much depends on how the underlying processes are captured.



METHODS

- Developed an interactive computer game, called Lie2Me: a touchscreen educational exhibit at the Science Gallery Dublin that was open to the public for 3 months.



Stimuli	Prob True
Have you ever been to the Olympics?	(0,0.2]
Have you ever slept in Berlin?	(0.2,0.4]
Have you ever gone fishing?	(0.6,0.8]
Have you ever been to a restaurant?	(0.8,1]

- 496 participants
18-25 years: 174 | 26-35 year-olds: 174
36-45 years: 44 | over 45 years: 44

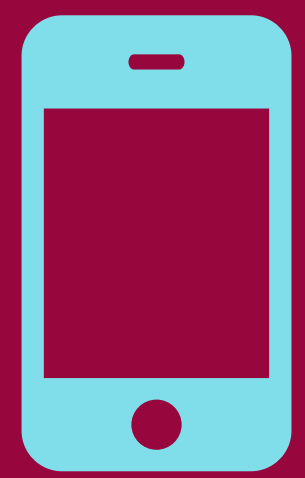
Lying movements look different from truths, especially when lying about improbable events and when responding "yes"

Predictor	Response Time			Deflection			Vacillation		
	B	SE	t	B	SE	t	B	SE	z
(Intercept)	68.76	26.53	2.59	3.41	3.49	0.98	0.28	0.02	14.35
Yes v No	-70.20	15.83	-4.43	-12.03	2.92	-4.11	-0.08	0.02	-4.29
Lie v Truth	305.98	15.84	19.32	20.67	2.93	7.07	0.15	0.02	7.76
Trial Number	201.15	30.17	6.67	9.93	4.56	2.18	0.23	0.03	7.63
Ans - Deep v Shallow	-25.10	10.48	-2.39	-10.17	1.94	-5.25	-0.02	0.01	-1.62
Lie - Deep v Shallow	-81.62	10.49	-7.78	-14.41	1.94	-7.43	-0.08	0.01	-6.19
Prob True	-87.68	56.29	-1.56	-6.34	4.87	-1.30	-0.07	0.03	-2.23
Yes v No * Lie v Truth	402.83	33.59	11.99	47.48	6.02	7.89	0.22	0.04	5.48
Lie v Truth * Prob True	116.09	46.20	2.51	-4.21	8.54	-0.49	0.15	0.06	2.71
Yes v No * Prob True	-0.29	46.09	-0.01	-13.01	8.52	-1.53	-0.04	0.06	-0.62
YvN * LvT * P(true)	940.40	127.23	7.39	8.69	18.98	0.46	0.31	0.13	2.50

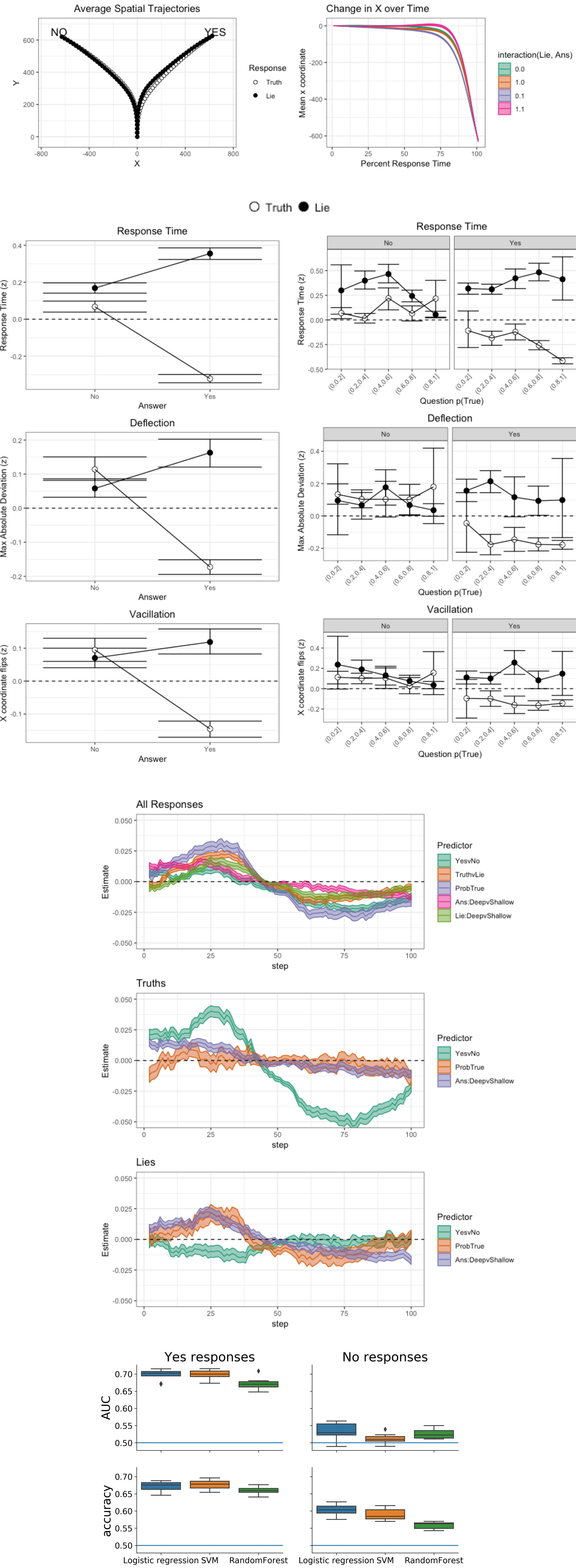
MAIN ANALYSIS:

Fixed effects
Yes v No * Lie v Truth + Prob True

Covariates
Trial Number + Ans - Deep vs Shallow +
Lie - Deep vs Shallow



Detailed summary and lots of resources here!



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