

Discussion of “Rules and Commitment in Communication”

Radovan Vadovic

Carleton University

27-10-2017

Strong test of the theory

- ▶ Typically we see:
 - ▶ test of a specific theory in a single game, or
 - ▶ a horse-race between multiple theories, but again in a single game;

and

- ▶ often behavioral models (psychological motivations and/or bounded rationality) fit better, but also involve more degrees of freedom
- ▶ Common theoretical framework for testing several models of communication.
- ▶ Theory has rich implications → allows for a strong test of various behavioral models.

U100 vs. V100

- ▶ The two treatments are isomorphic in terms of monetary payoffs, yet the behavior is different: more info. revealed in V than in U.
- ▶ Message spaces are different:
 - ▶ $\{r, b, n\}$ vs.
 - ▶ $\{r, n\}$ or $\{b, n\}$ dep. on state
- ▶ Any relevant psychology or bound. rationality?
 - ▶ errors (QRE - skip, already done)
 - ▶ honesty
 - ▶ hierarchical thinking (level- k)

Some data

Table 5: Theoretical Predictions and Data: V100 and U100

U100		Messages		
		r	b	n
States	R	100%	0	0
	B	50%	50%	0

		Messages		
		r	b	n
States	R	74%	12%	14%
	B	44%	39%	17%

V100		Messages		
		r	b	n
States	R	0	0	100%
	B	0	50%	50%

		Messages		
		r	b	n
States	R	51%	0	49%
	B	0	58%	42%

Honesty

- ▶ Honesty:
 - ▶ cost of lying (Gneezy 2005, Kartik 2009)
 - ▶ guilt (Battigali *et al.* 2013)
- ▶ Evidence: e.g., Blafoutas *et al.* (2013), Castillo *et al.* (2013), Dana *et al.* (2005), Mazar *et al.* (2008)
- ▶ Fully honest fringe:
 - ▶ in both U100 and V100 → fully reveal the state
 - ▶ How much of this in the data?
 - ▶ Mimicking is not useful → would not affect the equilibrium
 - ▶ Honest fringe → rel. high freq. (B, b) → not quite in the data

Level- k

- ▶ Non-equilibrium model of best-reply behavior to simplified models of others, due to, Stahl & Wilson (1994, 1995), Nagel (1995):
 - ▶ level- k player believes the opponent is level- $(k - 1)$, i.e., one-step less sophisticated
 - ▶ chooses optimally
 - ▶ how does level-0 behave?
 - ▶ random? - this is too naive...
 - ▶ follow the signal (and prior otherwise)? - similar Cai & Wang (2006)
- ▶ Level- k :
 - ▶ Level-1 receiver and level-2 sender should already behave as fully Bayesian actors.
 - ▶ Level-1 sender \rightarrow send r whenever possible and n otherwise;
 - ▶ Rel. high freq (B, r) in U and $(B, n) \rightarrow$ not in the data

A few ad-hoc notes

- ▶ What about base-rate neglect? E.g., El-Gamal & Grether (1995) more recently Palfrey & Wang (2012). Does not help in the V tr.
- ▶ The theory benchmark anchored is in equilibrium analysis. 25 rounds allows comparison of experienced vs. inexperienced. Would level- k fit the former and eqm. the latter?
- ▶ There are multiple equilibria in both U and V conditions.
 - ▶ In $U100$ u can be used in place of r just like in $V100$ where it has to be that way.
 - ▶ In $V80$ another equilibrium that matches that in $U80$ (ft. #8). Eqm. selection is one of the natural problems to tackle with experiments.