

## Psychological Games – Theory & Experiments -- Readings

My main goal was to introduce the framework of psychological game theory. To learn more, start out reading sections 1 and 2 (including footnotes 2-6) of this article:

Battigalli, Pierpaolo & Martin Dufwenberg (2009), “Dynamic Psychological Games,” *Journal of Economic Theory* 144, 1-35.

Then read the rest. Carefully note and understand how B&D’s article relates to the earlier work by Geanakoplos, Pearce & Stacchetti (1989, *GEB*). In my lecture, I used guilt aversion as my leading example/application. I touched on Dufwenberg’s (2002, *JEBO*) example of psychological forward induction, Dufwenberg & Gneezy’s (2000, *GEB*) early experimental test, Charness & Dufwenberg’s (2006, *Econometrica*; 2010, *EL*; 2011, *AER*) considerations of communication, Battigalli & Dufwenberg’s (2007, *AER P&P*) general model, Dufwenberg, Gächter & Hennig-Schmidt’s (2011, *GEB*) related work on framing, Battigalli, Charness & Dufwenberg (2013, *JEBO*) account of how the model can explain aspects of Uri Gneezy (2006, *AER*) deception data, and Chang, Smith, Dufwenberg & Sanfey’s (2011, *Neuron*) neuroeconomics turn. All the papers where I was a co-author (+also papers mentioned below) are downloadable on my homepage:

<http://www.u.arizona.edu/~martind1/>

Here are two related exercises the students can have fun with: (1) Consider the game form in Figure 1 of C&D (2006). Apply B&D’s (2007) theory of simple guilt. For which values of  $\theta_B$  is  $(In, Roll)$  an SE? (2) Now apply B&D’s theory of guilt-from-blame. (a) For which values of  $\theta_B$  is  $(In, Roll)$  an SE? (b) If  $\sigma=(\sigma_A, \sigma_B)$  is an SE, describe  $\sigma_B(Roll)$  as a function of  $\theta_B$ .

Next step: Learn, test, and apply reciprocity theory! Start out with Dufwenberg & Kirchsteiger (2004, *GEB*) – work through all examples carefully! Carefully note and understand how D&K’s article relates to the earlier work by Rabin (1993, *AER*). Then look up also D&K (2000, *EER*), Dufwenberg, Gächter & Hennig-Schmidt’s (2011, *GEB*), Dufwenberg, Smith & Van Essen (2013, *EI*), van Damme et al (2014, *JEBO*; section 6), Dufwenberg & Rietzke (2016, mimeo), Jang, Patel & Dufwenberg (2016, mimeo), and Dufwenberg & Patel (2017, *GEB*).

Finally, study...

- anger theory (which was the topic I concentrated on in last year’s spring school): read Battigalli, Dufwenberg & Smith (2015, mimeo);
- perceived cheating aversion in the Fischbacher & Föllmi-Heusi (2013, *JEEA*) die-roll paradigm: read Dufwenberg & Dufwenberg (2016, mimeo);
- social norms & respect: read Dufwenberg & Lundholm (2001, *EJ*) and also Bernheim (1994, *JPE*), and note also the related discussion in B&D (2009).

Well, that should take a week... have fun!