

## 2013 Russell Ackoff Doctoral Student Fellowship Proposal

Bradford Tuckfield

1<sup>st</sup> Year Doctoral Student

Operations and Information Management Department

---

### 1. Project title and descriptive summary

Why do people quit? Speedy exits in timed chicken games

#### *Background*

A well-known truism says that you can't win if you don't play. Despite this, people quit jobs, abandon projects, exit negotiations, forfeit competitions, resign from offices, and in general withdraw from a variety of situations that could otherwise lead to favorable outcomes. Previous work has examined some causes of quitting, including anxiety (Brooks and Schweitzer 2011) and power differences (Bowles and Flynn 2010). Many other affective or situational factors that could lead to quitting have not yet been studied.

#### *Methods*

The proposed research will examine the propensity to quit through a new strategic game developed by Brooks and Schweitzer (2011). This game, called a "continuous shrinking pie game," is effectively a more sophisticated version of the "chicken game" used extensively in game theory and decision research for decades. As originally developed, the new game shows players a graph of the size of a payoff "pie." As time passes, the pie shrinks continuously, until at the end of 60 seconds it has size 0. Players make only one choice: when to exit the game, a choice made in real time. The first player to exit determines the pie size and gets 25% of the pie, while the other player gets the remaining 75% of the pie. A propensity to quit can be measured by how speedy (i.e. early) a player's exit decision is.

Several aspects of the continuous shrinking pie game's design enable novel in-depth analyses of the factors that lead to quitting. First, the only decision that players make is the decision of when to exit. This means that quitting is being directly measured rather than inferred, and that every player faces an identical situation free of contextual asymmetries. Second, the measurement of quitting times is continuous, and in principle enables meaningful comparisons between any two players. The classic chicken game employs dichotomous choice and only enables comparisons between two groups. Finally, the continuous shrinking pie game does not have a clear optimal strategy in all cases. This will enable us to decouple quitting decisions from strategic or utilitarian explanations for behavior that apply to other games.

#### *Hypotheses*

We are interested in the personal characteristics, incidental emotions, and situational factors that lead to quitting. We hypothesize that people who are prone to feel fear, sadness, and low self-esteem will tend to exit more quickly, independent of emotional inductions. We also hypothesize that people who are prone to feel happiness and anger are less likely to exit early. Several of these emotions have been shown to lead to greater risk-aversion (Lerner and Keltner 2001) but have not been shown to lead directly to quitting.

In addition to testing the relationship of personal characteristics to quitting, we will induce incidental emotions that could lead to quitting. The only published study utilizing the continuous shrinking pie game found that anxiety inductions had a significant effect on quitting, causing speedier exits (Brooks and Schweitzer 2011). Another study found that anger and happiness manipulations led to different negotiation outcomes (van Kleef et al. 2004). We hypothesize that inductions of sadness and fear will lead to speedier exits, and that inductions of self-efficacy, anger, and happiness will lead to longer persistence.

Finally, situational factors could lead to quitting. One recent study found that the framing of the classic chicken game had a significant effect on outcomes (de Heus et al. 2010). The continuous shrinking pie game can be framed in terms of negotiations (as an adaptation of a classic shrinking pie game) or competitions (as an adaptation of classic chicken games). We hypothesize that these framings will lead to different quitting outcomes.

### *Intended Contribution*

Quitting is common and almost never strategically optimal, and yet the personal characteristics, incidental emotions, and situational factors that lead to quitting are not fully understood in the extant literature. This project will contribute to better understanding of affect in decision-making generally and of the causes of quitting in particular.

### References

- Barsade, S. & Gibson, D. 2007. Why does affect matter in organizations? *Academy of Management Perspectives*, 21, 36-59.
- Bowles, H.R., & Flynn, F. 2010. Gender and Persistence in Negotiation: A Dyadic Perspective. *Academy of Management Journal*, 53 (4), 769-787.
- Brooks, A. & Schweitzer, M. 2011. Can Nervous Nelly negotiate? How anxiety causes negotiators to make low first offers, exit early, and earn less profit. *Organizational Behavior and Human Decision Processes*, 115, 43–54.
- de Heus, Peter, Hoogervorst, Niek, & van Dijk, Eric. 2010. Framing prisoners and chickens: Valence effects in the prisoner's dilemma and the chicken game. *Journal of Experimental Social Psychology*, 46 (5), 736-742.
- Lerner, J., & Keltner, D. (2001). Fear, anger, and risk. *Journal of Personality and Social Psychology*, 81, 146-159.
- Van Kleef, G. A., De Dreu, C. K. W., & Manstead, A. S. R. (2004). The interpersonal effects of anger and happiness in negotiations. *Journal of Personality and Social Psychology*, 86 (1), 57-76.

## **2. Name of faculty advisor**

Maurice E. Schweitzer, *Cecilia Yen Koo Professor of Operations and Information Management.*

### 3. Budget

<b>Explanation of Expense</b>	<b>Amount</b>
Conference Travel (Academy of Management 2013, Society for Judgment and Decision Making 2013)	\$1500
Research Assistant Wage	\$300 (\$12/hr * 25 hours)
Human Subjects Payment	\$1200 (\$5 * 240 subjects)
Programmer Payment	\$1000 (\$100/hr * 10 hours)
<b>TOTAL</b>	<b>\$4000</b>

### 4. Other sources of funding

This project is not being supported by any other grants. The OPIM department provides \$800 annually for doctoral students' conference travel, and of this, about \$100 remains that was not spent on travel to one previous conference (the Society for Judgment and Decision Making Conference – November 2012). This \$100 will be applied to conference travel expenses not covered by the funding requested above.

### 5. Advisor signature

  
Maurice Schweitzer