

The Impact of Individual Choice on Collective Action: An Experimental Inquiry into Spiritual Disciplines

Douglas A. Norton

“Love in action is a harsh and dreadful thing compared to love in dreams.”
-Fyodor Dostoevsky in *Brothers Karamazov*

1. Introduction

The most courageous and emotionally costly experiences are often acts of love. That is why the path to love is so infrequently traveled by humans -even Christian humans. Our natural responses are cowardice and comfort. Yet, we are called to be transformed by the renewal of our minds (Romans 12:2). For Christians spiritual disciplines act as vehicles for positioning the mind to be transformed by God’s love. But, the practice of disciplines and devotions are not merely for the Christian’s private benefit; instead, they are the starting place for a larger movement. Richard Foster in his classic book *The Celebration of Discipline*, writes, “Our world is hungry for genuinely changed people” (Foster, 1978, 11). Since our individual choices are part of a larger narrative a natural question emerges, “What are the impacts of our individual choices on larger groups?”

Economists have increasingly looked to the laboratory to investigate different behavioral phenomena. By allowing the experimenter to carefully manipulate the conditions of the study the experimenter can test the marginal impacts of those small alterations. The best candidate to test the impact of spiritual disciplines on behavior in groups is the public goods experiment for two reasons: calibration and context.

The standard public goods game involves an investment decision between an individual or group account. These two accounts calculate payment in different ways. Typically the individual account yields a payment of one-to-one. Meanwhile, the group account yields a payment based on the sum of the tokens invested by all members of the group multiplied by a constant less than one. The fundamental tension created by those incentives is simple: what economists call my “dominant strategy” (what is best for me assuming that I have no cooperative interactions with others) is to invest all of my tokens in the individual account. On the other hand, viewed as a cooperative activity, we would do best as a group by all investing our tokens in the group account. This forms the basis

of the free-rider problem which has been experimentally investigated by sociologists (Marwell and Ames, 1979), psychologists (Dawes, 1980) and economists (Isaac et al, 1984). Since there has been roughly thirty years of research in the area of public goods the environment is well-calibrated and comparisons can be made between the baseline and treatment with greater clarity.

In addition to a well-calibrated environment the public goods game contains the necessary foundation for laboratory experiments regarding spiritual disciplines. For the current research and exposition we will assume that love manifests itself in the act of generosity. Certainly there are acts of generosity that are not wholly sacrificial and some faith traditions would argue we are incapable of such acts; but, observing generosity is the closest manifestation of "gift love" or agape by which we might hope to glimpse into someone's heart. The well known public goods game will allow me to test the marginal impacts of reflection, submission, and fellowship on generosity. The following sections will be categorized by spiritual disciplines and will explain the proposed experiments to isolate their impact on generosity.

One final note, the science of experiments is not devoid of caution. Since spiritual disciplines are vehicles into the transforming love of God we would say there must be cumulative impact on the practitioner. Moreover, the transition from preferences to action in reality faces a myriad of obstacles that cannot be replicated in the laboratory. Also, when successful, the satisfaction of positively impacting the lives of others is not easily replicated. With so many complications why should we experiment? The following two public goods experiments will offer a glimpse into the potential power of spiritual disciplines and how small measures of submission and reflection may yield significant results.

2. Submission

The cornerstone of the spiritual discipline of submission is denial of our self-interest. Whether that self-interest involves our interest in our reputation or whether love has been returned to us. Submission is about the right ordering of self-interested behavior. Richard Foster writes about this often confused discipline, "[By submission] we

discover that it is far better to serve our neighbor than to have our own way" (Foster, 1978, 112). What would submission look like in the laboratory?

First, let us review the general trend of public goods games. In experiments in which the same people interact with the same group for a repeated but fixed number of periods of the voluntary contributions game, typical behavior can be described as follows: 1) Contrary to the "free rider" hypothesis, in the first period, somewhere between 1/2 and 2/3 of all tokens are contributed to the group account, 2) Contributions are increasingly withheld across time. 3) This means that an increasing number of people act according to the free-rider prediction as the experiment proceeds.

In both formal and informal surveys of individuals who confront the voluntary contributions public goods game, it's almost always observed that participants realize that the group could benefit if everyone contributed. But the first period data reveals that there are some people who have figured out and acted upon the incentives to free ride on others. Some of these "other people" continue to contribute to the group account, but many people react to the existence of free riding by reducing their own contributions. Typical data analysis reveals that as this "decay" sets-in, this causes the "reciprocal" outlook of many participants to lower their contributions even further. In a simplified sense, some people free ride from the beginning, a few people display cooperative attitudes for an extended period, but for a great many of the participants it's more of a case that nobody wants to be a sucker. So, the downward trend in public goods is derived from people not wanting to feel others are taking advantage of their contributing behavior.

Can this standard experimental record allow us to investigate submission as a spiritual discipline? Submission to contributions regardless of others' actions may be a good manifestation of submission in the laboratory. Recent public goods experiments have implemented a so-called "Agent of Grace" who benefits from contributing to the group account regardless of the contributions decisions of others (Norton and Isaac, 2008). This dominant strategy to contribute mirrors Soren Kierkegaard's statement about love. Kierkegaard writes, "Love is not what you do to transform the other person or what you do to constrain love to come forth in him; it is rather how you constrain yourself"

(Kierkegaard, 2006, 113). Essentially, we are called to eliminate certain strategies from our choice set. We constrain ourselves to love others despite their actions.

In Norton and Isaac, we implemented the “agents of grace” with a standard public goods game that involves transformation during a stoppage in play. Envelopes are given to all participants prior to the start of the experiment. Then, those envelopes are opened during the stoppage revealing a new return to the group account where the group account is preferred to the individual account. What will happen to the individuals that stayed the same? Will they begin to contribute in light of the full contribution decision of this "Agent-of-Grace"? In Norton and Isaac, here’s what happened. When the Agents of Grace were implemented in the previous experiment they seemed to have an influence on the non-transformed group members. That is, contributions decisions of non-agents were beginning to trend upward compared to the projected decline. However, because the experiment only lasted 28 periods the separation had not yet obtained significance. This is reminiscent of Vince Lombardi's claim, "We didn't lose the game, we just ran out of time."

3. Reflection

Meditation is a crucial part of developing a strong interior life. Christians are called to maintain and distribute peace even in the midst of madness. For example, in Psalm 46 God calls us to be still in the midst of an earthquake! How can this be accomplished without a strong interior life?

Some evidence from psychology suggests that reflection makes participants in ultimatum games less impulsive.¹ Even though the ultimatum game is notorious for impulsive rejections from the responder player (Grimm and Mengel, 2010) the study found that given ten minutes to reflect upon the proposed division caused a 75% increase in acceptance among low offers. So, reflection can be a device for halting the emotional inertia of a situation.

¹ The ultimatum game involves one player being endowed with money. The endowed player is called "The Proposer" and he makes a proposed division of the endowment to another player called "The Responder". The Responder sees the proposed division from The Proposer and decides to accept or reject. Acceptance leads to the experimenter paying The Proposer and Responder according to the agreed upon division. Rejection leads to both parties obtaining zero dollars.

This experiment seeks to utilize the public goods framework to measure how different kinds of reflection and diversion influence behavior. This will be measured by the amplitude of the "restart effect". Researchers noticed in the 1980s that despite declining contributions to the group account contributions pulsed upwards after a stoppage in play. This upward pulse was called "the restart effect" (Andreoni, 1988). This behavior cannot be explained by standard economic theory. Some experimenters have called this effect, "The triumph of hope over experience." Others have characterized the stoppage in play as a coordination device. But, one public goods study asserted a different possibility. Burlando and Hey (1997) write, "The psychological discomfort that an individual suffers when his choice is not consistent with his values or beliefs." The restart effect is a time to reassess what we have done in light of who we believe ourselves to be.

Because we learn from St. Paul that what we reflect upon is extremely important, for example, "[Love] keeps no record of wrongs." (1 Corinthians 13), and we learn from others that diversion is not equivalent to reflection (Pascal for example). I am currently involved in designing an experiment in which we vary the types of information participants have in the stoppage time. Under one treatment participants can play tic-tac-toe or other games. Some treatments provide information about own contributions decisions while other treatments provide information about others' contribution decisions. In this way we manipulate the kind of reflection and whether that is different from diversion.

4. Conclusion

Laboratory experiments are beneficial because they can model a complex world in an abstract environment. Control, however, is obtained at the cost of realism. Indeed, "external validity", or the degree to which laboratory findings can be extrapolated to real world environments, has been common debate in psychology and economics experiments (Lowenstein, 1999). Hopefully, these proposed experiments are also taken with a measure of skepticism from the standpoint of economics and theology; but, my hope is also that we can see the impact of individual choices on a larger group. That is the

supremely important question, "How is the Kingdom of God brought about?" To my mind these experiments are useful abstractions that may provide nice returns toward understanding one role of the spiritual disciplines.

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