

Assessing the Relevance of the 'Goldman Dilemma' in Contemporary Sport

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The "Goldman Dilemma" is one of the most cited results in the anti-doping literature, becoming accepted 'wisdom' regarding the choices elite athletes make regarding drug use in sport. The Dilemma presents a Faustian bargain to athletes, asking if they would trade longevity for Olympic success by taking a drug that guaranteed a Gold Medal but also their death in five years time. Goldman presented this dilemma to world class athletes bi-annually between 1982 and 1995, and reported a remarkably stable set of results with about half accepting the gold for death deal (Tzortzi 2004). Despite the extensive reporting of Goldman's results, questions remain around the validity and reliability of the dilemma to accurately capture athlete's willingness to trade longevity for Olympic success. In this study we test the properties of the Goldman dilemma and determines its applicability to modern day sport.

In this replication of Goldman's work we recruited elite athletes competing at an international invitational track and field meet in North America. 'Elite' was defined as having participated in track and field at the State (United States) or Provincial (Canada) level. Participants were randomly assigned to one of two conditions, both in private screened off areas. In the first condition participants were asked survey questions by a trained interviewer, replicating the procedure used by Goldman. In the second condition, participants completed the survey using a laptop computer and an anonymous on-line survey. The questions were identical across both conditions. This study therefore replicated Goldman's original method (e.g., vox pop intercept interviews), while also taking into account biases associated with this method of data collection by comparing it with a modern alternative (i.e., online anonymous survey).

In addition to presenting the two features of the dilemma (i.e., winning and death), a third feature (legality) was included. This feature was added because the social context has changed since Goldman last conducted his study. Specifically, there has been greater effort to implement and enforce a strong legalistic prohibitionist drug policy in sport and the awareness of the consequences of an anti-doping violation are high (Mazanov et al., 2008). Thus respondents were presented with variations of the dilemma that phrased the question in terms of legality (legal or illegal), mortality (death or no consequences), and winning. After basic demographics, participants were presented with three variants of the 'Goldman' dilemmas counter-balanced for presentation order.

Only 2 out of a sample of 212 (119 male 93 female, mean age 20.89) reported they would take the Faustian Bargain offered by the original Goldman dilemma. However, if there were no consequences to the (illegal) drug use then 25/212 indicated they would take the substance (no death condition). Legality also changes the acceptance rate to 13/212 even with death as a consequence. Logistic regression modelling showed no other variable was significant (gender, competitive level, type of sport) and there was no statistical difference between interview and online collection method. Results from the logistic regression indicated that when consequences are more severe (i.e., result in death), then participants are 0.07 times as likely to accept the dilemma. When the substance is identified as illegal, participants are 0.14 times as likely to accept the dilemma.

The results show that the proportion of athletes willing to take the Faustian bargain offered by the Goldman Dilemma has changed significantly, approximating the proportion observed in the only sample of general population responses (Connor & Mazanov, 2009). This indicates responses to the Dilemma from 1982-1995 should no longer be taken to reflect the approach taken to the use of drugs in sport by contemporary athletes. We explore the reasons for this change via two avenues. First, the methodological flaws of the studies conducted by Goldman originally probably skewed the results. Second, we explore the socio-legal changes that have occurred with doping in sport, specifically the advent of the World Anti-Doping Agency and the World Anti-Doping Code and the change in perceptions of doping in sport. We also reflect on the (lack) of difference between two competing interview techniques, face-to-face and online, with our results showing no difference between modes.