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The Psychology of Purpose: Exploring the Role of Purpose and Intrinsic Motivation

Research Thesis

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by

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Abstract

This study explores the role of purpose as a motivator. Undergraduate students (N=54) were compared based on their self-reported levels of enjoyment, long-term motivation, and their levels of purpose in response to an inherently enjoyable task. I hypothesized that when purpose was present in an intrinsically motivated task people would experience increased engagement, positive affect and long-term motivation for their actions. Behavioral observations, including a measure of time-on-task, provided support for the hypothesis that purpose contributed to motivation above and beyond intrinsic motivation. However, some of the other measures did not yield significant findings, providing only mixed support for the idea.

The Psychology of Purpose: Exploring the Role of Purpose and Intrinsic Motivation

“A life without cause is a life without effect” (Barbarella, 1968)—a notable quote that frames the broad question often asked by people about the meaning of one’s life. This quotation hints at the feeling people may often have about the importance of serving a purpose greater than oneself, about the importance of extracting meaning from their actions. Purpose can be a motivator as well as a reason to thrive and survive and, as illustrated in the case of theology -- it has the capacity to define one’s life.

Helen Keller has been an inspiration to many over the years since her story was first told, and her own philosophy (“true happiness...is not obtained through self-gratification, but through fidelity to a worthy purpose”) is part of the source of that inspiration. Researchers have attempted to operationalize purpose so as to extract the essence of it for empirical purposes involving health and psychological well-being, however purpose has yet to be explored for its possible implications for motivation. The present research attempts to explore the concept of “purpose” more deeply with an eye toward identifying the motivating aspects of purpose and how it might enhance and expand on what is conventionally viewed as intrinsic motivation.

Literature Review

Viktor Frankl gained fame through his attempt to obtain a clearer picture of purpose (Frankl, 1992). His book was not only among the best-selling, (*Man’s search for meaning: An introduction to logotherapy*), but it has remained a popular source for those searching for meaning in their life for decades. Frankl evaluated the power of meaning in this recollection of his three years in Nazi concentration camps. Through immense

suffering and reduction to the lowest form of humanity, Frankl created a new “therapeutic doctrine,” which he then called *logotherapy* (Frankl, 1992). He defined it as “striving to find a meaning in one’s life is the primary motivational force in man” (Frankl, 1992, p.104).

The theory places meaning or purpose as the most fundamental and effective motivational force, something he saw as well beyond inherent enjoyment or external reward. Through his narrative, Frankl illustrates that “For success, like happiness, cannot be pursued; it must ensue, and it only does so as the unintended side-effect of one’s dedication to a cause greater than oneself or as the by-product of one’s surrender to a person other than oneself” (Frankl, 1992, p.13). Frankl also believed in the impact of struggle as one essential ingredient of purpose and has been quoted saying ‘If there is meaning in life at all, then there must be meaning in suffering.’ To Frankl, purpose stems from the will to live and survive, but his definition poses the question, what about the will to thrive?

Frank’s theorizing and his personal narrative together spawned a movement in philosophy and psychology, the essence of which was that the experience of purpose or meaning in life will have massive and consequential impact on a person’s existence. Based on logotherapy and specifically the concepts of struggle, researchers began to evaluate purpose as a predictor of an individual’s well-being. For instance, Crumbaugh and Maholick’s (1969) developed the Purpose in Life (PIL) questionnaire. The PIL questionnaire was developed to strive to perceive purpose in individuals’ in order to aid in therapeutic outcomes. Anchored on suitable endpoints, their questionnaire asked for instance, “If I should die today, I would feel that my life has been _____ (i.e. very

worthwhile—completely worthless).” This approach placed the focus on internal motives, goal attainment, and individualistic achievement. Purpose from the PIL became a tool for determining whether or not someone had the necessary desire to live and it began a trend that geared less towards delving deeper within the crux of purpose but instead towards trying to use purpose for medical relevance and psychological well-being. Researchers began to develop other questionnaires and measures using purpose in order to examine how a strong determination to live could lead to better psychological and medical treatment outcomes.

Within the context of health psychology, the Life Engagement Test (LET) was created as yet another approach to purpose. The LET’s main use is to allow healthcare professionals to aid in health outcomes as well as possibly be used to examine disease outcomes—the lower the score, the more likely that person will experience negative disease outcomes (Scheier et al., 2006). Stemming from Frankl’s assertion that the will to survive contributes to one’s purpose, Scheier et al. created the LET to measure one’s present sense of purpose in relation to the amount of personally valuable activities an individual engages in. According to Scheier et al. (2006) one’s purpose in life is defined by the fulfillment of valued goals. Having goals gives you a reason to live and “valued goals also provide the mechanism by which a person remains behaviorally engaged in life” (Scheier et al., 2006). Although the scale presents an empirical tool proven reliable to evaluate one’s sense of purpose, as defined by satisfying goals, the definition still doesn’t quite embody purpose. Purpose is not solely derived from the amount of valued activities and goals a person has, purpose also has interpersonal aspect to it. In addition,

the LET poses an additional question: Is purpose only relevant in a health psychology context or can it be used in other realms of psychology?

Ryff argued that having a purpose in life was a key component of positive functioning and essential to psychological well-being. Ryff's extensive research focuses mainly on the multi-dimensional factors that contribute to psychological well-being and health. Using the theoretical doctrines of Rogers' (1961) Fully Functioning Person theory of personality and Erikson's (1959) Psychosocial Stage Model, Ryff endeavored to create an empirical scale capable of testing/describing "what constitutes positive psychological functioning" (Ryff, 1989). The eighty question Ryff Scales of Psychological Well-Being (Ryff, 1989) assesses an individual based on the theoretical concepts of autonomy, environmental mastery, personal growth, positive relations with others, self-acceptance, and purpose in life. While the importance of purpose as an element of life is one I agree with, the way Ryff defines purpose in her scale is missing something.

Ryff describes an individual high in purpose as having "goals in life and a sense of directedness; (the individual) feels there is meaning to present and past life; holds beliefs that give life purpose; has aims and objectives for living," (Ryff, 1989) and while that gets at one aspect of purpose (having aims and a sense of direction), it doesn't quite encompass the collective aspect of purpose. The collective aspect refers to the ability of purpose to motivate a person to benefit others beyond just themselves, which Ryff's definition leaves out.

Seligman (2011) has also relied extensively on the concept "purpose" in his recent reformulation of Positive Psychology. Positive psychology is the relatively new branch of

psychology that explores happiness and fulfillment rather than mental illness as the primary and most useful focus for theory and research into people's lives. The Japanese have a concept called *ikigai*, which means having something worth living for (Seligman, 2011), and it aids in motivating people. Seligman focuses on his theory of well-being similar to Ryff's, which he calls PERMA (positive emotion, engagement, positive relationships, meaning, and accomplishment; (Seligman, 2011). For Seligman, "meaning" has a central component in motivation: "The Meaningful Life consists in belonging to and serving something that you believe is bigger than the self" (Seligman, 2011, p.12). Seligman's ideal is essential to a more complete definition of purpose as explored in the present research for its acknowledgment of the collective aspect of purpose.

Seligman further posits that in order for a person to "flourish," or reach a level of optimal fulfillment, the "five pillars of Positive Psychology (PERMA)" must be realized. Meaning is not only an integral contributor to well-being, but it is also practiced for its own sake (Seligman, 2011). He further summarizes the idea; "A calling is done for its own sake without pay and promotion expectations" (Seligman, 2011, p. 75); which again addresses an aspect that Ryff and other researcher's missed, that purpose not only benefits a person's well-being but it also is a feeling of being beyond one's self.

The previous doctrines outlined above, that provided insight into what purpose is, contributed a solid definition for purpose. However, there may be more to purpose than has been studied thus far. Purpose isn't merely an internal experience; it exceeds past one's self, a sentiment absent in previous definitions. It isn't just about achieving individual goals, as Ryff and Scheier et al. posited, or the desire of self-preservation as

Frankl postulated; It is this author's contention that a sense of purpose can and often is based on the motivation to thrive and doing something to advance those around you rather than just advancing yourself. The desire to enhance others beyond the self is a value shared in Erik Erikson's Psychosocial Stage Model specifically Stage 7 when an individual pursues "generativity" (Erikson, 1959). Erikson believed that, "A person does best at this time to put aside thoughts of death and balance its certainty with the only happiness that is lasting: to increase by whatever is yours to give, the good will and higher order of your place in the world" (Erikson, 1974), and to further individuals other than yourself. It is similar to parenting. One doesn't become a parent in order to receive accolades, at least in the best case scenario. A person becomes a parent to raise happy and thriving children and the benefits received are merely bonuses, not expectations.

Research exploring the prospect of purpose as a motivator, rather than just a component of well-being, is severely lacking. A great deal of research supports the distinction between intrinsic and extrinsic motivation. However, no known current research has explored the prospect of a deeper aspect of motivation that might even distinguish among types of intrinsic motivation— specifically, the presence or absence of one's sense of purpose. The present research attempts to contrast purpose and intrinsic motivation, really to identify two sorts of intrinsic motivation (one involving purpose, the other not) to garner a deeper understanding of what motivates people as well as what might increase people's happiness and well-being in the long run.

Intrinsic Motivation

In the mid- 20th century, it was theorized that humans were motivated to reduce four basic drives: thirst, sex, hunger, and the avoidance of pain (Hull, 1943). Yet, over time, theorists and researchers acknowledged that people are motivated to do many things (from painting to playing video games) that do not fit easily Drive Reduction Theory, as proposed by Hull. An alternative explanation explored by Deci and Ryan (1985) is that adults are driven to behave, at least some of the time, purely for intrinsic enjoyment. “The rewards are inherent in the activity, and even though there may be secondary gains, the primary motivators are spontaneous internal experiences that accompany the behavior” (Deci and Ryan, 1985, p.11). According to Deci and Ryan (1985) intrinsic motivation results in the most positive psychological outcomes compared to extrinsic motivation and the absence of motivation. This result has shown to generalize to multiple settings, the most studied being the educational setting (Deci and Ryan, 2000).

Some psychologists and other authors have begun to hint at purpose as a plausible factor that might distinguish some brands of intrinsic motivation (short term) from other forms of intrinsic motivation (long term). Unfortunately, these authors and psychologists have not contributed any empirical evidence. However, Pink recently offered a compelling anecdotal account of human motivation in a book he entitled *Drive* (2009e).

Pink suggests that “The most deeply motivated people—not to mention those who are most productive and satisfied—hitch their desires to a cause larger than themselves,” (Pink, 2009, p.129). Pink attributes purpose maximization (the desire to better the world and the people in it) as a necessary component of what he refers to as “Motivation 3.0” (Pink, 2009). The bulk of the book frames purpose as necessity in the business world specifically. The effect of purpose maximizing can be seen in “for profit” companies that

embody a deeper meaning as an important component of their organizations rather than being just purely “for-profit.” Companies like TOM’S shoes are a chosen example by Pink (2009) because it emphasizes making the world a better place as one of their chief objectives. Employees of TOM’S shoes also report positive outlooks, overall satisfaction, and fulfillment from working in a purpose-embracing environment (TOM’S Shoes, 2012). Self-report sentiments such as these not only support the theory of commitment to a cause bigger than oneself but they also illustrate a possible positive effect on people’s affective life. With anecdotal evidence as presented above, Pink posits that, “...the richest experiences in our lives aren’t when we’re clamoring for validation from others, but when we’re listening to our own voice—doing something that matters, doing it well, and doing it in the service of a cause larger than ourselves” (Pink, 2009, p.151). While Pink does a solid job of introducing the significance of purpose as an integral part of motivation, he presents little empirical evidence and his narratives are limited to the business arena, so he still leaves questions hanging about the nature of purpose. Can purpose generalize to the rest of the world beyond business and where is the empirical evidence?

Researchers Niemiec, Ryan, and Deci (2009), provide a possible empirical relationship between the effects of purpose-like motivation in their one year longitudinal study that looks at intrinsic/ extrinsic aspirations’ effects on psychological health. Participants completed an aspiration index to determine how important they rated pursuing intrinsic and extrinsic aspirations and then their present psychological well-being was tested also with a self-report survey. One year after graduation participants completed the aspiration index and six psychological surveys depicting their post-

graduation experience, the following year the same participants again completed the self-report data for comparison (Niemić, et al, 2009). Niemić et. al showed that there is a positive association between intrinsic aspirations and psychological well-being, as well as a positive association between extrinsic aspirations and psychological poor-health.

Although sense of “purpose” is not explicitly manipulated, in that work, the study does illustrate how specific intrinsic aspirations (i.e. helping others improve their lives and to grow and learn new things) are superior to the mere everyday aspirations and extrinsic aspirations (i.e. money, fame, and vanity) that so often drive people’s behavior. Niemić, Ryan, and Deci (2009) also show that some motivations can generate more positive effects in the long term. Unfortunately the study is correlational so questions of directionality of the effects arise.

To the best of our knowledge, no research has been conducted showing the relationship between purpose and intrinsic motivation. In the age of self-help books and the desire to increase self-motivation and motivation of others, more and more people are seeking the answers about the path toward a more fulfilling life, and this is illustrated nicely by the sales of many books in the “self-help” section of the bookstore – notably among these, Pink’s book *Drive*. We hypothesize that when people do something intrinsically motivating they will experience more long term and sustainable happiness if it also serves a deeper meaning/purpose. The goal of this study is to provide a deeper understanding of motivation so as to possibly impact the way that people think about drive as well as evaluate the current definition of purpose. We aim to provide another answer to the questions of what motivates people and leads to a deeper more satisfying life.

Method

Overview

Participants helped an undergraduate student prepare for a graduate level verbal exam practice assessment by using a word game to develop the speed and word associations necessary to do well. In actuality, they were not working with another undergraduate participant. The supposed other was actually a computer generated program designed to provide pre-assigned answers to the game clues that were provided by the participants. Following the research design of Ross et al. (1974), participants followed a teaching paradigm in that they aimed to increase the confederate's score above the average (9 out of 15) on a GRE verbal reasoning practice assessment using the Hasbro game of Taboo (modeled after the TV game *Password*).

Participants were told that they were being assessed on how successful their confederate was at improving their score above the average as well as the overall effectiveness of Taboo as a study tool. In order to avoid undermining motivation, all participants were told they were successful (14/15 correct). After completing the study, participants completed questionnaires assessing purpose, the dependent variables concerning their willingness to repeat the task (long-term motivation), and positive affect.

Participants

Participants were fifty-four introductory psychology students participating in introductory psychology course and the Research Experience Program (REP) pool. Random assignment to conditions of the study was used, and twenty-two female (thirty-two males) were assigned to the three conditions. Twenty participants were assigned the

purpose condition, eighteen in the intrinsic condition, and sixteen to the extrinsic condition before the subject pool availability was exhausted.

Materials

Materials for this study included a ten question Purpose Profile Scale, developed exclusively for this study, which was inspired by the Personal Meaning Profile (Wong, 1998) and the Zero-Sum Belief Measure (Crocker & Canevello, 2008), and a eleven question survey created for the study to assess long term motivation as well as positive affect. In addition all participants received an exit survey to assess the level of suspicion they may have experienced throughout the study. Finally, the psychology software program MediaLab was used as the computer simulated confederate. MediaLab was also used as the simulated Taboo game wherein participants inputted clues (phrases, word associations, or sentences) to prompt the confederate to guess the target Taboo word.

Procedure

Many aspects of the procedure were based on the experimental paradigm developed by Ross, Bierbrauer, and Polly (1974). Prior to beginning the study, participants were randomly assigned to conditions and then led to a room to await further instructions (intrinsic, extrinsic, or purpose). The researcher then introduced the reasoning for, and details of, the teaching task to the participant (Ross et al., 1974)¹. It was explained that the researcher was concerned with the effectiveness of the participants teaching as well as the game to prepare an unseen undergraduate student for a short practice GRE verbal assessment.

¹ Specific Instructions included as Appendix A.

Participants were be told that they had 15 minutes to teach the undergraduate student new vocabulary using the game Taboo and that when 5 minutes remained the researcher would indicate the time remaining (Ross et al., 1974). Finally, they were informed that a practice GRE verbal would be given to the undergraduate student (confederate) when the session was completed and that a score of 9 out of 15 correct was the average performance on the exam (Ross et al., 1974). The participants were then “introduced” to the unseen confederated (computer simulated) by way of a short bio placed in front of the computer they were going to play Taboo on: “You are working with _____, he or she is an undergraduate student at the Ohio State University majoring in psychology. He or she is in the process of preparing to take the GRE exam in March and needs more preparation for the verbal reasoning portion, which is his or her weak section. They also received instructions on how to use the computer to teach the confederate as well as the rules of Taboo as they applied to the study². The researcher then closed the computer room door and allowed the participant to begin teaching (playing Taboo).

At the end of the 15-minute session (or when all participants had completed all the words) the researcher thanked the participants, and gave them a three-page questionnaire found in separate appendices³. The questionnaires assessed the participants’ feelings of purpose, their willingness to repeat the task, their enjoyment level, and their assessment of their teaching abilities. They had as much time as they needed to complete the first page of the questionnaire, at which time the researcher left the room to allow reasonable amount of time to “retrieve” the confederate’s (supposed other participant’s) test results. When the researcher returned, each participant was handed a copy of the

² Copy of Instructions included as Appendix A

³ Dependent Measure questionnaires found in Appendix B and C

undergraduate students' GRE practice test results. The results showed the student receiving a score of "14 correct answers out of 15 possible" (Ross et al., 1974). If the participants had been randomly assigned to the extrinsic category at this time they were presented with their reward (candy) for their undergraduate student's success.

Finally, participants were asked to complete the remaining two pages of the survey (which assessed their long term motivation, enjoyment level, and assessment of abilities). When all of the participants had completed their questionnaires the participants were debriefed⁴ and thanked for their participation in the study. Before leaving they were given an exit survey to determine if they were alerted to the deception, prior to the debriefing, and told that upon completion of the survey they were allowed to leave.

Results and Discussion

Overview of Analysis

Analysis was conducted utilizing IBM SPSS Statistics Data Software in order to simultaneously retrieve basic statistical information (Mean, Median, Mode) as well as Analysis of Variance and calculation of Pearson's R correlations. In order to calculate the variables of positive affect/enjoyment and long-term motivation specific questions from the eleven- question survey (questions 4-6 and 7-9 respectively) were isolated and averaged prior to being analyzed.

Purpose Profile Scale

Participants who were in the purpose condition on average scored about the same on the purpose profile scale (M= 38.50, SD=3.86) as those in the intrinsic (M=

⁴ See Debriefing Script in Appendix D

39.77, SD=6.03) and those in the extrinsic condition (M=38.81, SD=4.20), and there were no significant differences between these conditions ($p > .05$).

Close examinations of the findings on this measure revealed that the standard deviations in the three conditions were quite different. The standard deviation was larger in the Intrinsic Condition than in the Purpose Condition and the Extrinsic Condition (See Table 1, appendix). Consequently, further analysis was conducted to look at the range of the scores within the conditions. Scores on the purpose profile scale for participants in the Purpose Condition ranged from 28-45 (on a fifty point scale) and those in the Extrinsic Condition ranged from 34-49, while those in the intrinsic ranged from 31-49. The individual range of scores within the Intrinsic Condition was more dispersed than in the other two conditions, and this is evident on casual examination of the scatterplots of the data points portrayed in Figure 1. By appearances, the distribution of scores in the Intrinsic Condition appears to be bimodal, while the distributions in the other two conditions appear to be unimodal (with one appearing to be roughly normal (bell-shaped) in appearance (Purpose Condition), and the other (Extrinsic Condition) appearing to be quite skewed positively). This difference in the shapes of the distributions were relatively modest, but intriguing, and an analysis of the homoscedasticity of the variances proved non-significant ($p > .10$).

Figure 1: Intrinsic Condition

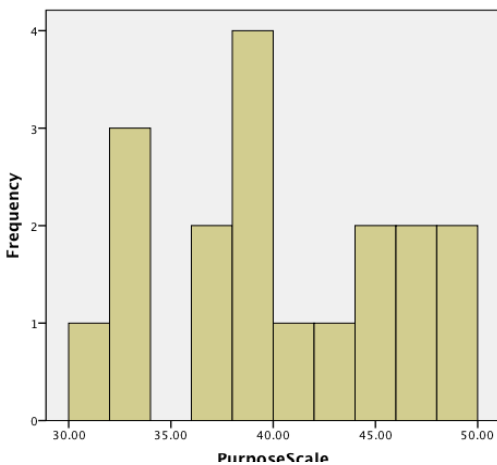


Figure 2: Purpose Condition

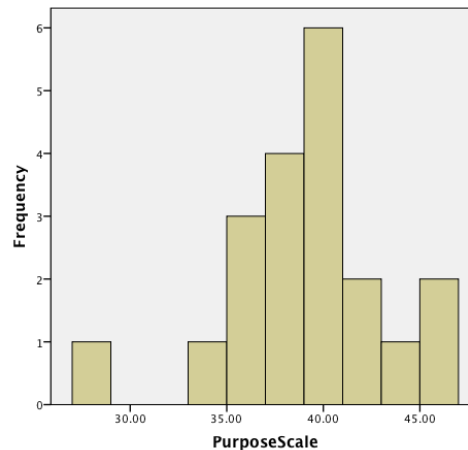


Figure 3: Extrinsic Condition

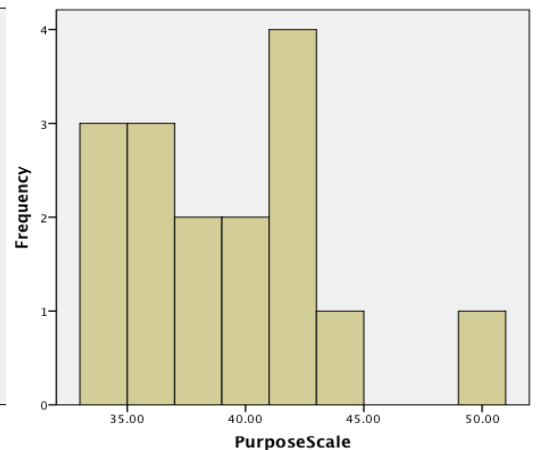
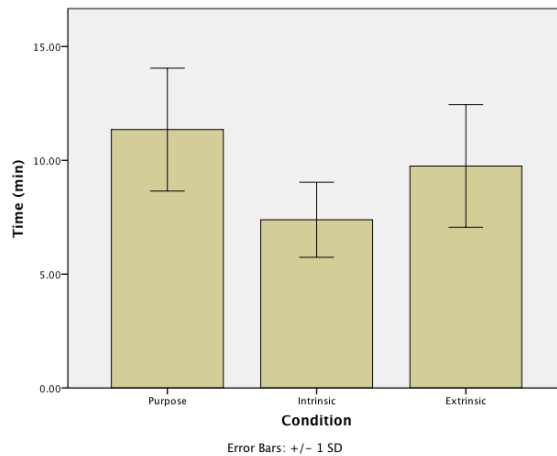


Figure 4: Time



Time

The most interesting finding emerged on the measure of time-on-task. Each participant's time spent "teaching" the confederate (playing Taboo) was recorded. Participants in the purpose condition spent more time on average, on the Taboo task (M=11.35, SD=2.70), than their counterparts in either the Intrinsic Condition (M=7.39, SD=1.65) or those in the Extrinsic Condition (M=9.75, SD=2.70), and this difference was significant ($p < .05$).

It is evident that when participants believed that they were working to benefit another person they spent more time on the task. Those in the intrinsic condition spent less time compared to the other participants most likely because they were primed to think of the task as "just a game," while those in the extrinsic condition were motivated by the desire to receive a reward.

An independent-samples t-test was conducted to compare time spent in the intrinsic condition and extrinsic condition. There was a significant difference in the scores for Intrinsic (M=7.39, SD=1.65) and Extrinsic (M=9.75, SD=2.70) $t(32) = -3.12$, $p = .004$. There was also a significant difference in the scores for the Purpose (M=11.35,

SD=2.70) and Intrinsic Condition (M=9.75, SD=1.65) $t(36)=5.52$, $p=.00$. These results suggest that type of motivation really does effect the time spent on the task.

Positive Affect

Participants were asked to rate on a nine-point Likert-type scale how much they enjoyed the task (playing Taboo). Again, those in the intrinsic condition on average reported higher ratings of enjoyment (M=7.20, SD=1.58) compared to the participants in the purpose (M= 6.28, SD=1.23) and the extrinsic condition (M=6.29, SD=1.95).

Although this difference was small, and not significant ($p>.05$), this finding does suggest an explanation for why those in the intrinsic condition reported higher ratings of enjoyment. Participants in the intrinsic condition were primed to regard the task as a game, without any real added pressures, just as “playing a game with a friend” might be. This could explain why they averaged higher (M=7.278) on questions like, “I enjoyed playing Taboo,” compared to the other two conditions (M(Purpose)=7.00 and M(Extrinsic)= 6.89

Long-Term Motivation

Long-term motivation was measured as the participants’ willingness to complete the task again. Questions 7-9 which asked the participant to rate whether they would be willing to participate again for credit, without credit, and whether they would be willing to participate multiple times. Those in the extrinsic condition scored on average higher (M=5.00, SD=1.79) than both those in the intrinsic (M= 4.70, SD=2.05) and purpose (M=4.78, SD=1.09) categories overall, however this small difference did not yield statistical significance ($p>.05$). The extrinsic category had just received a reward for

their partner's perceived success, which may provide an explanation for the reason why the participants in the Extrinsic Condition reported an increased willingness to participate again.

Other Dependent Variables

The survey evaluated two other dependent variables, the participants' self-report of their teaching and their ratings of their contribution. In keeping with the original methodology of Ross, Bierbrauer, and Polly's (1974) teaching study, the participants were asked to rate their own opinions of their teaching. Participants in the intrinsic condition on average rated themselves as more effective teachers ($M=7.33$, $SD=.87$) than any other participants in the other conditions ($M(\text{Purpose})=6.80$, $SD(\text{Purpose})=1.23$; $M(\text{Extrinsic})=6.81$, $SD(\text{Extrinsic})=1.17$). The results, though not significant ($p>.05$) suggest that those participants in the purpose condition did not take credit for their confederates' successes which is why they reported lower scores when asked about their effectiveness as a teacher.

One of the principles of purpose is the desire to enhance others beyond the self without consciously seeking the rewards for the self. In order to attempt to measure this portion of the definition participants were asked how they felt about their contribution to their partner's success. It is expected that those who experience the most purpose would be less likely to report higher ratings of their own contribution. They would be more likely to feel as though their partner's success was not attributable to themselves but to their partner. As expected, those in the purpose condition took less personal credit on average for their partner's success ($M=6.15$, $SD=2.03$) than the participants in the intrinsic condition ($M=6.78$, $SD=1.63$). However, participants in the extrinsic condition

surprisingly assumed even less personal credit ($M=5.44$, $SD=1.75$) for their partner's triumphs than those participants in the purpose condition. These results were close to significance ($p=.12$).

Behavioral Observations

Additional behavioral measures were taken informally by the experimenter during each study session in order to investigate the effect of purpose on participant's behavior. These observations, although anecdotal (no quantitative data are available) illustrate purpose in a way that was not captured in any of the other dependent measures.

Participants in the purpose condition were more likely to remember the names of the confederates they were working with when they were asked in the early stages of debriefing by the experimenter and were more likely to attempt to help each other teach their confederates (even though it wasn't a part of the instructions). Participants in the purpose condition also were most likely to express concern, over their lack of knowledge for the words given or which clues to give, and about how their confederates were being negatively affected by their actions.

General Discussion

While some of the analyses of the dependent measures may not have supported the hypothesis, it is evident that purpose emerged as an effective form of motivation in this study. It was discovered that being motivated by purpose does affect the way a person approaches a task. When participants believed that they were helping another student prepare for the test and providing some benefit to another person they spent more time on

the task than in the other two conditions. Participants in the purpose condition also expressed more concern and formed interpersonal connections to the students they were working with, which illustrates the collective aspect of purpose. They were also more likely to fail to take personal credit for their partner's success when compared to those participants in the intrinsic condition. Unfortunately, not all of my dependent measures were as effective at illustrating the impact of feelings of purpose and its effect as a motivator, but the directional findings uncovered here surely suggest the value of additional follow-up research.

Limitations

One limitation of the present study was the application of the Purpose Profile Scale, which may not have been able to capture purpose as accurately as anticipated. Unfortunately the survey was only administered after Taboo was completed and didn't allow for the experimenter to capture individual differences between participants before and after the tasks. It would have been helpful to see if the participants came into the study with a certain level of purpose or if it was the instructions alone that primed them in one direction or another. The individual scores of participants varied throughout each condition and each person, which may have been due in large part to individual differences of the participants and personal dispositions prior to participation.

Another limitation is the number of participants. With there only being fifty-four participants, because of participant turn-out, there may have not been enough participants to achieve significance. Perhaps with more participants the differences would have been more pronounced or the trends may have been more helpful in supporting or rejecting the hypothesis. Having said this, it is clear that the trends were not suggestive on several of

the measures. This raises questions about the measures themselves as well as about the strength of the manipulations (of purpose and of intrinsic motivation).

Yet another limitation of the study was in the confederate's test scores. Each participant was told that the confederate they were working with scored 14/15 on a GRE verbal reasoning exam. This was done in order to prevent the undermining of motivation, which might have occurred if participants believed they had failed to help the confederate. Regrettably, that may have prevented the researcher from determining if the participants' willingness to complete the task again (long-term motivation) was attributed to the condition they were assigned to (intrinsic, extrinsic, or purpose) or whether it was correlated to the euphoric feelings of success. If participants had found out that their partner had done poorly that may have affected their willingness to complete the task again. I would hypothesize that those participants in the purpose condition would be more likely to want to try again and improve than the other two conditions. Adding the different scores would have provided a possibly deeper manipulation to determine the effectiveness of purpose when compared to the other two groups.

The final limitation of the study was again in the measurement of long-term motivation. The difficulty in assessing long-term motivation in one session is that it is not clear whether the person is really willing to complete the task again or if they are just responding positively for a different personal reason. It would have been more effective (but not efficient) perhaps to have had the participants "sign-up" to do the task again on a schedule or to email the participants at a later time and ask if they would be willing to participate again. Although these alternatives as mentioned already would not be as

efficient as the route chosen they would most likely provide a clearer measure of long-term motivation as defined as willingness to repeat the task.

Future Research

Future research could attempt to address the limitations previously listed in order to study purpose in more detail. The hope from this study was that it would inspire further research into the psychology of purpose and the role it plays in motivating people. Although the empirical results for this study were not significant, behavioral observations did show that purpose does have an effect on the way people are motivated to approach a task. In the future, research could be focused on the operationalization of the construct “purpose” in a more effective way in order to explain the differences unexplained in the present study. Research could also look at purpose driven motivation in a longitudinal way in order to truly see how purpose works long-term. It would be interesting to see if approaching tasks with purpose really can lead to sustainable happiness and continued motivation in the long run as hypothesized.

Purpose is a concept that many people feel but is difficult to put into words let alone to operationalize it effectively. Nevertheless, in the time we live in, doing things to serve a larger purpose is a prevalent trend in our culture of contemporary society. Purpose is one of those aspects of motivation that for some people is the sole foundation of their lives; they seek out meaning and a way to make a difference in the world.

From this study I have discovered that purpose is more like a continuum perhaps analogous to that of optimism vs. pessimism. Some people are just more optimistic than others and it is apparent to me that an individual’s experience of purpose may follow this same trend. While the present study was unable to provide a concise answer to the

question, the findings uncovered here are promising and provocative. The prospect that future research will be able to uncover still more about the precise nature of the construct “purpose” is what this study was actually intended to achieve, and in that sense, the effort has been, well, purposeful.

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Appendix A

Study Instructions

Instructions:

Purpose Condition:

Hello, Thank you for signing up to participate in this study. The GRE and other graduate level tests studies show that playing word games can increase verbal reasoning scores. This study aims to evaluate the effectiveness of the game Taboo at generating the word associations and speed necessary to do well on graduate level examinations.

Teamwork is also an important aspect of success and it has been shown that working with another person to reach a shared goal can be monumentally effective in overall achievement of goals. You can truly make a difference in another person's scores by participating. Given that study groups have been shown to increase collectively the entire groups' success, you will be working in pairs with another student via the computer to evaluate the effectiveness of Taboo as a teaching tool in raising scores. Preparing together is a great way to increase not only your partner's vocabulary but as a result you can help yourself do better in the long run. So think of this as a team exercise as well as a game, your partner's success is as much theirs as yours. If you are still interested in participating please complete the consent form in front of you. If you chose not to participate, you will not be penalized and will still receive credit.

As I mentioned earlier we will be using the game Taboo to look at learning in a collective. The rules of Taboo for this study are as follows: As soon as a card appears on the screen, you have as much time as needed to start giving word associations that will make the learner say the vocabulary word by typing them in the box. Clues may consist

of sentences, phrases or single words. Clues cannot: 1. Be any of the other words listed on the screen 2. cannot say “sounds like” or “rhymes with” and 3. Not be initials or abbreviations. Try to complete as many words as possible in the time allotted.

“There is no I in team,” so together you can increase vocabulary for the graduate level examination. After your 15 min session is complete (I will warn you when you have 5 minutes remaining) your partner will complete a practice GRE verbal section, the average score correct is 9 out of 15. Good luck and remember this is all about helping your partner succeed!

Intrinsic Condition:

Hello, Thank you for signing up to participate in this study. The GRE and other graduate level tests studies show that playing word games with a partner can increase a person’s verbal reasoning score. This study aims to evaluate the effectiveness of the game Taboo at generating the word associations and speed necessary to do well on graduate level examinations. Enjoyment is an important aspect of success and it has been shown that if you are having fun it can be monumentally effective in overall achievement of goals. Given that study groups have been shown to increase individual success, you will be working with another student via the computer to evaluate the effectiveness of Taboo and your teaching in raising scores. Preparing together is a great way to have fun as well as increase your partner’s vocabulary. So think of this as just playing a game with a friend. If you are still interested in participating please complete the consent form in front of you. If you chose not to participate, you will not be penalized and will still receive credit.

As I mentioned earlier we will be using the game Taboo to look at learning in a collective. The rules of Taboo for this study are as follows: As soon as a card appears on the screen, you have as much time as needed to start giving word associations that will make the learner say the vocabulary word by typing them in the box. Clues may consist of sentences, phrases or single words. Clues cannot: 1. Be any of the other words listed on the screen 2. cannot say “sounds like” or “rhymes with” and 3. Not be initials or abbreviations. Try to complete as many words as possible in the time allotted.

“People rarely succeed unless they have fun doing it,” so you can increase vocabulary for the graduate level examination as well as enjoy yourself. After your 15 min session is complete (I will warn you when you have 5 minutes remaining) your partner will complete a practice GRE verbal section, the average score is 9 out of 15. Good luck and remember this is a game so have fun and enjoy yourself!

Extrinsic Condition:

Hello, Thank you for signing up to participate in this study. The GRE and other graduate level tests studies show that playing word games can increase a person’s verbal reasoning score. This study aims to evaluate the effectiveness of the game Taboo at generating the word associations and speed necessary to do well on graduate level examinations. A healthy level of competitiveness has been shown to inspire and be monumentally effective in overall achievement or goals. Given that study groups have been shown to increase individual success, you will be working with another student to evaluate the effectiveness of Taboo and your teaching in raising scores. You will be rewarded for percentage above the average. Preparing this way is an easy way to not only

test your ability to raise your partner's score but also to earn a reward for it. If you are still interested in participating please complete the consent form in front of you. If you chose not to participate, you will not be penalized and will still receive credit.

As I mentioned earlier we will be using the game Taboo to look at learning in a collective. The rules of Taboo for this study are as follows: As soon as a card appears on the screen, you have as much time as needed to start giving word associations that will make the learner say the vocabulary word by typing them in the box. Clues may consist of sentences, phrases or single words. Clues cannot: 1. Be any of the other words listed on the screen 2. cannot say "sounds like" or "rhymes with" and 3. Not be initials or abbreviations. Try to complete as many words as possible in the time allotted.

"Winning isn't everything, but wanting to is," and you can increase your vocabulary for the graduate level examination and earn a reward. After your 15 min session is complete (I will warn you when you have 5 minutes remaining) your partner will complete a practice GRE verbal section, the average score correct is 9 out of 15. Good luck and remember the goal is for your partner to score above 9 out of 15!

Appendix B

Purpose Profile Scale

Please rate how true each item is for you at this moment; Please use the scale 1 (not at all) to 5 (very much) that is provided with each item.

1. I believe I can make a difference in the world

1 2 3 4 5

2. I strive to make this world a better place

1 2 3 4 5

3. In order to succeed in this world, it is sometimes necessary to step on others along the way.

1 2 3 4 5

4. It is important to dedicate my life to a cause

1 2 3 4 5

5. I attempt to leave behind a good and lasting legacy

1 2 3 4 5

6. I contribute to the well-being of others

1 2 3 4 5

7. I strive towards personal growth

1 2 3 4 5

8. My successes don't mean much if most other people succeed at the same task

1 2 3 4 5

9. I bring happiness to others

1 2 3 4 5

10. I strive to help others grow

1 2 3 4 5

Appendix C

Study Questionnaire

Please rate how true each item is for you at this moment; Please use the scale 1 (not at all) to 9 (very much) that is provided with each item.

I. I feel like I was an effective teacher

1. I provided thoughtful clues for my partner

1 2 3 4 5 6 7 8 9

2. I spent time thinking about what would help my partner learn

1 2 3 4 5 6 7 8 9

3. My clues were logical and specific

1 2 3 4 5 6 7 8 9

II. I enjoyed this task

1. I enjoyed playing Taboo

1 2 3 4 5 6 7 8 9

2. I liked working with my partner

1 2 3 4 5 6 7 8 9

3. I wished there were more Taboo words to play

1 2 3 4 5 6 7 8 9

III. I would be willing to participate in more study groups

1. I would be willing to participate in another study group session next week for credit

1 2 3 4 5 6 7 8 9

2. I would be willing to participate in another study group session next week---
even if there weren't any credit provided

1 2 3 4 5 6 7 8 9

3. I would be willing to participate in more than 3 other study group sessions

1 2 3 4 5 6 7 8 9

- IV. I feel like I greatly contributed to my partner's success

1 2 3 4 5 6 7 8 9

Please answer the question below in the space provided:

1. How do you feel about yourself and your contribution to your partner's score?

Appendix D

Debriefing Script

Thank you for your participation in this study. Obviously, we did not tell you everything about the study when you started. Let us take a few minutes to explain the purpose of this study and to explain why we could not tell you everything about the study from the start.

Our study looks at the use of the experience of “ purpose” as a motivator. The goal of this study is to examine whether the presence of purpose in an inherently enjoyable task can increase motivation in the long-term as well as to help to generate positive feelings about doing a task. A great deal of research supports the distinction between intrinsic and extrinsic motivation. However, no known current research has explored the prospect of a deeper aspect of motivation that might even distinguish among types of intrinsic motivation— specifically, about one’s sense of purpose. The present research attempts to contrast purpose and intrinsic motivation, really to identify two sorts of intrinsic motivation (one involving purpose, the other not) to garner a deeper understanding of what motivates people and what might increase people’s happiness and well-being in the long run.

You should know that Taboo has not been shown in recent studies to increase GRE verbal reasoning scores. We want to apologize for having to deceive you like this, but we hope that you understand why we felt it was necessary. We are

trying to discover how purpose works as a motivator and to do this, it is important that you act naturally.

We also want you not to feel stupid if you believed what we told you. We worked very hard to make sure you were engaged in the task, and involved in playing Taboo. Again, we apologize for deceiving you, but we hope that you understand why we felt it was necessary.

Additionally, if you feel as though you are uncomfortable with your results being included in this study please let me know and your scores will not be included in the results. Please note that your decision to do so will not affect your participation credit.

Finally, we ask that you not tell other people who might be in this experiment about your experience. If you have any questions, please feel free to direct them to Ashley Fryer (fryer.15@buckeyemail.osu.edu) or Dr. Robert Arkin (Arkin.2@osu.edu).

Thank you for your time and Have a nice day!!

Table 1: Mean Differences of Dependent Variables per Condition

Condition		Purpose Scale	Time	Teaching Rate	Enjoyment	Long Term Motivation	Contribution
Purpose N=20	Mean	38.5000	11.3500	6.8000	6.2833	4.7833	6.1500
	Std. Dev	3.85937	2.70039	1.22546	1.98614	1.09371	2.03328
Intrinsic N=18	Mean	39.7778	7.3889	7.3333	7.2037	4.7037	6.7778
	Std. Dev	6.03476	1.64992	.87073	1.58481	2.05127	1.62899
Extrinsic N=16	Mean	38.8125	9.7500	6.8125	6.2917	5.0000	5.4375
	Std. Dev	4.19871	2.69568	1.35520	1.95078	1.79299	1.75000

Table 2: Analysis of Variance of Dependent Measures

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
PurposeScale	Between Groups	16.433	2	8.216	.359	.700
	Within Groups	1166.549	51	22.874		
Time	Between Groups	149.506	2	74.753	12.975	.000
	Within Groups	293.828	51	5.761		
Teaching.Rate	Between Groups	3.344	2	1.672	1.236	.299
	Within Groups	68.971	51	1.352		
Enjoyment	Between Groups	10.084	2	5.042	1.472	.239
	Within Groups	174.731	51	3.426		
LongTermM	Between Groups	.789	2	.394	.141	.869
	Within Groups	142.481	51	2.794		
Contribution	Between Groups	15.216	2	7.608	2.288	.112
	Within Groups	169.599	51	3.325		