

CONSTRUAL LEVEL AND VOLUNTEERING TO LEAD

CONSTRUAL LEVEL AND ITS EFFECT ON WILLINGNESS TO VOLUNTEER AS A
LEADER

By

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Abstract

Research has shown that manipulating someone to think with a high-level construal (more abstractly) leads to greater self-control, acceptance of negative feedback in order to improve, willingness to take on greater responsibilities, and the ability to make decisions that benefit everyone affected by the task. This study used undergraduate students and had them split into high and low-level construal manipulations by use of a why (high-level construal)/ how (low-level construal) task. They were made to think they were going to be put into groups to discuss an article they had read. The study also caused them to believe that one of them would have to volunteer to lead the group by writing a small presentation of their discussion, or deliver an oral presentation. The survey administered asked questions to measure how willing participants were to volunteer as a leader for the both a written presentation as well as an oral presentation. It was hypothesized that those who completed the why task would be more willing to volunteer as a leader for both scenarios than those who completed the how task. It was further hypothesized that participants would be more willing to volunteer for the write up scenario in both conditions than the oral scenario. An independent samples t-test as well as a paired sampled t-test tested these hypotheses. The first hypothesis was not supported since there was not any statistical significance between willingness to volunteer between those in the high-level condition and those in the low-level condition in either scenario. However, there was marginally statistical significance to support the second hypothesis that participants in both conditions were more likely to volunteer for the written presentation than the oral presentation. Future research could study whether construal level affects willingness to volunteer as a leader in a work environment rather than a school environment.

Keywords: construal level, volunteering, leader

Construal Level and its Effect on Willingness to Volunteer as a Leader

While there are certain people who naturally tend to volunteer as leaders when the opportunity arises, there may also be factors that can change or affect one's willingness to volunteer as a leader. Construal Level Theory (CLT) is the relationship between psychological distance and the extent to which people's thinking is abstract (high-level) or concrete (low-level) (Liberman & Trope, 2010). If placed in a situation where one is forced to think in a high-level construal, would they be more willing to volunteer as a leader? Research shows that manipulating construal level affects whether one is willing to take on the majority of responsibility with tasks (Zacarro, Gulick, & Khare, 2008), if they are afraid of criticism (Freitas, Trope, & Gollwitzer, 2004), if they are good at making important decisions that will affect those in the group they are leading (Eyal & Liberman, 2010), and if they have a sense of self-control to make these decisions (Fujita & Han, 2009). All of these factors are important in determining who could ultimately want to be and make a good leader. Thus, because each of these aspects can be affected by construal level, it is safe to predict that manipulating construal level will affect one's willingness to volunteer as a leader. In this study, we predicted that subjecting one to a high level construal situation would result in them being more likely to volunteer as a leader than someone in a low-level construal situation.

Construal Level Theory and Psychological Distance

When thinking about high and low-level construal, it is important to consider how construal level affects the way someone thinks. A high-level construal shows thinking tends to be more abstract, as opposed to low level construal, which shows thinking to be more concrete or detailed (Liberman & Trope, 2010). An example would be if one were to look at their cell phone. If that person thinks with high-level construal, they would describe their cell phone as a

communication device since that is a more abstract way to think about a phone. Someone who thinks in low-level construal would describe their cell phone as an iPhone 8 or a Samsung Galaxy 9; they would think in a more detailed and specific sense of exactly what type of cell phone they have.

An extension of this theory is the concept that the more distant an event is in the future, the more abstractly you will think about it; this is known as psychological distance. If a student thinks about what they are doing one month from today, the response would probably be to wake up, eat breakfast, go to class or do homework, eat lunch, continue with schoolwork, eat dinner, relax, and go to bed. This is all thinking very generally about what any day during the school week might look like. They will not necessarily know what they will have for breakfast, lunch or dinner; they will not know what they will study in class or what their homework will be. However, if you ask what that student's plan is for tomorrow, they probably have a more specific idea of what they will eat for breakfast or where they will have lunch; they know what class they will have and based on what was covered in their last class, they will have an idea as to what they are going to be learning about.

The idea of construal level affecting psychological distance is shown in evidence provided by Bar-Anan, Liberman, and Trope (2006), who were interested in determining if people associate thinking with high-level construal and psychological distance, and in turn, thinking with low-level construal and psychological proximity. Their participants took an Implicit Association Test which presented them with stimuli from four categories: high-level construal (category names), low-level construal (exemplar names), low psychological distance ("our" or "friend"), and high psychological distance ("theirs" or "stranger"). In CLT congruent trials, high-level stimuli were paired with psychologically distant stimuli, and low-level stimuli

were paired with psychologically proximal stimuli, and vice versa for CLT incongruent trials. Participants were faster to respond to CLT congruent rather than incongruent pairings, showing that participants associate psychological distance with high level construal, and psychological proximity with low level construal.

How High and Low-Level Construals Affect Self-Control

It is important to note that the interaction between construal level and psychological distance also has an effect on self-control (Fujita & Carnevale, 2012). Self-control is defined as the ability to make decisions consistent with distal goals when tempted by more immediate rewards (Fujita & Han, 2009). Fujita and Han examined the idea of people having more self-control if they were forced to think in terms of one construal over another when they asked participants to choose between an apple and a chocolate candy. They used female participants because they are a population that is concerned with weight and appearance. They first completed the category/exemplar construal-level manipulation which asked them to identify certain words into either categories (high-level construal condition) or examples (low-level construal condition), and then had to choose between the two snacks. They hypothesized that those exposed to the high-level construal manipulation would be more likely to choose the apple because they know it is healthier and more beneficial to them in the long term. Those exposed to the low-level construal condition would be more likely to choose the candy because they want the instant gratification of having the more delicious snack at that moment, even if they regret it in the long run because it is the unhealthier choice for their diet. The results supported their hypothesis, in that those exposed to the high-level construal condition were more likely to choose the apple over the candy than those primed in the low-level condition; thus, those primed with high-level construal have better self-control.

When using self-control to make a decision, the construal one thinks in can affect how willing they are to give in to their immediate desires, or exhibit self-control and receive the better outcome. Fujita, Trope, and Liberman (2006) completed a study where they primed participants in a why and how priming activity. This entailed those in the why condition (high-level manipulation) being asked why they engage in maintaining a healthy lifestyle (“to live a long life”), and those in the how condition (low-level manipulation) being asked how they engage in the same behavior (“by eating more vegetables”). Next, researchers asked how much participants would be willing to pay for a high-value object such as a \$100 dollar gift certificate, if they were to get it immediately, or in the future. Larger differences scores indicate stronger preferences for immediate over delayed rewards and hence a lack of self-control. Those in the high-level construal condition did not prefer immediate gratification as often and were not willing to pay as much for it as those in the low-level construal condition. These findings demonstrate that those primed in the high-level construal condition have better self-control in being able to hold off from wanting instant gratification and gaining something better by waiting longer, and not needing to pay as much money as those primed in the low-level construal condition.

In addition, Fujita and his colleagues (2006) performed an experiment where participants were once again subjected to a why/how manipulation, and then had to hold onto a hand grip as long as possible. They were told the longer they held on, the more accurate of a personality measure they would receive, although in reality, the handgrip did not give any personality measures. Those subjected to the high-level condition held on longer, in order to find out their accurate personality measure, than those in the low-level condition. This showed greater self-

control for those who are forced to think with a high-level construal in order to endorse short term pain of the handgrip task for the long term benefit of the personality feedback.

The Effect of Construal Level on One's Willingness to Receive Negative Feedback

When examining how high and low level-construals affect one's willingness to volunteer as a leader, one must consider what the responsibilities of being a leader are. A leader must be willing to take full responsibility of the task at hand, including any negative consequences that may arise from the task. This idea of accepting negative feedback was studied by Freitas, Trope, & Gollwitzer (2004). They separated employees into two groups; one group completed a "why" activity for high-level construal manipulation, and one group completed a "how" activity for low-level construal manipulation. They found that those in the high-level construal condition were more willing to hear negative feedback about their work performance as constructive criticism in order to improve in the future; those in the low-level construal condition did not prefer to hear negative feedback, and instead preferred just to hear what they were already doing correctly. This shows that utilizing a high-level construal enhances acceptance of receiving negative rather than positive feedback about performance.

Fujita, Naufel, and Belding (2015) also examined people's motivation to improve themselves based on negative feedback. They studied participants who used tanning beds regularly and separated them into two groups: high and low-level construal groups. Those in the high-level condition were asked to complete a category identification task while those in the low-level condition were asked to complete an exemplar identification task similarly to the construal manipulation in Fujita and Han (2009). They then told the participants about how dangerous these tanning beds were for them to use. Next, researchers asked the participants how likely they would be to come back and continue using the tanning beds. Those in the high-level construal

condition were more open to understanding the negative feedback they had received about the tanning beds by stating that they were less likely to use a tanning bed again or as often as those in the low-level construal condition. Both of these experiments (Freitas, Trope, & Gollwitzer, 2004) and (Fujita, Naufel, & Belding, 2015) show how high-level construal manipulation increases one's self control to be more willing to hear negative feedback and apply it to their lives to improve upon themselves. This is one aspect that helps define a leader, since leaders take on the most responsibility in any group setting. It shows they have the control of being willing to volunteer, even if they are not successful.

The Effect of Construal Level and How One Views the Level of Responsibility

Leaders always have to be concerned with the responsibilities associated with a task, to determine if they are able to handle these responsibilities. Construal level can affect the way one views the level of responsibility associated with a certain task. In a study conducted by Liberman and Trope (1998), they took participants from a university whose first language was Hebrew and told them they would be given two different tasks. The first task was assigned immediately (low-level condition), and the distant future task (high-level condition) was given nine weeks later; they were given one week to work on each task respectively. Students were randomly assigned to complete an easy assignment (in their native language, Hebrew), followed by a hard assignment (in a foreign language, English) or a hard assignment followed by an easy assignment. After being separated into the conditions of completing an easy then hard assignment and vice versa, researchers further separated students by the topics of the assignments being split into interesting and uninteresting topics related to social psychology and selected on the basis of pretesting. Researchers looked at preference for easy verses difficult assignments, as well as preference for interest in the topic for each assignment based on the more

immediate task as well as the more distal one. They predicted that participants would ultimately not be concerned with how difficult a task was the further out it was due, as long as they were interested in the topic of the assignment.

The results supported the hypothesis in that preference for easy but uninteresting assignments decreased after the nine weeks; the more distant the task, the less the students cared how easy the assignment was, but they wanted the interesting topic. In addition, preference for hard but interesting assignment increased after the nine weeks. Time delay diminished the influence of difficulty. This is significant because of its implications that those who are manipulated to think in high-level construal (distal task) tend to think more abstractly and in terms of the bigger picture when it comes to delayed assignments or gratification. These results support the idea that those who think in high-level construal about future assignments are not as concerned with the difficulty of the responsibility associated with the task as long as they are interested in it. Those who think in low-level construal are only concerned with how easy the near future assignments are in terms of what their responsibility is for these tasks, despite interest in topic.

In addition, those in positions of higher power in a work setting have greater responsibility, and thus often involve a greater amount of ambiguity in order to be open to more than one solution to be able to reach a goal or complete a task (Zacarro, Gulick, & Khare, 2008). They must therefore be able to think more creatively and stay open-minded as well. In order to be ambiguous and open-minded, it helps to be able to think in an abstract manner to determine what needs to be done to complete an ultimate goal. Those with lower level responsibilities are often provided with more concrete and detailed instructions from superiors, as well as more well defined tasks which relates to low-level construal; they have little room for deviation or choice.

Being able to think in a high-level construal allows a leader to think more broadly about all of the larger goals that need to be taken care of for the ultimate goal of a task or project. They can then delegate these smaller more detailed tasks of how to achieve these larger goals to those following under their leadership.

The Effect of Construal Level on Morality and Psychological Distance

While examining the influence that psychological distance has on one's effectiveness as a leader, it is important to consider how morality plays a factor. When one pictures a leader, one pictures someone who has good morals and values so that they can be trusted to make the best decision for everyone affected by the tasks they are given, and not just how he or she will appear or be evaluated once they complete the assignment. In a review of morality and psychological distance with relation to construal levels, Eyal and Liberman (2010) concluded that morals and values tend to be abstract concepts, and that people are more likely to use them in planning and decision making with respect to high construal level situations (i.e. psychologically more distant goals). It can be hypothesized that when a leader takes on the majority of the work load and responsibility in an assignment, if they are predisposed to think with high-level construal, they would take into account how everyone will look after they have completed the task and put more care into their work for the sake of the group. People would be less likely to put the concerns of the group first if they are thinking with low-level construal; they only care about how they are evaluated and thus do not volunteer often as leaders and may selfishly look for the easiest way to get ahead by piggybacking off those who will do more work.

The Effect of Independent and Interdependent Construals on Volunteering

When it comes to leadership, high and low level construals are not the only construals that can affect one's willingness to volunteer. In a study done by Orehek (2014), he used two

experiments to examine if participants primed with independent or interdependent self construals had greater anxiety about death. Interdependent construal is a view of one self that emphasizes a person's embeddedness in a network of social relationships that downplays their unique traits or accomplishments. Independent construal is a view of oneself that emphasizes internal and distinctive personal characteristics, and the self is seen as a unique individual, fundamentally separate from others. The participants in the independent condition were given a paragraph describing a trip to the city and asked to circle pronouns such as me, I, etc. Those in the interdependent condition were given a similar paragraph and asked to circle pronouns such as we, ours, etc. All participants were then given a death anxiety scale to fill out. As Orehek predicted, those primed in the interdependent condition showed less anxiety about death because they did not tend to think about themselves as much as those in the independent construal condition.

It was the next three experiments in this study that showed how these first two experiments regarding self-construal and death anxiety affect one's willingness to volunteer. Orehek (2014) tweaked the first two experiments and added a survey where participants answered a survey on willingness for martyrdom. He put participants into independent and interdependent construal conditions of the Sumerian warrior (personal reward/prestige condition and loyalty to group condition respectively); footbridge dilemma (jumping in front of group members to save them but self-sacrifice as the interdependent condition); and the push/pull stick related to target words about death (when exposed to a word related to death, the time it took to pull the joystick towards themselves was measured as well as when a word not related was put up and timed to see how long it took to push the joystick away). In each of the three experiments, participants who were primed with the interdependent construal condition were

more likely to volunteer to self-sacrifice and become a martyr for their group, and accept death. These results show that the way one thinks independently versus interdependently (if they tend to think more about themselves or about those around them) can affect his or her's willingness to volunteer for the sake of the people around them. This is related to something leaders must consider when volunteering to lead others: if they are willing to sacrifice their own reputation and take the fall for the group if things go badly.

How Personality Affects Willingness to Volunteer as a Leader

Besides interdependent and independent construals affecting one's willingness to volunteer as a leader, personality can affect it as well. One would assume that those who are high in Extraversion are already more outgoing in general and not shy about voicing their opinions, which are attributes a willing leader would have. In a study completed by (Judge and Bono, 2004), participants completed a Big Five Personality Inventory; in addition, their supervisors completed one for these employees as well. Participants also took a multi factor leadership questionnaire for transformational leadership which looked at idealized influence-attributes (displays sense of power and confidence) and idealized influence-behavior (talks to us about his or her most important beliefs and values); inspirational motivation (articulates a compelling vision of the future); intellectual inspiration (re-examines critical assumptions to question whether they are appropriate); and individualized consideration (spends time teaching and coaching). Transformational leadership is a theory of leadership where a leader works with teams to identify needed change, creates a vision to guide the change through inspiration, and executes the change in tandem with committed members of a group. Results found that those high in Agreeableness showed the strongest relationship with transformational leadership,

followed closely by those high in Extraversion. Agreeableness relates to those who are kind, considerate, cooperative, and empathetic, which are all attributes a leader should have as well.

Based on these previous findings, we conducted the current study using undergraduate students to observe the results of having them assigned into high and low-level construal conditions before completing a hypothetical task to determine willingness to volunteer as a leader for a written presentation scenario and an oral presentation scenario. Manipulating someone to think with a high-level construal should increase their self-control, willingness to accept negative feedback and improve from it, willingness to accept responsibility of a task no matter how great the size or difficulty, and consideration for those in their group to do well. These are qualities that could make someone more willing to volunteer as a leader.

In contrast, those manipulated to think in low-level construal will not have strong self-control, only want to hear positive feedback about their work, only be prepared to do the bare minimum to complete a task, and tend to be selfish and only care about themselves, especially when an assignment is more psychologically distant. Therefore, we hypothesized that those primed in the high-level construal condition would be more willing to volunteer as the leader of a group to complete an assignment, while those who are primed in the low-level construal condition will be less willing to volunteer. It is also further hypothesized that because it is an easier task to complete a written presentation than an oral one, participants in both conditions would be more willing to volunteer to complete a written presentation rather than an oral presentation.

Method

Participants

Forty four undergraduate students from SUNY Purchase participated in this study. A demographics survey was given to record gender, age, year in school, and whether English is

their first language. The majority of participants were recruited from the Introduction to Psychology participant pool and the rest were taken from a Social Development or Cognitive Development psychology class. The participants ranged from 17 and 27 years old ($M = 19.8$, $SD = 2.37$), therefore, making the majority of participants 41% freshman (18), 25% sophomores (11), 16% juniors (7), and 18% seniors (8). There were ten male participants, 33 female, and one did not choose to identify. Thirty-six participants said English was their first language, while for eight of them it was not. Participants were compensated with 1 research credit or credit for other classes by their professor.

Materials

Materials included a survey with different parts. The first part was a construal level manipulation in the form of a Why/How task (a construal level mindset manipulation in which participants are induced to low-level or high-level mindset by thinking in increasingly abstract or concrete ways about the same starting behavior) (see Appendix A). First, participants in the low-level construal group were induced to think concretely by writing answers to several pre-determined “how” questions (“how to obtain good grades”), while participants in the high-level construal group will be induced to think abstractly by writing answers to several pre-determined “why” questions (“why to obtain good grades”). How/why questions will be presented on paper and pertain to a topic unrelated to the study.

The next part of the survey asked the participants to read a brief article on an unfamiliar topic (trade with China), ostensibly as an investigation into how students learn and digest new information (see Appendix B). The survey then stated that they would be teamed up to discuss the article with other participants in the study and that each group would present their group’s findings to the experimenter and other participants in writing and orally. Participants then

completed the Willingness to Volunteer for Group Project Scale (see Appendix C). Questions asked include, “How willing are you to volunteer to (complete a write up/give an oral report) of your group’s opinions?” They were asked to rate this on a scale of 1 to 5 (1 = very unwilling, 5 = very willing). They finished with a demographics questionnaire (see Appendix D).

Procedure

Once the students arrived for their allotted time slot for the study, researchers took attendance so each student could be counted to receive credit. We then handed out a consent form giving a brief overview of the experiment, as well as asking for the participant’s consent to participate. Next, we distributed the survey and explained everything before the participants filled it out, along with the pretense that there was a second part to be expected (in addition, we gave them the idea that there were other students in another room completing the same study in case there was only one participant). The first part was the construal level manipulation in the form of a Why/How Task, followed by reading the article, and the Willingness to Volunteer questionnaire.

The last part of the survey was a demographics survey, and students notified the researcher when they had completed the supposed first part of the study. Once everyone had completed the survey, we debriefed, thanked and dismissed participants. The debriefing explained that the participants would not actually have to discuss the article with other participants and there would be no written report or oral presentation. Each study session lasted 15-20 minutes. Data was put into Excel and converted into the JASP application where an independent t-test and paired sample t-test were run.

Results

Participants completed twenty four “how” condition surveys as well as twenty “why” condition surveys. We had predicted that those primed in the “why” condition would be more willing to volunteer for the written and oral scenarios than those primed in the “how” condition. We ran an independent samples t-test to examine if there was a significant difference in the mean of the scores between construal level conditions for each participants’ willingness to volunteer. Unfortunately, the results did not support the hypothesis. The independent samples t-test revealed that there was no significant difference in willingness to volunteer for the write up between participants in the “how” ($M = 3.25$, $SD = 1.07$) and “why” ($M = 3.35$, $SD = 0.93$) conditions; $t(42) = -0.33$, $p = 0.746$. There was also no significant difference in willingness to volunteer for the oral presentation between participants in the “how” ($M = 2.88$, $SD = 0.99$) and “why” ($M = 2.85$, $SD = 1.35$) conditions; $t(42) = 0.07$, $p = 0.944$.

In addition, we predicted that the average score for the participants’ willingness to volunteer for the write up would be significantly greater than the average score for their willingness to volunteer for the oral report in both the “why” and “how” conditions. We tested this by running a paired samples t-test between the written and oral scenario scores. The paired samples t-test revealed a marginally significant difference within scores for the written ($M = 3.30$, $SD = 1.00$) and oral ($M = 2.86$, $SD = 1.15$) conditions; $t(43) = 1.97$, $p = 0.055$.

Discussion

We had hypothesized that those manipulated to think in a high-level construal would be more willing to volunteer as a leader in both a written and oral scenario than those manipulated to think in a low-level construal. In addition, participants would be more willing to volunteer for the written scenario in both conditions than the oral scenario. While the average scores for

willingness to volunteer in both the “how” and “why” conditions for the written scenario were higher than the average scores for both conditions in the oral scenario as predicted, there was not a significant difference in the average scores between the “how” and “why” conditions in both scenarios. Though this data was not statically significant to support the main hypothesis, evidence seemed to indicate that the average score in both conditions for the written scenario were higher than the average score in both conditions for the oral scenario with marginally statistical significance. This shows that although construal level did not lead to a difference in participants’ willingness to volunteer in both scenarios, they overall were more willing to volunteer to write up a presentation than deliver an oral one.

It was surprising that there was not any statistical significance in the means between the high and low-level construal conditions for both scenarios. Previous research had shown that those manipulated to think in high-level construal would be more willing to display specific characteristics that leaders should have. These qualities included taking on the majority of responsibility with tasks (Zacarro, Gulick, & Khare, 2008), a greater acceptance of criticism (Freitas, Trope, & Gollwitzer, 2004), being able to make important decisions that will affect those in the group they are leading (Eyal & Liberman, 2010), and having a greater sense of self-control to make those decisions (Fujita & Han, 2009). However, previous evidence by Liberman and Trope (1998) did defend the marginally significant significance found that supported the second hypothesis. Those in both construal conditions were more willing to volunteer for the written scenario rather than then oral one which shows that the difficulty of a task affects one’s willingness to volunteer.

Despite these results, there are still other factors to consider that could have affected one’s willingness to volunteer as a leader. While the manipulation of construal level and

demographics did not seem to affect these results in any significant way, other factors that can affect one's willingness to volunteer include personality type and independent versus interdependent construal. As mentioned earlier, research has shown that those high in Agreeableness scored highest in transformational leadership, followed closely by those high in Extraversion (Judge and Bono, 2004). Some people could innately be more predisposed to volunteer as a leader because of the type of person they are based on their personality type, while others may not show those personality traits that would cause them to volunteer as a leader.

Regarding interdependent and independent construal manipulation, it is important to keep in mind that those who think independently place more emphasis and concern on their own self rather than caring about other's needs. Those who think interdependently show more concern for the needs of others around them so that everyone can succeed together. In Orehek's study (2014), participants manipulated to think interdependently had a greater acceptance of death, as well as a greater willingness to self-sacrifice for others in martyrdom than those manipulated to think independently. A greater acceptance of death shows less concern for oneself, as does willingness to become a martyr and self-sacrifice so others can survive. This idea of caring more for others around you rather than just yourself was shown to be a quality that those who tend to volunteer as leaders should possess. This is in keeping with the study done by Eyal and Liberman (2010) about morality in the concern for how fellow group members will succeed at the task at hand, and willingness to do what it takes to help everyone involved. Therefore, one's tendency to think with independent versus interdependent construal can be a factor that could have affected how much one would be willing to volunteer as a leader.

Additional factors to consider are the size and limitation of the participants used in the study. Using only undergraduate psychology students from one university limits how many

participants can be used. If there was easier access to use students from any major to participate, as well as other universities, it would increase the number of participants able to partake in the study. A greater number of participants will yield the best results to support or reject the hypothesis even stronger than a lower number of participants. Besides the size of the participant pool, the year of school each student participating is in could be another aspect to consider when looking at what else could have affected the results.

It is possible that those who are freshman or sophomores might be less willing to volunteer than participants who are juniors and seniors because they are not as far into their undergraduate experience as juniors and seniors. Juniors and seniors have taken more classes and completed more assignments since they have been in school longer, and therefore may be more confident when it comes to volunteering to lead a group project, whether it be a written or oral report. They have more practice than freshmen and sophomores, who may still be feeling out the classes they are taking in school, and therefore be more inclined to sit back and let others lead a group discussion. It would be interesting to see how this may have affected the results.

An interesting idea to consider is that undergraduate students were used in this study. When looking at how this study could be expanded upon for future research, one could consider doing a study with manipulation of self-construal and willingness to volunteer as a leader in a work related environment. Instead of just looking at willingness to volunteer in a school setting, it would be applied to those who work and are constantly being put into these situations of working with their coworkers to complete a project or task. The idea of taking this project another step further could also require using a real life scenario of actually having the participants complete a task to fully assess who is volunteering verses just sitting back and letting others do the work to receive the same credit.

In this study, the participants were put in a hypothetical situation where they believed they were going to be put into groups and create a written or oral report of their discussion and asked how much they would be willing to volunteer, but not actually having to be put into groups. In a future study, whether it be with students in a school setting, or employees in a work setting, it could yield better results if the hypothetical situation is actually run completely. One could observe what was recorded by the participants in terms of whether or not they would be willing to volunteer, but they would be observed in the group setting as well to see how the conversation goes of who ends up being the final volunteer. Researchers could also observe the discussion of the task at hand to see who is putting in any input towards completing the task even if they are not the settled upon volunteer. Being able to observe what actually would have happened had participants completed the entire hypothetical scenario completely would yield the best results in terms of determining whether manipulating self-construal would affect one's willingness to volunteer as a leader, and should be considered for future research into the effects of construal level manipulation.

APPENDIX A.

HIGH-LEVEL CONSTRUAL CONDITION

“Why Do We Do the Things We Do?”

For every thing we do, there always is a reason why we do it. Moreover, we often can trace the causes of our behavior back to broad life-goals that we have. For example, you currently are participating in a psychology experiment. Why are you doing this? Perhaps to satisfy a course requirement. Why are you satisfying the course requirement? Perhaps to pass a psychology course. Why pass the course? Perhaps because you want to earn a college degree. Why earn a college degree? Maybe because you want to find a good job, or because you want to educate yourself. And perhaps you wish to educate yourself or find a good job because you feel that doing so can bring you happiness in life.

Research suggests that engaging in thought exercise like that above, in which one thinks about how one’s actions relate to one’s ultimate life goals, can improve people’s life satisfaction. In this experiment, we are testing such a technique. This thought exercise is intended to focus your attention on why you do the things you do.

For this thought exercise, please consider the following activity: “Attaining good grades.”

1a. In the space below, please list one way in which attaining good grades could help you meet an important life goal that you have.

1b. How much will attaining good grades levels help you meet this important goal?
 Please circle one:

A little Somewhat Pretty Much Very Much Very, Very Much

2a. In the space below, please list one way in which attaining good grades could help you meet another important life goal that you have.

2b. How much will attaining good grades help you meet this important goal? Please circle one:

A little Somewhat Pretty Much Very Much Very, Very Much

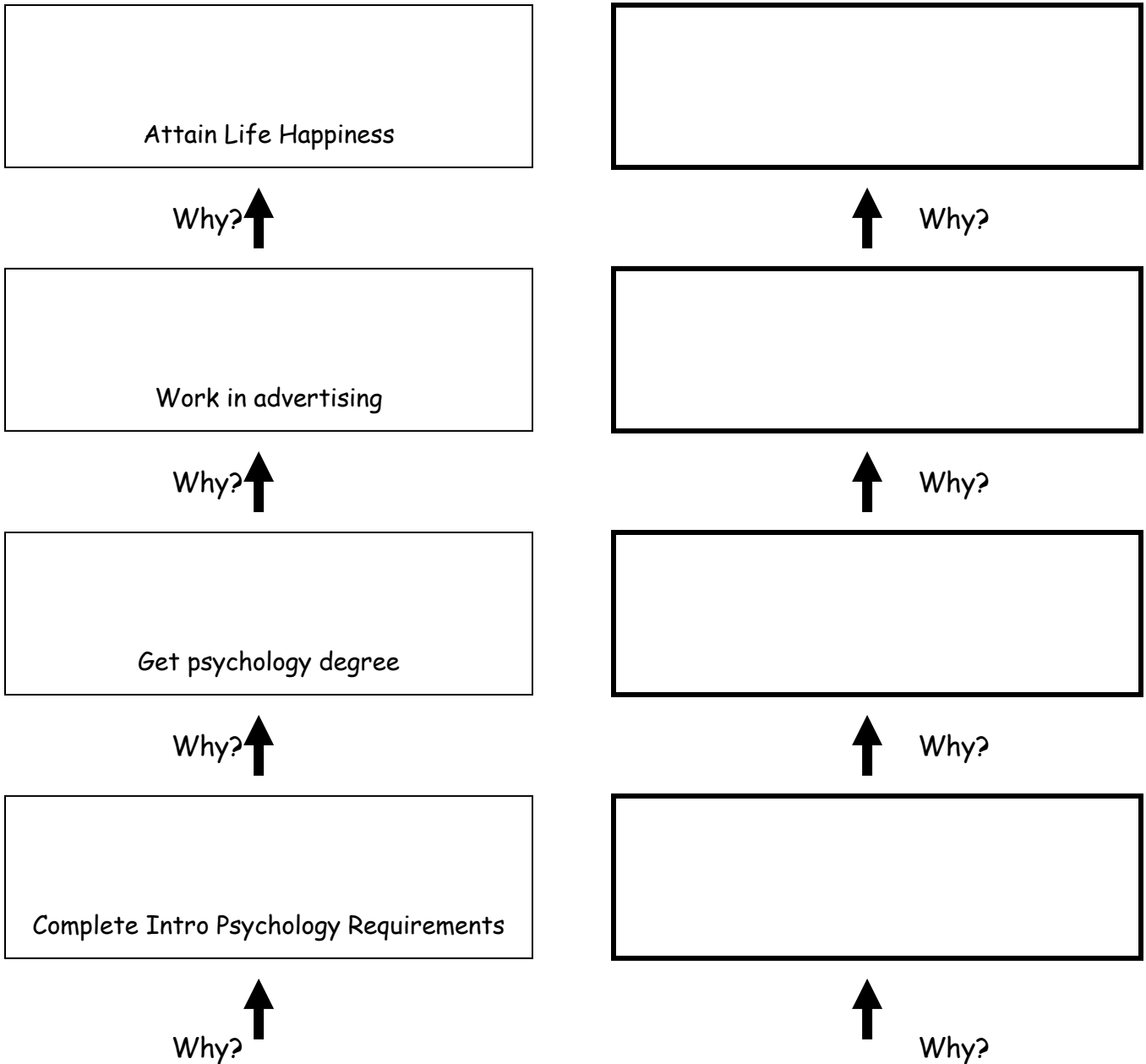
3a. In the space below, please list one way in which attaining good grades could help you meet another important life goal that you have.

3b. How much will attaining good grades help you meet this important goal? Please circle one:

A little Somewhat Pretty Much Very Much Very, Very Much

To show how the activity of “attaining good grades” can help you meet important life goals that you have, please fill in the 4 blank boxes below, in the series on the right. Beginning in the lowest blank box (the one just above the box labeled “attain good grades”), fill in each box by answering the question “Why do I engage in the behavior described in the immediately lower box?”

To help you with this exercise, the rectangles on the left show how our example, participating in a psychology experiment, can be linked to important life goals.



LOW-LEVEL CONSTRUAL CONDITION

“How Do We Do the Things We Do?”

For everything we do, there always is a process of how we do it. Moreover, we often can follow our broad life-goals down to our very specific behaviors. For example, like most people, you probably hope to find happiness in life. How can you do this? Perhaps finding a good job, or being educated, can help. How can you do these things? Perhaps by earning a college degree. How do you earn a college degree? By satisfying course requirements. How do you satisfy course requirements? In some cases, such as today, you participate in a psychology experiment.

Research suggests that engaging in thought exercise like that above, in which one thinks about how one’s ultimate life goals can be expressed through specific actions, can improve people’s life satisfaction. In this experiment, we are testing such a technique. This thought exercise is intended to focus your attention on how you do the things you do.

For this thought exercise, please consider the following activity: “Attaining good grades.”

1a. In the space below, please list something you could do in order to attain good grades.

1b. How much will engaging in this activity help you attain good grades?

Please circle one:

A little Somewhat Pretty Much Very Much Very, Very Much

2a. In the space below, please list something else you could do in order to attain good grades.

2b. How much will engaging in this activity help you attain good grades?

Please circle one:

A little Somewhat Pretty Much Very Much Very, Very Much

3a. In the space below, please list something else you could do in order to attain good grades.

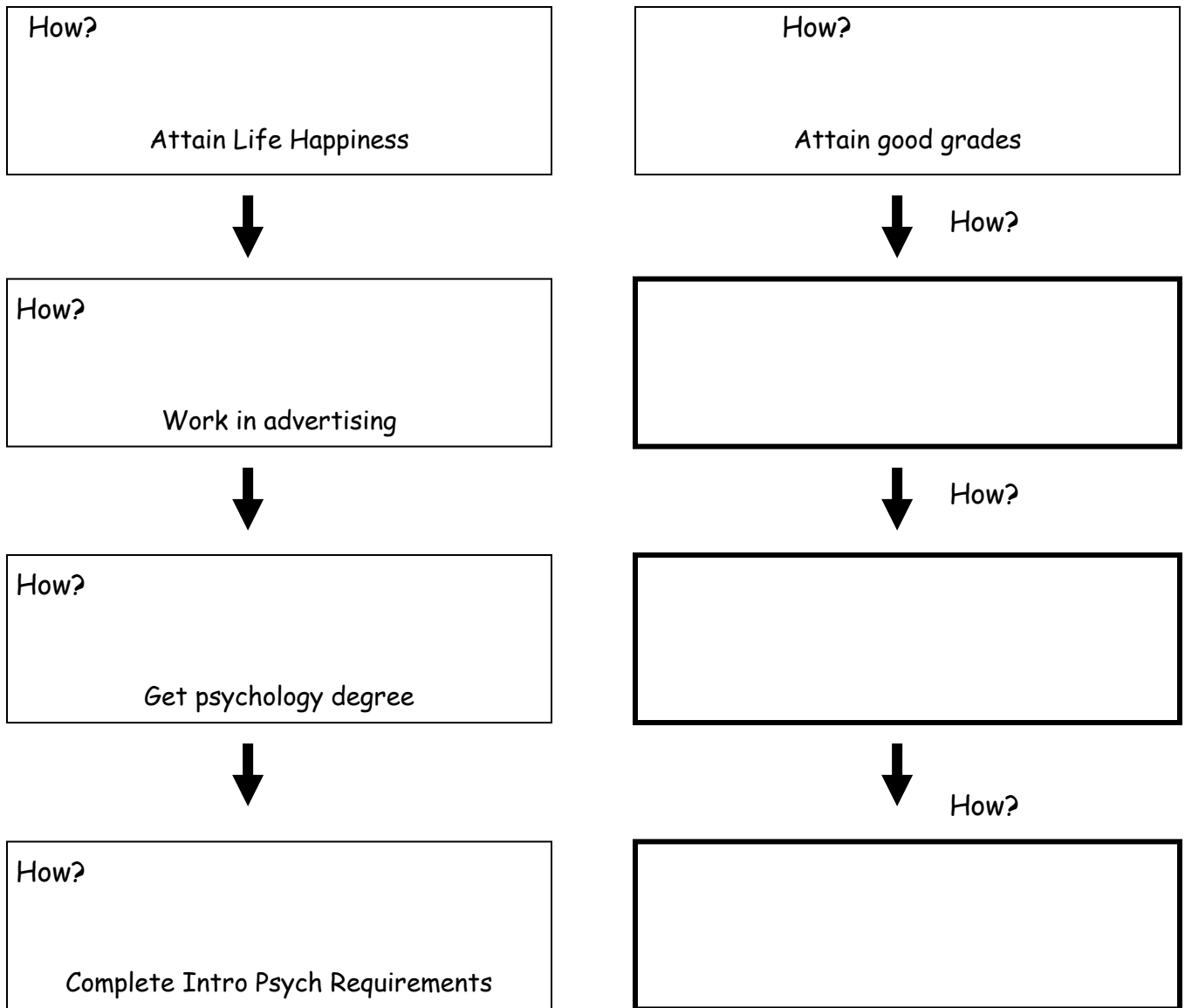
3b. How much will engaging in this activity help you attain good grades?

Please circle one:

A little Somewhat Pretty Much Very Much Very, Very Much

To show how the goal of “attaining good grades” can be met through specific activities, please fill in the 4 blank boxes below, in the series on the right. Beginning in the highest blank box (the one just below the box labeled “Attain good grades”), fill in each box by answering the question “How I can meet the goal described in the immediately higher box?”

To help you with this exercise, the boxes on the left show how our example, attaining life happiness, can be linked to specific activities.



APPENDIX B.**ARTICLE**

We are interested in how students learn new information. We are going to present you with a topic that you may not be familiar with and ask you your thoughts and opinions on that topic. Please begin by reading the following article:

China refuses to recycle more of the world's trash

by Daniel Shane [@CNNMoney](#)

April 20, 2018: 9:43 AM ET

China just threw another curveball at the global recycling industry.

The Chinese government says it's extending last year's ban on imports of items such as unsorted paper and some plastics to dozens more types of recyclable materials, including steel waste, used auto parts and old ships.

For decades, other countries shipped containers full of scrap and waste to China for recycling. But Beijing stunned the recycling industry last year with its ban on imports of 24 varieties of solid waste.

Now, it's adding 32 more types to the list -- half of them at the end of this year, and the other half at the end of 2019.

China has billed the ban as a way to reduce environmental damage, but some experts say it could make it worse.

"The new restrictions, just like the old restrictions, are poorly considered measures that will worsen the global environment and China's competitiveness," said Adam Minter, author of "Junkyard Planet: Travels in the Billion Dollar Trash Trade."

The measures, announced Thursday, create a new headache for countries that depend on China to recycle their waste. They're still struggling to adjust to the ban announced in 2017 and will need years to expand their own facilities, Minter said.

Burying waste instead

The restrictions have reportedly led to recycling waste piling up in developed countries with nowhere to send it.

Earlier this week, a city in the Australian state of Queensland said it would start burying its recyclable waste in landfill because of the spiraling costs contractors were demanding to deal with it.

The restrictions have also caused environmental problems in inside China by depriving manufacturers of recycled materials they need to meet demand. That means they have to buy new paper pulp and plastic resins, increasing the environmental toll of their operations, according to Minter.

Ban could hurt consumers

The latest measures could cut Chinese manufacturers off from a cheap source of metals like nickel.

"That move will raise manufacturing costs in China and will be passed along to consumers," Minter added.

China has been importing billions of dollars of foreign trash every year, so the companies that rely on the trade are now having to adapt to the new rules.

The US Institute of Scrap Recycling Industries said the measures announced this week will impact about \$400 million of scrap exports from the United States to China.

"We remain concerned about the effect these policies have on the global supply chain of environmentally-friendly, energy-saving scrap commodities," the institute's president, Robin Wiener, said in a statement.

Chinese firms that used to import plastic waste from developed countries have now started investing in recycling operations in the United States, Minter said.

-- Nanlin Fang contributed to this report.

CNNMoney (Hong Kong)

First published April 20, 2018: 7:10 AM ET

APPENDIX C.**WILLINGNESS TO VOLUNTEER QUESTIONNAIRE**

Group Discussion

Next, we'd like to look at how students learn when they work in groups. You will be teamed up with other people who are participating in this study in pairs or small groups. Your group will discuss your opinions on the article and then present your opinions as a group. One person per group will complete a write-up of your opinions to represent the whole group. You will also choose someone who will give an oral report of your group's opinions for the experimenter and other study participants. (These can be two separate people or the same person.) Some questions that you might discuss in your groups include:

Do you feel as though China is being unreasonable about banning any further recyclable material into their country?

Do you think China will ever change its mind?

Is it even worth it to continue recycling?

Should the U.S. be more focused into practicing environmentally sustainable actions and producing properly degradable products so this isn't as big of an issue anymore?

In order to help us put people into groups, we'd like you to indicate how willing you are to be the person in your group who will write the written report and/or give the oral presentation on behalf of your group.

How willing are you to volunteer to complete a write up of your group's opinions?

1	2	3	4	5
Very unwilling	unwilling	neutral	moderately willing	very willing

How willing are you to volunteer to give an oral report of your group's opinions?

1	2	3	4	5
Very unwilling	unwilling	neutral	moderately willing	very willing

APPENDIX D.
DEMOGRAPHICS

Please answer the following questions by yourself:

Demographic Questions:

What is your age? _____

What year are you as a student?

Freshman

Sophomore

Junior

Senior

What is your gender?

male other

female prefer not to answer

Is English your first language?

yes

no

If no, at what age did you become fluent in English? _____

When you are finished filling out the entire survey please let me know. Once everyone has completed the survey we will continue with the next part.

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