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LOYOLA UNIVERSITY CHICAGO

THE EFFECTS OF SUPERORDINATE IDENTITY RECATEGORIZATION AND SOCIAL
VALUE ORIENTATION ON ETHICAL DECISION-MAKING IN A BUSINESS DILEMMA

A THESIS SUBMITTED TO
THE FACULTY OF THE GRADUATE SCHOOL
IN CANDIDACY FOR THE DEGREE OF
MASTER OF ARTS
PROGRAM IN APPLIED SOCIAL PSYCHOLOGY

BY
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ABSTRACT

The purpose of the present study was to investigate potential solutions to the prevalence of unethical behavior in groups, specifically through the use of superordinate recategorization. Superordinate recategorization allows group members to feel an affinity with others not typically included in their in-group. This should promote ethical decision-making by enabling the inherent in-group favoring tendencies found in groups to be extended to a more inclusive category. In the context of the present study, the ethicality of participants' behavior in the Panalba scenario was determined by their choices on a 1 to 6 scale from least to most ethical. Additionally, participants' Social Value Orientations (SVO) were measured to determine if the SVO composition of a group also influences the ethicality of group decisions.

Consistent with past research, it was predicted that groups would behave more unethically than individuals. It was also predicted that participants in the relevant superordinate prime condition would choose a more ethical decision compared to those in the irrelevant superordinate prime and no prime conditions. Additionally, it was predicted that groups with a greater proportion of pro-social group members would choose a more ethical option compared to groups with a smaller proportion. The findings reinforce the idea that groups tend to behave more unethically than individuals, as groups, on average, chose more unethical options compared to individuals. Furthermore, while the findings were non-significant, groups in the relevant superordinate prime condition made slightly more ethical decisions compared to those in the other prime conditions, suggesting a possible effect of recategorization.

CHAPTER 1

INTRODUCTION

Literature Review

Over the past 50 years, many scandals have surfaced where companies utilized unethical practices such as skimming funds or deliberately endangering the lives of both employees and consumers in efforts to increase profits. Halliburton, for instance, capitalized on the 2003 Iraq War and netted \$138 billion in profits by overcharging on Army supplies and bribing government officials to secure construction bids (“The truth about Halliburton”, 2005). More examples of businesses engaging in unethical practices include Union Carbide’s infamous 1984 Bhopal disaster, which resulted in 8000 deaths and thousands of injuries after safety negligence led to a disastrous gas leak (“Indian court finds...”, 2010) and Apple’s continued outsourcing of production to Foxconn, a subsidiary known to employ child labor in extremely hazardous working conditions (“In China...”, 2012). These examples illustrate how prevalent these unethical business practices are as two of the aforementioned corporations, Halliburton and Apple, are still staples in their respective industries and continue to boast exorbitant profits even after multiple cases of unethical business practices have been exposed. Ultimately, the question remains as to what can be done to reduce the pervasiveness of these unethical practices, as obviously the fines levied on these corporations have not reduced the abundance of unscrupulous behavior.

However, before a solution can be found one needs to first examine who is truly responsible for these unethical business decisions.

Initially, it might be natural to assume the perpetrator behind these unethical decisions is the CEO; however, a single individual rarely, if ever, makes unanimous business decisions on a corporate level. In reality, a board of directors or other decision-making body within an organization typically make these decisions, and thus it seems that groups of individuals are the ones collectively at fault for the unethical choices. This, in turn, suggests the same groups formed to facilitate information sharing or to provide checks and balances within organizations are actually functioning in ways that promote unethical business decisions. A number of studies provide evidence supporting this claim, including research involving group identity and social comparison theory. Some of the earliest evidence that groups are biased toward their own welfare came from studies using the Minimal Group Paradigm.

The Minimal Group Paradigm

The Minimal Group Paradigm, a methodology used to identify the minimal conditions necessary for group discrimination to occur, demonstrates that groups, even when formed based on inconsequential criteria, tend to exhibit significant in-group favoring behaviors and attitudes. The results of multiple experiments conducted by Tajfel, Billig, Bundy, and Flament (1971) demonstrate that separating participants based on the accuracy of their estimation of the number of dots on a screen, or their preferences towards two abstract painters, was enough to activate group categories and cause intergroup favoritism, as evidenced by the participants consistently allocating more points to their “group” than the other.

Brewer and Silver (1978) found further evidence for this claim. They placed subjects into either light or dark groups and told the subjects the distinction was either due to their having similar scores or to random assignment. Additionally, there were three reward conditions: independent, competitive, and cooperative. Participants gave an evaluation of the in-group and out-group and engaged in a point allocation activity, which functioned as attitude and behavioral measures of in-group favoritism, respectively. Similar to earlier findings, their results suggest group categorization, regardless of whether meaningful or random, results in in-group favoring biases, indicated by a significant tendency for individuals to give more money to other in-group members and evaluate their in-group more positively than the out-group. Importantly, the findings displayed similar trends for all reward conditions, further suggesting it is basic group categorization, and not other intra-group dynamics, that are causing this in-group favoritism effect.

Overall, the findings of this body of research on the Minimal Group Paradigm indicate that simply the mention of a group category, arbitrary or not, is enough to cause individuals within these groups to exhibit significant in-group favoring attitudes and behaviors. However, what exactly about being categorized into groups is causing these effects? Research on Social Identity Theory (SIT) suggests that group classification can result in an individual's group identity becoming salient, which, in turn, results in cognitive changes, specifically the activation of in-group favoring norms and out-group distrust schemas (Tajfel, 1982). Ultimately, it seems these cognitive changes resulting from a salient group identity might be the underlying mechanism behind the effects of group categorization on in-group favoritism; however, further examination of the nature of these cognitive shifts is necessary to fully grasp the implications of

Social Identity and Social Comparison Theory for the prevalence of in-group favoring behavior in groups.

Social Identity and Social Comparison Theory

Social Identity Theory (SIT) posits that a person's identity varies along a continuum of personal to social. Personal identity distinguished the individual from other individuals while social identity distinguished group members from non-group members. The theory suggests that when individuals become part of a group, whether this is through actual group membership or simply a perception that they fit within the group category, their salient identity tends to shift from a personal to a group identity. Furthermore, Social Comparison Theory suggests that once these individuals' identities become linked to the group, their self-esteem and other aspects of their self-concept are now also connected to the success of the group as a whole (Turner, 1975). As a result, individuals should be strongly motivated to both perceive their group to be better than other groups, and to actively engage in behaviors aimed at benefitting their in-group and hurting the out-group. Failing to engage in these processes may result in poor group performance or failure to achieve group goals and thus could lead to a significant self-esteem decrease for the individual. However, research suggests individuals in these situations do not always know they are exhibiting these biases, and thus there are likely underlying cognitive changes resulting from the salient group identity that are facilitating the increase in in-group favoritism (Hewstone, Rubin, & Willis, 2002).

In-Group Enhancement Norms

One potential mechanism for this effect could be through the activation of in-group favoring norms that occurs when an individual's group identity becomes salient. As previously stated, individuals engaging in intergroup interactions are motivated to benefit their in-group, even unfairly, as doing so should result in more group goal achievement and, in turn, increased self-esteem for the individuals. This motivation to act in ways that benefit the in-group could be due to a desire to adhere to the "generic norm" of group enhancement, as this norm compels group members to take into account the interests of the in-group before considering the interests of other related groups (Tajfel, 1970). This understandable tendency for groups can even be traced back to Plato's *Republic* (1891) which states that "justice is the art which gives good to friends and evil to enemies", which underlines the prevalence of this tendency in intergroup behavior. Furthermore, group members are likely to engage in this normative group-interest behavior as it tends to result in both a positive evaluation of the individual by other group members and benefits the group as a whole, both of which should result in increased self-esteem for the individual.

Research by Wildschut, Insko and Gaertner (2002) reinforces this claim through examining the effect of public versus private decision choices on the in-group favoring behavior of participants. This study had participants complete a Prisoner's Dilemma Game in either a public or private condition, where the participants would discuss their choices with the group after completing the PDG task or be dismissed separately from the other members, respectively. The findings display the potential impact of in-group enhancement norms, showing that participants in the public condition were significantly more likely to choose the competitive

choice. This increased likelihood of competition in the public condition compared to the private condition might reflect a desire to benefit the in-group only when the in-group favoring behavior can be seen by other members. This demonstration of normative behavior to the other members should, in turn, result in the individual gaining a better evaluation due to others recognizing their contribution to the group effort, and also can enable better group performance, both of which should satisfy the individual's self-esteem enhancement needs and, consequently, promote future group-serving behavior.

Out-Group Distrust Schemas

Groups might also be motivated to engage in self-serving behaviors by out-group distrust schemas, which also seem to be automatically activated when an individual's group identity becomes salient. Specifically, the out-group distrust schema describes the tendency for individuals to both believe and expect groups to be more competitive than individuals, and also to have increased memory for competitive group behavior (Insko, Schopler & Sedikides, 1998). This, in turn, suggests that over time individuals develop a sense that groups cannot be trusted during interactions, and thus a negative schema of group behavior is formed. Furthermore, the connection between a salient group identity and the activation of the out-group distrust schemas suggests that when individuals form groups they are automatically flooded with feelings of distrust towards the opposing group, effectively undermining any initial inclination towards cooperation. This is reflected in one trial PDG-Alt research where individuals' and groups' inclinations towards cooperation, withdrawal, and competition were compared when the participants could communicate or not communicate with their opponent. The findings showed that individuals cooperated more than groups, and this difference was exacerbated by

communication: communication led individuals to cooperate more and groups to cooperate less (Insko, Schopler, Drigotas, Graetz, Kennedy, Cox & Bornstein, 1993). This suggests that the feelings of suspicion and expectations of exploitation stemming from the automatic activation of the out-group distrust schema can even overpower explicit statements of an intent to cooperate, as even when groups initially decide to cooperate when communicating with the other group, most end up ultimately behaving competitively. This suggests groups will engage in dishonest and deceptive behavior to achieve their goals due to their distrust of other groups and expectations they will act in a similar fashion. This likely results in an increased tendency for unethical decision-making in intergroup interactions as even amiable interactions are marred by negative expectations of the opponent, and thus groups should be likely to both unfairly benefit their own group and take steps to derogate their opponent as they expect them to engage in these same group-serving behaviors.

Overall, this research on the Minimal Group Paradigm and in-group favoritism promoting effects of a salient group identity suggests that significant cognitive changes occur when an individual becomes or feels that he/she is part of a group. These cognitive changes, specifically the activation of in-group enhancement norms and out-group distrust schemas, would seem to be the mechanism behind the increased self-serving behavior in groups, as they motivate group members to benefit their in-group and to have extreme suspicions that their opponents will exploit a cooperative decision, respectively. Ultimately, this suggests the shift from a personal to a group identity following group membership might be the essential factor facilitating unethical behavior in groups. However, if these group-serving behaviors truly result from the shift from a personal to a group identity, then might it be possible to manipulate the salient identity of the

group in order to reduce these effects? Research on the Common In-Group Identity Model and the use of superordinate identities to reduce intergroup competition point to a potential solution that could reduce the prevalence of unethical group-serving behavior stemming from group categorization.

The Common In-Group Identity Model

The Common In-Group Identity Model (Gaertner & Dovidio, 2014) serves as a basis for a set of techniques aimed at manipulating the salient identities of group members in order to reduce the salience of the original group boundary and, in turn, reduce the ability of the salient group identity to promote unfair in-group favoring behaviors. Specifically, this refers to techniques where the individuals' identities are differentiated, decategorized, or recategorized into a different salient identity. In the context of this study, we will focus on the effects of recategorization, as this has been shown to cause group members to perceive themselves as members of a single superordinate group, rather than members of separate groups, and thus in-group favoring tendencies should be extended to the former out-group members. Specifically, when the group boundaries are expanded to fit the new superordinate identity, the previously discussed cognitive shifts and social comparison motivations that originally facilitated group-favoring biases now benefit the superordinate group as a whole (Gaertner & Dovidio, 2014). Furthermore, manipulating the groups' salient identity to be more inclusive should result in more ethical decision-making, as other groups would now be included in the superordinate category and, in turn, the group members would no longer have motivation to unfairly benefit their in-group and would not gain better group member evaluations by engaging in unethical behavior aimed at doing so, as in reality this is detrimental to the group as a whole. However, there are

two components of a categorical identity, the category's cognitive accessibility and the category's fit, that are necessary to examine as they have been shown to determine the extent a specific identity is activated and, in turn, influence how successful the recategorization technique is on reducing intergroup bias.

The first component, cognitive accessibility, refers to how easily ideas about the category and how the individual does or does not fit within the category are activated. This accessibility is a result of the individual experiencing this category over time, either through seeing individuals or groups that are characteristic of the category or by experiencing categorization themselves. This allows individuals to see commonly held traits between those in the specific category. Over time, this allows the individual to form a comprehensive view on what traits a quintessential member of the category possesses and, as a result, enables faster categorization when faced with these situations in the future. Ultimately, the frequency and intensity of the category priming over time determines how easily the category is activated. Thus, social categories in which the individual has experience with will tend to become the most easily activated identity.

The second component, category fit, refers to the idea that even frequently experienced categories will not become the salient identity unless individuals perceived themselves to fit the category (Miller, Urban & Vanman, 1998). Specifically, this is the idea that even if a social category is highly accessible, the target individual needs to display at least some of the typical characteristics of those within that category or the identity will not become salient.

Overall, this research on factors that determine the salience and fit of the social categories suggests that in order for a superordinate identity to have the aforementioned effects of transferring in-group favoring tendencies to former out-group members, the superordinate

identity needs to both be accessible for the individuals and be perceived as fitting at least some of their traits. As a result, to be successful this superordinate category should be one that is frequently encountered in everyday life and one that is encompassing enough to include a variety of different individual characteristics. Furthermore, it seems likely that relevance of the superordinate identity category, with respect to the out-group, could also influence this effect through making salient the characteristics they share in common with the out-group and the decision-making group's relationship with this group. Ideally, this should elicit relevant thoughts about the out-group and their connection to the in-group that should help guide the decision in a more ethical direction.

Social Value Orientation

Social Value Orientation is an individual difference variable that influences how individuals behave in situations of interdependence by promoting specific goals during the interaction. Specifically, Social Value Orientation research suggests there are three major motivational orientations: pro-social, pro-self, and competitive. These labels refer to the tendency for individuals to have goals of maximizing joint gains, maximizing their own gains, or maximizing their relative gains, respectively (Murphey & Ackermann, 2013). Additionally, research suggests that SVO might operate through influencing the amount of in-group favoritism that individuals engage in. Drue (2010) suggests that those with chronic pro-social orientations display more in-group trust and love, but do not exhibit more out-group distrust or hate, and will self-sacrifice more to benefit the in-group. However, those with individualistic or competitive SVOs do not display in-group trust or love, and thus will contribute less to the group, both due to feelings that their contributions will not be reciprocated and a general lack of feelings of

responsibility to the group. Additionally, meta-analysis research demonstrates a significant relationship between pro-social SVOs and cooperation, which suggests that pro-social individuals will be both motivated to sacrifice to help their in-group as well as inclined to consider out-group goals when making their decision.

Furthermore, in terms of the present study, this research suggests that individuals with pro-social SVOs should engage in cooperative behavior aimed at maximizing joint profits between the in-group and out-group, and therefore should tend to make more ethical choices in the dilemma. The most ethical choice in the dilemma should be for pro-social individuals in the superordinate prime condition. This should be due to the pro-social orientation's connection to increased levels of in-group favoring behaviors, as these individuals should be strongly motivated to benefit the now inclusive in-group category. Furthermore, the motivation to maximize joint profits should influence pro-social individuals to make a more ethical choice, as the recategorization into the superordinate category should activate motivations to achieve the goal of the inclusive group.

The current study focused on manipulating group members' salient group identities in order to determine if recategorizing the groups' identities into a more inclusive and relevant superordinate identity results in in-group favoring behaviors being extended outside the decision-making group and, ultimately, the group making a more ethical decision. Additionally, the participants' Social Value Orientations were examined to investigate if the Social Value Orientation composition of the decision-making group influences the ethicality of their decision. In this study, participants were first asked to individually complete the deconstructed Prisoner's Dilemma game as a measure of their individual SVO levels. Second, the participants individually

engaged in an activity where they listed what personal characteristics they possess that fit within an overarching category. This functioned as the recategorization manipulation as it guided participants to see overlapping characteristics between the in-group and out-group. Finally, participants completed a modified Panalba Role-Playing Case activity (appendix A) which provided a measure of their ethical behavior following the manipulation that functioned as the dependent variable. Participants then completed a questionnaire about their experiences in the study.

The hypotheses of the present research are as follows. H1: Individuals will tend to make more ethical decisions compared to groups. H2: Groups and individuals primed with the relevant superordinate identity will make more ethical decisions compared to the no superordinate identity condition. An irrelevant superordinate identity condition was also included and was hypothesized to have less of an effect compared to the relevant superordinate prime. This condition was included to demonstrate that the new identity must include the party that potentially can be harmed by the unethical decision. H3: However, there will be a greater effect of the relevant superordinate prime on the ethicality of the decision for those in the group condition compared to those in the individual condition. Additionally, it was hypothesized that H4: groups and individuals with greater pro-social SVO compositions will make more ethical decisions compared to groups with pro-self and competitive SVO compositions. Furthermore, it was hypothesized that H5: the SVO composition of the group will influence the ethicality of the groups' decisions. Specifically, groups with a greater proportion of pro-social group members should make more ethical decisions compared to groups with a lower proportion of pro-social group members.

CHAPTER TWO

METHODS

Participants

Participants in this study were 289 undergraduates at Loyola University Chicago who participated in this study in exchange for course participation credit. Participants volunteered by signing up for this study using the SONA software and were compensated with 2 credits towards course participation grades. The study involved participants as individuals and others as members of three-person groups. According to a power analysis, 240 participants were necessary to have appropriate power for the analyses. Unfortunately, the distribution of participants was skewed toward the individual conditions (199) rather than the group conditions (90), so the group-level analyses are under-powered.

Design

This experiment involved a 2 (individual or triad) x 3 (no prime, irrelevant superordinate identity prime, or relevant superordinate identity prime) factorial design with SVO (# of pro-social responses) included as a continuous independent variable. Specifically, the manipulated independent variables were the group size, either individual or triad, and the identity of the group, either the triad identity, the superordinate but irrelevant group identity (Loyola student) or the superordinate relevant identity (patient in health care system) prime. Participants were randomly assigned to the identity conditions and were assigned to groups if at least three

participants signed up and/or showed up to the experiment. When fewer than three people showed up, they were run as individuals. The participants' levels of ethical decision-making, the dependent variable, was determined by their decision in the Panalba Role-playing Case. In this context, the ethicality of the decision was measured based on their choice on of a six item scale ranging from the least ethical to most ethical decision. Additionally, participants SVOs were assessed using a deconstructed prisoners' dilemma task which functioned as a modified 9-Item Triple Dominance measure of SVO.

Materials

Modified 9-item triple-dominance measure of social value orientation. In order to measure the participants' Social Value Orientations, a deconstructed prisoners' dilemma task functioning as a 9-Item Triple-Dominance Measure of Social Value Orientation was used. This measure consisted of 9 items with three potential choices per item: maximize joint profits (pro-social), maximize own profits (pro-self), or maximize the difference (competitive). For the purposes of this study, participants' individual Social Value Orientations were calculated as the sum of the number of pro-social responses. Groups' Social Value Orientations were calculated by taking the mean number of pro-social responses for the group members.

Irrelevant superordinate identity prime description. Participants in the irrelevant prime condition individually completed an activity consisting of a prompt to "list 5 ways in which you or your family have been or are affected by you attending Loyola University."

Relevant superordinate identity prime description. Participants in the relevant superordinate prime condition individually completed a recategorization activity consisting of a

prompt to “list 5 ways in which you or your family have been or are affected by receiving medical treatment from a healthcare provider.”

No prime description. The identity in the no prime condition was assumed to be the role given to the group members or individuals. Thus, there should have been no superordinate identity salient in this condition.

Panalba role-playing case activity. Participants completed a modified Panalba Role-playing Case within their triad group. The participants in the group condition were randomly assigned into three roles as members of the board of directors for a prominent drug company, UpJohn. The roles were: Chairman of the Board, Vice Chairman of the Board, and President. Participants in the individual condition were always assigned the role of Chairman of the Board. The descriptions of each role was provided along with the rest of the Panalba case (appendix A). Following their role designation, participants read a synopsis of the “background information for the Panalba Company” section of the Panalba Role-playing Case. This provided information about the case, specifically the characteristics of the drug Panalba and prominent drug researchers’ opinions on the efficacy and safety of the drug. The case describes the drug Panalba as a “wonder drug” when it was first released on the market that could handle a large number of bacterial infections. However, some patients react negatively to the drug and 200 patients each year die from complications. There are now other drugs on the market that can accomplish the same results with more benign side effects. The FDA is currently considering revoking its approval of the drug. The participants, as members of the board of directors, are thus faced with an ethical dilemma: whether to pull the drug and lose profits or to continue marketing and selling Panalba and endanger the lives of their customers.

Specifically, participants have six choices ranging from least ethical to most ethical. The most unethical choice, option 1, is to “vigorously lobby the FDA to prevent them from withdrawing approval for Panalba, and increase efforts to effectively advertise, promote, and sell Panalba while they can.” The moderately unethical choice, option 2, is to "continue efforts to most effectively advertise, promote, and sell Panalba until Upjohn's versions of the non-fixed-ratio equivalents are ready for distribution." The somewhat unethical choice, option 3, is to "reduce advertisements but continue to promote Panalba to doctors and health care centers until versions of the non-fixed-ratio equivalents are ready for distribution." The somewhat ethical choice, option 4, is to "stop advertising and promotion of Panalba, but provide it for those doctors that request it." The moderately ethical choice, option 5, is to "stop production of Panalba immediately, but allow what has been made to be sold." The most ethical choice, option 6, is to “recall Panalba immediately and destroy current inventories.” After reading the information provided, individuals and group members chose one of the six response items. Group members then discussed the case as a group and were asked to reach a group consensus on one of the options.

Post-questionnaire. The final questionnaire consisted of 13 questions. First, the participants were asked to designate their role in the activity. Then, they rated how enjoyable and how difficult the task was, how satisfied they were with the group discussion, and how thorough and interesting the discussion was, how comfortable they were with their group’s response, how much they agreed with group’s final choice, and how ethical they felt the choice was.. All responses were on six-point scales ranging from “not at all” to “very”. Finally, they were asked about their age, gender, and ethnicity.

Procedure

After greeting the participant(s) and leading them to the lab room, the experimenters explained that the study involved participating in a simulated business decision task where they would role-play as members of a board of directors for a prominent drug company, Upjohn. After explaining the purpose of the study, the experimenter explained that any information provided by the participants during the course of the study would be confidential and the participants would not be personally identified. The participants were then notified that their discussion was going to be recorded and that after the discussions had been coded their names would not be associated with any statements made during the discussion.

Next, the experimenter asked all participants to respond to the nine decomposed prisoner dilemma games that function as the SVO measure. Next, the experimenter distributed the appropriate identity prime for the condition, either the no prime control, irrelevant superordinate identity, or relevant superordinate identity, and allowed 5-10 minutes for the task to be completed. Following this manipulation, the experimenter distributed the Panalba Role Playing Case information along with an individual response sheet. The participants were instructed to read the information provided about the company and the drug in question, and then respond individually as to their choice in the dilemma. The experimenter then collected these individual responses. In the group condition, experimenter then instructed the participants to discuss the information provided and to come to a group consensus as to their decision in the dilemma. This information was recorded on a separate group decision sheet given to the participants before the discussion. Following the final decision, individuals filled out the post questionnaire, were debriefed, and then excused from the experiment.

Results

Descriptive Statistics

Participants in the Individual condition (N = 199) were mainly of Caucasian descent (48.7%); however, there was also a substantial number of Asian (24.6%) and Latino(a) (12.6%) individuals, with Black and Middle-Eastern individuals making up the rest.

The participants that were involved in the triad Group procedure (N = 90) were similar to the Individual group with greater numbers of Caucasian (37.8%) and Asian (26.7%), as well as Latino(a) participants (20.0%). Table 1 shows the sample sizes and the gender breakdowns for each condition.

Table 1: Descriptive Statistics by Group Size

	Individuals	Group Members	Groups
N	199	90	30
N in each condition no prime/irrelevant/superordinate	67 / 65 / 67	30	10
Gender	M = 70, F = 129	M = 38, F = 52	
Age Mean (SD)	19.32 (2.35)	19.08 (1.16)	
Age Range	17 - 48	17 - 24	

Table 2: Choice Frequency by Group Size

Decision (1 = least ethical, 6 = most ethical)	Individual Decision Frequency	Group Member Decision Frequency	Group Decision Frequency
1	1 (.5%)	5 (5.6%)	0 (0.0%)
2	9 (4.5%)	27 (30.0%)	8 (26.7%)
3	50 (25.1%)	23 (25.6%)	11 (36.7%)
4	55 (27.6%)	24 (26.7%)	8 (26.7%)
5	30 (15.1%)	3 (3.3%)	1 (3.3%)
6	54 (27.1%)	8 (8.9%)	2 (6.7%)
Mean (SD)	4.34 (1.27)	3.19 (1.31)	3.27 (1.11)

Effect of Group Size, Identity Prime Condition, and Social Value Orientation on the Overall Ethical Decision

In order to examine the effect of decision maker (individual vs. group) as well as the identity prime and participant social value orientation on the overall ethical decisions made by participants, I utilized a 2 (group size) X 3 (identity prime) X Social Value Orientation analysis of covariance with SVO as a continuous variable. The findings of this analysis demonstrated a main effect of group size on the overall ethical decision, $F(1,217) = 17.90, p < .001, \eta^2 = .076$. As can be seen in Table 3, decisions made by individuals were significantly more ethical than decisions made by groups overall, and this finding supports the hypothesis that groups would respond less ethically to the case than would individuals.

However, this analysis failed to support the hypothesis predicting a main effect for the identity prime condition on the overall ethical decision, $F(2,217) = 1.18, p = ns$. There was also a non-significant interaction between the identity prime condition and group size, $F(2,217) = 1.55, p = ns$. This suggests the identity prime did not have a significant effect on the overall ethicality of the decisions made by individual participants and groups. As can be seen in table 3, groups and group members made slightly more ethical choices in the superordinate condition relative to the other two, but this trend was not present for individuals and was not large enough to reach significance.

Furthermore, this analysis failed to support the hypothesis suggesting participant Social Value Orientation would influence the overall ethical decision. Specifically, the analysis did not find an interaction effect of identity prime and social value orientation on the overall ethical decision, $F(2,217) = .044, p = ns$. None of the other effects examined reached significance.

Table 3: Average Ethical Decisions by Group Size and Identity Prime Condition

	Prime Condition	Mean	SD	N
Individuals	None	4.34	1.25	67
	Irrelevant	4.38	1.26	65
	Superordinate	4.28	1.31	67
	Total	4.34	1.27	199
Group Members	None	2.93	1.41	30
	Irrelevant	3.13	1.11	30
	Superordinate	3.50	1.36	30
	Total	3.19	1.31	90
Groups	None	2.80	0.79	10
	Irrelevant	3.20	0.79	10
	Superordinate	3.80	1.48	10
	Total	3.27	1.11	30

Comparing Decisions of Individuals vs. Group Members

An overarching goal of this research was to explore the difference in ethical decision making between individuals and triad groups. To examine these differences further we chose to analyze the difference in individual ethical decisions for both individuals, specifically those that did not have other group members, and group members, specifically those that were situated in a triad group. Prior to making their individual ethical decision, the group members had not yet discussed the information as a group, and their group membership was derived only from their spatial proximity, group member placecards, and a minor group description in the Panalba activity. A 2 (individuals vs. group members) X 3 (identity prime condition) univariate analysis of covariance tested the effects of participants being either individuals or group members, as well as the identity prime condition, on the ethicality of their decision while controlling for the influence of social value orientation as a covariate. Results indicate a main effect for the individuals vs. group members factor, $F(1,276) = 46.91, p < .001$. As suggested by past research, the participants who completed the activity as a individuals chose more ethical options on

average when compared to group members. Again, there was no main effect found for the identity prime condition, $F(2,276) = .767$, $p = ns$, or for social value orientation, $F(1,276) = 3.074$, $p = .081$, and there were no interaction effects found.

Group Process Analysis

We were also interested in investigating the method by which the group members ultimately arrived at their overall group decision. Unfortunately, due to the number of groups, we were unable to truly analyze the relationship between the composition of the group members' choices and the group's overall decision. However, by examining the decision-making tendencies of the group members compared to the overall group decision, it is possible to roughly determine the decision-making strategies employed. To do this, the ethical decision was reduced to a dichotomous measure where responses 1-3 were coded as unethical, and responses 4-6 were coded as ethical. Using this coding scheme, the decisions made by the group members were then compared to the overall decisions of their corresponding group. Table 4 demonstrates this comparison and suggests the group members have the tendency to operate with a majority decision scheme, with only a few cases (5 out of 30) where the overall group decision was opposite of the choice of the majority group members.

Table 4: Group Member Choice Composition and Group Decision

	3 Ethical Individuals	2 Ethical Individuals, 1 Unethical Individual	1 Ethical Individual, 2 Unethical Individuals	3 Unethical Individuals	Total Group Decisions
Ethical Group Decision	7	10	2	0	19
Unethical Group Decision	0	3	6	2	11

Discussion

The purpose of this research was to investigate a potential method for reducing the prevalence of unethical behavior when making decisions as a group compared to as single individuals. Indeed, the results of this research reinforce previous findings of the tendency for groups to behave more unethically compared to individuals due to multiple factors, including in-group enhancement norms, out-group distrust schemas, and other general in-group favoring behaviors (Hewstone, Rubin, & Willis, 2002; Insko, Schopler & Sedikides, 1998; Tajfel, 1970; Wildschut, Insko & Gaertner, 2002). As predicted, there was a significant difference between the ethicality of the decisions made by the triad groups compared to the decisions made by individuals, with the decisions made by individuals being more ethical on average. Group members also made less ethical choices compared to individuals. Additionally, the group decisions were largely the same as the average group member decisions, which suggests simply knowing that they were about to make a decision for their group led members to favor less ethical alternatives. These results are similar to findings using the Minimal Group Paradigm (Brewer & Silver, 1978; Tajfel, Billig, Bundy & Flament, 1971). Simply being assigned to be a member of a group led to choices that favored the welfare of the group even though those choices tended to be less ethical. Group interaction did not seem to enhance these tendencies. However, the small number of groups makes it difficult to draw firm conclusions concerning the potential role of group discussion in groups making less ethical decisions.

Unfortunately, the superordinate prime manipulation, intended to recategorize the group members' salient group identities into a more inclusive superordinate identity in order to reduce the impact of in-group favoritism and out-group distrust and, in turn, produce more ethical

decision-making, did not produce a significant effect (Gaertner & Dovidio, 2014; Miller, Urban & Vanman, 1998; Tajfel, Billig, Bundy & Flament, 1971). The results failed to demonstrate a difference in the ethicality of decisions made by those in the superordinate prime condition compared to those in the no-prime and irrelevant prime conditions for individuals, group members, or groups. However, despite the lack of a significant difference, the decisions made by both groups and group members displayed a trend such that those in the superordinate prime condition made more ethical decisions compared to those in the irrelevant and no-prime conditions. Those making decisions as individuals did not demonstrate this trend. It is possible that the generally more ethical choices made by individuals reduced the effectiveness of the superordinate prime. Overall, this suggests that, at least in a group decision situation, utilizing an identity prime manipulation could potentially serve as a useful technique for reducing the influence of in-group favoring behaviors, and could help group members examine the decision through a more inclusive lens, ultimately resulting in more ethical behavior. Therefore, a re-examination of the effect of identity recategorization on the ethical decision-making of groups that employs a much larger sample size would be extremely interesting and might demonstrate a more significant effect.

The participants' social value orientation was also hypothesized to influence their ethical decision-making by prompting them to behave in either a pro-social manner, likely resulting in cooperative behaviors and a more ethical decision, or in a pro-self or competitive manner, likely resulting in self or group-serving behaviors and a more unethical decision overall (Balliet, Parks & Joireman, 2009; De Dreu, 2010). However, the data did not demonstrate a significant effect of social value orientation on the ethical decisions made by individuals, group members or groups.

This could be due to the influence of the group identity for groups and group members; however, the absence of an effect for individuals suggests the effect of social value orientation on ethical decision-making may be generally weak.

This research had several limitations, including the aforementioned issue of a small group sample size. For various reasons, sufficient numbers of participants for triad groups was hard to achieve, which resulted in an inadequate number of groups. This may have reduced the ability to detect the hypothesized effect of the identity prime. Additionally, the Panalba activity used in this research had two issues that could have contributed to the lack of significant effects. First, the potential choices for both individual and group decisions is structured as an ordinal scale of multiple possible actions associated with the fictional drug Panalba and company UpJohn, and does not have equal intervals between the different action choices. Specifically, the difference between choice 5 and 6, both ethical choices, is the cessation of production compared to the recall and destruction of the entire Panalba inventory. A fairly drastic difference also exists between choice 1 and 2, with choice 1 reflecting a desire to "vigorously lobby the FDA" compared to simple advertisement in choice 2. These fairly substantial and potentially unrealistic differences in choice magnitude might have lead to a tendency for participants to select more conservative options in the middle of the choice spectrum, which possibly influenced the results of the study.

Second, the specific pharmaceutical business dilemma described in the Panalba activity may not have possessed dire enough consequences for unethical behavior. Specifically, the Panalba activity describes the drug as causing death in 10 people out of 10,000, and that 200 patients who are prescribed Panalba will die each year. In the description, this serves as the

reason for the FDA to consider the withdrawal of approval and, indirectly, the motivation to ultimately make an ethical decision; however, for certain individuals this may not have been sufficient motivation. Specifically, the mortality statistic provided may not be as extreme as intended, as in reality the FDA states that almost 125 thousand Americans died in 2014 alone from adverse reactions to FDA approved drugs ("FAERS Reporting...", 2015). Therefore, participants, especially those with academic backgrounds in science, might have been aware of this discrepancy, which may have resulted in a less ethical decision overall, and could have reduced the observed impact of the identity prime manipulation or influenced other results of the study.

Despite these limitations, this study did provide insightful findings into the phenomenon of unethical behavior in groups compared to individuals, and into the Minimal Group Paradigm. Specifically, the results of this research serve as another replication of previous findings that established the worrying tendency for groups to behave more unethically compared to individuals, and reinforces this finding by demonstrating the robust nature of the effect and its ability to overshadow the influence of both the identity prime manipulation and the participants' social value orientations. Moreover, the finding of a significant difference in the ethical decision-making of individuals compared to group members reinforces the ideas posed by the Minimal Group Paradigm and Social Identity Theory (Tajfel, 1982) that simply being identified as a part of a group is enough to influence individual decisions. These findings could have implications for organizations attempting to make decisions that are as unbiased and untainted by in-group enhancement behaviors as possible, as it may suggest teams that make individual decisions and then reconvene to discuss, may not in fact be making truly individual decisions, as their thought-

process may already be influenced by their perceived group membership. Additionally, these findings could prompt organizations to consider deferring the decision-making process to a single, qualified individual, in order to avoid the pitfalls of group-think. However, this solution comes with its own host of problems, and ultimately demonstrates the dilemma of making complex decisions that affect both you and other individuals in your in-group, as well as the greater community or society as a whole.

Overall, while this study failed to demonstrate identity recategorization as a viable solution for the prevalence of unethical behavior in groups, the visible trend for those in the superordinate prime condition to make more ethical decisions could indicate the need for future research to re-examine, with a larger sample size, the potential for using superordinate identity recategorization to improve the ethical decision-making of groups. Additionally, the replication of previous findings further reinforces the dire need to investigate the root cause of the higher prevalence of unethical behavior in groups, and demonstrates how this effect could influence individuals making life or death decisions, as in pharmaceutical manufacturing. Therefore, businesses and other organizations should consider these and previous findings concerning ethical decision-making in groups when making important decisions with far reaching implications, as the influence of in-group favoritism norms, out-group distrust schemas, as well as the spontaneous and seemingly unavoidable nature of these group effects can have real and disastrous effects. The avoidance of these effects is integral to effective and, ultimately, ethical decision-making.

Appendix A

9-ITEM TRIPLE DOMINANCE MEASURE OF SOCIAL VALUE ORIENTATION

9-Item Triple Dominance Measure of Social Value Orientation

In this task, we ask you to imagine that you have been randomly paired with another person, whom we will refer to simply as the "Other." This other person is someone you do not know and that you will not knowingly meet in the future. Both you and the "Other" person will be making choices by circling either the letter A, B, or C. Your own choices will produce points for both yourself and the "Other" person. Likewise, the other's choice will produce points for him/her and for you. Every point has value: the more points you receive, the better for you, and the more points the "Other" receives, the better for him/her. Here's an example of how this task works:

	A	B	C
You get	500	500	550
Other gets	100	500	300

In this example, if you choose A you would receive 500 points and the other would receive 100 points; if you chose B, you would receive 500 points and the other 500; and if you chose C, you would receive 550 points and the other 300. So, you see that your choice influences both the number of points you receive and the number of points the other receives. Before you begin making choices, please keep in mind that there are no right or wrong answers -- choose the option that you, for whatever reason, prefer most. Also, remember that the points have value: the more of them you accumulate the better for you. Likewise, from the "other's" point of view, the more points s/he accumulates, the better for him/her.

For each of the nine choice situations, circle A, B, or C, depending on which column you prefer most:

1.	A	B	C
You get	480	540	480
Other gets	80	280	480

2.	A	B	C
You get	560	500	500
Other gets	300	500	100

3.	A	B	C
You get	520	520	580
Other gets	520	120	320

4.	A	B	C
You get	500	560	490
Other gets	100	300	490

5.	A	B	C
You get	560	500	490
Other gets	300	500	90

6.	A	B	C
You get	500	500	570
Other gets	500	100	300

7.	A	B	C
You get	510	560	510
Other gets	510	300	110

8.	A	B	C
You get	550	500	500
Other gets	300	100	500

9.	A	B	C
You get	480	490	540
Other gets	100	490	30

Modified Scoring: In this context, participants are classified depending on if their choices are a majority pro-social or pro-self. Pro-social responses are: 1c, 2b, 3a, 4c, 5b, 6a, 7a, 8c, 9b; pro-self responses (pro-self + competitive) are: 1a, 1b, 2a, 2c, 3b, 3c, 4a, 4b, 5a, 5c, 6b, 6c, 7b, 7c, 8a, 8b, 9a, 9c.

Appendix B

PANALBA ROLE-PLAYING CASE BUSINESS SCENARIO

Panalba Role-Playing Case Business Scenario

The Upjohn Corporations Inc. is a large pharmaceutical company registered in the U.S.A.

The Chairman of the board at Upjohn has called a special board meeting to discuss what should be done with the product known as “Panalba”. Panalba is a “fixed-ratio” antibiotic sold by prescription. That is, it contains a combination of drugs. It has been on the market for over 13 years and has been highly successful. It now accounts for about 18 million dollars per year, which is 12% of Upjohn Company’s gross income in the U.S. and a greater percentage of net profits.

When Panalba was first placed on the market, it was consider somewhat of a “wonderdrug”. It could help alleviate a number of different types of infections and worked well for the majority of people for which it was prescribed. This is why it became one of Upjohn’s best selling drugs and was prescribed by a large number of doctors. However, over the past 20 years there have been numerous medical scientists (e.g. the AMA’s Council on Drugs) objecting to the sale of most fixed-ratio drugs. A fixed-ratio drug targets a variety of different bacteria simultaneously, which a non-fixed-ratio drug only targets one type of bacteria. Thus, one fixed-ratio drug can be prescribed in place of multiple non-fixed-ratio drugs. The argument has been that (1) there is no evidence that these fixed-ratio drugs have improved benefits over single drugs; and (2) that the possibility of detrimental side effects, including death, is 10 times higher. For example, these scientists have estimated that Panalba causes death in 10 people out of 10,000. Specifically, Panalba causes about 200 unnecessary deaths per year – i.e. deaths which could be prevented if the patients had used a substitute made by a competitor of Upjohn. Despite recommendations to remove fixed-ratio drugs from the market, doctors have continued to use

them. They offer a comprehensive approach for the doctor who is unsure of the specific bacteria involved in the infection.

Based on extensive research studies, recently the Food and Drug Administration (FDA) recommended unanimously that Upjohn Corporations Inc. seriously reconsider whether Panalba should be kept on the market. In fact, the FDA is seriously considering withdrawing approval for Panalba, but has not reached a final decision at this time. Therefore, members of the Upjohn's executive board should hold a special board meeting to discuss the future of Panalba.

Should Upjohn decide to stop production of Panalba, the company would have to stop all sales of Panalba and attempt to remove inventories from the market. Upjohn is currently working on creating substitutes for Panalba; however, these substitutes are not yet close to being marketed any time soon. Therefore, Upjohn would experience a significant loss in profit in putting an immediate stop to the production of Panalba before the substitute drugs can be readily available. Other pharmaceutical companies already offer substitute drugs with benefits equivalent to those of Panalba without the fatal side effects. The selling price of the substitutes is approximately the same as the price for Panalba. It is extremely unlikely that bad publicity from this case would have any significant effect upon the long-term profits of other products made by Upjohn.

In this scenario, you should imagine yourself as members of the Upjohn executive board in the roles of Chairman of the Board, Vice Chairman of the Board, or President, when making this decision. The descriptions of each role that are provided to participants are as follows:

Chairman of the Board

As Chairman of the Board, it is your job to have the Board reach a decision on the issue. Your general philosophy about meetings is to try to allow for various sides of the issue to be discussed before a decision is reached. Legally speaking, a majority vote is required in order to reach a decision. You prefer that a consensus be reached, but a formal ballot may be used at the end of the meeting if necessary. You own 20,000 shares of Upjohn stock.

Vice Chairman of the Board

You were the President of Upjohn when Panalba was introduced into the market. Naturally, you feel that Panalba was, and still is, a good product both for Upjohn and for the people who have used it. If you did not feel this way, you would have never put Panalba on the market in the first place. You own 20,000 shares of Upjohn stock.

President

You've been President for about two years. In that time, the United States economy has been in a slight recession. As a result, the company has not been meeting its profit goals. The Panalba problem seems to have come at an especially bad time, then. You have been checking out various ways of handling the Panalba problem. You do not want Panalba taken off the market. Instead, an Upjohn lobbyist in Washington proposed to run a political campaign to emphasize the benefits about Panalba. You own 20,000 shares of Upjohn stock.

The following possible solutions should be considered by the board:

1. Vigorously lobby the FDA to prevent them from withdrawing approval for Panalba, and increase efforts to effectively advertise, promote, and sell Panalba while they can.

2. Continue efforts to most effectively advertise, promote, and sell Panalba until Upjohn's versions of the non-fixed-ratio equivalents are ready for distribution.
3. Reduce advertisement but continue to promote Panalba to doctors and health care centers until versions of the non-fixed-ratio equivalents are ready for distribution.
4. Stop advertising and promotion of Panalba, but provide it for those doctors that request it.
5. Stop production of Panalba immediately, but allow what has been made to be sold.
6. Recall Panalba immediately and destroy current inventories.

Appendix C
FINAL QUESTIONNAIRE

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VITA

Joining Loyola University Chicago's Undergraduate Program in Psychology in 2010 began Thomas Colville's journey towards a graduate degree in psychology. During this time, he volunteered in a variety of different programs on campus in order to improve his academic skills and gain valuable experience. Specifically, Thomas Colville began working with Professor Robyn Mallett and Professor Jeffery Huntsinger in their social psychology research lab where they investigated topics related to prejudice, sexism, and information processing. He also began volunteering in the Writing Center at Loyola where he assisted students with all aspects of the writing process.

At the same time, Thomas Colville became interested in applying psychological concepts to business scenarios, which led to becoming involved in Professor Scott Tindale's lab where they investigated topics related to decision-making and information processing in groups. This research sparked his interest in the integration of ethics and decision-making, which, after graduating with a College of Arts and Sciences Undergraduate Degree with Cum Laude honors and being accepted to Loyola University Chicago's Graduate Program in Applied Social Psychology in 2014, resulted in the formation of his thesis focus involving these topics.

Specifically, Thomas Colville began investigating possible solutions to the issue of the prevalence of unethical decision-making in groups, and ultimately began researching The Effects of Superordinate Identity Recategorization and Social Value Orientation on Ethical Decision-

Making in a Business Dilemma. During this time, he also worked with Professor John Edwards in his Lab for the Study of Attitudes and Social Issues where they investigated the characteristics of participants' visual images of various of societal "out-groups" that are often stereotyped and stigmatized. Thomas Colville's Master's Thesis research was completed in January of 2017 and he graduated with a Master's Degree in Applied Social Psychology in the Spring of 2017. He is now working as a data analyst with Technomic, Inc. creating syndicated publications related to a variety of foodservice topics.