JUDGMENTS OF PROSOCIAL BEHAVIOR: EFFECTS OF

IDENTIFICATION AND SITUATIONAL CONSTRAINT

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ABSTRACT OF THE DISSERTATION

Judgments of Prosocial Behavior: Effects of Identification and Situational Constraint

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Recent years have witnessed renewed, multidisciplinary interest in the study of moral

judgments and processes through which people determine responsibility for actions.

Nevertheless, the psychological determinants and underpinnings of moral responsibility

attribution remain largely unclear**.** The present study aimed to replicate and extend

research on the role of "identification" (Woolfolk, Doris, & Darley, 2006), the degree to

which an actor embraces and desires to perform an action, by examining responsibility

attributions for morally positive (prosocial) behavior. The actor's level of identification

was systematically varied along with situational constraint (the degree to which the action

was coerced and compelled by external circumstances) in scenarios presented to

participants (n = 204), which described a father's donating a kidney to his daughter.

Identification had a sizable impact on attributions of responsibility and credit and

moderated the effects of constraint. When the actor was identified with the action, the

level of responsibility and credit ascribed to him for the good deed was consistently high

and unaffected by increases in constraint, even when external forces impelling the action

were so powerful that he had no other choice but to engage in the action. When the actor

was not identified, he received much credit when he performed the act under minimal

levels of external pressure, but was judged to be progressively less responsible for the

good deed as the constraints impelling him to act increased. Similar effects but in the

opposite direction emerged for credit ascribed to an external agent who coerced the actor

to perform the act. Results suggest that perceptions regarding an actor's desires and

intentions play a central role in responsibility ascription for morally positive as well as

negative acts, even acts that are caused by circumstances outside of the actor's control,

and can moderate or eclipse the attributional effects of an actor's control over events.

Results also add to the small body of research suggesting distinctions in judgments of

prosocial versus antisocial behaviors. Results are interpreted in light of psychological

theories of responsibility attribution and moral cognition and implications for

philosophical debates about the compatibility of responsibility and determinism are

considered.

Keywords: Moral attribution; moral judgment; responsibility; credit; identification;

constraint; intentionality; moral psychology; social cognition.

Table of Contents

List of Tables

List of Illustrations

I. Introduction

When we watch the actions of another person, we are often concerned with discerning what we can know about the underlying intentions and characteristics of that person. Psychologists, in a sense observing the observers, have attempted to articulate the rules by means of which the human observers come to their inferences about the observed other. Since Heider (1958), psychologists have recognized that the task for the scholar of human behavior is not to develop some logically valid set of rules for this process, but instead to articulate the ways in which ordinary members of a culture make their inferences about others; the task, in other words, is to describe the "psychologic" rather than postulate the logic of person perceptual inferencing.

Frequently we make inferences about others based on the evidence of behaviors that are produced under constraint. This phenomenon should not be overstated: characteristically the observer recognizes the existence of the constraining factors, and makes fewer or less extreme inferences about the opinions or intentions or personality of the actor than are made when the behavior of the actor seems freely engaged in. One of the most interesting questions concerns how this bias operates in the realm of morally signifying actions, that is, actions that can generate moral censure and associated punishments or moral approbation and associated rewards. The assessment of responsibility for such conduct is a practice that stands at the intersection of morality, law, philosophy, folk psychology, and scientific psychology, as well as politics and journalism. The customs whereby we hold human beings accountable for their actions, blame or credit them for their deeds, or punish or reward them for their behavior are not only fundamental threads in the social fabric, but are also deeply implicated in our views

of what it means to be a person. Accordingly, questions of how people understand and apply conceptions of responsibility are of great theoretical and practical significance and have preoccupied many of the greatest thinkers in the Western tradition, from Aristotle to Kant.

The contemporary academic disciplines of psychology and philosophy have both devoted considerable energies to examining the considerations that govern responsibility attribution. Within philosophy, discussion has focused on *normative* questions of *justification*, in attempting to specify under what circumstances it is rational or warranted to hold individuals accountable for their actions. In contrast, psychologists have tended to focus their efforts on *descriptive* and *explanatory* issues, attempting to determine empirically how, when, and why people actually assign responsibility. Psychologists studying responsibility are, in a sense, operationalizing philosophical concepts and examining their lay applications, while philosophers studying responsibility are attempting to articulate those norms to which moral judgment should ideally conform. Some philosophers, notably those influenced by the method of "reflective equilibrium" associated with John Rawls (Daniels, 1979; Railton, 1995; Rawls, 1999), have maintained that ethical theorizing should be informed by the best available empirical picture of human psychology and society. To date, however, the conversation between empirical psychology and moral philosophy has been rather one-sided, with psychologists occasionally drawing on relevant conceptual work in philosophy, whereas with few exceptions (e. g., Doris, 1998, 2002; Flanagan, 1991; Harman, 1999), philosophers have paid relatively little attention to empirical work.

The aims of the present study are twofold. First is that of advancing the empirical study of responsibility attribution by operationalizing and investigating a variable heretofore unexamined by empirical psychology, but that may be central to people's thinking on responsibility. This variable, drawn from a penetrating series of essays by the philosopher Harry Frankfurt (1988), is termed *identification*. At a first approximation, to be explicated more fully below, identification denotes the degree to which the actor endorses or accepts ownership of an action. The core contention advanced and tested in this study is that perceived identification, operating in concert with perceived situational constraint, influences the attribution of responsibility.

A second objective is to advance what might be called the "empirically informed" study of ethics. This study will attempt to evaluate--with methods more systematic than those typically employed by philosophers--the empirical status of some important strains of philosophical theorizing on responsibility. The results have the potential to be salutary for both psychological and philosophical inquiry into responsibility. This may help psychologists in becoming more self-conscious about the "philosophical baggage" carried by the terms they operationalize in their empirical research on responsibility, and philosophers' theoretical work being drawn into closer contact with the experience of human beings immersed in the everyday practice of responsibility attribution.

Attribution of Responsibility in the Face of Situational Constraint

Early in attribution research it became clear that a central issue would be the extent to which situational variables, relative to properties of actors within those situations, would play a central role in lay explanations of conduct. Jones and Davis (1965) developed their theory of "correspondent inference" to articulate the psychologic of person perception;

their aim was to sketch the conditions under which the observer of another person's actions would judge that those actions were indicative of the actor's intentions, opinions, or attitudes. They suggested that observers would assess the degree to which the actor was freely choosing to perform the observed actions, as opposed to being constrained by context or circumstance to perform those actions. Previously, a similar notion had been articulated in the form of Kelley's (1972) "discounting principle," which maintains that there is *prima facie* reason for attribution or correspondent inference if and only if behavior is unconstrained; when the actor is subject to external pressures that would typically elicit similar behavior from others, attribution is not warranted (Kelley, 1972). According to both theories, observers are expected to "discount" or ignore actions performed under constraint when making attributions.

However, a funny thing happened on the way to the confirmation of this principle: In a long run of "no choice" experiments associated with Jones (1990), subjects apparently believed that correspondent inferences were warranted even when actions were produced by constraints about as blatant as a gun to the head. In subsequent research, this tendency to "overattribution" (Quattrone, 1982) has been demonstrated for wide variety of attitudes and traits, leading Ross (1977) to coin the now famous moniker "fundamental attribution error" (cf. J. M. Darley & Cooper, 1998; Jones, 1990; Ross & Nisbett, 1991). At first, the effect was thought to be some sort of methodological artifact, but the phenomenon persisted as an increasingly long list of artifactual explanations were tested and ruled out. Although Gilbert and Malone (1995) have reminded us that there are likely to be a number of causes for the effect depending on the circumstances in which it is produced, the phenomenon is now regarded as a perceptual outcome to be taken for granted and as

"fundamental" to producing the stable view of others that is required for interactional fluency.

Some of the most crucial--and understudied--empirical questions concern the contours of attribution (and overattribution) in the realm of morally signifying actions, actions that can generate moral censure and associated punishments or moral approbation and associated rewards. According to most prominent psychological theories of morality (J. M Darley & Shultz, 1990; Shaver, 1985; Shultz & Schleifer, 1983), the actor's causal role is the central factor determining moral attribution; on a "causal discounting rule," moral censure varies with the extent to which the actor is causally implicated in the outcome. Three of the most sophisticated recent accounts of responsibility attribution retain an emphasis on the actor's causal role--recast as personal control over events--but these approaches also recognize that various psychologically complex processes can lead the observer to assign more responsibility to the actor than a strict causal discounting rule suggests (Alicke, 2000; Schlenker, Britt, Pennington, Murphy, & Doherty, 1994; Weiner, 1995).

According to Schlenker et al.'s (1994) "triangle model" of responsibility, actors are likely to be held responsible then there is a link between an event and the identity of the actor, such that the actor is viewed as having foreseen and "freely" brought about the event. Although this theory assumes that responsibility will be attributed in cases where exculpatory factors are minimal or absent, the weight given to such excusing factors is left open.

Relatedly, Alicke's (2000) culpable control model of blame assignment posits forms of personal control that are referenced by observers in attributing responsibility. One of

these, the concept of volitional outcome control--whether the actor desired and foresaw the negative outcomes of his action--is of special interest here. Alicke's understanding of volitional outcome control allows for the possibility that an actor's desire to produce an outcome could create in an observer the sense that the actor should be held responsible for the outcome even though the actor operated under constraints such that a causal discounting rule would seem to require attributing the outcome to forces other than the actor. Alicke also implicates "spontaneous factors," i.e., subjective, irrational, affective, as important factors that operate independently of assessments of outcome causality in the assignment of blame.

Weiner's (1995) theory of responsibility also emphasizes the intertwining of psychologic and emotion in attributions of responsibility, both credit and blame. He contends that in exigent circumstances observers may assign responsibility before evaluating mitigating factors. A similar assumption is present in Alicke's (2000) culpable control model.

All of these recent theories recognize that individuals can be connected to actions in highly complex ways that escape summary by precise dichotomous rules such as the causal discounting rule. This is unsurprising if, as we believe, the psychologic of responsibility attribution is informed by a complex tangle of considerations drawn from philosophy, psychology, and the law (see Austin, 1956). While the philosophy of action is among the most vexing areas of the field, it also has the potential to provide psychology with powerful theoretical resources.

Constraint and Identification in the Philosophical Literature

Philosophers have often maintained that individuals should not be held accountable for acting or failing to act when those individuals do not possess sufficient capacity for appropriate behavior or when they are operating under constraints they could not be reasonably expected to resist (Smith, 1962; Wallace, 1994). These philosophical intuitions are also evident in legal practice (Robinson, 1996): we do not hold children accountable for acts that would constitute criminal conduct in an adult, nor court martial military personal who denounce their country while being tortured as prisoners of war. Indeed, many philosophers have endorsed a principle akin to the causal discounting rule: if a behavior is determined by factors outside of the actor's control, the actor is not morally responsible. Such "incompatiblist" philosophers insist that moral responsibility is not compatible with causal determinism: if the actor could not have done otherwise, she is not responsible for her behavior (Kane, 1996; Kant, 1956/1785; van Inwagen, 1982; Strawson, 1986). "Compatibilists" take a different view: an actor can be held responsible even when she could not have done otherwise, so long as certain psychological conditions obtain.

An especially influential compatibilist approach has emerged from a series of essays by Harry Frankfurt (1988; cf. Bratman, 1996; Doris, 2002; Velleman, 1992). On this account, judgments of responsibility should be governed by judgments regarding the extent to which the actor "identifies" with the behavior or its determinative motivations (Frankfurt, 1988). An actor identifies with a behavior (or its motives) when she "embraces" that behavior (or motives): 2) or performs it "wholeheartedly" (Bratman, 1996; Frankfurt, 1988). We might say that an actor identifies with a behavior to the extent that it expresses her "fundamental evaluative orientation" (Watson, 1996). When I

happily give some money to the panhandler because I am deeply committed to tithing, I identify with my behavior, and am therefore to be credited. The converse of identification occurs when the actor is "alienated" from the desires or motives associated with behavior, where the desires seem to emanate from a source external to the self; when I grudgingly contribute to a charity to appease my boss, I do not identify with the act of giving, and therefore am hardly to be praised for a charitable deed.

While this sort of compatibilism has more psychological texture than familiar causal approaches to responsibility, it has implications that appear to be strikingly counterintuitive: the theory maintains that persons may be held responsible even when they operated under coercive influence. For example, if I'm the saintly sort who happily "donates" his wallet to the "unfortunate" thug holding a gun to my head, the theory allows that I might fairly be credited for charitable conduct, even though I acted under coercion that would have compelled the action. Although counterintuitive, the compatibilist approach resonates to some extent with the approaches to responsibility attribution forwarded in psychology by Schlenker et al. (1994), Weiner (1995), and Alicki (2000), maintaining that the causal discounting rule does not represent the only relevant consideration in responsibility attribution. Indeed, it looks to be an implication of Frankfurt's view that in case of responsibility ascription, the rule should be rejected, or at least held to have important exceptions.

The notion of identification is somewhat nebulous, but Frankfurt's (1988) view is compelling, that, this unclarity notwithstanding, the degree to which one identifies with or embraces one's own actions reflects "something quite fundamental in our inner lives, and it merits a central role in the phenomenology and philosophy of human mentality" (p.

54). One of the aims in the present investigation is to operationalize the concept of identification and investigate its role in the attribution of responsibility across conditions in which constraints upon action are varied. There are two compelling rationales for this study. First, although person perception is perhaps the most extensively studied area of social psychology, the attribution literature has focused on the attribution of attitudes, as in Jones (1990), and traits, as in Ross (1977), with relatively little attention to the questions of moral attribution and responsibility for conduct, which seem to occupy so prominent a position in everyday life. Second, even though there have been illuminating and cogent discussions of responsibility in the psychology literature, as described above, there have been few explicit attempts to test empirically assumptions underlying philosophical discourse in such a way that findings might inform philosophical reflection on these important normative issues. If it is to be both empirically supportable and theoretically illuminating, the study of responsibility must venture across disciplinary boundaries.

The concept of identification, as defined here,, is related to other philosophical concepts that have been recently imported into psychology. Of particular relevance is the concept of intentionality developed and explored in the work of Malle, Knobe, and colleagues (e. g., Malle, 1999; Malle, 2006b; Malle & Knobe, 1997a; 1997b). Under ordinary circumstances, acts with which we identify are those that we intend and desire to perform. Identification is also closely related to, and indeed subsumes, the philosophical concept of "metadesire" or "second-order" desire" (see Frankfurt, 1988) or the desire to have certain desires, e.g., "I wish I wanted to exercise everyday," or "I want to like broccoli." Identification with an action requires that one be "metadesirous" regarding the

action. Metadesire has been operationalized and investigated in recent social psychological research by Pizarro, Uhlmann, and Salovey (2003).

Toward an Enhanced Model of Moral Attribution

Extending existing frameworks, in a series of previous experiments, Woolfolk, Doris, and Darley (2006) attempted to operationalize "identification." The investigators took this construct to denote the degree to which an actor embraces the behavior (i.e., is deemed to want or desire to perform a behavior); is also metadesirous regarding the behavior (wants to want to do it); and maintains a positive "fundamental evaluative orientation" (Watson, 1996) toward that behavior. Woolfolk et al. (2006) investigated the variable of identification together with a more familiar causal factor, constraint, that is, the degree to which the actor was coerced or compelled to perform the action. To do so they constructed the kind of hypothetical scenario or "thought experiment" that is often employed by philosophers to illustrate an ethical conundrum. Woolfolk et al. asked participants to read a scenario and to evaluate the actions and actors depicted therein. In the core of the story, an actor, under varying degrees of constraint, kills another. The standard finding emerged: when constraint was total and extreme, almost no responsibility was assigned to the actor. However, the degree to which the actor wished to kill the other was also varied orthogonally and also made a difference. In the extreme constraint condition, when the actor also wished for the death of the other, respondents reported that although the actor was not able to do anything other than kill the individual, they still assigned some responsibility and punishment to him, which the experiment demonstrated was produced by the fact that the actor was identified with the action.

These findings suggested that social cognition involving assignment of responsibility for an antisocial action involves complex processes and that the notion of identification with action deserves a place in theories of responsibility attribution. Results also demonstrated that in the assignment of responsibility for conduct, both internal features of an actor and external features of a situation could be teased apart and that relative weightings could be placed on each class of features (based on the effects of the identification and constraint manipulations, respectively).

While these findings are highly suggestive, further study is needed to establish their reliability and generalizability across the wide range of morally significant situations, contexts, and types of moral judgment in which responsibility attribution occurs. It may be particularly instructive to investigate whether there are contexts in which the impact on responsibility attributions of the two variables we have identified, pertaining to the internal mental states of the actor and external situational features relating to the actor's control over behavior and outcomes, may differ considerably from the patterns obtained in the Woolfolk et al. (2006) experiments. Much research on attribution of responsibility has studied judgments of negative behaviors (Alicke, 2000; Shaver, 1985), with the tacit assumption that the process of responsibility attribution is independent of the valence of the behavior (i.e., the moral/immoral or positive/negative distinction). Yet, even early studies provided some reason to question this assumption, with evidence that observers tend to blame actors who caused negative consequences more severely than they reward those who caused positive consequences (Walster, 1966; Shaver, 1970, 1985).

Recent studies have begun to suggest asymmetries in social cognition regarding antisocial versus prosocial acts (Malle, 2006; Malle & Bennett, 2002; Ohtsubo, 2007;

Pizarro et al., 2003), although both the nature and interpretation of such asymmetries remain unclear and subject to debate. Perhaps the most relevant and methodologically rigorous of these studies was a series of experiments by Pizarro, Uhlmann, and Salovey (2003), which examined attributions of responsibility for positive and negative actions that either arose from uncontrollable (overwhelmingly emotional) impulse, in what amounted to internal compelled behavior, or else were committed in a rational, deliberate manner. Pizarro et al. (2003) found that impulsive actions elicited a reduction in moral blame for morally negative acts (as compared to when the acts were committed in a rational, deliberate manner), whereas moral praise for positive acts was no different for impulsive acts (e.g., an impulsive charitable donation made due to "overwhelming and uncontrollable sympathy," p.268). They also presented evidence that this blame/praise asymmetry may arise from observers' tendencies to make blame/praise attributions based on the actor's perceived metadesires and to assume, by default, that the metadesires of those who perform good deeds are morally positive (i.e., they want to want to perform the action) even when their first order desires are less clearly so. Extrapolating somewhat, results may imply that, even when the behavior is compelled by forces beyond an actor's control, credit ascribed to the actor for prosocial actions will generally be high under normal circumstances, as long as observers' default assumption that the actor is, overall, identified with the action is not violated.

Using a very different experimental paradigm, Malle and colleagues (Malle, 2008; Malle & Bennet 2002) found that the knowledge that an act was committed intentionally rather than accidentally magnified the level of blame attributed for a negative action to a greater extent than it increased the level of praise given for a positive action. Because our

paradigm involves a manipulation more powerful than the simply presence or absence of intentionality (although it includes intentionality) and is crossed with constraint of the most absolute kind, it is highly unclear whether the effects discovered in these studies might apply to the experimental situation we created.

The present study extended the exploration of the independent variables, identification and constraint, to the domain of prosocial, or "morally admirable," conduct. Attributions of positive moral responsibility, or credit, to a parent who donates one of his kidneys to an ill daughter, using a similar paradigm as that of Woolfolk et al. (2006). The kidney donation was made under conditions of low or high external constraint (i.e., no interpersonal pressure or extreme interpersonal pressure) or absolute constraint (a situation in which the actor had no other choice but to make the donation). In addition, the actor either showed low or high identification with the donation, with identification operationalized here as the extent to which the actor has a positive or unconflicted attitude toward donation both before and at the time of the action.

The study investigated the following hypotheses. First, the actor will be judged as less responsible and creditworthy for the prosocial act when his actions are highly constrained and coerced by external forces (implying less personal control over events) and as more responsible when his actions are less constrained. Second, that greater responsibility/credit will be assigned to the actor when he is identified with the action, and that the responsibility increasing effect of identification will be observed even when the individual performs the act under very high levels of situational constraint (including circumstances in which there are no alternate behavior possibilities and the actor is unable to do otherwise than to engage in the action). This hypothesis (which is rooted in

the philosophical views of Frankfurt, as appropriated and developed by Woolfolk et al.) implies a challenge to the emphasis on perceived personal/causal control over events in classic psychological theories of responsibility attribution. It also contradicts the "correspondent inference" or "discounting principle" in attribution theory. A third hypothesis is that identification may moderate the attributional effects of constraint, and that observers' attributions of responsibility or credit may be less strongly influenced by constraint when the actor is highly identified with the action versus not identified.

II. Method

Participants

Participants were 204 students enrolled in undergraduate psychology courses at a large state university in the northeastern United States. The sample size was determined by an *a priori* power analyses (using G*Power; Faul, Erdfelder, Buchner, & Lang, 2009) and exceeded the minimum number of participants needed to conduct analyses of variance with moderate sized effects. Participants were recruited from several psychology courses (abnormal psychology, systems of psychotherapy, and a lab course) and received extra credit as compensation. The sample comprised 78 males (38.2%) and 126 females (61.8%) with a mean age of 21.50 ($SD = 4.63$; IQR = 20.00-22.00; range = 18-69). The vast majority (95.6%; n=195) was single, with only 4 married and 2 divorced participants. The sample mirrored the ethnically diverse demographics of the region. Approximately half of the participant pool (51.5%; n=105) identified as non-Hispanic Caucasian; one quarter (25.0%; n=51) as Asian (of whom 29 were East Asian and 22 South Asian); 9.3% as Hispanic or Latino of any race (9.3%; n =19); 8.3% as African American (n=17); 2.5% (n=5) as bi-racial or multi-racial, and 2.9% (n =6) as "other" (most of whom were of Middle Eastern origin, n =4). 53.4% of participants (n =109) were recruited from an abnormal psychology course, 30.4% (n =62) from a systems of psychotherapy class, and 16.2% (n =33) from a psychology laboratory course.

Stimulus Materials

The primary experimental stimuli were vignettes that describe a person involved in a prosocial act (a man donating one of his kidneys to his daughter) along with the background and events preceding this act. In these six vignettes, identification and

constraint have been systematically varied, producing a 2 (identification: low vs. high) x 3 (constraint: moderate vs. high vs. absolute) between-subjects factorial design.

All six vignettes begin with a uniform introduction describing a scenario in which a married couple learns that their daughter needs a kidney transplant to survive, and that the husband (but not the wife) is a potential donor and the one who could provide by far the best opportunity for ensuring his daughter's survival. After this introduction, the vignettes diverge as they proceed to describe: (a) the husband's, or actor's, initial reactions (i.e., feelings, thought process, motives, and concerns) when first confronted with the dilemma of whether to donate one of his kidneys to his daughter; (b) a subsequent interaction between the actor and his wife and father-in-law; and (c) the actor's ultimate state of mind when making the decision as well as the act itself and its outcome. These three sections proceed in order as described below.

1. In the first of these sections, in which the actor's initial reactions are described, the *high identification* condition read:

When Jim learns of the situation, he is shaken up, but he knows what he wants to do. "There's absolutely no question about it,' he thinks to himself, I'm going to donate one of my kidneys and save my daughter." Jim knows his chances of getting through the surgery with minimal complications are pretty decent, and he also understands that there is a good chance of living a normal life with only one healthy kidney. Jim is also aware that he will be taking some serious health risks by donating one kidney, but he is certain about his chosen course of action.

In contrast, the *low identification* condition, in which the actor is not very invested in or motivated to perform the prosocial act, read:

When Jim learns of the situation, he is shaken up. He does not want to give up one of his kidneys. Jim knows his chances of getting through the surgery with minimal complications are pretty decent, and he also understands that there is a good chance of living a normal life with only one healthy kidney. But Jim is also aware that he will be taking some serious health risks by donating one kidney. And Jim has always been the sort of person who is intensely focused on his health. "Of course I want to help my daughter," he thinks, "but I don't want to take the risk. What will happen if there is trouble during my surgery, or if I later develop problems with my remaining kidney?"

2. The next section of the vignette narrates a series of interpersonal events and situational factors (involving the actor's wife and father-in-law) that help establish the degree to which the actor may be impelled or compelled by external forces to perform the prosocial act (the kidney transplant), regardless of his desire to do so. In the *moderate constraint* condition, this section of the narrative stated:

As Susan and Jim, and Jim's father-in-law Lou discuss the matter in the hospital waiting room, Susan tells Jim that the decision is his to make, since it is his body. "It's our daughter's life," Susan says, "and in your place I would give Katie one of my kidneys. But I can't make the choice for you." After a long silence, Lou sighs, "What a tragic mess."

In contrast, in the *high constraint* and *absolute constraint* conditions, this section of the narrative was written in a manner designed to increases the degree of apparent external/situational pressures operating on Jim in favor of a decision to donate his kidney (and thereby constraining the degree of choice). In these two conditions, the narrative read:

As Susan, Jim, and Jim's father-in-law Lou discuss the matter in the hospital waiting room, Susan blurts out, "Please, Jim, save our daughter. I think it will be the end of our family if you don't help her." Lou, a local businessman known to have connections to organized crime, asks Jim to step out into the hospital hallway with him. There, Jim's father-in-law stares at him and whispers, "Katie is my blood, my only granddaughter. A man who wouldn't help his own daughter in a situation like this doesn't deserve to go on living, if you get my meaning." Lou's message is clear to Jim: either Jim donates the kidney or he dies.

3. Following this description of the interactions with wife and father-in-law, Jim's state of mind when ultimately making the decision is described differently depending on the level of Identification. In the *high identification* condition, this section of the narrative is designed to clarify the actor's ongoing investment in performing the prosocial act and read:

When it comes time to make his decision, it is absolutely clear to Jim what he wants to do: he will donate the kidney to his daughter. "The risk to me doesn't matter," he thinks, "I'd do anything for Katie." When Katie's doctor meets with the family, Jim signs the release form for the surgery gladly, with absolutely no hesitation.

In contrast, signs of continued reluctance and lack of investment were suggested in the *low identification* condition, which read:

When it comes time to make his decision, Jim is in a state of great agitation and ambivalence. "I don't want my daughter to die," he thinks, "but I don't want to take the risk to my own health." When Katie's doctor meets with the family, Jim reluctantly signs

the release form for the surgery. He will go through with the surgery, but he doesn't want to.

Following this section, the *absolute constraint* condition alone contained the following description, designed to maximize the situational constraints on Jim's actions such that he had no other choice but to donate his kidney:

> Lou is not the trusting sort and decides he is not going to take a chance and wishes to be 100% sure that the transplant happens. Lou also arranges for the surgery release forms to appear in the proper place with an excellent forgery of Jim's signature on it. He and one of his "body guards" inject Jim with a drug that leaves Jim unconscious. Another of Lou's "employees," dressed up in scrubs, impersonates a hospital worker and wheels Jim (now unconscious) into surgery.

Across conditions, the narrative concluded with the statement "In three weeks, Katie has a new kidney."

Measures

Primary outcome measures. Participants' evaluations and judgments about the situation, including attributions of responsibility and credit for the prosocial act (the kidney donation), were assessed using three distinct, Likert-like scales embedded in a single, 19-item questionnaire following immediately after the vignette. This questionnaire and its component scales were directly modeled on those used in Woolfolk et al. (2006)'s two studies, which have demonstrated good psychometric properties in these and subsequent (not yet published) studies. For all scale items, respondents were asked to indicate the extent to which they agree with a series of statements, using a 7-point Likert-like scale (anchored at 1 = "Disagree Completely" and 7 = "Agree Completely").

Attributions of responsibility and credit to the actor, Jim, were assessed via a scale, labeled Jim's credit, that featured items such as "Jim is responsible for Katie's receiving the kidney" and "Jim acted properly." Judgments concerning the moral uprightness of the actor's character and his actions in the situation were assessed using a 5-item scale, labeled Jim's character, that featured such items as "Jim is a person of good character" and "Jim is an admirable person" as well as items endorsing the ideas that he "acted properly" and that his kidney donation "was an admirable act." A third scale, labeled Lou's credit, examined the level of responsibility and credit attributed to the external agent, Jim's father-in-law Lou, who attempted to persuade the actor and exerted various levels of constraint to ensure completion of the act. The two items were "Lou is responsible for Katie's receiving a kidney" and "Lou deserves the credit for Katie's receiving a kidney." Total scale scores were computed by averaging scores on scale items, with possible values ranging from 1 to 7. Reliability was acceptable for the scales measuring Jim's credit ($\alpha = .75$, average inter-item $r = .44$) and Lou's credit ($\alpha = .74$; average inter-item $r = .56$) and excellent for the measure of Jim's character ($\alpha = .90$; average inter-item $r = .65$).

Manipulation checks. As checks on the identification and constraint manipulations, we used two Likert-like scales embedded in the same 19-item questionnaire as the primary outcome measures. In order to check the effectiveness of the constraint manipulation, a 3-item scale assessing the perceived level of constraint experienced by the actor was used to verify whether assignment to moderate, high or absolute constraint conditions produced differences in these perceptions (Woolfolk et al., 2006). The items from this scale, termed Jim's perceived constraint, solicited

participants' perceptions regarding Jim's obligation to perform the prosocial act, his freedom to act otherwise, and the possibility of his finding a way not to act as he did. Examples included "Jim had a choice with respect to the kidney donation" and "Jim could have found a way not to have donated the kidney." [1]

A second, 5-item scale, termed Jim's perceived identification, provided a check on the effectiveness of the identification manipulation. These questions assessed participants' perceptions of Jim's desire to commit the act, his investment in the act, his reluctance about committing the act, and his regret about his decision. Representative items included "Jim identified with the idea of donating a kidney to Katie" and "Jim felt bad about his decision regarding donating his kidney to Katie." Participants were asked to indicate the extent to which they agree with each of these statements, using the 7-point Likert-like scale used with the primary outcome variables (anchored at 1 = "Disagree Completely" and 7 = "Agree Completely"). Scale scores were computed by averaging scores on scale items, with possible values ranging from 1 to 7. The two manipulation check scales showed acceptable to good reliability in the sample (with $\alpha = .74$ and average inter-item $r = .48$ for Jim's Perceived Constraint; and $\alpha = .89$ inter-item $r = .61$ for Jim's Perceived Identification).

Additional measures. Several additional measures were included in the study, including two scales designed to assess participants' emotional states immediately after having read the vignette. Participants' general emotional states as well as their experience of more specific emotions were assessed using the PANAS-X (Watson & Clark, 1994), an updated and expanded version of the Positive and Negative Affect Schedule (PANAS), a well validated and widely used measure of mood and emotion. This 60-item

scale measured participants' experience of positive affect (e.g., excited, active, attentive) and negative affect (e.g., upset, distressed, irritable, afraid) via two 10-item higher-order scales along with their experience of 11 specific emotions. These scales include (a) four basic negative emotion scales, Fear, Hostility, Sadness, and Guilt; (b) three basic positive emotion scales, Joviality, Self-Assurance and Attentiveness; and (c) four additional scales, Shyness, Fatigue, Serenity, and Surprise. The PANAS-X (as with its predecessor) allows flexibility in designating the time frame for emotion ratings (Watson & Clark, 1994) and participants in the current study were instructed to rate their feelings "right now (that is, at the present moment)" right after having read the vignette. Participants rated each item on a 5-point Likert-like scale, ranging from 1 = "very slightly or not at all" through 5 = extremely (with 3 = "moderately") to indicate the extent to which they experienced the emotion at the moment. Scales of interest were the higher-order negative affect and positive affect scales, hostility (e.g., "angry," "disgusted"), joviality (with items such as "happy," "cheerful," and "enthusiastic," that capture happiness and excitement), surprise (e.g., "surprised," "astonished"), and attentiveness (e.g., "alert," "attentive"). These scales have been shown to possess acceptable to good internal consistency reliability in previous research, with consistently good reliability seen for the higher order scales (Watson & Clark, 1994). In the sample, nearly all scales of interest showed good reliability, with Cronbach αs ranging from .83 (for negative affect) to .90 (for joviality). Exceptions were the surprise and attentiveness scales, for which reliability was acceptable (with αs = .76 and .73, respectively).

Besides these general emotional ratings, more specific emotional responses toward the actions and characters described in the vignette were also assessed by means of the

Emotional Reactions Scale (ERS), designed by the primary investigator. The 21 items from which the scaled was derived included both primary and secondary emotions, as categorized by Parrot (2001), and were designed to capture positive and negative feelings toward the actor, sympathetic feelings for the recipient of the donation, and overall emotional investment in the situation. Participants were asked to rate their level of agreement with each statement "right now (that is, at the present moment)" using 7-point Likert-like scale, ranging from 1 = "strongly disagree" to 4 = "neither agree nor disagree" to 7 = "strongly agree." Scale scores were ultimately computed by averaging scores on scale items, with possible values ranging from 1 to 7.

Procedure

Participants completed the study individually during class time. First, they were asked to read a standard consent form and to sign and date the form if they agreed. Participants who had given consent were then randomly assigned to one of the six experimental conditions, with 47 participants per cell. The investigators handed a packet to each participant, briefly explaining verbally the instructions and contents of the packet and encouraging participants to take as much time as they need to read the story and complete the measures that follow. Levels of identification (low vs. high) and constraint (moderate vs. high vs. absolute) were systematically manipulated across conditions, such that each unique combination of variables constituted one vignette. This resulted in a 2 (Identification: low vs. high) x 3 (Constraint: moderate vs. high vs. absolute) between-subjects factorial design. Each packet contained, in order from beginning to end: a written instruction sheet, the vignette/scenario corresponding to the participant's experimental condition, questionnaires, and a demographic sheet.

The uniform instruction sheet preceding the vignettes asked participants to read the descriptions carefully before answering the questions that follow, and to try their best to "imagine that the situation and events have actually occurred in real life and 'suspend disbelief'" even though some aspects of the situation might not seem entirely realistic to them. Participants were also instructed to provide their "best, most honestly felt responses" despite possible uncertainties and the limited information available. Participants then read one of the six vignettes describing the events leading up to the prosocial act, depending on the experimental conditions to which they have been assigned. Immediately thereafter, all participants completed a single 19-item questionnaire within which the primary outcome and manipulation check scales were embedded. The questionnaire solicited participants' attributions regarding the level of credit Jim and Lou deserved for the prosocial act (kidney donation), their assessments of Jim's character, and their perceptions regarding the degree of constraint under which Jim operated and his degree of identification with the act.

Following the main questionnaire, participants completed several self-report inventories not directly related to the current study, including the Positive and Negative Affect Schedule (PANAS) and Emotional Reactions Scale (ERS) described above. Finally, participants completed a demographic sheet that solicited information regarding age, gender, academic year, race and ethnicity, marital status, religious affiliation, and language background and comfort level. After completing the study, participants were given a debriefing form explaining the purposes of the research and had the opportunity to ask questions.

III. Results

Data Screening and Preprocessing

Prior to analyses, response data were thoroughly screened, at both the item and scale level, using quantitative and graphical procedures to ensure their accuracy, completeness, and adherence to the assumptions of parametric statistical procedures. First, responses to each of the 19 scale items were examined to screen for possible data entry problems, missing data, and other irregularities. The vast majority of participants completed the outcome questionnaire measures in their entirety, resulting in a very small amount of missing data at the item level ($\leq 1.5\%$ all cases for any given item, with only 8 of the 19 items affected). Moreover, these missing data were spread fairly evenly across cases and variables. Of the 240 participant protocols examined, only 10 participants, distributed fairly evenly across experimental conditions, returned outcome questionnaires with missing values. Of these 10, eight were missing data on a single item; the remaining two had missing values for two items, which were drawn from separate scales in both cases. Given that missing data were rare and relatively evenly distributed across participants and scales and because data were found to be missing at random (MAR), data for the 12 missing items were imputed using an Expectation Maximization (EM) procedure. This procedure was selected both because it seemed to provide an appropriate and relatively straightforward solution to a relatively minor problem and because it has been shown to produce more accurate estimates of population parameters than some other methods (Schlomer, Bauman, & Card, 2010).

After missing item data were imputed and item responses averaged to compute scale scores, the resulting scale variables, Jim's credit, Jim's character, Lou's credit,

Jim's perceived constraint, and Jim's perceived identification, were examined to determine how well their distributions fit the assumptions of parametric statistics. Variables were examined separately for each of the six experimental conditions using a combination of visual and statistical methods. Particular problems were found with the scale Jim's character, with the variance of score distributions differing significantly across experimental groups, as shown by Levine's test of homogeneity of variable, $F(5, 198) = 6.16$, $p < .001$, and prominent negative skew in the three high identification conditions. The skewness values (and standardized scores) were -1.98 ($z = $ -4.91), -0.98 ($z = -2.42$), -0.99 ($z = -2.44$) for the low, high, and absolute constraint cells, respectively. The largest deviations from normality were evident in the high identification / low constraint group, for which the distribution of scores on Jim's character were clustered toward the very high end of the scale around a sharp peak (an irregularity captured by a high kurtosis value, $k = 4.72$, $z = 6.00$). In addition, the only case identified as a univariate outlier within its condition based on deviations significant at the .001 level was one participant within this group, whose scale score on Jim's character was exceptionally low relative to the skewed group mean ($z = -3.62$). These problems were effectively addressed by re-expressing Jim's character using a double reflected cube root transformation, $2 - (8 - \text{Jim's Credit})^{1/3}$. Scores on this transformed variable, labeled Reflected cube root (RCR) Jim's Credit, had a possible range of 0.09 to 1.00 (anchors corresponding to the original scale anchors of 1 and 7, respectively), with a mean score of .66 for the total sample ($SD = 0.27$, $Mdn = .70$, $IQR=.44-.94$).

Score distributions for RCR Jim's credit were considerably more symmetrical for all three high identification conditions, with skewness values and (corresponding z-scores

in parentheses) of -1.26 (-3.12), -0.79 (-1.96), and -0.59 (-1.46) for the cells formed by low, high, and absolute constraint, respectively (and reduced kurtosis for the first of these three groups, $k = 1.54$). Moreover, the unusual case in the high identification / low constraint condition was no longer classifiable as an outlier ($z < 3.29$). Additionally, the transformation reduced but did not completely eliminate the problem of unequal variances among experimental groups, as shown by Levine's test, $F(5, 198) = 2.70$, $p = .02$. When cases were examined based on their configuration of scores across the three outcome scales using Mahalanobis distance, no multivariate outliers, or cases whose combinations of scores on two or more variables was highly atypical, were evident at the $\alpha = .001$ level.

Manipulation Checks

Factorial between-subject analysis of variance (ANOVA) were conducted to determine whether the experimental manipulations in Constraint and Identification were successful in producing the intended differences in Jim's perceived identification with the act and the perceived constraint under which he operated. To correct for Type I error inflation resulting from multiple comparisons, alpha (α) was set at .025 for the three sets of omnibus tests.

The analysis of perceived identification showed a main effect of identification, such that participants assigned to high identification conditions perceived Jim as significantly more identified with the act ($M = 5.41$, $SD = 0.56$, 95% CI [3.21, 3.50]; $n = 102$) than did those in low identification conditions ($M = 3.36$, $SD = 0.76$, 95% CI [5.30, 5.52]; $n = 102$), $F(1,198) = 486.11$, $p < .001$, est $\omega^2 = .70$. There was no significant effect for constraint, $F(2,198) = 0.29$, $p = .52$, est $\omega^2 = .00$, nor for the Identification x

Constraint interaction, $F(2,198) = 0.58$, $p = .27$, est $\omega^2 = .00$. Similarly, the second set of analyses showed, as expected, that Jim's perceived constraint varied as a function of the constraint manipulation, $F(2, 198)=6.93$, $p =.001$, est $\omega^2=.06$. Jim's perceived constraint was relatively low among participants in the low constraint conditions ($M = 3.56$, $SD =$ 1.11, 95% CI [3.29, 3.83]; $n = 68$) and higher in both the high constraint ($M = 4.24$, $SD =$ 1.24, 95% CI [3.94, 4.54], $n = 68$) and absolute constraint conditions ($M = 4.32$, $SD =$ 1.52, 95% CI [3.95, 4.69]; $n = 68$). A posteriori contrasts using Tukey HSD with family-wise alpha set at .05 showed that participants in the low constraint groups rated Jim's perceived constraint significantly lower than did those in either the high (M difference = -0.68, $p = .008$, $d = .58$, 95% CI [-1.21, -0.15]) or the absolute constraint conditions (M difference = -0.76, $p = .002$, $d = .58$, 95% CI [-1.29, -0.23]). But the high and absolute constraint conditions did not differ significantly (M difference = -0.08, $p = .93$, $d=.06$, 95% CI [-0.61, 0.45]). In the analysis of Jim's perceived constraint, there were no significant effects for identification, $F(1,198)=.53$, $p=.47$, est $\omega^2=.00$, or for the Identification x Constraint interaction, $F(2,198)=.22$, $p=.80$, est $\omega^2=.00$.

Thus, the data suggest that randomization to different levels of identification and constraint produced reliable differences in perceptions of Jim's identification with the act and perceptions of the constraint under which Jim acted, respectively. Moreover, that each variable varied only as a function of the corresponding manipulation, together with the non-significant correlation of negligible size between these manipulation check variables ($r = .08$, $p = .27$), suggests that identification and constraint were in fact orthogonal factors, as designed. Yet, the fact that participants did not construe Jim's actions as more strongly limited by external circumstances in the absolute versus high

constraint conditions suggests the constraint manipulation might not have operated

exactly as intended.

Preliminary Analyses

Descriptive statistics and inter-correlations for the main dependent variables are

presented in Table 1. As the table shows, levels of credit ascribed to Jim showed a

moderately strong, negative correlation with levels of credit ascribed to Lou in the overall

sample, as was expected. That is, ratings of Lou's credit tended to decrease as ratings of

Jim's credit increased. A strong, positive association between judgments of Jim's

character (as measured by Jim's character and the transformed variable RCR Jim's

character) and levels of credit attributed to Jim was also evident, and these variables

showed a similar range and distribution of scores in the overall sample. However, the

strength of the association between these two outcome measures (rs = .70, .69, for Jim's

character and RCR Jim's character, respectively) suggests that these measures reflected

distinguishable and non-redundant, though inter-related, constructs. Positive judgments

of Jim's character were also associated were lower levels of credit ascribed to Lou,

though this relationship was not as strong as that between the two measures pertaining to

Jim.

Before subjecting these three variables to the principal analyses, data were screened

for possible differences according to gender, racial/ethnic identity, and recruitment source

(the 3 classes), using a one-way analyses of variance (ANOVAs) with overall alpha set at

.10. To prevent Type I error inflation, a Bonferroni correction was applied, such that

alpha was set at .01 for each of the nine tests. There were no significant effects for

gender, all Fs (1, 202) $\leq$ 2.14, ps > .15, or recruitment source, all Fs (2, 201) $\leq$ 1.98, ps >

.12. Results showed near-significant effects for race/ethnicity on Jim's credit, $F(6, 196) =$ 2.48, $p = .03$, est $\omega^2 = .04$, and on Lou's credit, $F(6, 196) = 2.45$, $p = .03$, est $\omega^2 = .04$. However, further examination strongly suggested between-group differences in these outcomes were most likely a product of an unintended pronounced skew in the assignment of bi-racial/multi-racial participants to experimental conditions.[2]

Main Analyses

In the main analyses, the effects of the identification (low vs. high), constraint (moderate vs. high vs. absolute) and their interaction on the primary outcome measures-- attributions of credit to Jim, attributions of credit to Lou, and judgments of Jim's character--were assessed using two-way, between-subject ANOVAs. To control for Type I error inflation, a Bonferroni correction was applied with alpha set at .0167 for each omnibus test. Wherever significant constraint effects or Identification x Constraint interaction effects were obtained, a posteriori pairwise comparisons were conducted to clarify the meaning of these effects using Tukey's HSD procedure with family-wise α set at .05. This procedure was favored due to its combination of good control over Type I error and relatively modest losses in statistical power. The exception was RCR Jim's Credit, for which a Games-Howell post hoc test with family-wise α set at .05 was selected, given unequal variances among the experimental groups in this variable.

In the analysis of Jim's Credit, there were significant main effects for both identification, $F(1, 198) = 78.81$, $p < .001$, $\omega^2 = .20$, and constraint, $F(2, 198) = 28.84$, $p < .001$, $\omega^2 = .14$. However, these effects were qualified by a significant Identification x Constraint Interaction, $F(2, 198) = 26.33$, $p < .001$, est $\omega^2 = .13$. All three effects reflect medium effect sizes. Means, standard deviations, and 95% confidence intervals for each

experimental group are presented in Table 2. As illustrated in Fig. 1, participants attributed consistently high levels of credit to Jim for the kidney donation when he identified strongly with the act, regardless of the degree to which his actions were constrained by external forces. In contrast, when Jim was not highly identified with the act, the credit ascribed to him varied depending on the level of external constraint under which he acted, with relatively high levels of credit ascribed to him when he acted under low constraint and progressively decreasing levels of credit ascribed to him as the level of constraint under which he operated increased from low to high and absolute.

The Tukey's post hoc test for mean differences revealed that, when identification was low, Jim's credit was significantly higher in the low constraint versus the high constraint (*M* difference = 0.68, *p* < .05, *d* = 0.64, *r* = .30, 95% *CI* [0.01, 1.35]) and absolute constraint conditions (*M* difference = 2.45, *p* < .05, *d* = 2.37, *r* = .76, 95% *CI* [1.79, 3.12])[3] Additionally, Jim's credit was significantly higher in the high versus the absolute constraint condition, mean difference = 1.78, *p* < .05, *d* = 1.44, *r* = .58, 95% *CI* [1.11, 2.45]. In contrast, when identification was high, there were no significant differences in Jim's credit among the three groups formed by the constraint manipulation. Cohen's *d*s and 95% confidence intervals for the mean difference for the contrasts between low versus high, low versus absolute, and high versus absolute constraint conditions conditioned on high identification were *d* = 0.28, -0.23, [-0.90, 0.44]; *d* = 0.01, -.01 [-.68, 0.66]; *d* = 0.24, 0.23 [-0.44, 0.89], respectively, all *p*s > .05. These differences all reflect negligible or small effect sizes. Examining the effects of identification across different levels of constraint, the Tukey's test showed that significantly more credit was attributed to Jim when his identification with the act was high rather than low in both the high

constraint (M difference = 1.03, d = 0.93, r = .42, 95% CI [0.36, 1.70]) and absolute

constraint conditions (M difference = 2.58, d = 2.40, r = .77, 95% CI [1.91, 3.25]). As

Fig. 1 illustrates, for the low constraint condition, levels of credit ascribed to Jim did not

differ significantly between the high and low identification groups (M difference = .12, p

= .99, d = 0.15, r = .08, 95% CI [-0.55, 0.79]) and were high for both groups (see Table

1).

The analysis of Lou's credit showed significant main effects for both Identification,

$F(1, 198) = 75.88$, $p < .001$, $\omega^2 = .19$, and constraint, $F(2, 198) = 34.64$, $p < .001$, $\omega^2 =$

.17. However, these results were qualified by a significant Identification x Constraint

Interaction, $F(2, 198) = 23.19$, $p < .001$, $\omega^2 = .11$. Examining the pattern of means shown

in Figure 2 and Table 2, it is clear that the effects of constraint differed considerably

depending on whether identification was low or high. When identification was low, the

mean level of credit attributed to Lou increased at higher levels of constraint, whereas

when identification was high the mean level of credit assigned to Lou was relatively low

and constant across levels of constraint. These findings can be seen in Fig. 2, in which the

means for low identification show a positive linear trend across levels of constraint,

whereas the configuration of means for high identification across levels of constraint

approximates a horizontal line.

For the low identification conditions, the Tukey's HSD post hoc test showed that

credit attributed to Lou was significantly lower in the low constraint than in the high

constraint (M difference = -2.26, d = 1.69, r = .65, 95% CI [-3.10, -1.42]) or absolute

constraint (M difference = -3.09, d = 2.48, r = .78, 95% CI [-3.90, -2.25]) conditions.

Lou's credit appeared to be lower in the high versus the absolute constraint condition, but

this difference represented a near-significant trend according to the Tukey's procedure, mean difference = -0.83, $p < .08$, $d = 0.65$, $r = .31$, 95% *CI* [-1.70, 0.01]. The Tukey's test further confirmed that when identification was high, levels of credit attributed to Lou did not vary as a function of constraint. The mean difference, 95% confidence interval, and Cohen's *d* were 0.25, 95% *CI* [-0.59, 1.09], $d = .20$, $r = 0.10$; -.01, 95% *CI* [-1.34, 0.34], $d = 0.37$, $r = .18$; and -0.75, 95% *CI* [-0.18, 1.50], $d = 0.68$, $r = .32$, respectively, for the contrasts between low versus high, low versus absolute, and high versus absolute constraint conditions under high identification, all $ps > .10$. Furthermore, examining the effects of identification conditioned on levels of constraint, it is clear that participants tended to attribute less credit to Lou when Jim's identification was high rather than when his identification was low in both the high and the absolute constraint condition (see Figure 2). In contrast, under conditions of low constraint, Lou's credit was low for both the high and low identification groups (see Figure 2). The Tukey's test showed that the low versus high identification contrast was significant at the specified .05 level for both high (*M* difference = -2.35, $d = 1.98$, $r = .70$, 95% *CI* [-3.19, -1.50]) and absolute constraint (*M* difference = -2.43, $d = 2.01$, $r = .71$, 95% *CI* [-3.27, -1.58]), but not low constraint (*M* difference = 0.16, $p = .99$, $d = 0.12$, $r = .06$, 95% *CI* [-0.68, 1.00]).

Thus, in summary, when Jim was not identified with the act, the amount of credit attributed to Lou varied in accordance with the levels of constraint and coercion exerted over Jim by Lou, which was in line with hypotheses. Under these conditions, Lou was given little credit for bringing about the kidney donation when constraint was low (and Lou's role was minimal), but was given substantially more credit when constraint was high or absolute (and Lou played a clear and important role in bringing about the

donation by means of coercion and/or force). Unexpectedly, the data showed that so long as Jim was highly identified with the act, the amount of credit attributed to Lou remained consistently low, regardless of the level of constraint Lou exerted over the Jim and the situation.

The analysis of RCR Jim's Character showed a significant effect of identification, indicating that participants tended to made more favorable assessments of Jim's character when he was highly identified with the act (M = .47, SD = .02) versus not highly identified (M = .86, SD = .01), $F(1,198)$ = 287.74, p <.001, ω^2=.54. Constraint also had a main effect on RCR Jim's Character, $F(2,198)$=11.93, p <.001, ω^2=.04, but this effect was qualified by a significant Identification x Constraint interaction, $F(2,198)$ = 10.44, p <.001, ω^2=.04. The analyses indicate a strong effect size for identification effects and small effect sizes for constraint and the Identification x Constraint interaction. Results indicate that participants' judgments concerning Jim's character were largely determined by Jim's level of identification. As shown in Fig. 3, when identification was high, Jim's character ratings were consistently high (with average ratings nearing the uppermost limits of the scale) and did not vary according to level of constraint. In contrast, when Jim's identification with the act was low, participants' ratings of Jim's character were considerably lower than when identification was high and ratings declined somewhat at the highest (absolute) level of constraint.

As Fig. 3 and the pattern of means shown in Table 2 illustrate, across levels of constraint, character ratings were considerably higher when Jim's identification was high as compared to low. The Games-Howell post-hoc test showed that the high versus low identification difference was significant at the specified .05 level under low (M difference

= 0.27, $p < .001$, $d = 1.44$, $r = .58$, 95% *CI* [0.13, 0.39]), high (*M* difference = 0.39, $p <$

.001, $d = 2.22$, $r = .74$, 95% *CI* [0.26, 0.51]), and absolute constraint conditions (*M*

difference = 0.52, $p < .001$, $d = 4.01$, $r = .89$, 95% *CI* [0.43, 0.61]). All three differences

represent large effect sizes. The Games-Howell test showed that under conditions of low

identification, ratings were significantly higher in both the low constraint (*M* difference =

0.27, $p < .001$, $d = 1.54$, $r = .61$, 95% *CI* [0.14, 0.39]) and the high constraint conditions

(*M* difference = 0.15, $p = .004$, $d = 0.93$, $r = .42$, 95% *CI* [0.04, 0.27]) than in the absolute

constraint condition, but the difference between the low and high constraint conditions

was not significant (*M* difference = 0.11, $p = .22$, $d = 0.55$, $r = .27$, 95% *CI* [-0.03, 0.25]).

Furthermore, the Games-Howell test confirmed there were no significant differences in

ratings of Jim's character among the three high identification groups at the specified .05

levels. The mean difference, 95% *CI*s, and Cohen's *d*s for the low versus high, low

versus absolute, and high versus absolute constraint contrasts were -0.01, 95% CI [-0.12,

0.10], $d = 0.08$, $r = .04$; 0.01, 95% CI [-0.10, 0.11], $d = 0.05$, $r = .03$; and .02, 95% *CI* [-

.08, 0.12], $d = 0.14$, $r = .07$ for the low versus high, low versus absolute, and high versus

absolute constraint contrasts, respectively, all ps = .99. These differences all reflect

negligible effect sizes.

IV. Discussion

In this study, the effect of identification and its interplay with constraint were explored in a domain heretofore unexamined within this paradigm, that of prosocial conduct. Identification had a sizable impact on attributions of responsibility and credit and moderated the effects of constraint. When the actor was identified with the action, the level of responsibility and credit ascribed to him for the good deed was consistently high and unaffected by increases in constraint, even when external forces impelling the action were so powerful that he had no other choice but to engage in the action (in a condition that passed the "alternative possibilities" acid test that some philosophers require for the assignment of responsibility). When the actor was not identified, he received a large amount of credit when he performed the act under minimal levels of external pressure, but was judged to be progressively less responsible and creditworthy for the good deed as the external constraints impelling him to act as he did increased. Similar effects (but in the opposite direction) emerged for credit ascribed to an external agent who coerced the actor to perform the act. On the whole, findings support the contention that what causes people to attribute responsibility, to praise or blame, is to some extent what is in the "heart" of the actor, what outcomes he/she desires to effect; and some degree of responsibility may be attributed even to actions committed under overwhelmingly coercive or constraining circumstances when these actions are desired.

The primary objective of the experiment was to extend into the realm of prosocial behavior earlier investigations of the construct of identification with an action (Frankfurt, 1988). This particular concept of identification, which has featured prominently in philosophical discussions of free will and responsibility, seems to describe capacities that

are uniquely human: an ability to understand and reflect upon one's self and one's actions
and to either assent or refuse, psychologically, no matter how one is compelled
behaviorally. As in studies of antisocial behavior, observers' attributions of responsibility
for an action were found to be influenced greatly by the actor's level of identification with
that action, even when the actor's behavioral options were strongly constrained. As in the
earlier studies of Woolfolk et al. (2006), despite the presence of extreme coercive
circumstances surrounding and controlling a prosocial action, attributors assigned
responsibility consistent with philosophical views that declare that the desires and
intentions that underlie an action are sufficient conditions to assign responsibility for that
action if that action is committed.

Results differed from those of previous investigations of antisocial behavior in
which identification was crossed with constraint (Woolfolk et al., 2006) in several
notable ways. Somewhat unexpectedly, the effects of coercive circumstances were
relatively weak as compared to the Woolfolk et al. (2006) studies. In addition, overall,
identification had a more powerful effect on attributions of positive responsibility or
credit for the kidney donation than it did on attributions of negative responsibility and
blameworthiness for the murder in Woolfolk et al. (2006). In fact, the effect of high
identification eclipsed and nullified the effect of coercive circumstances in a way not
seen in the previous investigations, where the two variables operated in an essentially
additive manner. These findings are in some ways consistent with recent literature that
indicate asymmetries in the social cognition of antisocial versus prosocial acts (Malle &
Bennett, 2002; Ohtshub, 2007; Pizarro, Uhlmann, & Salovey, 2003) in that constraint or
coercion affected the moral acceptability and responsibility attributed for antisocial

actions but had no such effects for prosocial acts performed by an identified actor. Identification, on the other hand, operated similarly as a causal agent in attributions for events of both kinds, albeit to a somewhat greater extent for prosocial behavior.

Nevertheless, there are numerous differences between the vignettes of this study and those in the previously reported studies that complicate and confound comparisons involving only the prosocial versus antisocial dimension of the actions studied. For example, it seems likely that there was an element of tacit constraint, independent of the experimental manipulations, built into both stories, and the nature of this constraint was different in each case. The moral imperative to save one's daughter's life, operating in the background in the present experiment, may influence observer attributions differently from the prohibition against killing that is implicit in the hijacking scenarios from Woolfolk et al. (2006). Moreover, in the hijacking vignettes background normative pressures served, not to compel the action (homicide), but to restrain it. Differences in the operation of prescriptive versus proscriptive morality, which have recently been investigated (Janoff-Bulman, Sheikh, & Hepp, 2009; Sheikh & Janoff-Bulman, 2010), may thus be relevant to understanding divergences in findings. Even in the low constraint condition in the kidney donation scenario there were powerful forces impelling the action, forces that may not be much supplemented by the additional influence depicted in the constraint manipulation.

Results of this study are relevant to discussions of responsibility ascription in the psychology literature. According to Kelley's "causal discounting rule," moral evaluation varies with the extent to which the actor is causally implicated in the outcome. Data from the present study seem to suggest that such discounting did not occur when the actor was

highly identified and suggest, at the very least, that the attribution of moral responsibility is a complex process that must include elements in addition to causality, such as identification and related factors pertaining actors' perceived internal states. Findings are consistent with theories of responsibility ascription that emphasize observers' perceptions of the desires and intended outcomes of the actor (Alicke, 2000; Schlenker et al., 1994; Weiner, 1995). Findings also support the contention that intentions and desired outcomes constitute a dimension of responsibility attribution that, at least in some situations, may moderate the attributional effects of personal control over events.

Schlenker et al. (1994) describe a component of responsibility attribution they call the "identity-event linkage," which is the degree to which an actor is perceived as linked with an action based upon intending to bring it about, acting to bring it about, and doing so in the absence of excusing circumstances. Findings from the present study and Woolfolk et al. (2006) are consistent with much of this formulation but would suggest a refinement or further elaboration of the authors' view that "personal control over the event" is required. In these studies, an actor was adjudged responsible to some extent (to a considerable degree for the prosocial act and a lesser degree for the antisocial act), even though there were extenuating circumstances of the most egregious kind. In the present study, participants appear either to have perceived a link between the actor and the public event, based largely on the actor's desires, or to have assigned responsibility to what participants construed to be an internal and private event over which the actor did have personal control: internally "going along" with the coercive influence in the environment.

Alicke's (2000) theory of culpable control has deep roots in philosophy and therefore strong resonances with the present experimental paradigm and findings. Alicke

treats intention as separate from causation in his analysis of his core construct of "personal control." His work suggests that the perceived linkages among a person's intentions, behavior, and the ultimate outcomes of that behavior, are the key factors in judgments of responsibility. The line of investigation pursued in the present study and in Woolfolk et al. (2006) fits with his approach, in that it can be viewed as exploring situations in which there is either consistency or inconsistency between an actor's desires and behavior, as well as circumstances in which there is either congruence or incongruence between desire and outcome. Alicke stipulates also that the same behavior can be judged as more or less culpable simply on the basis of the actor's relevant attitudes.

As with the model of Schlenker et al., the research provides additional cases to be accounted for. In the case of Alicke's theory the machinery to account for such cases is available in the constructs of volitional behavior control and volitional outcome control. As do most models of responsibility attribution, that theory assigns an important role to the mitigating influence of constraint in reducing the assignment of responsibility. This also is consistent with our findings for antisocial action, although it is not clear whether our finding of effects for identification in the presence of overwhelming constraint would be predicted by the theory. Some indication that the theory might allow for such phenomena is Alicke's assertion that observers tend to assume agency and assign responsibility as a default, subsequently adjusting attributions for mitigating factors. This phenomenon appears to operate in accordance with the classic anchor and adjustment process, in which it is known that the adjustment is generally insufficient to move the attributions appropriately far away from the initial anchor.

Clear connections can be drawn between the present line of research and the "correspondence bias" or "fundamental attribution error" phenomenon in the attribution theory literature. To be sure, it would seem overly simplistic and inaccurate to interpret findings as nothing more than a demonstration of this effect. For one thing, the role of identification or congruous desire of the individual with the outcome of an act that is highly constrained clearly represents a new emphasis. However, Gilbert and Malone (1995) have suggested that the fundamental attribution error has many possible causes, and the imputation of desire for the outcome that is in fact a product of constraint may be one such mechanism for bringing about the bias. Hints of this exist in the attribution literature. In one study in which a constrained actor gave a facial expression that signaled happiness with the outcome that the coin flip assigned him, respondents attributed attitudes to him congruent with the side of the issue that the coin flip constrained him to advocate (Fleming & Darley, 1989). What this brings up, in general, is the thought that when one is constrained to perform an action, external signs of the willingness with which the action is done still convey information that informs observer inferences. As one reader commented, the action of giving my wallet to a robber who has me at gunpoint is sufficiently explained by the constraint produced by the gun. However, being held at gunpoint would not sufficiently explain my giving my wallet as well as my "watch, ring, and shoes," which were not demanded. Actions that are in excess of what the constraint demands are a signal to observers that constraint alone is not a sufficient explanation for those actions. Of course, this "excessive compliance" was not the case in the studies under consideration, but the basic point still applies, that when one is constrained to do an action, information is still conveyed by signs of the willingness and

affect with which one does it. That the actor performs the act eagerly, or joyfully, as opposed to resisting as much as is possible despite and within limits imposed by external constraints, conveys information.

The concept of identification itself should be unpacked and explored in future research. The importance some philosophers assign to identification has to do with the view that a coherent concept of free will is, in part, predicated upon identification or some similar notion. Analogously, identification is thought to be an indispensable aspect of self-reflection and self-understanding, and the capacity to identify with actions or desires, therefore, a necessary component of what it means to be a human person. Identification is a subjective, mental process with no necessary behavioral concomitants. Yet, it may be a crucial constituent, not only of such philosophical concepts as freedom and such legal concepts as premeditation, but also of concepts from a more psychological idiom, such as genuineness and authenticity.

At the crux of the research program of which this study is a part has been the interdisciplinary aim of examining empirically some claims with factual content that are made by philosophical theories, claims that armchair philosophers are content to derive from their own intuitions. One such claim, pertaining to both normative ethics and the conventions governing lay practices, is that responsibility is not and should not be assigned in the face of overwhelming circumstantial constraint on conduct. In unpacking and empirically investigating this proposition, the present line of research has uncovered a factor, identification, which can moderate the relationship between situational constraint and ascription of responsibility. The previous study and those by Woolfolk et al. (2006) provide evidence that lay attributions of responsibility can, in some

circumstances, accord with philosophical doctrines of the compatibility of freedom and determinism.

These studies have also shown that the attribution of responsibility is an even more complex process than was previously thought. Adding the concept of identification to the psychological literature may assist in understanding those complexities. In addition, as noted above, the study marks a contribution to the small body of literature regarding asymmetries in the social cognition of antisocial versus prosocial acts (Malle & Bennett, 2002; Ohtshub, 2007; Pizarro, Uhlmann, & Salovey, 2003). Unfortunately, significant methodological differences make direct comparisons among these studies logically questionable

In a broader sense, it is hoped that studies such as this may contribute to more productive, sophisticated interdisciplinary research in moral psychology. The key to such advances may well be to combine a strong theoretically grounding, informed by the thoughtful, systematic perspectives and discussions in philosophy as well as by psychological theories, with the rigorous empirical approach of experimental psychology. This goal has strongly shaped the line of inquiry of which the present study is a part. It is hoped that the resulting research may serve as a useful model for how to overcome some of the serious methodological shortcomings that have characterized many recent investigations in this area conducted by philosophers, under the umbrella of what is known as "experimental philosophy" (see Woolfolk, 2013).

Bearing these contributions in mind, it is nevertheless important to acknowledge several limitations of the present investigation. One limitation pertains to the conceptual clarity of the scales that served as dependent variables in the study. In particular, both of

the two responsibility scales (Jim's and Lou's responsibility) combined items assessing attributions of moral responsibility with attributions of deserved credit, which creates some degree of ambiguity in interpretation. To be sure, these scales were constructed with a clear purpose, and their items adapted directly from Woolfolk et al. (2006) studies and (unpublished) previous data, with only slight modifications in subject, in order to ensure that measures been previously validated and to facilitate comparison of findings across studies. Moreover, the use of a multiple-item scale had distinct advantages over the use of single item measures of such concepts as responsibility, which have characterized past studies in this area; this practice provided a means for assessing scale reliability and it is clear that both scales were reliable in the sample. However, the disadvantage is that it is unclear if the results reported are more indicative of the former or latter concept, or whether findings apply equally for both types of judgments. In the literature, responsibility is frequently used synonymously with blame (in context of antisocial behavior) and credit (for prosocial behavior), but there is some hint that the concepts may differ in the minds of observers, at least in case of blame (Bell, 1989). However, the existing research provides insufficient evidence to draw any conclusions about whether these concepts vary differently in response to experimental interventions, and it is very likely that such differences as do exist might be subtle and, for present purposes, inconsequential. In fact, visual analyses performed separately by items provided little reason to suspect major differences.

Somewhat more concerning is the prospect that the experimental manipulation in constraint, while clearly effective overall, may have been less than completely successfully in producing the aims intended for the absolute constraint condition.

Specifically, participants assigned to this condition do not seem to have been fully convinced that Jim had absolutely no choice but to donate his kidney at any point in time, as indicated by the lack of a difference in scores on the constraint check scale between the absolute and high constraint conditions. It is possible, but seemingly unlikely, that participants reading the absolute constraint vignettes perceived some viable behavioral alternative to donating his kidney was available to the actor in the final instance, after he had been injected with the drug or while he was lying conscious in the operating room. A more likely possibility is that they thought the actor did have other options, though not at that particular moment that action was taken: if he really did not wish to donate, he could have done something beforehand to avoid or prevent the situation (e.g., flee the country, take preventative measures against his father in law after the latter's threat, etc.). In any case, it may be unwarranted to conclude that observer judgments violated the philosophical "principle of alternate possibilities" (the idea that individuals are morally responsible for what they have done only if they could have acted otherwise). Yet the data do not warrant the conclusion that participants failed to perceive the actor, under conditions of absolute constraint, as strongly compelled to make the donation, and more strongly so than when under high constraint. Both the content of the scenarios and the robust (and in two cases large) differences in dependent variables scores between high and absolute constraint for the unidentified actor argue against this interpretation. It is theoretically possible that obtained differences are the result of some unknown confounding that has nothing to do with external pressures, though such differences are not immediately apparent from the scenarios.

A plausible alternative is that participants did in fact perceive that actor was subjected to stronger external force and that his engagement in the act was ultimately influenced more strongly by external forces, but the manipulation check scale simply did not capture these differences in perception. Scale items did not assess the extent to which the man's action was perceived to be induced by external pressures and persons, but instead focused exclusively on whether he could have chosen otherwise.

From the preceding discussion, it is clear that future research in this area is both necessary and desirable. The total body of findings suggests some directions for future research. Work from other research teams has examined the intentionality, which can be viewed as a component of identification, although perhaps a transitory one. Identification implies the wholehearted embrace of the action. Existing work on identification, including the present study, has examined only the extremes of total identification or total disidentification. A comparison of various levels of intent or identification might both unpack the identification construct and also yield insights into potential differences in the social cognition of prosocial and antisocial acts. An exploration of the middle ground of identification or of ambivalence toward an action might also yield theoretically useful insights into processes of responsibility attribution. Moreover, the way in which identification has been operationalized in these studies is through a very broad manipulation. Identification manipulations have included first order along with second order desires, operating in the same direction; and have been manifested in differences in a range in described cognitive, emotional, and motivational responses from the actor. Additionally, such reactions have taken place over extended periods of time (from just

after learning about the situation through the period of deliberation and interactions preceding the event, all the way to the final moment the decision is made).

The identification manipulations used are defensible on the grounds that they have been necessary to accurately represent a complex, multifaceted construct, and thereby provide a valid test of hypotheses. However, the breadth of the construct as operationalized in these studies also make it more difficult to determine what the active ingredients were that were responsible for the variable's effects on responsibility attribution and character judgments. In order to increase confidence about how and why identification affects attributions (i.e., the mechanisms of the effects), it will be necessary to test whether identification effects may boil down to simpler concepts by breaking the construct down into components (cf. Ohtsubo, 2007). It may be particularly useful in future studies to dissociate first order desires (e.g., having a desire to engage or not engage in the act) from second order desires (embracing or rejecting such first-order desires). Strategies of this sort can help also to determine whether attributional effects of constraint are truly due to identification (in which case the alignment of second order desires with the action and its motives would be expected to be key causal agent).

In addition to such component studies, further steps can and should be taken to advance our understanding of the mechanisms of identification and constraint (or more generally of the effects of intentional and causal factors), and of the basic psychological processes involved in responsibility attribution. This can be achieved in future investigations both by measuring and manipulating hypothesized mechanisms (involving correlational and experimental designs, respectively). Such targets may include, but are not limited to, emotional responses to the situation (which can be measured or primed);

and distinctions in the degree to which participants engage in various types of cognitive-affective processing, such as causal reasoning versus emotionally charged intuition. The latter processes might be directly manipulated (e.g., through task instructions) or measured through overt indices as well as more subtle means using such techniques as functional brain imaging. Through such studies, research might be able to determine whether, for instance, identification effects on credit attributions in situations such as the kidney donation may be operating in part through powerful emotional responses (such as anger over perceived violations of moral norms and values in the case of the disidentified actor who performs the act reluctantly and only under great pressure from relatives).

One question that should be explored in future research is that of both asymmetries and symmetries between attributions of responsibility for prosocial and antisocial conduct. Previous research on this topic has produced a mixed and not easily interpreted set of findings (Hamilton, Blumenfeld, & Kushler, 1988) and additional work is clearly needed to make sense of this matter. Given that identification has now been shown to have an impact upon attributions for both positive and negative moral actions, the inclusion of identification in future research may provide some basis upon which to compare and contrast prosocial and antisocial behavior, as well as inferences drawn from that behavior. At the same time, researchers should bear in mind Fincham (1985)'s cautionary remarks about the potential fallacies underlying comparisons between prosocial and antisocial actions and the attributions that issue from them, especially the assumption that distance of a given action from some normative standard can be ascertained or weighted easily.

A final point to consider concerns the generalizability of the findings from this line of research. The use of a single scenario in both the present investigation and Woolfolk et al. (2006) studies (the kidney donation and hijacking situations) naturally raises questions about how well results generalize to other types of antisocial and prosocial actions and whether they are confined to, and possibly even confounded by, peculiarities of the particular situations. It is not possible to control for all such contextual factors as characteristics of the actor and recipient/victim, the relationship between the parties involved, or type of moral domain (Haidt & Joseph, 2007) represented by the action. However, future studies that test effects of identification or other intentional aspects of an action along with constraint or other variables relating to the causal facets of an action would do well to test hypotheses across multiple situations. In some cases, deliberate examination of context effects may be warranted. One such case is that of moral domain: we might wonder, for instance, whether findings will generalize to situations dominated by moral norms involving authority/respect or fairness/reciprocity norms, given that these situations may be characterized by very different challenges, substantive concerns, virtues, and emotions (Haidt & Joseph, 2007). Similarly, given the situations considered thus far, which are fairly dramatic and unusual, it may be worthwhile to examine the effects of identification and constraint on responsibility attribution for more mundane moral acts. We may wonder, for instance, whether the actor's desires and intents have such powerful effects on responsibility attributions for causally constrained acts of a more everyday nature (and with less consequential effects), such as holding an elevator door, making an charitable donation, donating blood when forced by another party or deterministic circumstances. Identification effects may well be

less salient in cases of this sort, in which less is at stake, the prescriptive (or proscriptive) norms implicit are less strong, and emotional reactions are likely to be less powerful. In light of the preceding discussion, it is clear that further research in this vein can provide valuable insights into the operation of lay people's moral thinking and attributions that are relevant to psychologists, philosophers, legal scholars, and other professionals.

V. Tables

Table 1
Descriptive Statistics and Inter-correlations for Dependent Variables for Total Sample

Variable	1	2	3	4	M	SD	95% CI
1. Jim's Credit	—	−.49**	.70**	.69**	5.29	1.38	[4.81, 5.78]
2. Lou's Credit	−.49**	—	−.50**	−.48**	3.13	1.75	[2.52, 3.74]
3. Jim's Character	.70**	−.50**	—	.99**	5.33	1.55	[4.79, 5.87]
4. RCR Jim's Character	.69**	−.48**	.99**	—	0.66	0.27	[0.57, 0.76]

Note. CI = confidence interval; RCR Jim's Character = Reflected cube root Jim's character, computed as $2 - (8 - \text{Jim's character})^{1/3}$. Possible scores ranged from 1.00 through 7.00 for the three untransformed variables (Jim's credit, Lou's credit, and Jim's character) and from .09 to 1.00 for RCR Jim's Character. ** $p < 0.01$. * $p < 0.05$.

Table 2

Mean Responsibility Attributions and Character Judgments (and Standard Deviations) as a Function of Actor's Identification and Constraint

	Identification				
	Low			High	
Constraint	*M* (*SD*)	95% CI		*M* (*SD*)	95% CI
Jim's Credit					
Low	5.72 (0.82)$_a$	[5.43, 6.00]		5.83 (0.74)$_{ab}$	[5.58, 6.09]
High	5.04 (1.26)$_c$	[4.60, 5.48]		6.07 (0.93)$_b$	[5.74, 6.39]
Absolute	3.26 (1.22)$_d$	[2.84, 3.68]		5.84 (0.92)$_b$	[5.52, 6.16]
Lou's Credit					
Low	2.12 (1.30)$_a$	[1.66, 2.57]		2.28 (1.45)$_{ab}$	[1.77, 2.78]
High	4.38 (1.37)$_c$	[3.90, 4.85]		2.28 (1.45)$_b$	[1.69, 2.37]
Absolute	5.21 (1.18)$_d$	[4.79, 5.62]		2.78 (1.24)$_b$	[2.35, 3.21]
Jim's Character[a]					
Low	5.05 (1.20)$_a$	[4.63, 5.47]		6.42 (0.72)$_b$	[6.17, 6.68]
High	4.35 (1.30)$_a$	[3.89, 4.80]		6.48 (0.65)$_b$	[6.25, 6.70]
Absolute	3.26 (1.02)$_a$	[2.91, 3.62]		6.42 (0.57)$_c$	[6.22, 6.62]
RCR Jim's Character					
Low	0.59 (0.21)$_a$	[0.52, 0.67]		0.86 (0.15)$_b$	[0.80, 0.91]
High	0.48 (0.19)$_a$	[0.42, 0.55]		0.87 (0.15)$_b$	[0.82, 0.92]
Absolute	0.33 (0.13)$_a$	[0.29, 0.37]		0.85 (0.13)$_c$	[0.80, 0.90]

Note. Means with a common subscript within rows or across columns are not statistically different at α = .05 based on post hoc comparisons using Tukey HSD procedure or Games-Howell procedure (in the case of RCR Jim's Character). CI = confidence interval; RCR Jim's Character = reflected cube root Jim's character, a transformed variable equivalent to $2 - (8 - \text{Jim's credit})^{1/3}$. [a] Inferences about the statistical significance of between-group differences for Jim's character, as noted in subscripts, are based on the Games-Howell post-hoc analyses of the re-expressed form of this variable, RCR Jim's character, and reflect differences in medians for the untransformed variable. ** $p < 0.01$. * $p < 0.05$.
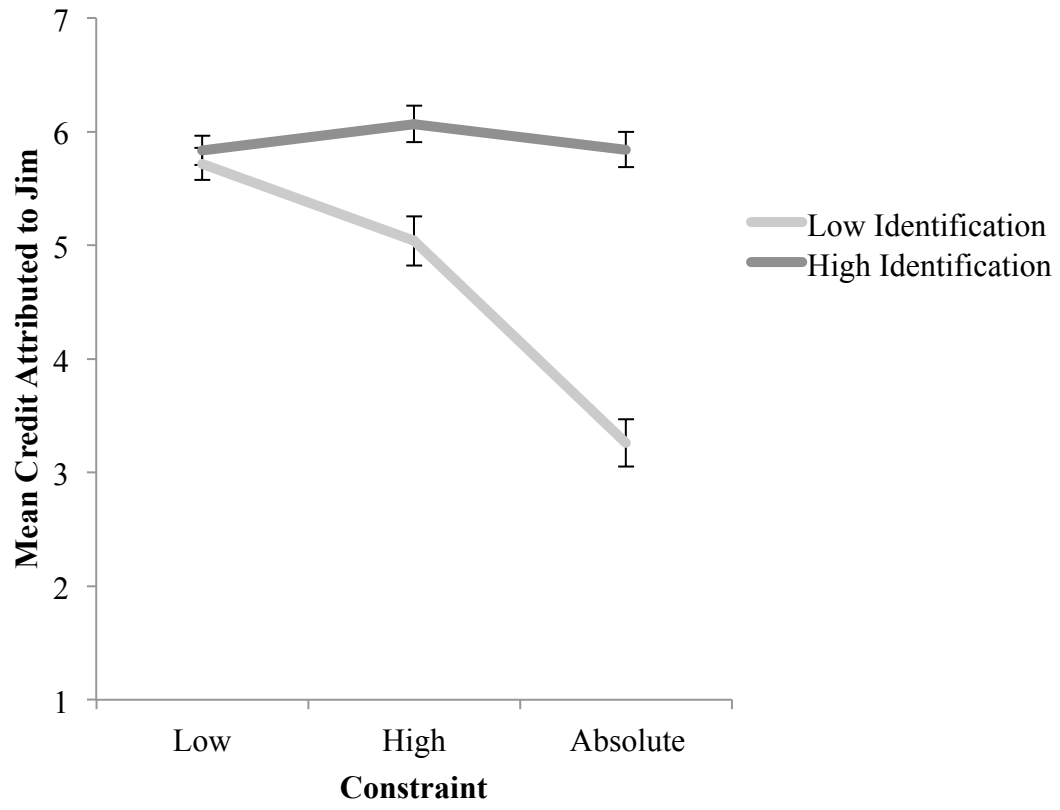
VI. Illustrations

Figure 1. Mean Credit Attributed to Jim as a Function of Level of Identification and Constraint. Error bars represent standard errors of the means.
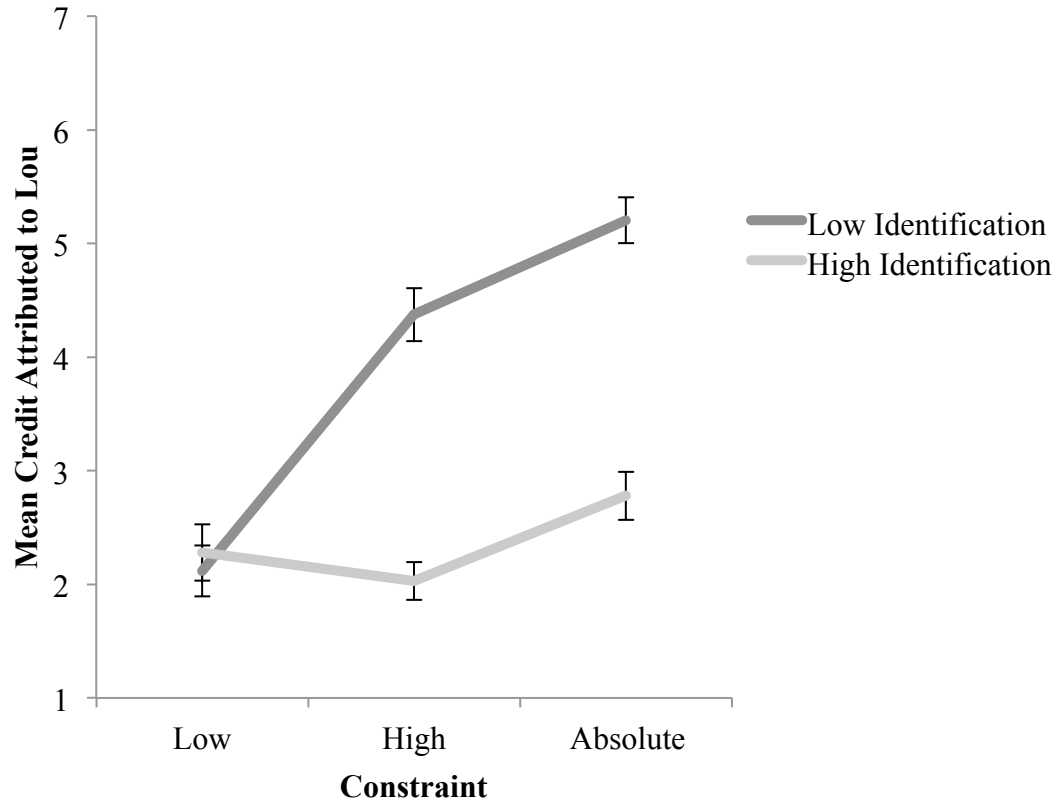
Figure 2. Mean Credit Attributed to Lou as a Function of Level of Identification and Constraint. Error bars represent standard errors of the means.
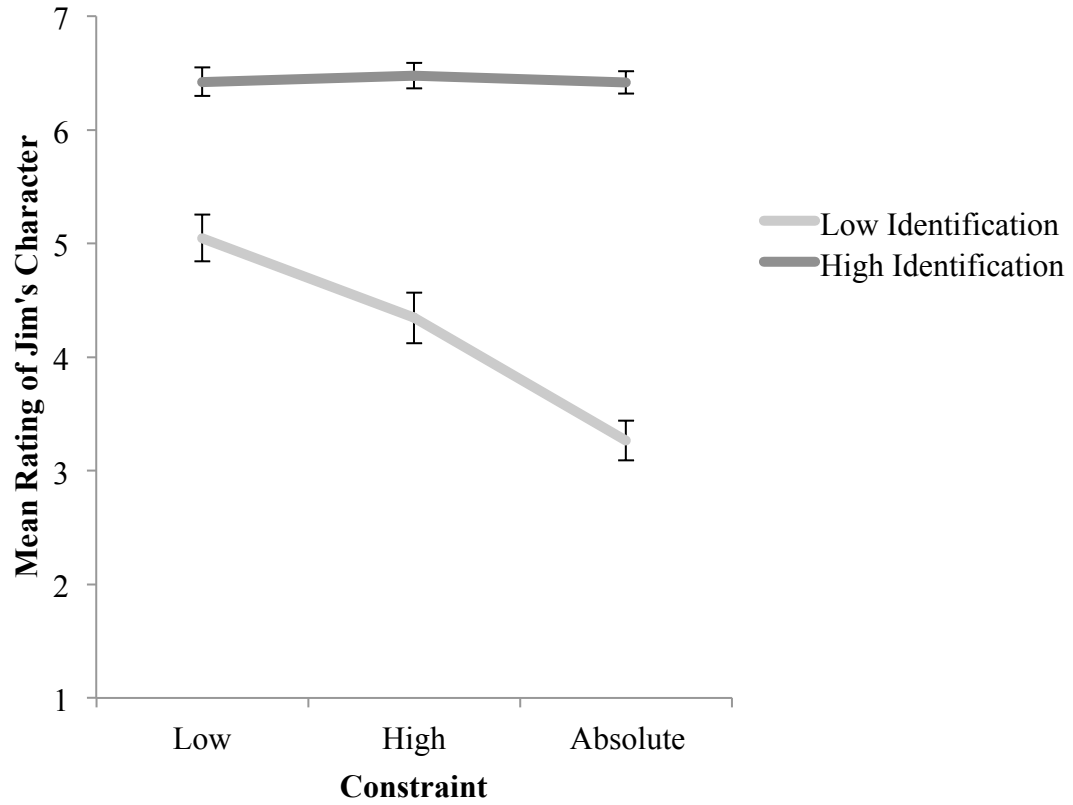
Figure 3. Mean Rating of Jim's Character as a Function of Level of Identification and Constraint. Error bars represent standard errors of the means.
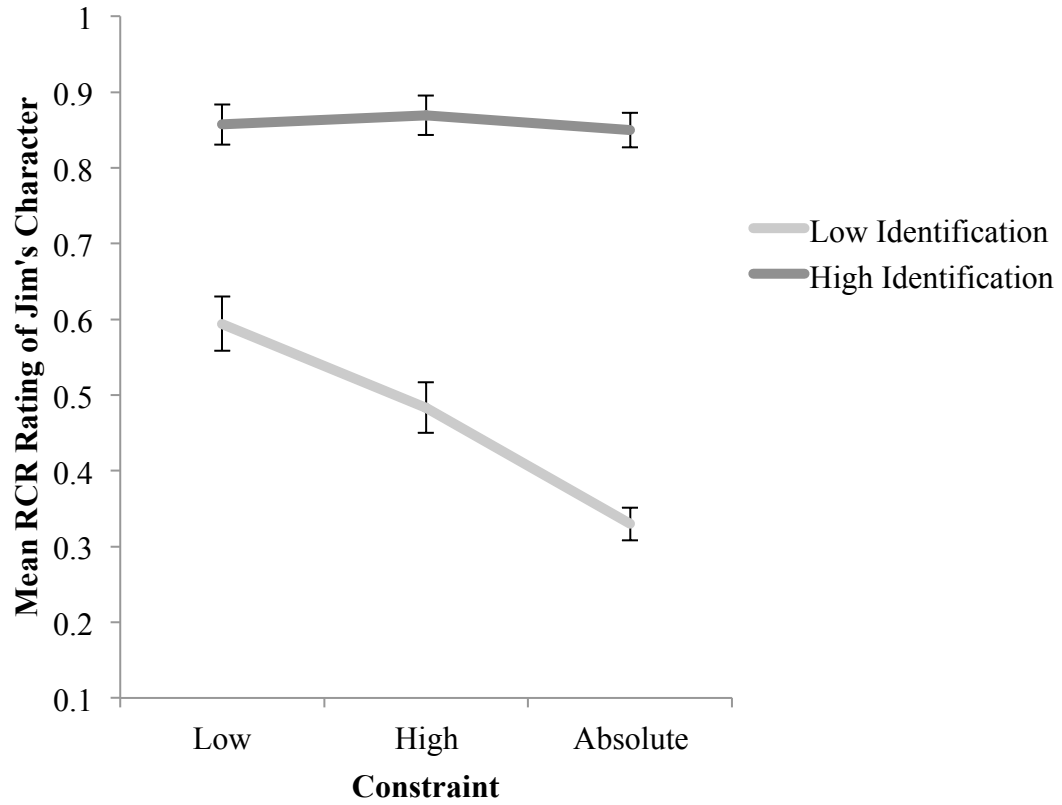
Figure 4. Mean Reflected Cube Root (RCR) Rating of Jim's Character as a Function of Level of Identification and Constraint. Error bars represent standard errors of the means.

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VIII. Endnotes

1 A fourth item originally designed for inclusion in the scale ("Jim was compelled to donate the kidney") was not considered in scale calculation, since reliability analyses showed the item was weekly correlated with other scale items (rs ranging from -.02 to .08) and its inclusion would have substantially reduced scale reliability (to α = .56).

2 More specifically, inspection of the data suggested that the obtained differences in credit attributions owed to the fact that the small number of bi/multi-racial individuals in the sample assigned relatively low levels of credit to Jim (M = 3.80, SD = 2.06; n = 5) and high levels of credit to Lou (M = 4.70, SD = 1.20), on average, in comparison to other ethnic groups in the sample. A posteriori contrasts performed using Dunnet's t (2-sided) and the bi/multi-racial group as the designated comparison group, with α = .05, indicated that the bi/multi-racial group assigned significantly lower levels of credit to Jim than did Hispanic (M = 5.97, SD = 1.16, n = 19), p = .006, d = 1.65, r = .62, 95% CI [-3.83, -0.50] or Black/African-American participants (M = 5.78, SD = 1.20, n = 17), p = .02, d = 1.47, r = .68, 95% CI [-3.67, -0.30]. Similarly, results showed that bi/multi-racial participants also assigned significantly more credit to Lou than did Hispanics/Latinos (M = 2.55, SD = 1.76), p = .04, d = 1.34, r = .54, 95% CI [0.05, 4.24], and showed a non-significant trend toward higher levels than Black/African-American participants (M = 2.71, SD = 1.82), p = .07, d = 1.22, r = .51, 95% CI [-0.02, 0.63]. However, it highly likely that the differences observed among the bi-/multi-racial group was merely an artifact of an unequal assignment to experimental conditions. In particular, four out of these five individuals (80%) were in the low identification / absolute constraint condition, the condition found to be most likely to produce a pattern of results. (The remaining participant was in the high identification / absolute constraint condition).

3 Tukey's HSD was computed as 0.67 based on a q critical value of 3.90, the critical value for α = .05, df = 198, and an adjusted k = 5. Note that, for the sake of greater accuracy, in these and subsequent analyses we used an adjusted k-value that was adjusted based on the number of unconfounded comparisons conducted in the 2 x 3 factorial design, rather than the value used in many textbooks and statistical software packages (which set k equal to the number of groups). As a consequence, results differ from those obtained from statistical software packages and exact p-values could not be calculated.