

Relative Autonomy and Excuse-Making: How do Excuses Affect Commitment to Exercise
Goals?

By

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Abstract

In this thesis, I proposed that individuals high in relative autonomy toward exercise would make fewer excuses for personal goal failures and that endorsement of certain types of excuses would foster commitment/internalization toward exercise, limiting future excuse-making. Excuses were expected to vary in effectiveness at removing culpability and enhancing commitment. In 3 studies, relative autonomy was measured or primed. Participants considered past personal goal failures, and sometimes provided excuses, and in one study, participants received expert excuse tolerant/intolerant feedback. Contrary to predictions, excuse-making was similar across all levels of relative autonomy. The results showed, however, that (a) some excuses effectively remove culpability for failure and maintain commitment to exercise goals; (b) such excuses are used more frequently than their less effective counterparts and that this selective may be stronger for those high in relative autonomy toward exercise; and (c) an excuse-tolerant social environment can foster commitment/internalization of exercise goals.

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SELF-DETERMINATION AND EXCUSE-MAKING: HOW DO EXCUSES AFFECT COMMITMENT TO EXERCISE GOALS?

Billy is sitting on the couch, watching television, when his mother reminds him to walk the dog. Billy agrees, but he does not fulfill the obligation. Billy could take responsibility for his failure, apologize, and promise never to neglect the dog or his mother again, or he could make a number of excuses for his failure. He could claim, for example, that it was someone else's turn to walk the dog, the leash was misplaced, or the dog did not need to go for a walk that day. As these examples suggest, excuses typically serve to reduce personal responsibility for undesirable events, which they do by "disengaging core components of the self from the incident" (Schlenker, Pontari, & Christopher, 2001, pp.15). This definition includes several important points about excuses. First, the aim of an excuse is impression management. In making an excuse, an individual is attempting to 'save face' and to preserve the opinions of him/her that were held prior to the incident. Second, excuses operate under the specific mechanism of reducing perceived responsibility for an event. Finally, by reducing responsibility, individuals are able to create a psychological distance between the self and the undesirable outcome so that a negative appraisal of the event will not entail a negative appraisal of the self.

Now imagine that Billy's mother did not merely ask him to walk the dog, but reminded him of some personal goals he had announced earlier in the year to spend less time watching television and more time being physically active. If he still does not follow through on walking the dog, what excuses might he give? Does the quality of his commitment to physical activity give him some direction in his choice of excuses, and does the making of an excuse inevitably reduce his commitment? This thesis was intended to address these questions. In so doing, it addressed two main objectives: (a) to extend previous research on excuses from the context of impression management to that of personal goal pursuits, and (b) to develop and test a theoretical

model of the relationship between excuse-making and self-determination in the context of personal exercise goals.

Impression Management and Excuses

The modern study of impression management in social psychology begins with the work of sociologist Erving Goffman. According to Goffman (1955), individuals have a ‘face’ that they desire to present to society. Goffman defines the term ‘face’ as “the positive social value a person effectively claims for himself by the line others assume he has taking during a particular contact” (pp.213, 1955). In order to maintain the chosen face, people must consistently act in ways, which reinforce the qualities of their presented face. Perfect consistency is impossible, however. Therefore, it is necessary to provide accounts for failures. Goffman refers to *face-work* as actions that “counteract ‘incidents’ – that is events whose effective symbolic implications threaten face” (pp. 216). Excuses will fall into the realm of face-work because when they are accepted, the result is preservation of an individuals’ face. Goffman’s conception of excuses as an example of face-work is an important point of interest for the purposes of the work described in this paper. A second key point for the present research derived from Goffman’s work is that goals can be part of a person’s face, provided they are publicly expressed and acknowledged. Repeated failures to achieve an important goal will likely cause others to question the individuals’ face with respect to a particular goal. In order to integrate a goal into one’s public face, behaviour must represent the importance of the goal. Face-work will thus be required to maintain an audience’s perception that the goal is in fact an important personal pursuit under conditions of failure.

Excuses can be distinguished from other types of face-work, including justifications. For example, Scott and Lyman (1968) define accounts as “statement(s) made by a social actor to

explain unanticipated or untoward behaviour” (pp. 168) and include both justifications and excuses in this definition. In justifying one’s actions, responsibility for the act is accepted, but the negative nature of the action is denied. Thus, individuals attempt to explain their behaviour in such a way that the audience understands that the action was warranted by the circumstances. Conversely, in making an excuse, an individual admits the negativity of the behaviour, but denies full responsibility for the action (Scott & Lyman, 1968). How exactly individuals can and do deny responsibility is the subject of the Triangle Model of Responsibility (Schlenker, Britt, Pennington, Murphy, & Doherty, 1994) which I review in detail in the next section. First, however, some other general points about impression management are in order.

Another of Goffman’s ideas developed further by Scott and Lyman (1968) is that in the event of face-threatening incidents, individuals are not only motivated to maintain their own faces, but also the faces of others. The motivation to save another’s face may stem from a view of the self as considerate, or from knowledge of societal demands not to publicly embarrass another individual. From Goffman’s perspective, social interaction can be analyzed in terms of a drama or play, involving actors and roles, with the ultimate goals of having a smooth exchange, being accepted for who/what they claim to be, and functioning to provide a coherent narrative for social events. When face is lost, all participants may feel confused about how to proceed with the interaction. Thus, one sometimes pretends that nothing happened or laughs off the threat, and face-work requires cooperation from all parties involved. If an excuse is accepted, impressions are preserved, but if the same excuse is rejected, embarrassment for both parties will likely follow. The implications of this point for goal-pursuit could be profound, if in this context as well, the audience’s response to the excuse has an effect on subsequent behaviour. Excuses, rather than simply indicating low commitment, could present an opportunity for the excuse-

maker to be drawn further into the goal pursuit or to be expelled from it, depending on the audience's response.

Taking the audience's perspective, then, how do people make sense of failures? Goethals and Darley (1980) suggest that audiences are typically concerned with evaluating whether or not the present task performance is going to be repeated in the future. With future expectancies in mind, observers search for stable components of ability and motivation when evaluating task performance. Unless an actor both has the ability and sees the task as important, he/she is unlikely to expend the effort on the task that is necessary for success. Under the threatening circumstances of task failure, actors have a definite interest in preserving audience expectations of high ability and motivation. Optimal excuses emphasize unstable factors independent of ability and motivation that could have affected performance. Such accounts increase perceptions of task difficulty or bad luck, but do not reduce perceptions of high task motivation (Goethals & Darley, 1980). Goethals and Darley (1980) provide a typology of such factors, which also includes temporary constraints on ability or effort. As further developed by the Triangle Model (Schlenker et al, 1994), this analysis gives insight into the content of effective excuses (i.e. those most likely to mitigate audience attributions of low ability or motivation for the task in questions.)

Goethals and Darley (1980) touch briefly on motivational and behavioural consequences of long-term excuse-making. If possible excuses are exhausted, repeated failures could lead to personal attributions of a lack of motivation or ability. In arguing for a lack of motivation through an expenditure of minimal effort, the individual still preserves the view of ability, but will likely experience decreased motivation to perform well on the task. Additionally, low ability attributions may lead to devaluation of the task in itself, thus making future efforts within that

domain less likely. Goethals and Darley (1980) anticipate the importance of specific excuses for motivation and future behaviour by predicting that longer-term excuses are potentially more damaging to motivation than single-use excuses.

In summary of the view of excuses from impression management research, individuals are motivated to preserve specific impressions or faces to audiences. An individual's face is likely to be an idealized self-portrait, including his or her personal goals (Leary & Kowalski, 1990). In the event of a failure, some excuses can preserve impressions and save face. In order for an excuse to be effective at impression management, it has to be accepted by the audience to which it is given. The best excuses for impression management reduce personal responsibility for the failure, maintain the appearance of high ability and motivation, and reflect fleeting circumstances. In the next section, I turn to a formal analysis of how excuses can accomplish these goals.

The Triangle Model of Responsibility

Taking responsibility for failure is not easy. Self-critical emotions and cognitive dissonance are likely to be aroused, self-esteem may suffer, and the prospect of social devaluation by important others looms. A crucial premise of impression management is that individuals actively construct and maintain a preferred social identity (Schlenker, 1980). They do so before an audience that may be physically present or privately imagined. When people encounter or cause events that can damage their social identity, it is beneficial to create distance between the self and the undesirable circumstances, in order to effectively manage the audience's impressions of the self. When excuses are believable and effective, they provide accounts that are situationally appropriate, and they reduce perceptions of responsibility (Schlenker &

Weigold, 1992). Schlenker and colleagues (1994) developed a model of responsibility, of which excuses are an integral component.

The triangle model of responsibility aims to define a consistent framework for determining personal responsibility (Schlenker et al., 1994). In the triangle model of responsibility three components are needed to judge an actor's responsibility for an event. *Prescriptions* define the appropriate behaviours within a situation, *events* are comprised of units of actions and consequences and *identity images* describe the actor's role, qualities, convictions, and aspirations within the context of the relevant situation. Each of these components can vary in potency. Valued principles and greater sanctions increase the potency of prescriptions. Events are of greater potency when they produce greater consequences or are if they pertain to important prescriptions. Finally, the identity component is more potent when the relevant images are a more central part of the actor's identity (Schlenker et al, 1994).

The components of the triangle form specific linkages. In addition to potent components, strong linkages between these components increase perceptions of responsibility. By the same token, when effective, excuses weaken the linkages between the model components and reduce perceptions of responsibility. Personal goals fit into the *identity-prescription* link, which also includes moral aspirations, duties, and obligations. A strong link is characterized by a sense of purpose and direction toward a specific goal, and by reduced commitment to competing goals. Excuses designed to weaken this link therefore contain the argument that the prescriptions were not relevant to one's identity (e.g., "it wasn't my job"). Results of a strong *identity-event* link include stronger feelings of self-efficacy, greater internal control. Excuses argue for a lack of personal control over the event or lack of foreseeable outcomes (e.g., "I had a bad cold"). Finally, a strong *prescription-event* link is characterized by goal and procedural clarity. Excuses

argue that the prescriptions were ambiguous or that the instructions were conflicting (e.g., “the requirements were unclear”).

Schlenker and colleagues (2001) review a substantial body of research about the consequences of excuses. Most of this research has focused on consequences for interpersonal perception, such as when others perceive the excuse-maker as deceitful, ineffectual or self-absorbed. Some research suggests, however, that excuses may have negative consequences for motivation. Schlenker and colleagues (2001) postulate that the psychological distancing achieved through excuse-making may lower determination to succeed and result in poor coping strategies. If an individual frequently uses the same excuse to account for personal failure, the result can be reduced self-efficacy in the relevant domain and the excuse may serve as a reason to avoid further attempts. They argue further that excuses can lead observers to form impressions of the excuse-maker as confused, purposeless, unreliable, incompetent, or oblivious to what should be done and how it should be accomplished (Schlenker, 2001). If observers have this impression, they will not give the excuse-maker further opportunities to try, which in turn, could lead him/her to give up. Thus, for both intrapsychic and interpersonal reasons, excuse-making poses a risk to future opportunities and striving to attain personal goals.

It is logical to suppose negative effects of excuses. By definition, excuses disengage the self from negative events, and so one would have to be determined and skillful to do this without ever denying one’s attachment to the goal. Also, excuses for failures in personal goal pursuits are often made by oneself and to oneself, so the “audience” in this case will be aware of similar failures and excuses being used in the past. As I review in the next section, however, not all previous research supports this line of argument.

Motivational Consequences of Excuses

People experience the negative feeling of cognitive dissonance when behaviour does not match important attitudes or self-beliefs (Festinger, 1957). According to contemporary research by Stone and colleagues (1997), the condition of being committed to a behaviour and mindful of past failures leads to one variety of cognitive dissonance, hypocrisy, which motivates striving toward the commitment in the future. In one study, hypocrisy was induced by asking participants to be videotaped giving a speech about the importance of volunteering. Participants were also asked to list activities they undertook in during their spare time in order to draw attention to their past failures to participate in volunteer work. Afterwards, participants were paid for participation and were given the opportunity to donate to a volunteer organization (a measure of dissonance reduction). Participants more often chose to reduce dissonance via donating to the volunteer organization instead of by affirming themselves on a more self-relevant behaviour that was unrelated to the hypocrisy. Participants' awareness of past failures appeared to be their primary concern, perhaps because directly reducing hypocrisy provided the surest and strongest avenue of dissonance reduction. In the case of hypocrisy, individuals will more often choose a direct way of reducing dissonance by actually engaging in the behaviour they have claimed to advocate. It is likely that in addition to prior failures to complete volunteer activities, participants were also cognizant of excuses for not completing the desired behaviour. Applied to exercise behaviour and excuses, if an individual claims to have failed to exercise due to uncontrollable reasons, such as a lack of procedural clarity, and is simultaneously aware of the importance of the goal, dissonance should arise. In such a situation, the individual has implied that given the proper circumstances, failure would not have occurred. Accordingly, the individual should feel

uncomfortable and attempt to remedy the failure in the future by successes under the appropriate conditions.

Another line of research to have considered motivational consequences of excuses is on self-handicapping. A person self-handicaps by constructing obstacles or withdrawing effort before an upcoming performance in order to provide ready situational explanations for failure or to augment the ability implications of success (Berglas & Jones, 1979). The primary purpose of self-handicapping strategies is to maintain the appearance of high ability, even in circumstances where failure is likely to occur (Berglas & Jones, 1979). Self-handicapping helps an individual avoid direct feedback about personal abilities by making an otherwise diagnostic situation ambiguous, and by doing so before performance occurs. In one study, participants were randomly assigned to complete a set of solvable or a set of mostly unsolvable anagrams. When participants were provided with solvable problems, they were given their actual score. Participants in the unsolvable condition were told that they answered 16 out of 20 problems correctly. Success on the exam was expected to be more attributable to luck when the problems were insoluble than when they could be solved. Before writing a second test, participants in each condition were allowed to choose between three drugs that the experimenter was ostensibly testing: a control drug, a drug that may inhibit performance, or a drug that would likely produce performance improvements. Participants who had faced insoluble problems on the first exam were more likely than their counterparts to handicap their second test performance by choosing the performance inhibiting drug. By creating this excuse in advance for a possible poor performance, these individuals were able to side-step preoccupations with failure or worries about ability that were undoubtedly present after the first exam since they did not know why they had performed so well. More formally, Jones and Berglas (1978) argued that when failures can

be attributed to lack of effort, or to the presence of obstacles, lack of ability need not be inferred from a poor performance. Moreover, a successful performance will be all the more indicative of high ability when it occurs despite the lack of effort or in the presence of obstacles.

Although self-handicapping appears to create a failsafe for ability attributions and self-esteem, which can remain high whether success or failure occurs, some researchers have questioned whether this type of excuse-making comes at a cost to future performance. Jones and Berglas (1978) have also argued that underachievement and alcohol abuse are forms of self-handicapping. Zuckerman and Tsai (2005) surveyed undergraduate students on their self-handicapping techniques and their well-being at two times over the course of a school year. Higher reported self-handicapping correlated with lower ratings of health, well-being, competence satisfaction, and intrinsic motivation. Self-handicappers also scored higher on negative mood and symptoms measures, and reported higher uses of substances. Self-handicapping is tempting because it preserves self-esteem and maintains impressions in the short-term, and the negative consequences are often not apparent until after the fact (Zuckerman & Tsai, 2005).

In the context of sport, however, Bailis (2001) assessed dispositional self-handicapping in a sample of university wrestlers and swimmers at the beginning of a season. Participants completed pre- and post-competition measures for at least two of their competitions. Pre-competition questions assessed nutrition, sleep, anxiety, self-confidence, and practice experiences during the previous week. The post-competition questionnaire included items about flow-state which involves the perception of a balance between skills and the challenge at hand, clear goals, unambiguous feedback, concentration on the task at hand, loss of self-consciousness, feeling in control, perceptions of time slowing down or speeding up, and enjoyment during

performance. Dispositional self-handicapping was positively related to two components of flow (i.e. unambiguous feedback and enjoyment), and there was no relationship between self-handicapping and negative emotions. The relationship between performance and self-handicapping could only be analyzed for the swimmers. Although high self-handicapping swimmers claimed poorer practice and nutrition pre-competition, they performed better in competition. Thus, negative consequences may depend on whether the handicapping conditions were enacted or only claimed. Although inconsistent across domains, the self-handicapping literature provides evidence for differential effects of excuses on future commitment and performance.

A third line of research on the false hope syndrome (Polivy & Herman, 2002) explores motivational and behavioural consequences of the attributions that people make for their dietary failures. With the concept of false hope, Polivy and Herman attempt to explain not only diet failure, but also the tendency to try again when diets fail. False hope syndrome is thus a cycle of self-change efforts, in which people adopt an important, but typically unrealistic self-change goal, take measures to achieve the goal (at which time some progress may be made), but ultimately fail. After failure, self-changers will evaluate their efforts and often make the self-protective attribution or excuse that failure was due to circumstances, and that a few adjustments will ultimately lead to success. This conclusion propels the individual into another, equally unlikely self-change effort. Polivy and Herman (2002) maintain that a crucial component of renewed effort is the attribution individuals make for their failures, in particular that they attribute failure to circumstances that can be avoided in the future. Although the attempt may be foolhardy, Polivy and Herman (2002) claim that excuses for failure maintain commitment to future self-change efforts. In support of their conclusions, Polivy and Herman (2002) cite

numerous studies about the ineffectiveness of dieting and the relapse rates for recovering alcoholics and smokers. In addition, Polivy and Herman (2002) review research that describes the compelling motivations of such self-change efforts, in addition to inflated beliefs about the likelihood of success in order to understand why people perpetually attempt self-change.

In summary, although excuses made in the interest of impression management can pose risks to future opportunities and striving for personal goals, the three lines of research noted here on cognitive dissonance, self-handicapping, and the false hope syndrome sustain the opposite line of argument as well: that is, excuse-making can increase future commitment and striving. If either disengagement or renewed commitment and effort can come from excuse-making, under what circumstances does each outcome occur? In the next section, I review self-determination theory as a means to answering this question.

Self-Determination Theory

Self-determination theory (SDT) offers a framework of personal goals research that incorporates similar notions to those of the triangle model regarding the self-centrality of prescriptions and events. With respect to behavioural regulation, SDT notes an important distinction between extrinsic and intrinsic regulation. Extrinsic regulation is differentiated into four categories: purely extrinsic, introjected, identified, and integrated regulation. Extrinsic regulation is determined by situational demands, which are not at all endorsed by the individual. Regulation is *introjected* when a person compels his/her own action in order to avoid the guilt or anxiety that would accompany failing to complete the behaviour. *Identified* regulation is characterized by actions that express a self-endorsed value or belief, even if the behaviour is unpleasant (Sheldon, 2008). *Integrated* regulation is experienced when goals have been evaluated are congruent with one's other values and needs, but behaviour is not fully intrinsic

because actions are still completed to attain separate outcomes (Deci & Ryan, 2000). Not all behaviours are fully self-determined, yet people do experience varying degrees of commitment for these behaviours. An individual may willingly engage in an unpleasant behaviour because it is viewed as important to some higher goal. For example, a person who does not enjoy exercise may still engage in the behaviour because his/her doctor has ordered it and failure to comply would elicit feelings of guilt or anxiety. Conversely, an intrinsically regulated individual would not need external prompts or the threat of negative emotions to engage in the behaviour, simply wanting to do the behaviour would be enough to sustain it.

According to self-determination theory, individuals have innate needs for competence, autonomy, and relatedness (Deci & Ryan, 2000). The need for competence is satisfied through the knowledge that one can affect the environment and attain valued outcomes through personal efforts. The need for autonomy is satisfied when behaviour is freely chosen and representative of one's inner self and personal qualities. Finally, the need for relatedness is satisfied by connectedness with others that allows one to feel loved and cared for. These needs are thought to be necessary and sufficient conditions for personal growth, and they fulfilled (or unfulfilled) through personal goal pursuits (Sheldon, & Elliot, 1999). Need satisfaction by goal pursuits is more or less likely, however, depending on how the pursuit is regulated. Fulfilling goals are internally regulated, autonomous, and self-determined. People exhibit intrinsic regulation when they engage in behaviour volitionally and because of the inherent enjoyment of the behaviour (Deci & Ryan, 2000). Conversely, pursuits that do not satisfy these basic needs are driven by external behavioural contingencies and are characterized by extrinsic regulation. An individual whose physical activity is externally regulated may be driven by the desire to look attractive whereas an internally regulated individual may exercise because she truly enjoys exercise or

believes that exercise is important. The effects of goal attainment vary with respect to the content of the goal. Attainment of self-determined goals is associated with positive subjective well-being, whereas this relationship is not apparent for attainment of more externally regulated pursuits (Deci & Ryan, 2000).

A key premise of SDT is that tendencies toward greater commitment and personal growth are innate human characteristics. In one study, Sheldon and Kasser (2001) examined individuals across different age groups on measures of self-determination and intrinsic orientation with respect to personal goals in order to examine personal growth across the lifespan. They found that older individuals were more likely to report goal striving for identified reasons, whereas younger individuals were more likely to report more introjected strivings. In another study that measured relative autonomy among university students and their parents, Sheldon, Houser-Marko, and Kasser (2006) found that autonomy was higher among older participants and females than among younger participants and males. Additionally, the parents reported higher levels of autonomy at present than at younger ages, specifically they felt more identified with personal goals presently than in the past. Thus, these two studies suggest that autonomy does, in fact, increase over the lifespan with personal goals becoming relatively more internally regulated.

Excuses and Defensiveness

By definition, excuses are defensive and involve lessening responsibility for failures or transgressions. The aim of an excuse is to defend an impression. Hodgins and colleagues (2003, 2006) claim that because autonomy is associated with stable, genuine self-esteem, and integrated self-structures, autonomous individuals can focus more fully on the task at hand and less on proving themselves. Further, autonomous individuals should have a higher threshold at which they feel the need to self-protect. Even if a task goes badly, autonomous individuals are less

interested in and less vulnerable to other people's responses. In contrast, a more control-oriented approach should lead to greater defensiveness and a readiness to fight against information that conflicts with their self-concept.

Hodgins and Liebeskind (2003) examined responsibility-taking through apologies and defensiveness. Participants were asked to imagine themselves in 4 scenarios in which they committed transgressions to a friend or acquaintance. Participants were randomly assigned to imagine mild, moderate, or severe reproaches for the imagined transgressions. Before moving onto the next scenario, participants wrote accounts for each one that they would give to the victim. Next, participants completed measures assessing their expectancies for the future relationship, and a measure of self-determination and control orientation. The accounts were coded for varying degrees of defensiveness.

Hodgins and Liebeskind (2003) found that autonomy was associated with less defensiveness although autonomy did predict shorter accounts under the severe reproach condition. Although autonomous individuals did become defensive under severe reproach, they chose the method of defensiveness that would have lower repercussions for the relationship. Instead of attacking the victim after severe reproach, autonomous individuals chose to say less. These individuals may have greater anticipated the damage that could be inflicted on the relationship by attacking the victim. It may be possible to draw an analogy between personal relationships and individual's relationships with their goals. In a second study, Hodgins and Liebeskind (2003) utilized a similar procedure to the one explained previously, but envisioned the participant as the victim instead. Participants were then asked to imagine receiving varying accounts and reactions from the perpetrator. Again, participants reported their future expectancies for the relationship based upon the predicament. The highest future expectancies for

the relationship were present when the perpetrator accepted responsibility and offered some form of restitution. Excuses resulted in worse expectancies and refusal resulted in the worst expectancies. Refusals consist of blaming others for the circumstance or denying personal involvement. It is clear from this work that how perpetrators respond to transgressions has future implications for the relationships to which the transgression is relevant. Most importantly, Hodgins and Liebeskind demonstrated that excuse-making and other defensive behaviours were less likely for participants' who were greater in autonomy.

In another study, Hodgins, Yacko, and Gottleib (2006) primed participants with an autonomy, control, or impersonal word-unscrambling task. For each of the 3 versions of the task, participants received 30 items (15 targets and 15 fillers). Each item contained 5 words and participants were instructed to construct grammatically correct sentences using 4 of the 5 words. All participants completed an anagram task that was not scored. Participants were randomly assigned to receive success or failure feedback for the task. Next, participants made attributions for their success or failure. Four items (2 internal and 2 external) were included in the attribution measure, which asked about general ability, responsibility for performance, situational effects, and external factors that influenced performance. The results indicated that there was an overall trend for participants to make defensive attributions. Defensiveness was measured by the degree to which participants made internal attributions for success and external attributions for failure. Higher defensiveness would indicate greater internal attributions in the success condition than in the failure condition. Motivational differences with respect to defensiveness were found. Participants who received the autonomous prime showed a reversed pattern of results, control primed participants showed a moderate defensive pattern, and impersonal primed participants evidenced the most pronounced defensiveness.

Hodgins and colleagues (2006) also examined another defensive behaviour, self-handicapping, in relation to relative autonomy. All participants were university rowers. At rowing practice, participants were first primed as in the previous study. Following the prime, all participants completed a measure of self-handicapping, which provided anticipatory excuses for possible failure. Next, participants estimated how long it would take to complete a 2000 meter row and then actually completed it. When participants were primed with autonomy, they estimated lower rowing times and actually completed the 2000 meters faster than participants in the control and impersonal conditions. Participants in the impersonal condition had the worst estimated and actual times. Additionally, the autonomy prime resulted in the lowest self-handicapping behaviours such as anticipatory excuses for failure. Hodgins and colleagues examined self-handicapping and performance behaviour, which may be conceptually different from explaining failures after they have occurred. Hodgins and colleagues (2003, 2006) have demonstrated that higher relative autonomy causes less defensive responding in the face of threat.

Only one previous study has directly examined the role of excuses in subsequent motivation and action from an SDT perspective. This study focused on failures of duty/obligation, not personal goals, but it nevertheless explicitly linked SDT to the triangle model by mapping the concept of the prescription-identity link directly onto that of intrinsic motivation. Sheldon and Schachtman (2007) asked participants to discuss instances when they failed in their obligations to another individual. Participants were only asked about felt duties and responsibilities and not about intrinsically motivated personal goals pursuits. When participants exhibited greater internal endorsement of their obligations, they were less likely to endorse “not my obligation” excuses which weaken the prescription-identity link. Sheldon and

Schachtman (2007) argue that prescriptions differ in their relevance to an individual's identity, yielding variations in motivation. Thus prescriptions can differ in the degree to which they are internalized. Less personally relevant prescriptions should increase the propensity to utilize excuses, which weaken the prescription-identity link.

Contrary to their predictions, Sheldon and Schachtman (2007) found that participants who were higher on intrinsic motivation were not also higher on responsibility taking. The authors note that greater intrinsic motivation may decrease the likelihood that participants will fail in their obligations unless they are under circumstances that really are beyond their control. Participants also self-selected their failure incidents; the results may have been different if the situations were experimentally controlled. These findings support a cross-sectional relationship between higher commitment and lower endorsement of the prescription-identity excuse (e.g. "not my obligation.") As previously mentioned, Sheldon and Schachtman (2007) examined excuses and responsibility with respect to duties or obligations. The present research examined the same relationship, but it replaced duties or obligations with personal goals.

In the present research, self-determination theory and the triangle model of responsibility were be integrated in attempt to demonstrate that excuses differ based on one's motivation toward a personal goal. Externally regulated behaviours are driven partially by the desire to avoid negative interpersonal sanctions or emotional consequences. Conversely, internally regulated behaviours are more often performed because of the inherent enjoyment of the behaviour or because it represents a valued aspect of the self. Like Hodgins and colleagues (2003, 2006), I proposed that as personal goals become more internally regulated, the desire to avoid negative consequences, which can be fulfilled by excuse-making, would diminish. As a

result, greater commitment and internalization are expected to reduce the need and desire to make excuses for failures.

Toward a Feedback Model of Excuse-Making and Self-Determination

A negative feedback model of excuses as presented in Figure 1. The model applies within the context of failure, thus the first step presented is a failure incident. Relative autonomy, which is expected to influence all subsequent steps is entered next. Step A moves from relative autonomy to excuse-making and predicts a negative relationship between relative autonomy and excuse-making. Three types of excuses are possible as outlined by Schlenker and colleagues (1994); the prescription-identity excuse, which denies the importance of the goal; the identity-event excuse which denies personal control; and the prescription-event excuse, which denies procedural clarity. Thus, excuses are divided into two possible categories; Step B predicts a strongly negative relationship between excuse-making of this type and relative autonomy, whereas Step C predicts a somewhat negative relationship between IE/PE excuse-making and relative autonomy. These two latter excuses are expected to have similar consequences for commitment/internalization. Next, Step D predicts a negative relationship between PI excuse-making and commitment/internalization. When an excuse is made, as Scott and Lyman (1968) argued, it is important to ascertain whether or not the audience (self or other) accepts the excuse, thus the model includes this rejection/acceptance process, but only as pertinent to IE/PE excuse-making. As shown in Step F, IE and PE excuse making is expected to lead to increased commitment/internalization, particularly for low autonomy individuals, if the excuse is accepted either by the self or by an important other. In the case of IE and PE excuses, only a lack of control or lack of procedural clarity prevented him/her from the correct behaviour. Endorsement of this statement strikes an implicit bargain to engage in the behaviour when those difficulties are

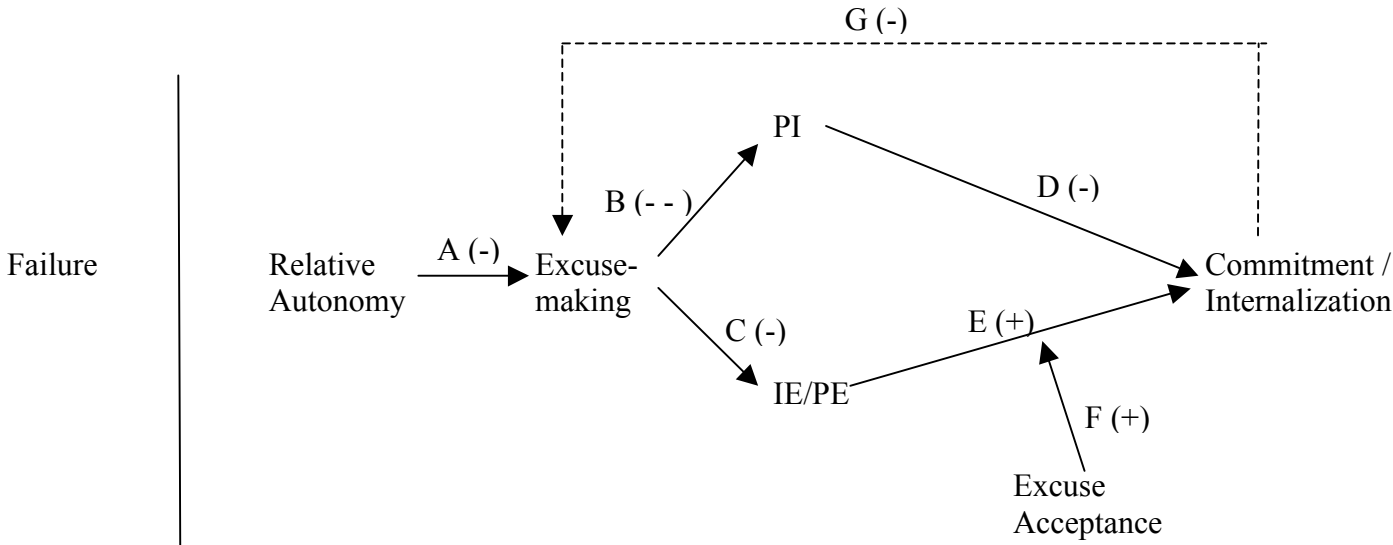


Figure 1. Relative autonomy and excuse-making negative feedback model.

removed, thus autonomy is reinforced and personal commitment is enhanced toward future attempts. Conversely, non-acceptance of any of the three excuse possibilities leaves commitment in doubt. Finally, Step G represents a negative relationship between commitment/internalization and subsequent excuse-making for later failures.

Context of Physical Activity

This research focused on personal goals in the domain of physical activity. Physical activity reduces the risk of cardiovascular disease mortality and coronary heart disease mortality in particular at a rate similar to choosing not to smoke (Surgeon General's Report, 1999). Additionally, regular exercise delays or prevents high blood pressure and reduces blood pressure in those with hypertension. Regular exercise also appears to reduce depression and anxiety symptoms, Type II diabetes, colon cancer, and chronic illnesses (Surgeon General's Report, 1999). Regular physical activity reduces the risk of heart disease by as much as 50% (Public Health Agency of Canada, 2003). In the United States, physical inactivity is estimated to account for 200,000 deaths annually (Dishman & Buckworth, 1996).

Only 47% of Canadians are considered to have a body mass within the healthy range, and 35% are overweight and 16% are obese (Canadian Fitness and Lifestyle Research Institute, 2006). Illnesses related to a sedentary lifestyle are not only costly to the individual, but they also incur substantial costs for national healthcare systems. For instance, in 1995 coronary heart disease alone cost the Canadian government 19.7 billion dollars in direct treatment costs. Further, it is estimated that each percentage point increase in the number of people who are physically active would reduce annual treatment costs by \$10.3 million (Public Health Agency of Canada, 2003). In spite of the benefits of exercise and the costs of remaining sedentary, 25% of Americans report that they do not engage in any physical activity during their leisure time and

only 22% report engaging in exercise in any intensity during their leisure time at least 5 times per week for at least 30 minutes at a time (Surgeon General's Report, 1999).

Hagger, Chatzisarantis, and Harris (2006) have attempted to integrate SDT with the theory of planned behaviour, which utilizes the concepts of subjective norms, attitudes, perceived control, and intentions to explain adherence to health behaviours. Hagger and colleagues administered theory of planned behaviour measures together with locus of causality measures, which asked participants why they engaged in exercise, and behavioural measures to 261 participants. They found that autonomous motives had positive effects on behavioural intentions, attitudes, and perceived behavioural control. As a result, Hagger and colleagues proposed an integrated model of SDT and the theory of planned behaviour, which is better able to predict actual exercise behaviour (2006).

The central focus of most current research on exercise behaviour attempts to explain why people do or do not exercise. For example, Dishman and Buckworth (1996) analyzed 127 studies involving approximately 131,000 participants to determine factors that contribute to the success of exercise-intervention programs. They found that interventions based on principles of behaviour modification, had large effects when delivered to healthy individuals. Further, altering the guidelines to include moderate intensity exercise of varied types, as well as community and face-to-face interventions were able to increase the effectiveness of intervention programs.

In another study, developed to understand the predictors of physical activity, 1,332 adults were surveyed about potential predictors of exercise behaviour (Salmon, Owen, Crawford, Bauman, & Sallis, 2003). Those who reported barriers such as the cost of exercise, weather, and personal barriers (e.g. feeling tired) were less likely to exercise. Enjoyment of sedentary activities such as reading or watching television further reduced the likelihood of physical

activity. Conversely, individuals who reported a high enjoyment of, and a preference for, physical activity were more likely to engage in the behaviour. Autonomy is characterized by feelings of enjoyment, thus understanding how enjoyment for exercise is fostered may assist interventions to increase exercise behaviour. The proposed model (*Figure 1*) takes into account these previously observed relationships between relative autonomy and adherence to physical activity. For instance, it proposes that in the context of an exercise failure, higher relative autonomy will direct individuals' attention to relatively adaptive excuses for the failure, which will keep these individuals committed to their exercise pursuit.

Preliminary Study

A preliminary study was designed to test whether autonomy toward physical activity affected reactions to excuses, specifically feelings of culpability and beliefs about the legitimacy of excuses. Participants were recruited from a mass testing questionnaire conducted approximately 5 months prior to the experiment. Only those participants who claimed that their most important current health goal was to increase physical activity were contacted by phone and asked to participate. At this time, participants also indicated their relative autonomy toward exercise using a self-concordance measure (Sheldon & Elliot, 1999).

Upon arrival to a classroom, 82 undergraduate participants were presented with a survey booklet. Participants were first asked about nine counterbalanced scenarios. In each scenario, participants imagined a failure to exercise and each scenario ended with an IE, PE, or PI excuse. Three types of scenarios were presented: in the first scenario, a failure occurred after a workout partner went out of town; in the second of scenario, failure occurred due to conflict with academic goals; and in the third scenario, failure occurred due to a mild exercise-induced injury. Each excuse-type was presented once with each of the scenarios. After reading each scenario

participants were asked several questions about their imagined failure experience. Participants responded to non-culpability judgments about how responsible they would expect to feel for the failure, their perceived legitimacy of the failure situation, whether or not failure meant that they had given up on their exercise goal, and how they would expect to feel under these circumstances. Following the scenario responses, participants completed the self-compassion scale (Neff, 2003). This scale assesses the six components of self-compassion, which are self-kindness, self-judgment, common humanity, isolation, mindfulness, and over-identification. Self-compassion appears to lessen the negative impact of stressful life events (Leary, Tate, Adams, Allen, & Hancock, 2007). Here, however, this measure was included to control for individual differences in excuse-making. No differences for excuse-making were found based upon self-compassion, thus it was not included in the other studies. Participants also completed a social desirability scale (Crowne & Marlowe, 1960).

For the analysis, only some of the dependent measures could be aggregated across scenarios as intended. For the item "if I really tried, I would still be able to exercise under these circumstances" the reliabilities were sufficient to aggregate across all 3 scenarios of each excuse type ($\alpha = .72$, $\alpha = .57$, $\alpha = .58$). This item was a measure of participants' perceived legitimacy of the excuse because the argument that additional effort would have yielded success implies that the excusing condition could have been overcome. First, relative autonomy was significantly correlated with each of the measures, aggregated for each type of excuse. Greater relative autonomy predicted stronger endorsement of the statement "if I really tried, I would still be able to exercise under these circumstances" for each of the prescription-identity ($r = .44$, $p < .001$), identity-event ($r = .24$, $p < .05$), and prescription-event ($r = .23$, $p < .05$) excuses. After the initial correlations were run, a regression was constructed in which several important variables were

controlled for. After self-esteem, self-compassion, social desirability, and previous exercise behaviour during the last 7 days were entered into the model, relative autonomy still yielded a significant relationship ($\beta = .35, p = .001$) in the PI excuse scenario with the statement “if I really tried, I would still be able to exercise under these circumstances.” To test whether the prescription-identity excuse was even less desirable than the identity-event and prescription-event excuses for participants with greater relative autonomy, participants responses to the “if I really tried . . .” item for the IE and PE excuses were entered as additional predictors in the model in order to control for participants’ general response tendencies. The result for relative autonomy was still significant ($\beta = .23, p = .001$) even after the perceived legitimacy of the other excuses was controlled for. Conversely when the responses to the “if I really tried . . .” item were entered as the dependent variable for the IE or PE excuses while controlling for the other two, the relationship between relative autonomy and participants responses to the IE and PE excuses became non significant. These results suggest that individuals higher in relative autonomy perceive the PI excuse as especially illegitimate.

Participants were also asked to indicate how justified they felt for failing to exercise in each scenario. For this item, the results were aggregated across two scenarios, which were the injury scenario and the conflicting academic goal scenarios. The friend scenario was dropped from the aggregation because this improved the reliabilities for 2 of the 3 excuse types, although the reliabilities were still lower for this analysis ($\alpha = .49, \alpha = .55$ and $\alpha = .41$). In the regression, when social desirability, self compassion, self-esteem, and activity during the last 7 days were entered simultaneously as predictors, relative autonomy remained the only significant predictor of felt justification ($\beta = -.27, p < .05$) for the PI excuse. Further, when the felt justification for the IE and PE scenarios were added to the model, relative autonomy still yielded a significant

negative relationship ($\beta = -.23, p < .05$) with felt justification. Again, no such relationship as observed when the responses to the IE or PE excuses were entered as dependent variables while controlling for the other two. The results indicated that greater relative autonomy was related to feeling less justified, only for the PI excuse. These results suggest that the PI excuse is especially ineffective for high autonomy individuals at removing culpability for personal goal failures.

Other dependent measures that were analyzed included participants' beliefs about whether the described failure would mean that exercise had been given up temporarily or altogether, which would have indicated participants' conscious awareness of de-motivating or motivating effects of excuses. Expected felt responsibility was also measured and would have indicated relationships between responsibility taking, relative autonomy and excuse-making. None of these analyses yielded significant effects of relative autonomy. Finally, culpability and perceived legitimacy were entered into a regression simultaneously with the statement "in these circumstances, most people would stop exercising." Arguing that most people would fail under similar circumstances implies that there is no reason to feel bad for falling victim to the excusing condition. There were significant correlations between relative autonomy and "in these circumstances most people would stop exercising," for the PI ($r = -.25, p < .05$) and PE ($r = -.22, p = .05$) scenarios: When the regression was constructed with social desirability, self-compassion, self-esteem, and activity during the past 7 days entered simultaneously as predictors, the relationships were reduced to marginal significance: That is, in the PI scenarios ($\beta = -.20, p = .09$) and in the PE scenarios ($\beta = -.21, p = .08$). When the remaining excuses were controlled for, both of these relationships reduced further into non-significance. Thus, the PI excuse was again significantly discounted for individuals higher in relative autonomy, but not

especially so in comparison with the PE excuse; only the IE excuse appeared as equally compelling to individuals high and low in relative autonomy.

Across all excuse-types and scenarios, greater relative autonomy predicted higher agreement that increased effort would have yielded success, but this was especially true of the PI excuse. Also, at least in the injury and goal conflict scenarios, the PI excuse related to lower felt justification. These effects of relative autonomy remained significant after controlling for self-compassion, social desirability, self-esteem, recent exercise behaviour, and reactions to the excuse-types other than PI. The results provided support for the predictions that high autonomy participants would view the PI excuse as less legitimate than the other excuse types for failure. The negative relationships between relative autonomy and perceived legitimacy and between expected justification were stronger in the PI than in the PE or IE scenarios, and they remained significant after controlling for participants' responses to the latter scenarios, whereas this same control used for the other excuse types removed significant effects in the IE and PE scenarios. Thus, although physical activity was important to all participants, denying the original intent to exercise was a uniquely dissatisfying excuse to individuals higher in relative autonomy.

Similar to Sheldon and Schachtman (2007), the results of this study did not display a relationship between responsibility taking, relative autonomy and excuse-making. The results of the preliminary study, however, suggest that differences do exist between the excuse types with respect to non-culpability and perceived legitimacy, depending on an individual's relative autonomy toward their physical activity goal. For high autonomy individuals, PI excuses appear less legitimate and remove culpability less than for the low autonomy participants. Due to the lowered and perhaps negative effects of the PI excuse, which high autonomy individuals appear to be more aware of, it follows that high autonomy individuals will be less likely than low

autonomy individuals to make the PI excuse in the first place. Among other objectives, this question about the PI excuse was explored in the subsequent studies in procedures that replaced the hypothetical scenarios with a request for participants to generate real personal exercise goal failure experiences.

We know that autonomous goal pursuit is volitional, freely chosen, representative of the internal self, and internally regulated (Deci & Ryan, 2000). Moving beyond the hypothesized effects of relative autonomy on excuse-making, the model in Figure 1 further proposes that excuses can foster the development of relative autonomy, and can be switched off by such development in a negative feedback loop. This part of the model entails a distinction between PI excuses, which effectively distance the self from the important goal, and either IE or PE excuses, which may spare people from becoming discouraged by failure. Following from this part of the model, I hypothesized that conditions that constrained these excuses from being offered or accepted would have a harmful effect on individuals' commitment to or internalization of their exercise goals.

Study 1

The results of the preliminary study suggested that relative autonomy was related to the culpability participants would feel when they imagined personal exercise goal failures under varying conditions of excuses. Whereas the positive relationship between relative autonomy and culpability was present for all excuse-types, it was particularly strong for the PI excuse, suggesting that the PI excuse was particularly ineffective for removing culpability among high autonomy individuals. A broad aim of Study 1 was to expand on the results of the preliminary study by examining excuses participants use to explain a personal goal failure. Because the PI excuse was less effective at removing culpability for high autonomy participants than for low

autonomy individuals in the preliminary study, I hypothesized that individuals higher in relative autonomy would be less likely to make that excuse in the first place. A limitation of the preliminary study was that it did not ask participants about actual experiences, and all participants imagined the same scenarios regardless of how likely they were to occur for each participant. The present study, however, asked participants about their own real failure experiences.

The preliminary study was also unable to explore whether excuse-making influenced commitment. A way to determine the utility of excuse-making to remove culpability or promote commitment is to constrain excuse-making opportunity for some participants while allowing it for others. Thus, in this study, all participants were asked to describe the circumstances of an exercise goal failure and were assigned to one of three conditions. In the no-excuse condition participants, the task ended here. In the open-ended condition, participants were asked to explain why the failure happened, and in the closed ended condition, participants completed a survey composed of excuses derived from the triangle model of responsibility. If excuses (and especially IE and PE excuses) serve to remove culpability and promote commitment, then these outcomes should be observed to a greater extent when excuses are allowed (closed- and open-ended conditions) than when they are constrained (no-excuse condition).

In addition to these broad aims, this study had 3 more specific objectives, with respect to relative autonomy and testing the model in Figure 1. The first objective was to validate the triangle-model typology of excuses within the context of physical activity by comparing the effects of excuses in the open-ended excuse condition with those in the survey condition. The second main objective was to test the first step of the model: specifically, whether higher relative autonomy is associated with (a) greater responsibility-taking, (b) less excuse-making in general,

and (c) less prescription-identity excuse-making in particular (see *Figure 1*). The third objective was to discern whether beneficial outcomes of the IE and PE excuses for commitment and physical activity should be observed, especially among those with lower initial relative autonomy.

Method

Participants

One hundred seventy participants completed the study procedures, but 7 were dropped from the analysis of coded data and 6 participants had incomplete data, leaving 157 participants in the “no excuse” condition, 54 in the open-ended condition, and 53 in the closed-ended condition). Three participants did not complete one of the dependent measures (physical activity recall), but they were still included in the analyses of the other measures. Participants who were dropped based on the coding of the open-ended responses were those who wrote about a goal unrelated to exercise. Seventy-eight participants were men and 79 were women. Age of participants ranged from 17-36 years with a mean age of 19.34 years. Using power analysis (Cohen, 1992), the sample size allowed for 97% power to detect correlations of .30 at $\alpha = .05$ for a two-tailed test in the entire sample of 157. When performed on the closed-ended or open-ended conditions alone, however, power was approximately 60%, and decreased even further when participants were split into two separate groups based on relative autonomy. In this context, significant results are clearly indicative of a reliable effect, but nonsignificant results could be indicative of a Type II error, rather than the absence of a reliable effect in the population.

Eligible participants were introductory psychology students who (a) reported on a mass testing questionnaire that increasing physical activity/exercise was their most important current

health goal and (b) provided information regarding their relative autonomy with respect to exercise.

Materials

Mass testing. (See Appendix A). Participants were first asked to indicate their most important health goal they were currently trying to pursue (e.g., eat healthier foods/fewer calories, get more physical activity/exercise). Participants were then asked about their motivation for the specified goal. This measure is Sheldon and Elliot's (1999) Self-Concordance scale and it included 4 items (e.g., I am pursuing this goal "because [I] would feel ashamed, guilty, or anxious if [I] didn't," I am pursuing this goal "because [I] really believe it's an important goal to have"). For the analyses, two subscales were formed. The extrinsic subscale comprised the means of the extrinsic and introjected items and the intrinsic subscale was formed from the means of the identified and intrinsic items. The two items on each subscale were highly correlated: that is, for the extrinsic and introjected items, $r = .49$, $p < .001$, and for the identified and intrinsic items, $r = .43$, $p < .001$. The extrinsic subscale was subtracted from the intrinsic subscale to provide an overall measure of relative autonomy (RA). On a possible scale of -10 to 10, scores in the present sample ranged from -6 to 9 ($M = 4.07$, $SD = 3.11$). Next, participants were asked, "Have you previously set yourself the goal to integrate regular physical activity into your routine?" If the response was "yes", participants were asked to answer "yes" or "no" to "Have you ever failed to achieve this goal?" Of the participants in the current sample, 126 agreed that they had failed, 35 claimed that they had not experienced failure toward this particular goal, and 2 participants did not answer the question. Next, if participants the response was "yes," participants indicated on a 10-point scale (1 = *once*, 10 = *10 or more times*) how many times they had failed to achieve that goal. In spite of the fact that participants who had not experienced

failure toward their exercise goals were asked to skip the question, which asked how many times they had failed, all but 2 such participants provided a number of failure experiences. Therefore, no participants were dropped from the analyses for claiming they had never failed. The number of failure experiences reported ranged from 2 to 10 ($M = 3.14$, $SD = 1.77$).

Failure recall tasks. Similar to the materials and procedures developed by Sheldon and Schachtman (2007), the task was prefaced as follows: “We all encounter failures when pursuing our personal goals. We understand that this is not your first attempt at your exercise goal. Think back to the last time you tried, but failed to reach your exercise goal.” There were 3 versions of the writing task (see Appendices B, C, & D). All participants were asked for “the order of events, how long you persisted, and the kinds of activities in which you engaged.” At this point, the task ended for Group A. In addition to the description, Group B participants were also asked to “explain why this failure occurred.” Response protocols were coded as described subsequently under Results. Finally, Group C participants received the explanations survey along with the writing task.

Explanations survey. Participants in the closed-ended condition only were also given the 7 excuses, employed by Sheldon and Schachtman (2007), to which they responded to on a 5 point scale (1 = not at all, 5 = very much) (See part 2 of Appendix D). Three items assessed identity-event link excuses of denying personal control. They were: “Sometimes we fail in personal goal pursuits because of a lack of personal control over events. To what extent did the failure occur because of something you had no control over, or couldn’t help?” “Sometimes we fail in a personal goal pursuit because we don’t have sufficient skills or plans for doing the behaviour. To what extent did the failure occur because you didn’t have the tools you needed for exercising?” and “Sometimes we fail in a personal goal pursuit because the situation is

overwhelming or unpredictable. To what extent did the failure occur because of something you could not have predicted?” Preliminary analyses revealed that the reliability of excuses in this category was low ($\alpha = .26$), nonetheless, these 3 items were combined into the IE category on theoretical grounds.

Three prescription-identity excuses, which deny personal importance of the goal, were included. “Sometimes we fail in a personal goal pursuit because we don’t really think it our goal. To what extent did the failure occur because exercise is not really your personal goal?” “Sometimes we fail in a personal goal because when the time comes to act, we realize we didn’t really want to pursue that goal anyway. To what extent did the failure occur because you reassessed the goal when the time came to act, and decided you didn’t want to pursue the exercise goal?” and “Sometimes we fail in a personal goal pursuit because the goal wasn’t really our own idea—for example, maybe you only wrote down this goal because we asked you to. To what extent did the failure occur because pursuing the exercise goal was not really your idea?” Just like the IE excuse, the reliability was still low ($\alpha = .57$) for the excuses in the PI category, but again, these 3 items were combined to yield the PI category for theoretical reasons.

Finally, one prescription-event excuse was also included, which denies procedural clarity. “Sometimes we fail in a personal goal pursuit because the goal is unclear, and we can’t tell what needs to be done. To what extent did the failure occur because you were unclear about the exercise goal, or didn’t know what to do?”

Culpability and commitment survey. (See Appendix E). The questions for this measure assessed responsibility taking by using the same items as Sheldon & Schachtman (2007) adapted to personal goal pursuits. All items were rated using a 5-point scale (1 = *not at all*, 5 = *very much*). Personal responsibility was assessed with two questions: “To what extent were you

responsible for the failure?” and “To what extent did the failure occur because there was something you could have or should have done differently?” Participants’ emotional reactions were assessed by asking to participants indicate how irritable, hostile, guilty, and ashamed they felt after the failure. These measures were collected on an exploratory basis and are not included in the Results presented here pertaining to the main hypothesis tests. In addition, similar to the preliminary study, participants were asked to indicate how justified they felt for their goal failure. Future commitment and expectancy were assessed the same way as Sheldon and Schachtman’s (2007) research. “To what extent did the failure weaken your commitment to pursue your exercise goal?” “How successful to you expect to be in the future in your exercise goal?” Participants answered on a 5-point Likert-type scale ($0 = \textit{not at all}$, $5 = \textit{completely}$).

Exercise intentions survey (See Appendix F). Participants were asked to indicate their stage of exercise by selecting one of the following statements: “I currently do not engage in physical activity and I am not thinking about starting,” “I currently do not engage in physical activity, but I am thinking about starting,” “I currently engage in some physical activity, but not on a regular basis,” or “I currently engage in physical activity and I have done so for longer than 6 months.” Next, they indicated how many times in the next 4 weeks they intend to engage in physical activity and how regularly they intend to engage in physical activity. Participants indicated their responses by circling their estimate ($0-4$, $5-8$, $9-12$, $13-16$, $17-20$, $25+$).

Balanced inventory of desirable responding (BIDR, see Appendix G). To follow Hodgins and colleagues (2009) this measure replaced the Crowne-Marlowe (1960) scale used in the preliminary study. The BIDR-6 includes 40 items and includes two subscales, which are self-deceptive positivity (e.g., “I always know why I like things”) and impression management (e.g., “I don’t gossip about other people’s business”). Participants indicated their responses on a 7-

point scale ($1 = \text{not at all true}$, $7 = \text{very true}$). To score the BIDR, 19 of the items form the self-deceptive enhancement subscale ($\alpha = .69$), and the other 20 form the impression-management subscale ($\alpha = .73$). To form the overall measure of social desirability, the two subscales were added together. The scores ranged from 0 to 26 ($M = 10.66$, $SD = 5.28$).

Physical activity recall survey. Participants were asked about their moderate, hard, and vigorous activities during the last 7 days (See Appendix H). These questions were asked in an interview format and participants were asked to list the activities completed and how long they spend doing each type of activity. Participants were also asked whether their activity was more, less, or the same as in a typical week during the past three months (Blair et al, 1985). Other researchers have established the reliability of this measure. In one study, Dishman and Steinhardt (1988) found that test-retest correlations of the PAR for a 9-week period range from .4 to .6. Additionally, the PAR yields strong relationships with other measures of activity such as with a 7-day activity log, past-year activity, and with VO_2 max with validity coefficients ranging from .6 to .9.

Procedure

Participants were contacted by telephone to participate in a study about exercise goals. In a one-on-one session with an experimenter of the same gender, after providing informed consent, participants were randomly assigned to one of three conditions: Participants in the 'no excuse' condition were given the first failure recall task, participants in the closed-ended excuse condition received the first recall task combined with the explanations survey. Finally, in the open-ended excuse condition, participants were given the second failure recall task. All participants completed the culpability and commitment, the expectancies survey, the exercise intentions survey, and the BIDR. One week later, participants returned to the lab to complete the

physical activity recall survey. At this point, participants were fully debriefed. Several participants who were unable to return to the lab were contacted to complete the PAR over the phone and were e-mailed the debriefing.

Results

The first objective of this study was to assess whether differential opportunities to make excuses for personal goal failures influenced subsequent commitment (i.e. commitment, intentions, and behaviour). The failure recall question that asked participants to list the events leading up to an exercise goal failure provided an opportunity to check the intended manipulation of excuse opportunities. For this question, it was possible that participants would provide excuses related to specific events, which were labeled as extenuating circumstances on the coding form. If participants listed any events that explained or provided a reason for their failure, they were classified as an extenuating circumstance/excuse. In the 'no excuse' condition, only 12 out of 55 participants did not provide any explanation for their failures as compared with the 2 other conditions. A chi-square analysis demonstrated that the number of participants who made excuses was significantly different from the expected value of 0, $\chi^2(1, N = 55) = 2054.92, p < .001$, and significantly different from the 100% excuse-rate in the open-ended condition, $\chi^2(1, N = 55) = 768.05, p < .001$. To further test the manipulation, I used one-way ANOVAs to examine whether the writing task provided different consequences for non-culpability and commitment and found no significant differences among the three groups. The chi-square test and the ANOVAs both demonstrate that the attempt at manipulating excuse opportunity failed, as there were no differential effects on excuse-making, non-culpability or commitment. Almost all participants provided excuses for their failures whether or not they were explicitly asked to do so.

Gender effects were examined in both the closed-ended and open-ended conditions; including gender in the model as a covariate did not change the substantive relationship between relative autonomy or excuse-making and the relevant dependent variables, although in some cases the statistical significance of the relationship varied with the loss of an additional degree of freedom for this covariate.

Effects of Excuses and Relative Autonomy on Culpability for Exercise Failure

Despite the failure of the excuse-making opportunity manipulation, other aims and objectives of Study 1 could still be achieved. Notably, the utility of excuse types to remove culpability and promote commitment among high and low autonomy individuals could be examined in both the closed- and open-ended conditions. Following the results of the preliminary study, I expected that relative autonomy would be related positively to feelings of culpability when participants endorsed any excuses, and especially the PI excuse. The optimal test of this hypothesis would be an analysis in which the effect of the interaction of relative autonomy and excuse-type on culpability could be examined. Multicollinearity problems and the small sample size given non-manipulated variables prevented the above analysis. When these analyses were conducted there was a high level of multicollinearity between the main effects and the interaction terms; that is the PI excuse with the relative autonomy by PI interaction, $r = .82, p < .001$, the IE excuse with the relative autonomy by IE interaction, $r = .83, p < .001$, and the PE excuse with the relative autonomy by PE interaction, $r = .79, p < .001$. The problem of multicollinearity even remained when the regressions were performed on centered scores.

I broke the analysis down into two steps. First, I examined culpability as a function of excuse-types and relative autonomy as main effects. Second, I examined culpability as a function of excuse-types in high versus low autonomy subsamples of participants. Multiple regression

analyses were constructed with the culpability judgments as successively analyzed dependent variables: that is, feelings of personal responsibility for the failure irrespective of relative autonomy, whether or not the participant believed they could have done something differently under their described circumstances to yield success, and whether or not they felt justified for having failed. Goal difficulty, endorsement of each excuse-type, and relative autonomy were entered simultaneously as predictors. A significant effect of excuse-type in this context means that the specific content of the respective excuse type predicts the outcome variable, beyond the effects of overall excuse-making tendencies that are represented by all three types. To further control for the motive, as well as the behaviour of excuse-making, social desirability was included as a covariate. Social desirability correlated with many of the dependent variables and with relative autonomy ($r = .22, p < .05$).

The results of the first set of analyses are presented in Table 1. As in the preliminary study, to the extent that the prescription-identity excuse was endorsed, participants felt more responsible for the failure. The relationship between the PI excuse and agreement with the statement that there was something that they could/should have done differently approached significance in the same direction. In contrast, when participants endorsed the identity-event excuse, the opposite pattern emerged, that is, participants felt less responsible, and they felt more justified for their failure. No significant relationships emerged for the prescription-event excuse for these items. The results show that the PI excuse type, relative to others, removes culpability less, whereas the IE excuse removes it more, even when overall excuse-making of all three types, goal difficulty, and the social desirability motive are statistically controlled. Contrary to predictions, relative autonomy was negatively related to responsibility taking and not significantly related to the other culpability items.

Table 1

Summary of Regression Analysis for Relationships between Relative Autonomy, Excuses, and Non-culpability Judgments for Participants in the Closed-ended Condition (N = 54)

Predictor	Judgment		
	Responsibility	Differently	Justified
BIDR	.11	-.10	.26 [†]
RA	-.25*	-.01	-.20
Goal Dif.	.19	-.05	.13
PI	.39**	.29 [†]	-.06
IE	-.35*	-.16	.43**
PE	-.17	.07	-.07

Note. ** $p \leq .01$, * $p \leq .05$, [†] $p \leq .10$. BIDR = Balanced Inventory of Desirable Responding (the social desirability measure), RA = Relative Autonomy, Goal Dif. = Goal Difficulty, PI = the Prescription-identity excuse, IE = Identity-event excuse, and PE = Prescription-event excuse. Numbers are standardized slopes from a regression analysis with all predictors entered simultaneously.

In order to examine the differential effects of each excuse-type on non-culpability, I performed the same regressions on high autonomy and low autonomy individuals separately, with goal difficulty and each excuse-type entered simultaneously as predictors. Social desirability was removed from the analyses due to its correlation with relative autonomy and corresponding inequalities in the range of social desirability captured in each autonomy group. This approach is limited, as it has low power and does not permit an easy test of the significance of differences between correlations on the high versus low autonomy subsamples. In spite of these limitations, the subsample analyses can provide descriptive data as to whether trends in each group do or do not follow the expected pattern.

As seen in Table 2, excuse-making was significantly related to culpability in several ways among participants who were low in relative autonomy. To the extent that low autonomy individuals endorsed the PI excuse, they also felt more responsible. A marginally significant positive trend also emerged between endorsement of the PI excuse and the statement that participants could/should have done something differently. Participants high in relative autonomy felt less justified in relation to greater endorsement of the PI excuse and nonsignificant trends for the other variables were in the same direction. To the extent that low autonomy participants endorsed the IE excuse, participants felt less responsible and more justified. The trends were nonsignificant, but in the same direction for high autonomy individuals. Finally, no significant findings emerged for the PE excuse.

In sum, the results showed that excuse-making is related to culpability, such that the PI excuse related to increased responsibility, whereas the IE excuse related negatively to responsibility taking and positively to justification. The split file analysis, however showed limited evidence of these relationships being moderated by relative autonomy. If anything, unlike

Table 2

Summary of Regression Analysis for Relationships between Excuses, and Non-culpability

Judgments for High and Low Autonomy Participants in the Closed-ended Condition (N = 54)

	Judgment					
	Responsibility		Differently		Justified	
	Low (n = 27)	High (n = 27)	Low (n = 27)	High (n = 27)	Low (n = 27)	High (n = 27)
RA						
Predictor						
Goal Dif.	.16	.27	-.23	.21	.13	.06
PI	.41*	.38 [†]	.34 [†]	.33 [†]	.18	-.45*
IE	-.46**	-.39 [†]	-.10	-.32	.41*	.29
PE	-.04	-.27	.26	-.21	.02	-.01

Note. ** $p \leq .01$, * $p \leq .05$, [†] $p \leq .10$. RA = Relative Autonomy, Goal Dif. = Goal Difficulty, PI = Prescription-identity excuse, IE = Identity-event excuse, and PE = Prescription-event excuse. Numbers are standardized slopes from a regression analysis performed on a file median split on Relative Autonomy with all predictors entered simultaneously.

what occurred in the preliminary study, the present findings suggest that all excuse effects on culpability are stronger for low autonomy individuals.

Effects of Relative Autonomy on Excuse-making

The second objective of Study 1 was to examine whether or not relative autonomy related to excuse-making. In the preliminary study, relative autonomy was related to increased feelings of culpability when the PI excuse was endorsed. An implication of this finding is that high autonomy individuals would be less likely to endorse the PI excuse in the first place. The specific hypothesis was that high autonomy individuals would be less likely to endorse all excuses than low autonomy individuals, and particularly less likely to agree with PI excuses in the event of personal exercise goal failure.

In order to compare participants' agreement with excuses of different types between those with higher versus lower autonomy, a repeated measures multivariate analysis of variance was employed using data from the closed-ended condition. Endorsement of the 3 types of excuses was entered as a three level within-subjects factor, and high or low autonomy (based on a median split) was entered as the between subjects factor. As shown in a post hoc test in Figure 2, all participants preferred the identity-event excuse over to the other two, $F(2, 51) = 13.83, p < .001$. This effect remained significant even when controlling for social desirability, $F(2, 50) = 5.65, p < .01$. Given the results of the regression analyses showing the relative utility of each excuse type to remove culpability, the general preference for the IE and PE excuses over the PI excuse is not surprising.

The prediction that relative autonomy would lead to less excuse-making in general, and less PI excuse-making in particular, was not supported by a significant excuse by relative autonomy interaction, $F(2, 53) = .71, p = .50$. At a descriptive level, however, there was a larger

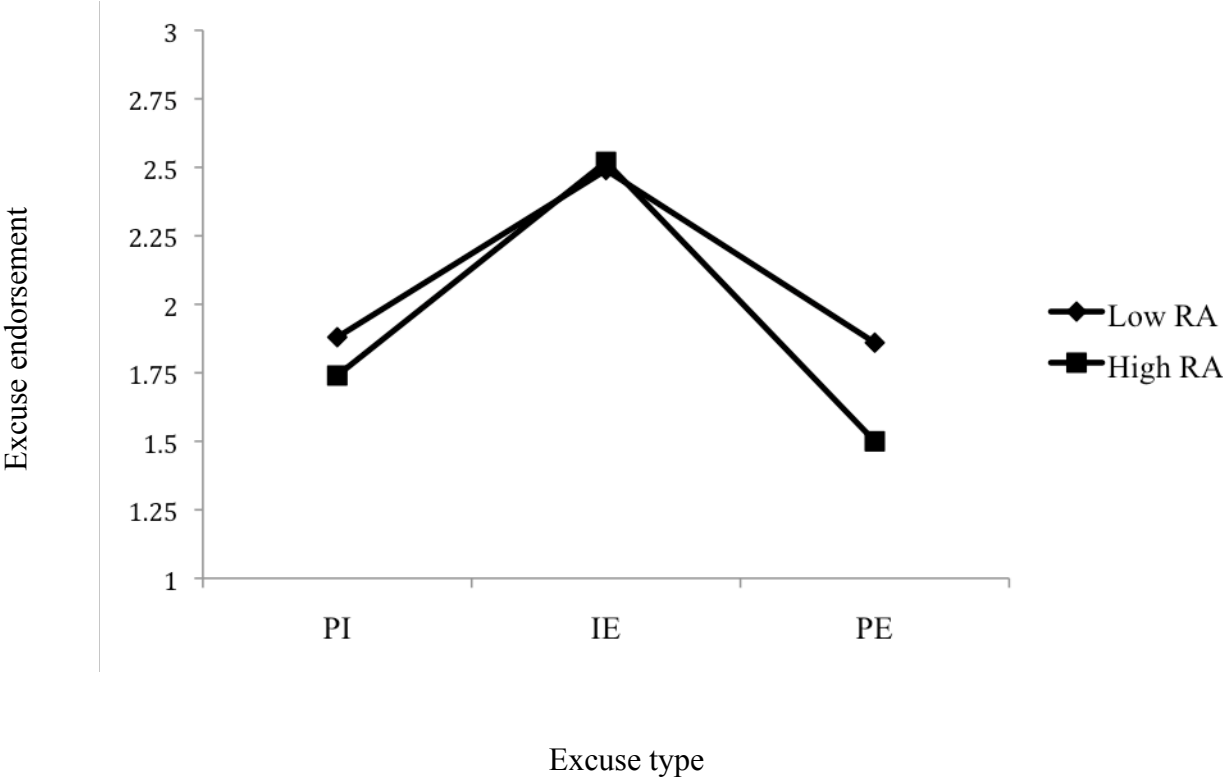


Figure 2. Results of repeated measures analysis of variance of effects of relative autonomy on frequency of excuse-making.

simple effect size of excuse-type for higher autonomy participants ($\eta^2 = .33$ vs. $.13$) suggesting that negative differentiation of the PI excuse from the other two types could be sharper among high than low autonomy individuals.

Effects of Relative Autonomy and Excuse-making on Commitment

In order to examine effects of relative autonomy and excuse-making on commitment, the same analytic procedure I used previously for culpability judgments was repeated using the commitment-related dependent variables. Specifically, I examined participants' endorsement of each of: whether or not commitment was weakened by the failure, expected success, intentions, and subsequent exercise behaviour. A regression model was constructed with relative autonomy, social desirability, the difficulty of the goal, and each excuse type entered simultaneously as predictors.

I first examined the effects of excuses on commitment for all participants, irrespective of relative autonomy. The results of the regression are presented in Table 3. There were no significant relationships between excuses and commitment, although there was a trend for endorsement of the IE excuse to relate positively to commitment. Some relationships emerged on the intentions measure, such that endorsement of the PI excuse related negatively to intentions, whereas endorsement of the PE excuse related positively to intentions. These relationships suggest that endorsement of the PE excuse can have positive consequences for commitment, but that endorsement of the prescription-identity excuse, consistent with its not removing culpability for failure, produced negative effects on commitment. A significant main effect emerged for relative autonomy such that it was positively related to intentions.

The foregoing relationships were observed while controlling for autonomy, but relative autonomy was further expected to moderate the consequences of excuse-making for

Table 3

Summary of Regression Analysis for Relationships between Relative Autonomy, Excuses, and Commitment Outcomes for Participants in the Closed-ended Condition (N = 53)

Predictor	Commitment Outcome			
	Commitment	Expected success	Intentions	Total activity
BIDR	-.09	.32*	-.13	.04
RA	.20	.13	.29*	.05
Goal dif.	-.14	-.14	.13	.31*
PI	-.02	-.18	-.37**	.05
IE	.25 [†]	.20	.00	.02
PE	.19	.12	.34**	.05

Note. ** $p \leq .01$, * $p \leq .05$, [†] $p \leq .10$. BIDR = the Balanced Inventory of Desirable Responding (the social desirability measure), RA = Relative Autonomy, Goal Dif. = Goal Difficulty, PI = the Prescription-identity excuse, IE = the Identity-event excuse, and PE = the Prescription-event excuse. Numbers are standardized slopes from a regression analysis with all predictors entered simultaneously.

commitment, specifically, I expected to find that endorsement of IE and PE excuses would facilitate commitment for low autonomy individuals, but not for those high in autonomy. Additionally, endorsement of the PI excuse was expected to be associated with lowered commitment for all participants, regardless of relative autonomy. In order to test this hypothesis, as before, a median split was performed to divide the participants into high and low autonomy groups. For these analyses, the regression model employed was the same as the one used in the culpability analysis, that is with goal difficulty and each of the excuses entered simultaneously as predictors. Thus the final model included participants' report of their goal difficulty, and each of the three excuses simultaneously entered as predictors. The results of this analysis, shown in Table 4 shows that in line with predictions, endorsement of the PI excuse related negatively to commitment outcomes for all participants regardless of their relative autonomy toward exercise.

The results suggest that low and high autonomy individuals might experience different consequences of the IE excuse; specifically, for the high autonomy participants, the IE excuse was related to greater commitment and the same trend emerged for expected success. This pattern was not apparent for low autonomy participants. The IE excuse was unrelated to intentions for both groups. It should be noted that the relationship between total physical activity and the IE excuse approached significance in opposite directions for each group. For the low autonomy group, the trend was toward greater activity, but the opposite was true for high autonomy participants. Finally, a positive relationship between the PE excuse and intentions emerged for high autonomy participants, but not for lows, who if anything experienced lowered intentions.

These results supported the prediction that all participants would experience negative consequences for commitment from endorsement of PI excuses. When this excuse was endorsed,

Table 4

Summary of Regression Analysis for Relationships between Excuses, and Commitment Outcomes for High and Low Autonomy Participants in the Closed-ended Condition (N = 53)

	Commitment Outcome							
	Commitment		Expected success		Intentions		Total activity	
	Low (n=27)	High (n=26)	Low (n=27)	High (n=26)	Low (n=27)	High (n=26)	Low (n=27)	High (n=26)
RA								
Predictor								
Goal dif.	-.15	-.26	-.15	-.36	.13	.06	.22	.54*
PI	.20	-.08	-.54**	-.04	-.39 [†]	-.41*	.15	-.13
IE	.06	.63**	.04	.38 [†]	.10	.07	.29	-.43 [†]
PE	.16	.24	.00	.27	-.06	.65**	-.06	.02

Note. ** $p \leq .01$, * $p \leq .05$, [†] $p \leq .10$. RA = Relative Autonomy, Goal Dif. = Goal Difficulty, PI = the Prescription-identity excuse, IE = Identity-event excuse, and PE = the Prescription-event excuse. Numbers are standardized slopes from a regression analysis performed on a file split by low and high Relative Autonomy with all predictors entered simultaneously.

both groups experienced some negative consequences for commitment, whether the consequences were for expected success or for intentions. The results indicate that the PI excuse is uniformly negative, but that the IE and PE excuses, contrary to predictions, can be beneficial to commitment to exercise for high autonomy participants.

Replication Using the Open-Ended Condition

Before analyzing the data from the open-ended condition, participants' responses were coded. For each question on the coding form (see *Appendix* parts O and P), the coder indicated whether or not the participant followed instructions. As a control, participants' goals were coded into 1 of 7 categories (1 = exercise, 2 = eating, 3 = weight loss, 4 = muscle gain, 5 = a related other goal, 6 = an unrelated other goal, and 7 = good shape.) Two participants who wrote about eating goals or about another unrelated goal were dropped from the analyses, leaving a total of 54 participants for the open-ended analyses. The next open-ended question on the task asked participants to list the events leading up to their failure. For this question, a word count was completed, and the coder indicated whether the participant listed extenuating circumstances effectively excusing the failure, and if so, how many. Lastly, participants responses to the question asking why the failure occurred were coded for the number of words, the number of total excuses, and numbers of PI, IE, PE, and unclassifiable excuses. In the future, it is important to test for the reliability of the coded data and to examine whether or not it was possible to code the excuses reliably into types. Although reliability has not been tested presently, agreement between the results from the closed-ended condition suggests that the coding was at least somewhat reliable.

Effects of RA and excuses on culpability. As in the closed-ended condition, I examined whether relative autonomy related to greater feelings of culpability when the PI excuse was

given. Specifically, I performed simultaneous regression analyses with predictors including relative autonomy, goal difficulty, and social desirability, and a dummy variable for each excuse type. As shown in Table 5, no significant effects of the excuse variables were observed. There were so significant main effects for relative autonomy or goal difficulty, but a positive relationship between social desirability and justification emerged.

Next, to examine the differences between low and high autonomy participants in terms of the possible relationships between excuse-making and non-culpability, I split the file and performed the regression analyses using each of the 3 excuse-types dummy-coded as predictors. The results of this analysis are presented in Table 6. As in the closed-ended condition, social desirability was dropped from the split file analysis because of potential differential relationships for low and high autonomy participants. I found that for the high autonomy group, use of the PI and PE excuses related negatively to felt justification, but the IE excuse was unrelated to culpability. Finally, goal difficulty was positively related to justification for high autonomy participants.

Table 5

Summary of Regression Analysis for Relationships between Relative Autonomy, Excuses, Number of Words and Non-culpability Judgments for Participants in the Open-ended Condition (N = 54)

Predictor	Judgment		
	Responsibility	Differently	Justified
BIDR	-.02	-.01	-.27 [†]
RA	-.08	-.21	.10
Goal Dif.	-.04	-.03	.26 [†]
Words	.15	.04	-.09
PI	.11	.30 [†]	-.04
IE	-.05	.20	.02
PE	.13	.18	-.15

Note. ** $p \leq .01$, * $p \leq .05$, † $p \leq .10$. BIDR = Balanced Inventory of Desirable Responding (the social desirability measure), RA = Relative Autonomy, Goal Dif. = Goal Difficulty, PI = the Prescription-identity excuse, IE = the Identity-event excuse, and PE = the Prescription-event excuse. Numbers are standardized slopes from a regression analysis with each Excuse-type, dummy-coded, and entered simultaneously with all other predictors.

Table 6

Summary of Regression Analysis for Relationships between Excuses, Number of Words, and Non-culpability Judgments for High and Low Autonomy Participants in the Open-ended Condition (N = 54)

	Judgment					
	Responsibility		Differently		Justified	
	Low	High	Low	High	Low	High
RA	(n=30)	(n=24)	(n=30)	(n=24)	(n=30)	(n=24)
Predictor						
Goal diff.	-.31	.27	-.20	.10	-.06	.62**
Words	.10	.12	-.15	.27	.26	.01
PI	-.03	.20	.15	.32	-.16	-.39*
IE	.21	-.37 [†]	.12	.31	-.22	-.03
PE	.28	-.08	.40 [†]	.00	-.09	-.52*

Note. ** $p \leq .01$, * $p \leq .05$, [†] $p \leq .10$. RA refers to Relative Autonomy, Goal Dif. Refers to Goal Difficulty, PI refers to the Prescription-identity excuse, IE is the Identity-event excuse, and PE is the Prescription-event excuse. Numbers are slopes from a regression analysis performed on a file median split on Relative Autonomy with Goal Difficulty, and each Excuse-type, dummy-coded, entered simultaneously as predictors.

In sum, there were no significant relationships between excuse-making and non-culpability in general. When the file was split, significant effects for the high autonomy group emerged such that making PI and PE excuses negatively related to justification. The IE excuse was unrelated to justification for this group, which suggests that although the IE excuse did not remove culpability, it did not increase it like using the PI and PE excuses did. No significant effects emerged for low autonomy participants.

Effects of relative autonomy on excuse-making. Next, I examined whether participants who were higher in relative autonomy were less likely to provide excuses for their personal exercise goal failures in general, and whether they would be particularly less likely to provide a PI excuse. I performed Chi-square analyses to examine whether autonomy predicted excuse endorsement, that is, whether use any of the excuse type was more or less likely for high or low autonomy participants. A median split was performed on relative autonomy before it was used to compare whether or not participants made each type of excuse. None of the analyses were significant: for the IE excuse, $\chi^2(1, N = 55) = .02, p = .88$; for the PE excuse, $\chi^2(1, N = 55) = .01, p = .96$; and for the PI excuse, $\chi^2(1, N = 55) = .01, p = .93$.

Effects of relative autonomy and excuses on commitment. As in the non-culpability analyses, social desirability, relative autonomy, goal difficulty, and each of the dummy-coded PI, IE, and PE excuses were entered as predictors. The results of this analysis are presented in Table 7. The only significant relationships to emerge were for the PI excuse. Use of the prescription-identity excuse was negatively related to intentions and to total physical activity reported at follow-up.

Table 7

Summary of Regression Analysis for Relationships between Relative Autonomy, Number of Words, Excuses, and Commitment Outcomes for Participants in the Open-ended Condition (N = 53)

Predictor	Commitment Outcome			
	Commitment	Expected success	Intentions	Total activity
BIDR	.40**	.33*	.18	-.11
RA	-.02	.18	-.01	.00
Goal dif.	.07	.07	.02	-.17
Words	.00	-.10	-.00	.17
PI	-.33*	-.23	-.56**	-.53**
IE	.01	-.07	-.07	-.07
PE	-.17	.07	-.04	-.01

Note. ** $p \leq .01$, * $p \leq .05$, † $p \leq .10$. BIDR = Balanced Inventory of Desirable Responding, RA = Relative Autonomy, Goal Dif. = Goal Difficulty, PI = the Prescription-identity excuse, IE = the Identity-event excuse, and PE = the Prescription-event excuse. Numbers are standardized slopes from a regression analysis with each Excuse-type, dummy-coded, and entered simultaneously with all other predictors.

Finally, to discern whether relative autonomy moderated the commitment-related consequences of excuses, goal difficulty, and each of the dummy-coded excuses were entered into the regression model for the split file analyses. As shown in Table 8, the results in both autonomy subsamples were similar for use of the PI excuse. Use of the PI excuse was significantly related to lowered commitment for participants low in relative autonomy, and the trend was in the same direction for those high in relative autonomy. Use of the PI excuse was significantly negatively related to intentions and activity for both subsamples. Expected success was negatively related to use of the PI excuse for high autonomy participants, but not for low autonomy participants. These results replicate those found in the closed-ended condition, that use of the PI excuse relates to negative commitment outcomes for all individuals, regardless of their autonomy toward exercise. The IE and PE excuses were not significantly related to commitment, but there were other negative, significant relationships for the high autonomy participants only, such as use of these excuses related negatively to expected success. If anything, the trend for the PE excuse was in the opposite direction for low autonomy participants.

Table 8

Summary of Regression Analysis for Relationships between Number of Words, Excuses, and Commitment Outcomes for High and Low Autonomy Participants in the Open-ended Condition (N = 53)

Predictor	Commitment Outcome							
	Commitment		Expected success		Intentions		Total activity	
	Low (n=29)	High (n=24)	Low (n=29)	High (n=24)	Low (n=29)	High (n=24)	Low (n=29)	High (n=24)
RA								
Goal diff.	-.24	.45 [†]	-.14	.49*	-.32	.39 [†]	-.19	-.19
Words	.11	-.07	.15	-.30	-.04	.09	.24	.17
PI	-.50*	.00	-.20	-.14	-.59*	-.55**	-.67**	-.50*
IE	-.08	.07	-.02	-.32	-.11	.02	-.25	.05
PE	-.02	-.37	.22	-.35	.10	-.26	-.15	.13

Note. ** $p \leq .01$, * $p \leq .05$, [†] $p \leq .10$. RA = Relative Autonomy, Goal Dif. = Goal Difficulty, PI = the Prescription-identity excuse, IE = the Identity-event excuse, and PE = the Prescription-event excuse. Numbers are standardized slopes from a regression analysis performed on a file median split on Relative Autonomy with each Excuse-type, dummy-coded, and entered simultaneously with all other predictors.

Discussion

In an initial attempt to test propositions of the model in Figure 1, this study examined the unique and combined effects of relative autonomy and excuse-making on two sets of outcome variables, one related to feelings of culpability, and the other related to ongoing feelings of commitment toward that goal. The results are most easily understood by considering these two sets of outcome variables in turn, first for the closed-ended and then for the open-ended conditions.

Turning to the judgments of non-culpability, the three excuse-types of the Triangle Model clearly had differential effects. Notice that PI excuse-making was related to feeling more culpable, on 1 of the 3 relevant dependent variables in Table 1, whereas IE excuse-making is related to feeling less culpable, on 2 of the 3 relevant dependent variables. These findings suggest that the IE excuse is more effective than the PI excuse in removing culpability for failure. In view of these findings, it is perhaps unsurprising that participants in the closed-ended condition endorsed the IE excuse significantly more strongly than the PI excuse (*Figure 2*).

The foregoing effects of excuse-making on non-culpability judgments were observed independently from those of relative autonomy. In turn, when relative autonomy's effects were considered independently from those of excuse-making, the results showed a surprising significant negative correlation with taking responsibility for the failure. The regression analysis took into consideration the variability in effectiveness of different excuses that participants may have offered. Thus, the residual negative relationship suggests a dismissive attitude toward failure on the part of those higher in relative autonomy, rather than the more responsible attitude that prior research would have us expect.

Apart from the main effects of relative autonomy and excuse-making on non-culpability judgments, the model in Figure 1 and the preliminary study findings directed further interaction hypotheses. Specifically, it was expected that the PI excuse would be particularly ineffective for and therefore less strongly endorsed by those high in relative autonomy. Support for this hypothesis was quite weak: In both conditions, 1 of the 3 relevant dependent variables, feeling justified in the face of failure, showed a stronger negative relationship to PI excuse-making by high rather than low autonomy individuals, similar to what was found in the preliminary study.

Instead of the hypothesized pattern, another possible pattern of moderation by relative autonomy emerged from the results of Study 1. As shown in Table 2, all of the overall positive effects of excuse-making on non-culpability judgments were stronger for low than high autonomy individuals. Thus, in this context where participants recalled an actual failure and generated an excuse for it, their feelings of culpability hinged on the particular excuse they gave to a greater extent if they were low rather than high in relative autonomy. In the open-ended condition, participants high in relative autonomy showed the differential pattern of results in that the IE excuse was the only excuse that did not increase feelings of culpability, thus the conclusion about the positive effects of excuses being strongest for low autonomy individuals is unaffected. Although unexpected, the resulting picture of high relative autonomy as a state in which excuses carry less weight with individuals' feelings of non-culpability is somewhat consistent with the view of these individuals as non-defensive. Coupled with the main effects of relative autonomy observed here, the final picture of high relative autonomy is that it makes excuses unnecessary, by virtue of such individuals feeling non-culpable in any case.

Turning to the commitment outcomes in Table 3, endorsement of the PI excuse was shown to possibly undermine commitment, and endorsement the IE and PE excuses to possibly

increase it, on at least one relevant dependent variable: intentions to exercise, for the PI and PE excuses, and commitment to exercise for the IE excuse. Relative autonomy was also significantly positively related to exercise intentions, net of the effects of excuse-making, with non-significant positive trends on the remaining relevant outcomes, consistent with past research.

The foregoing overall effects of excuse-making and relative autonomy on commitment seem to track with those for culpability. Comparing the results between high and low autonomy participants in Table 4 shows dissociation between the two outcome categories, however. That is, high autonomy individuals rather than lows are the ones responsible for all of these overall effects on exercise intentions and commitment. Placing these findings beside those for non-culpability, then, it appears that excuse-making may have different instrumental outcomes associated with it for high versus low autonomy individuals: That is, the positive effects on culpability are more apparent for those low in relative autonomy, but the positive commitment-related outcomes are stronger for those high in relative autonomy.

Comparisons of quantitative and qualitative excuse measures. The study design offered an opportunity to cross-validate these findings in an independent sample, using a qualitative rather than a quantitative measure of excuse-making. The results in Tables 5-8 corroborate the findings from the closed-ended sample in some respects. Specifically, any trends toward non-culpability were attributable to the subsample with low rather than high relative autonomy. All excuse types were strongly negatively related to justification among highs, as was found only for PI excuses in the closed-ended condition. Also, the PI excuse was related to higher feelings of culpability and lower feelings of commitment to exercise, as well as lower intentions and reported behaviour, although these effects in the commitment outcome category were not stronger among individuals with high than low relative autonomy. In the open-ended condition,

the PE excuse was related to increased culpability for individuals high in relative autonomy. This effect was not replicated in closed-ended condition, although a similar effect was present in the preliminary study such that relative autonomy related negatively to the statement that “most would fail” under similar circumstances.

In the closed-ended condition, all participants exhibited a marked preference for endorsement of the IE excuse over the other types. In the open-ended condition, there was a non-significant tendency for participants in general to write more IE excuses ($M = 1.57, SD = 1.56$) than PI excuses ($M = 1.11, SD = 1.09$) and PE excuses ($M = .24, SD = .61$). Although non-significant, this trend suggests that the categorization was not completely unreliable as participants in the closed-ended conditions also demonstrated a preference for IE excuses over the other options.

The results provided tenuous support for the notion that the excuses can be placed into 3 distinct categories. There were no unclassifiable excuses present. A non-significant trend in the open-ended condition matched the preference for IE excuses over PI or PE excuses in the closed-ended condition. Across the closed-ended and open-ended conditions, the PI excuse consistently related to lowered commitment, regardless of relative autonomy, a finding that was, in effect, replicated across two methods and two samples in this study.

The results of Study 1 suggest that excuses may indeed have less utility for individuals high compared with those who are low in relative autonomy when it comes to removing culpability. There is not, however, a corresponding difference in the amount or types of excuse-making that such individuals do, perhaps because excuse-making does have instrumental value for individuals high in relative autonomy when it comes to maintaining commitment.

Comparisons with previous research. The suggestion that high autonomy individuals can experience benefits from endorsing certain excuses is contrary to the view of excuses and autonomy held by self-determination theory, which argues that in the event of failure, accepting responsibility, and responding without defense is most conducive to maintenance of autonomy (Sheldon & Kasser, 2001). Although this research does not present a strong argument against self-determination theory's negative view of excuses, it does question the assertion that excuses are uniformly negative for commitment and are negatively related to autonomy.

The findings of this study are also in contrast to research on authenticity. Authenticity is comprised of awareness of self-relevant aspects (e.g. likes/dislikes, personal standards), unbiased processing of self-relevant information concerning strengths and weaknesses, autonomous behaviour, and the desire for close others to know who they really are instead of a limited version (Lakey, Kernis, Heppner, & Lance, 2007). Both non-defensiveness and autonomy are core components of authenticity. Lakey and colleagues (2007) found that authenticity related to less verbal defensiveness when participants discussed personal weaknesses (e.g. feeling less attractive than a friend.) The present research indicates that autonomous individuals also act in a defensive manner by making excuses for personal goal failures, perhaps because of an instrumental value of the behaviour.

Sheldon & Schachtman (2007) predicted that relative autonomy would relate positively to responsibility taking, but they found instead that individuals higher in autonomy were not more likely to take responsibility for their personal goal failures. In the closed-ended condition of the present study, I found that net of excuse-making, relative autonomy related negatively to responsibility taking. This relationship was not as strong in the open-ended condition.

Sheldon and Schachtman also found that those who were higher on relative autonomy

with respect to the particular obligation being discussed were less likely to endorse the PI excuse. Although I was unable to replicate this effect the results trended in the predicted direction. The weaker relationship here may have been because Sheldon and Schachtman measured autonomy with respect to a specific, one-time obligation, but I measured autonomy with respect to a general long-term goal. It is possible that it was more difficult to find a relationship between a general motive (relative autonomy) and one specific instance of failure, than between a specific motive and a specific obligation.

Model Comparisons. A central prediction of the model in Figure 1 was that participants who were higher in autonomy would be less likely than their lower autonomy peers to make excuses for important personal exercise goal failures. The results of this study do not support this prediction; in this study, high autonomy individuals endorsed excuses to the same degree as those low in autonomy. If it is the case that high and low autonomy participants do not differ in their tendencies to excuse personal goal failures, this behaviour pattern contrasts with self-determination theory, literature on authenticity, and with the research on non-defensiveness. All of these lines of work argue that individuals who are more autonomous should also be non-defensive and avoidant of excuse-making (e.g. Hodgins et al, 2006, Sheldon & Kasser, 2001). The present research, however, indicates that perhaps autonomous individuals use excuses in a non-defensive manner and instrumentally to maintain commitment in the event of failure. Consider that, in the present study, all participants wrote about an important personal exercise goal failure before indicating their agreement with several excuses. In general, regardless of which excuses were endorsed, high autonomy individuals felt less culpable than their low autonomy peers, and their non-culpability judgments related less to particular excuses than for low autonomy individuals. The ability of excuses to reduce culpability for failure is the defensive

function that self-determination researchers refer to. Individuals high in relative autonomy are shown to feel relatively distant from their failures, regardless of whether or how the failures are excused. This is not to say that they take greater responsibility for their failures than do those low in relative autonomy, who seem to depend more on excuses to remove culpability. In addition to removing culpability, but rather that relative autonomy buffers individuals from feelings the effects of a failure in terms of either self-blame for the failure or decreased commitment.

The model in Figure 1 also contains the prediction that high autonomy individuals would be particularly less likely to endorse the prescription-identity excuse than low autonomy individuals. There is not much evidence to suggest that high autonomy individuals avoid the PI excuse any more than low autonomy individuals, perhaps because this excuse is poor for both groups as it neither removes culpability nor maintains commitment. This finding is different from what was observed in the preliminary study; specifically that relative autonomy was positively related to culpability especially in the PI excuse scenarios. Perhaps the differences were due to the nature of the procedures. In the preliminary study, participants responded to hypothetical failure experiences, whereas in the present study participants discussed real personal goal failures and sometimes even generated their own excuses.

The model in Figure 1 did not contain specific predictions about which excuses would be most effective at removing culpability, although it did predict that endorsement of IE excuses would maintain commitment, particularly for low autonomy individuals. Endorsement of the IE excuse was beneficial over both categories of outcomes, that is non-culpability and commitment and participants across the range of relative autonomy preferred it to the other types, especially the PI, which was harmful for both outcome categories. The effects of the IE excuse were moderated by relative autonomy, such that low autonomy individuals experienced the strongest

reduction of culpability in relation to use or endorsement of the IE excuse. Unexpectedly, however, it was high autonomy individuals who experienced most of the commitment-related benefits. In sum, it does appear that the PI excuse relates to greater culpability and to lowered commitment for all participants. Further, the IE and PE excuses may yield positive commitment effects for high autonomy participants and positive culpability-related effects for low autonomy participants.

Limitations. Most importantly, I was unable to manipulate excuse opportunity which would have been the clearest test of whether excuse-making causally related to commitment overall, and whether this relationship was moderated by relative autonomy. Relative autonomy was unrelated to most measures of commitment and to behaviour. In the closed-ended condition only, relative autonomy was positively related to intentions. It is possible that the nature of the procedures disrupted this typical relationship as participants had just finished discussing a failure and writing about their reasons for succumbing to it, so perhaps these momentary changes override relative autonomy's typical relationship with commitment, intentions and behaviour. Regressions were run to examine the relationships between relative autonomy and the dependent measures for the entire sample while controlling for social desirability and goal difficulty. A marginally significant positive relationship emerged between relative autonomy and commitment, $\beta = .14, p < .10$. Significant positive relationships emerged between relative autonomy and expected success, $\beta = .17, p < .05$ and with intentions, $\beta = .18, p < .05$. A positive trend also emerged between relative autonomy and activity $\beta = .13, p = .10$. These relationships are similar, but somewhat weaker than what was observed in previous research (e.g. Hagger et al, 2006; Sheldon & Elliot, 1998). The weak nature of these relationships suggests that perhaps the procedures affected the typical relationships with the commitment outcomes.

Because I was unable to test for interactions using regression, the interpretability of the moderation analyses was limited, as discussed previously. When I split the file based on relative autonomy, I could no longer control for social desirability due to its correlation with relative autonomy. Additionally, using a split file analyses reduced the standard criterion of power below 80% to detect relationships in each subsample of relative autonomy. Thus, true but small relationships between excuses, commitment, and non-culpability may not have been detected in the subsample analyses due to low power.

Another reliability issue concerned the use of a single coder for coding of the open-ended responses. In order to increase the reliability, endorsement of specified excuse categories was indicated with dummy coding, instead of simply counting excuses in fine-grained content analyses. The coding of the PI excuse at least, appeared to be somewhat reliable because the commitment results were similar across the open- and closed-ended conditions. The results of the IE and PE excuses were not the same in both conditions. As mentioned before, the act of writing one's own excuses instead of simply agreeing with excuses that were provided by another source may be more problematic for high autonomy participants, and is perhaps the reason why the benefits for commitment associated with these excuses in the closed-ended condition were not replicated in the open-ended condition.

Another limitation concerned the measure of physical activity, which did not include a baseline, thus change in participants' own physical activity could not be measured. A final limitation was that I was unable to test the interaction of relative autonomy with excuse type, to ascertain the joint effects on commitment. In spite of this limitation, the descriptive findings suggested the intriguing relationship discussed previously among relative autonomy, excuses, and commitment. A way to examine these relationships further, while avoiding the limitations

that made an optimal analytic procedure unavailable to this study, is suggested by the work of Hodgins and colleagues (2006) who used a priming procedure to manipulate autonomy experimentally. An experimental approach facilitates the testing of interaction hypotheses by unconfounding relative autonomy from excuse-making tendencies as they might tend to co-occur in naturalistic settings, and by equalizing the representation of unusually high or low states of relative autonomy in the data, in comparison to the normal distribution of relative autonomy that occurs in naturalistic settings. Furthermore, an experimental approach enables causal inferences to be made concerning the effects of relative autonomy on excuse-making, non-culpability, and commitment. Therefore, in Study 2, I applied an experimental method to testing the original hypotheses of Study 1 and the negative feedback model.

Study 2

A limitation of Study 1 was the use of a correlational design to test the effect of relative autonomy in responsibility-taking and excuse-making. In Study 2, relative autonomy was primed in order to establish a causal relationship between relative autonomy and the consequences of excuses. In other ways however, the aims and objectives were similar to those examined in Study 1. The manipulation consisted of a priming task in which participants were asked to write about relatively less/more autonomous reasons they had for pursuing an important exercise goal (i.e. extrinsic, introjected, identified, intrinsic reasons). This task was used to make the defining attributes of each primed autonomy level salient. In manipulating participants' relative autonomy with the priming task I hoped to ascertain whether differences corresponding to the effects of relative autonomy in the previous study would arise in subsequent relationships with excuse-making and commitment.

Method

Participants

Eighty-three participants completed the experiment, but 2 did not follow the instructions to they were subsequently dropped from further analyses (1 participant wrote about a goal unrelated to exercise, and the other participant explained how the primed exercise reason prevented exercise). Of the remaining 81 participants (41 male and 40 female), the age range was 17-39 years and the mean age was 19.15 years of age. Participants were introductory psychology students from the mass-testing sample as in Study 1 who reported that their most important health goal was to get more physical activity or exercise. Eligible participants also provided information regarding their relative autonomy with respect to exercise.

Materials

Relative autonomy prime. Participants were asked to write a paragraph describing their motivation for physical activity in terms of Sheldon and Elliot's (1999) 4 self-concordance items. Four writing tasks were formed from these items in which participants were asked to describe instances when they have pursued an exercise goal because: (a) "Someone else wants you to, or the situation seems to demand it." (b) "You would feel ashamed, guilty, or anxious if you didn't." (c) "You really believe it's an important goal to have." (d) "The fun and enjoyment that it provides you" (See Appendix I). Each item corresponds to one of four components of relative autonomy: external regulation, introjected regulation, identified regulation, and intrinsic regulation, respectively. The task instructions were as follows: "Most people who are pursuing the goal of getting more physical activity/exercise have a variety of reasons for doing so. One category that is experienced, to varying degrees by many individuals is because . . . (the external, introjected, identified, or intrinsic reason was inserted here). Please take a moment to think about

how this reason for exercising might apply to you personally. In the space below, please list as many examples from your own personal experience as you can.” Participants’ responses were coded to ascertain whether they wrote about the requested motive for exercise. 1 coder read through the responses, while unaware of which version of the prime participants received, and indicated how many reasons for exercise participants wrote that fell into each of the 4 relative autonomy categories (i.e. intrinsic, identified, introjected, and extrinsic). Coding form and instructions are found in Appendix parts Q and R.

Explanations survey. As in Study 1 participants were asked to answer questions with respect to their most recent exercise failure. The task was prefaced with “ Please think back to the last time you tried, but failed to reach your exercise goal. Answer the following questions about that time” (See Appendix J). Unlike Study 1, participants were not asked to describe the failure itself, but the questions about the failure were the same items as in Study 1.

Culpability and commitment survey. This instrument was the same as in Study 1.

Physical activity recall. These items were the same as in Study 1.

Procedure

After random assignment to 1 of the 4 priming conditions, participants completed the explanations survey, followed by the culpability and commitment survey, the exercise intentions survey, and the social desirability scale. One week following the initial study, participants returned to the lab to complete the physical activity recall measure, after which they were fully debriefed.

Results

Preliminary analyses. Before beginning the main analyses, I performed a manipulation check to ascertain whether or not participants followed the instructions, and to determine

whether or not I had successfully primed each category of relative autonomy. Almost all participants provided more than one category of reasons, so I performed a chi-square test to find out whether the prime condition matched the reason that each participant wrote about most often. Fourteen participants did not have a dominant category of reasons and were included as an additional group in the chi-square test. The chi-square test was significant $\chi^2(12, N = 81) = 77.95, p < .001$.

As in Study 1, gender was examined as a covariate; again, this inclusion did not alter the relationships between relative autonomy, excuse-making and the dependent variables, although in some cases the statistical significance of the relationship varied with the loss of an additional degree of freedom for this covariate.

Non-culpability judgments. To examine the effects of excuses and relative autonomy on the non-culpability judgments, I performed regressions with each culpability measure as the dependent variable. The relative autonomy priming condition was represented by 3 dummy-coded variables, with the extrinsic, introjected, and identified group coded against the intrinsic (reference condition). Due to concerns about power and sample size, separate regression models had to be constructed for each of the three excuse types. Thus, the rest of the predictors in each analysis included participants' endorsement of the respective excuse-types and three product terms representing the interaction of relative autonomy with the excuse types. The predictors were entered hierarchically with the main effects of relative autonomy priming and each excuse-type on step 1, followed by the product terms on step 2. Social desirability was not included in the model because relative autonomy in this instance was a manipulated variable.

The results of the final step of each regression analysis are presented in Tables 9-11. The PI excuse was not significantly related to the non-culpability judgments, either independently or

jointly with primed relative autonomy. The IE excuse was related to lowered responsibility for intrinsically primed participants only. There was an identified by IE interaction for responsibility. When the simple slopes were examined, only the simple slope for the intrinsic group was significantly different from 0 ($\beta = -.31, p < .01$). There were no significant relationships between the PE excuse and the non-culpability judgments either independently or jointly with primed relative autonomy. The only instance in which culpability was significantly removed was among intrinsically primed participants who endorsed the IE excuse.

Table 9

Summary of Hierarchical Regression Analysis for Relationships between Relative Autonomy, Prescription-identity Excuses, and Non-culpability Judgments (N = 81)

Predictor	Judgment		
	Responsibility	Differently	Justified
PI	.33	-.16	.21
Extrinsic (Ex)	-.05	.00	-.09
Introjected (Ij)	-.09	.03	-.04
Identified (Id)	-.17	-.12	.02
Ex × PI	-.03	.29 [†]	-.23
Ij × PI	-.17	.01	-.01
Id × PI	-.29 [†]	-.15	.03

Note. ** $p \leq .01$, * $p \leq .05$, † $p \leq .10$. Numbers are standardized slopes from a regression analysis on centered scores with the extrinsic, introjected, and identified dummy-coded against the intrinsic group. Main effects were entered before interaction terms. PI = the Prescription-identity excuse.

Table 10

Summary of Hierarchical Regression Analysis for Relationships between Relative Autonomy, Identity-event Excuses, and Non-culpability Judgments (N = 81)

Predictor	Judgment		
	Responsibility	Differently	Justified
IE	-.76**	-.17	.02
Extrinsic (Ex)	-.18	-.10	-.02
Introjected (Ij)	-.19	-.05	.00
Identified (Id)	-.29 [†]	-.21	.11
Ex × IE	.28	.14	.14
Ij × IE	.19	.01	.00
Id × IE	.43*	.32 [†]	-.27

Note. ** $p \leq .01$, * $p \leq .05$, [†] $p \leq .10$. Numbers are standardized slopes from a hierarchical regression analysis on centered scores with the extrinsic, introjected, and identified dummy-coded against the intrinsic group. Main effects were entered before interaction terms. IE = to the Identity-event excuse.

Table 11

Summary of Hierarchical Regression Analysis for Relationships between Relative Autonomy, Prescription-event Excuses, and Non-culpability Judgments (N = 81)

Predictor	Judgment		
	Responsibility	Differently	Justified
PE	.34	.46 [†]	-.36
Extrinsic (Ex)	.00	-.12	.01
Introjected (Ij)	-.01	-.03	.02
Identified (Id)	-.06	-.12	.06
Ex × PE	-.04	-.07	.06
Ij × PE	-.04	-.13	.11
Id × PE	-.09	-.21	.31 [†]

Note. ** $p \leq .01$, * $p \leq .05$, † $p \leq .10$. Numbers are standardized slopes from a hierarchical regression analysis on centered scores with the extrinsic, introjected, and identified dummy-coded against the intrinsic group. Main effects were entered first followed by the interaction terms. PE = to the Prescription-event excuse.

Effects of relative autonomy on excuse-making. A 3 (Excuse Type) \times 4 (Relative Autonomy Prime) ANOVA with Excuse Type as a within-subject and Relative Autonomy Prime as a between-subjects factor was performed to assess whether the extent of each type of excuse-making differed on the basis of the priming manipulation. The results of the omnibus test are presented in Table 12. A main effect of excuse type was the only significant omnibus finding. Contrast tests employed to examine differential endorsement of excuses revealed that participants agreed less with the PI excuses than with both the IE excuse, $F(1, 77) = 12.17, p = .001$, and the PE excuse, $F(1, 77) = 4.28, p < .05$. The 3 \times 4 omnibus interaction was not significant. Nevertheless, as in Study 1, the simple effects were examined in order to determine whether or not differences in excuse endorsement were apparent within each of the Relative Autonomy Prime groups. In line with the previous study's findings, the only group that differed significantly on excuse endorsement was the intrinsically-primed group $F(2, 76) = 5.02, p < .01$. Specifically, participants in the intrinsic prime group were significantly less likely to endorse a prescription-identity excuse ($M = -.34, SE = .11$) than they were to endorse an identity-event excuse ($M = .35, SE = .11$). In sum, all participants agreed more with IE excuses than the PI or PE excuses, and this effect was strongest in the group that received the intrinsic prime.

Effects of excuses on commitment. I expected that negative outcomes for commitment would be associated with endorsement the PI excuse and that positive outcomes would be associated with endorsement of the IE and PE excuses. Furthermore, the original model predictions (albeit, unsupported by Study 1) were that these relationships between excuse-making and commitment would be moderated by relative autonomy, such that participants receiving extrinsic or introjected primes would experience increased commitment when they

Table 12.

Analysis of Variance for Relative Autonomy Prime

Source	<i>df</i>	<i>F</i>	η^2	<i>p</i>
Between subjects				
Relative Autonomy (RA)	3	.51	.01	.68
RA within group error	77	(.05)		
Within subjects				
Excuse (E)	2	4.38	.05	.01
RA × E	6	.70	.03	.65
RA × E within- group error	154	(.68)		

Note. Values in parenthesis represent mean square errors.

endorsed IE or PE excuses. To test these predictions, I performed regressions with each commitment measure as the dependent variable. The prime groups were dummy-coded, with the extrinsic, introjected, and identified group coded against the intrinsic (reference condition). Again, as in the non-culpability analyses, social desirability was not included in the model and separate hierarchical regressions were computed for each excuse type.

Tables 13-15 show the results of these regression analyses. The first series of commitment-related outcomes for each excuse in turn. The results of the PI excuse are shown in Table 13, which yielded a negative relationship with commitment for the intrinsic group. There was also a significant interaction between the introjected prime and endorsement of the PI excuse for commitment. Next, to examine the interaction, I computed simple slopes. For the intrinsic group, the simple slope was significantly negative, such that PI excuse-endorsement was significantly related to reduced commitment, whereas for the introjected group simple slope was nonsignificantly positive (see *Figure 3*). The findings for commitment did not continue across the series of dependent variables as expected, although some of the effects were replicated on the intentions measure. In sum, relative autonomy was found to moderate the relationship between endorsement of the PI excuse and commitment. Such that suggesting that the negative effects of the PI excuse only appeared for high autonomy participants in the intrinsic priming condition.

Next, I examined the relationship between the IE excuse and relative autonomy (see Table 14). A significant introjected by IE interaction emerged for commitment. Figure 4 shows the results of the analysis of simple slopes, which indicate a positive relationship between IE excuse-making and commitment for each group except those primed with introjected motivation (i.e. guilt or anxiety over non-performance of exercise. Some of these effects were replicated on the intentions measure.

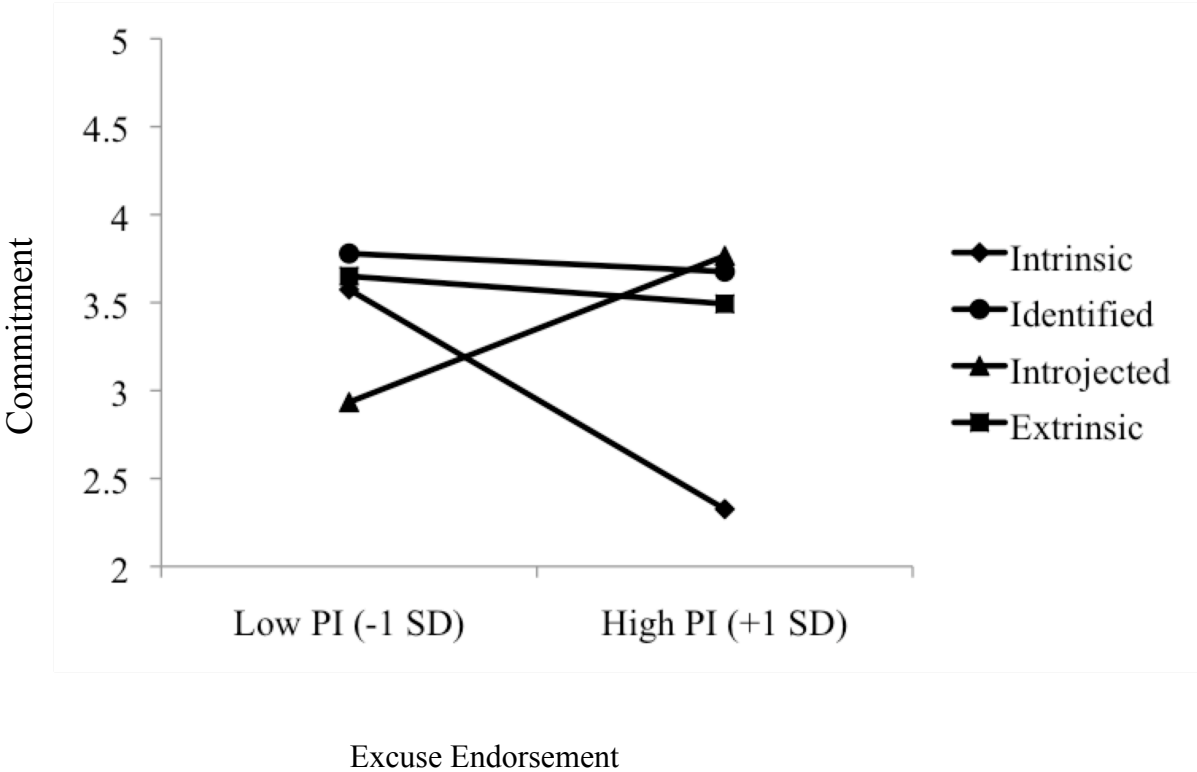


Figure 3. Simple slopes for the relative autonomy by PI interaction on commitment.

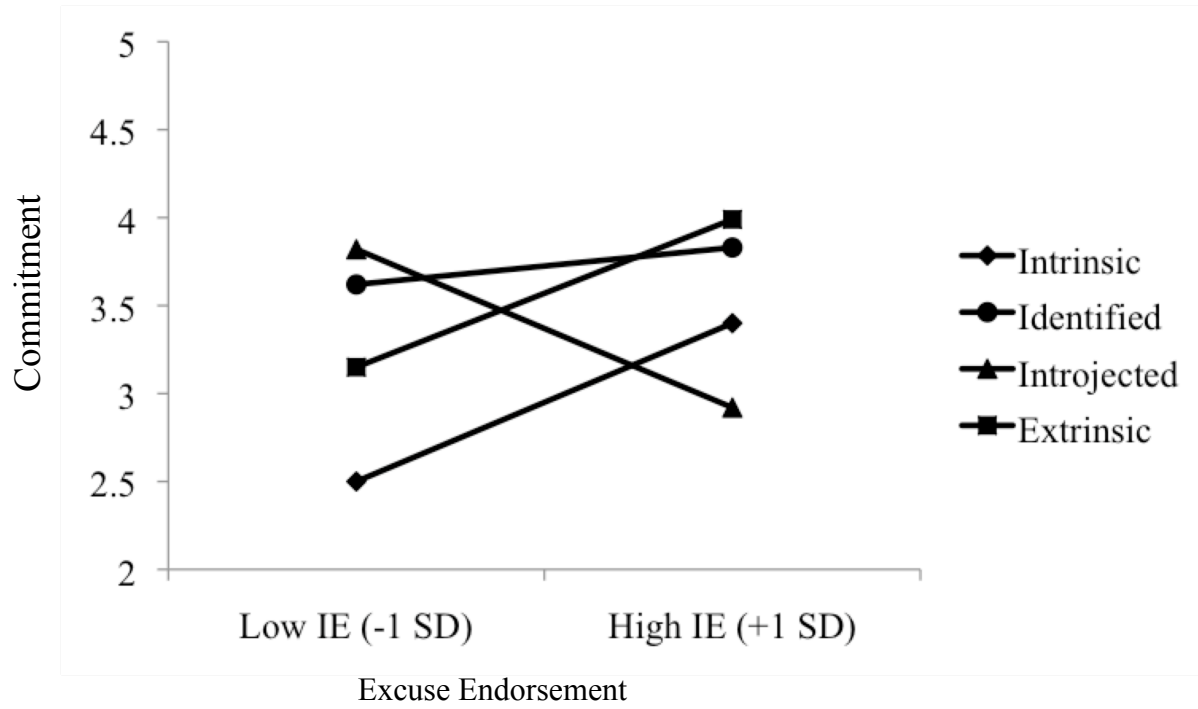


Figure 4. Simple slopes for the relative autonomy by IE interaction on commitment.

Table 13

Summary of Hierarchical Regression Analysis for Relationships between Relative Autonomy, Prescription-identity Excuses, and Commitment Outcomes (N = 55)

Predictor	Commitment Outcome			
	Commitment	Expected success	Intentions	Total activity
PI	-.48*	.22	-.25	.27
Extrinsic (Ex)	.34*	-.29 [†]	.03	-.07
Introjected (Ij)	.30*	-.02	.27 [†]	-.06
Identified (Id)	.41**	-.08	.30*	.10
Ex × PI	.22	-.32*	.02	-.09
Ij × PI	.35**	-.15	.15	-.04
Id × PI	.25 [†]	-.14	.09	-.11

Note. ** $p \leq .01$, * $p \leq .05$, [†] $p \leq .10$. Numbers are standardized slopes from a hierarchical regression analysis on centered scores with the extrinsic, introjected, and identified dummy-coded against the intrinsic group. Main effects entered first, followed by the interaction terms. PI = the Prescription-identity excuse.

Table 14

Summary of Hierarchical Regression Analysis for Relationships between Relative Autonomy, Identity-event Excuses, and Commitment Outcomes (N = 55)

Predictor	Commitment Outcome			
	Commitment	Expected success	Intentions	Total activity
IE	.36 [†]	-.10	.43 [†]	.01
Extrinsic (Ex)	.29 [†]	-.27 [†]	.08	-.02
Introjected (Ij)	.24 [†]	.03	.30*	-.01
Identified (Id)	.38**	-.03	.38**	.15
Ex × IE	-.04	.32 [†]	-.09	.01
Ij × IE	-.29*	.10	-.16	.07
Id × IE	-.15	-.09	-.31 [†]	.04

Note. ** $p \leq .01$, * $p \leq .05$, [†] $p \leq .10$. Numbers are standardized slopes from a hierarchical regression analysis on centered scores with the extrinsic, introjected, and identified dummy-coded against the intrinsic group. Main effects entered first, followed by the interaction terms. IE = the Identity-event excuse.

Table 15

Summary of Hierarchical Regression Analysis for Relationships between Relative Autonomy, Prescription-event Excuses, and Commitment Outcomes (N = 55)

Predictor	Commitment Outcome			
	Commitment	Expected success	Intentions	Total activity
PE	.49*	-.31	-.06	-.53*
Extrinsic (Ex)	.23 [†]	-.16	.02	-.02
Introjected (Ij)	.13	.06	.21	.04
Identified (Id)	.28*	-.02	.25	.17
Ex × PE	-.53**	-.02	-.12	.11
Ij × PE	-.24 [†]	.16	-.03	.12
Id × PE	-.31 [†]	.39*	.22	.16

Note. ** $p \leq .01$, * $p \leq .05$, [†] $p \leq .10$. Numbers are standardized slopes from a hierarchical regression analysis on centered scores with the extrinsic, introjected, and identified dummy-coded against the intrinsic group. Main effects entered first, followed by the interaction terms.

PE = the Prescription-event excuse.

The results are contrary to predictions that commitment of low autonomy participants would benefit from endorsement of the IE excuse because the introjected participants are the ones who experience decreases in commitment as IE excuse-endorsement goes up.

Finally, I examined the interaction effects of the PE excuse with relative autonomy for commitment (see *Table 15*). The PE excuse was positively related to commitment. A significant extrinsic by PE interaction emerged for commitment. Upon examining the simple slopes (see *Figure 5*), the results indicated that for extrinsic participants, endorsement of this excuse negatively related to commitment, whereas the opposite was true for the intrinsically primed group. The commitment-related results for the PE do not continue over the other dependent measures, although some of the trends for intentions are in the same direction. In spite of the short-term increases in commitment for the intrinsic prime group, these participants report lower physical activity at follow-up in relation to endorsement of the PE excuse. This study replicated procedures of the previous study using an experimental manipulation in place of pre-test measurement of participants' relative autonomy toward exercise. In so doing, it enabled closer examination of the interaction effects of relative autonomy and excuse-making on judgments of culpability and commitment.

In sum, these results confirm that endorsement of the PI excuse is negatively related to commitment for intrinsically-primed participants, whereas endorsement of the IE and PE excuses are significantly, or nearly significantly positively related to commitment. When these trends are significantly reversed, the reversal only occurs in the extrinsic or introjected groups.

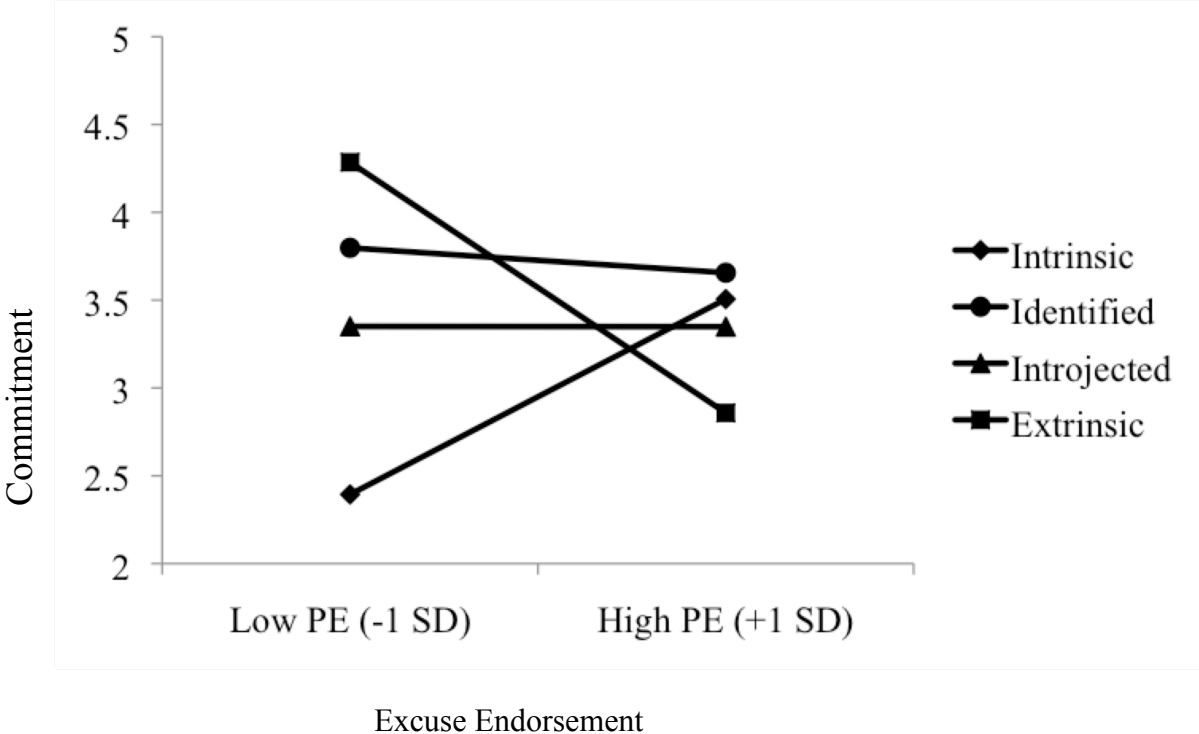


Figure 5. Simple slopes for the relative autonomy by PE interaction on commitment.

Discussion

Judgments of non-culpability. In examining the non-culpability judgments, I was primarily interested in whether the judgments varied based on the excuses participants endorsed. There were few significant relationships for these judgments, although notably, the IE excuse was related to lowered responsibility-taking for intrinsically primed participants only. At a descriptive level, trends emerged for the PI excuse such that it related positively to responsibility-taking for intrinsically primed participants only, although this relationship did not extend across the other dependent measures. In line with previous findings and predictions, there were also trends for the IE excuse to relate negatively to responsibility-taking for all participants. Contrary to predictions, the PE excuse trended toward increased responsibility-taking for intrinsic participants only. Thus, there were no differential effects of excuses on non-culpability judgments, unlike in Study 1, in which the IE excuse related to lowered culpability and the PI excuse related to increased culpability.

Effects of relative autonomy. The second question addressed by this study was whether or not excuse-making is affected by relative autonomy. As in the previous study, all participants preferred to endorse the IE excuse over the PI or PE excuses. The results did not support the prediction that high autonomy causes less excuses overall, but the results were in favor of the hypothesis that high autonomy causes less prescription-identity excuse-making. The intrinsically primed-group was the only group found to engage in significantly less PI excuse-making than IE excuse-making. These results build on the results of the previous study in which a larger effect size of excuse differentiation was found in the higher autonomy group than in the lower autonomy group. The results of this study, indicating that excuse-making only varied in the

intrinsic condition, support the view that differences in excuse-making are only apparent at the highest end of the spectrum.

Commitment-related outcomes. The next question I examined was whether or not relative autonomy moderates the effects of excuses on commitment. The results of this study supported the view that relative autonomy moderates the effects of excuses on commitment. As shown in Figure 4, intrinsically primed participants were the only group to experience decrements in commitment in proportion to endorsing a PI excuse. For the IE excuse, introjected participants, experienced proportionate decrements in commitment, whereas the effect of this excuse in the other groups was positive.

These findings supported the previous study's descriptive findings suggesting that relative autonomy affects excuse-making and that it moderates the effects of excuses on commitment. Because this study manipulated relative autonomy, it did not have some of the limitations that were present in Study 1. In the previous study, relative autonomy was measured several months before the procedures, whereas in the present study, it was primed at the beginning. Also, because relative autonomy was manipulated in the present study, I was able to make causal inferences about the nature of the relationship between relative autonomy and excuse-making, specifically that high relative autonomy causes less prescription-identity excuse-making and incurs a cost to commitment when such excuse-making still occurs.

Limitations. Several limitations were still present concerning the measures of this study. As in the previous study, a limitation of Study 2 was the absence of a baseline measure of physical activity. Had I been able to compare participants' physical activity 1-week later to their previous activity, I might have observed short-term within-person changes in physical activity, due to priming or excuse-making, which were relatively hard to detect by comparing between

persons. Another limitation of this study was that most participants did not follow the instructions of the prime task, which only asked for one type of motivation for physical activity. Instead, most participants wrote about several motivations for exercise, and not all participants even provided the primed motive as their dominant motive for exercise. These participants were not dropped from the analyses because, when the analyses were performed without these individuals, the only effect on the results and conclusions was a reduction in power. In spite of the inclusion of participants who provided more than one category of dominant motives for exercise, effects of the prime were still observed. A more error-free manipulation could well result in stronger effects on culpability and commitment in future research.

One limitation of the analyses was that for regression analyses that tested for relative autonomy by excuse effects on commitment, I was not able to simultaneously enter all of the excuse types. Had I entered all 3 excuses with their interaction terms, there would have been too many predictors and I did not have the sample size to support such a large model. Even with this analytic limitation, the presence of different patterns within each excuse category makes it unlikely that controlling for one excuse type would reduce the effects found for another excuse type. Not all of the results for relative autonomy priming emerged linearly, as predicted by self-determination theory. That is, the effects did not always progress linearly as relative autonomy increased or decreased from one priming category to the next. It could be that errors in the manipulation noted above render such fine-grained distinctions unsustainable.

In spite of the limitations outlined above, the results of this study support the prediction that relative autonomy moderates the relationship between excuses and commitment. The results also indicate that intrinsically primed participants are less likely to make PI excuses than IE or PE excuses and more likely to suffer in terms of commitment to exercise if they make a PI

excuse. As in Study 1, the present results did not support the prediction that higher autonomy participants would engage in less excuse-making overall, and this information is contrary to self-determination theory and research on defensiveness suggesting that autonomous individuals should respond non-defensively (without making excuses) to experiences of personal goal failures. However, the results continue to suggest ways in which high relative autonomy combines with excuse-making so as to buffer individuals' exercise goal pursuits from discouragement in the wake of a failure.

Study 3 takes us in a new direction – asking whether or not we can go beyond commitment and into internalization as a consequence of excuses. Study 3 also returns to the concept of constrained opportunity for excuse-making, by investigating the effectiveness of social normative acceptance of excuses for personal goal failures. Thus the goal of Study 3 was to make a causal inference regarding the possible consequences of excuse-making on internalization by attempting a manipulation of excuse opportunity different from the failed procedure in Study 1.

Study 3

Studies 1 and 2 tested the effects of prior relative autonomy on later excuse-making. In contrast, the main objective Study 3 was to test the second part of the model (see *Figure 1*), which holds that excuse-making affects later commitment and internalization of personal physical activity goals. Earlier, I theorized that these effects could be either positive or negative depending on the nature of the excuse and whether or not the excuse is tolerated.

In order to test this prediction, following a procedure developed by Murray and Holmes (1993) to deliver expert feedback in the context of romantic relationships, participants read an article attributed to an expert source in which excuses for exercise failure were portrayed as assisting in

or hindering exercise goals. Prior to reading this article, participants recounted a personal exercise failure and then completed the same commitment and intention measures as were used in the previous studies. After reading the article, participants completed a measure of their basic need satisfaction in exercise. As in the previous studies, participants returned to the lab to complete the physical activity recall measure. By manipulating excuse-tolerance in this way, I hoped to create conditions in which the normal affordances of excuse-making were selectively preserved or blocked for participants.

A primary objective of this study was to move beyond commitment and into internalization, that is, the integration of the goal with the self. Internalization was measured in two ways: by means of the relationship between autonomy and basic need satisfaction, and the relationship between intentions and behaviour. According to self-determination theory (Deci & Ryan, 2000), basic need satisfaction is positively related to autonomous pursuits. Thus, a marker of internalization is when autonomy relates to basic need satisfaction. Likewise, when behaviours are highly internalized, they are performed intentionally, thus the second measure of internalization consisted of the relationship between intentions and behaviour.

The initial prediction of the model in Figure 1 was that given lower relative autonomy, participants who received the tolerant article as opposed to the intolerant article would experience greater internalization (i.e. higher correlations of their relative autonomy with basic need satisfaction, and intentions with subsequent physical activity). It should be noted that the emerging trends in this thesis point instead toward high autonomy individuals that the ones who experience corresponding changes in their commitment to exercise based on endorsement of excuses. Thus, it would not be surprising if high instead of low autonomy individuals especially showed effects of excuse-tolerance on commitment/internalization outcomes.

Method

Participants

62 participants completed the experimental procedures (32 male, 31 female). 1 male participant was dropped from the analysis due to writing about an extreme and unhealthy goal, leaving a total of 61 participants for the final analyses. Participants ranged in age from 17 to 35 years, with a mean age of 18.83 years. Participants were again introductory psychology students who received a portion of their research participation credit for the experiment. Eligible participants were those who indicated on a previous mass-testing questionnaire that their most important current health goal was to increase their physical activity/exercise. As in the other studies, information on exercise goal self-concordance was also a prerequisite. Scores ranged from -3.50 to 9.00 on the scale with possible scores of -10 to 10.

Materials

Psychological need satisfaction in exercise scale. This scale was developed by Wilson, Rodgers, Rodgers, and Wild (2006) and is used to measure fulfillment of needs for autonomy (e.g. “I feel free to make my own exercise decisions”), relatedness (e.g. “I feel close to my exercise companions”), and competence with respect to exercise behaviour (e.g. “I feel confident I can do challenging exercises”) (See Appendix K). Reliabilities for the subscales were sufficient: autonomy ($\alpha = .91$) for 6 items, competence ($\alpha = .94$) for 6 items, and relatedness ($\alpha = .86$) for 6 items.

Tolerant/intolerant article. Two articles, ostensibly written by a personal trainer discussed excuses as acceptable or detrimental when pursuing an exercise goal. The articles were almost identical; that is, only a few words were altered to change the meaning of the article (See Appendices L and M). As in the study by Murray and Holmes (1993), participants were told that

the article was from *Psychology Today*. In the lab, before reading the article, participants were given the article in an envelope and were told: “The envelope contains an article and some questions about your perceptions of the article. Your evaluation of the article is of primary importance so please answer the questions carefully.” The articles were identical except for the addition or subtraction of the word “not” in places that discussed whether or not excuses were beneficial. For example, in the tolerant condition, the title of the article was “**Short-Term Excuses Are Not Dangerous to Exercise Goals!**” In the intolerant condition, the title was “**Short-Term Excuses Are Dangerous to Exercise Goals!**”

Post-article survey. Participants indicated on a Likert-type scale (1=not at all, 5 = completely) how tolerant the article was with respect to excuse-making, how novel the information was, whether they agreed/disagreed with the information presented in the article, and how persuasive they thought the argument was. The first item was used as a manipulation check (See Appendix N).

All other materials were the same as in Study 1.

Procedure

Participants were contacted from the mass-testing list to participate in a one-on-one study of exercise goals. In the lab, all participants received the same failure recall task as Group A participants in Study 1 (description of failure experience without an explicit request for the causes of the failures). Participants also completed the culpability and commitment survey, exercise intentions measure, and the BIDR as in Studies 1 and 2. Next, participants were randomly assigned to receive either the tolerant or intolerant article. The experimenter was blind to which condition participants were assigned. Following Murray and Holmes (1993), participants were told that the article appeared in *Psychology Today*, and that part of the interest

of this study was in how they would evaluate research about exercise in the popular media. As in Murray and Holmes' (1993) research, participants were given an opportunity in the Evaluation survey to disagree with the article, thus reducing the demands of the experiment. After reading the article, participants completed the evaluation survey, and basic need satisfaction scale. One week later participants returned to complete physical activity recall measure, after which they were fully debriefed. If participants did not return, they were contacted by phone for the follow-up and e-mailed the debriefing if they could be reached.

Results

Before examining my predictions, I performed a manipulation check by testing whether or not participants felt that the tolerant article was more tolerant of excuses than the intolerant article. This analysis was performing using a t-test. As expected, participants who received the tolerant article ($M = 4.10$, $SD = .91$) agreed more with the statement that the article was tolerant of excuses than participants who received the intolerant excuse article ($M = 1.73$, $SD = .94$), $t(60) = 15.24$, $p < .001$ (one-tailed), $d = 2.93$.

The next stage of the analyses involved the coding of excuses in participants' responses to the question that asked for a listing of the events leading up the failure. Participants wrote an average of 43 words ($SD = 22$). 77% of participants generated an excuse of any kind. 21.3% of excuses generated were PI excuses ($M = .28$, $SD = .64$), 65.6% were IE excuses ($M = 1.70$, $SD = 1.87$), and 4.9% were PE excuses ($M = .05$, $SD = .22$). An example of an excuse coded as a PI excuse is: "I had some free time, but was not motivated to pursue physical activities." In the previous statement, the participant argues for a lack of motivation, which is essentially claiming that the goal was not something he/she really wanted to complete. A sample IE excuse is: "I got busy doing other things, (school, commuting). With this excuse, the participant is arguing that

school and commuting, that is, external factors, got in the way of the goal. Finally, an example of a PE excuse is: “Halfway through my grade 12 year I decided to go to the gym more often (2 or 3 times a week). Played rugby during that time so I felt I did not have to go as often.” With this excuse, the participant changes the goal, making the procedures and conditions of failures less clear. Coding forms and instructions are found in Appendix parts O and P. Initially I examined the results of only the participants who made excuses. In comparison with the whole sample, the restricted sample showed only a reduction in power while maintaining the same trends. Therefore, I chose to use the whole sample in the analyses reported below.

Gender was also included as a covariate in the regressions constructed for this study, this inclusion did not alter the direction or significance of the relationships between relative autonomy, article tolerance, exercise intentions and the dependent variables.

As noted earlier, this study assessed the internalization of participants’ exercise goals in two ways: by means of the correlations between (a) their relative autonomy and basic need satisfaction through exercise, and (b) their intentions to exercise and subsequent behaviour. To compare these relationships between the excuse-tolerant and –intolerant conditions, I used multiple regression analysis to the relevant interactions. Specifically, in the analysis of basic need satisfaction I considered each of the 3 needs for autonomy, competence, and relatedness, in turn, as a dependent variable. Predictors were relative autonomy, article type, and a product term for the relative autonomy \times article type interaction. Scores on relative autonomy were centered prior to analysis, article type was reference coded with the intolerant condition coded as -1 and the tolerant condition coded as 1, and multiplying these two predictions together formed the product term. The method of entry was again hierarchical, with main effects on step 1, followed by the interaction on step 2. The results are presented in Table 16. There was a significant

Relative Autonomy \times Article interaction for satisfaction of the need for competence. To examine this interaction, I performed a simple slope analysis that is shown in Figure 6. As predicted, a significant simple effect emerged such that satisfaction of the need for competence was positively related to autonomy only in the tolerant condition ($\beta = .15, p < .05$).

Table 16

Summary of Regression Analysis for Relationships between Relative Autonomy, Excuse Tolerance, and Basic Need Satisfaction (N = 57).

Predictor	Need Satisfaction		
	Competence	Autonomy	Relatedness
RA	.04	-.18	.05
Excuse article	.06	.18	.15
RA by article	.31*	.13	.09

Note. ** $p \leq .01$, * $p \leq .05$, † $p \leq .10$. RA refers to Relative Autonomy. Numbers are standardized slopes from a regression analysis. The article was coded as -1 for excuse intolerant and 1 for excuse tolerant, so a positive relationship with the article would indicate a positive relationship with article tolerance.

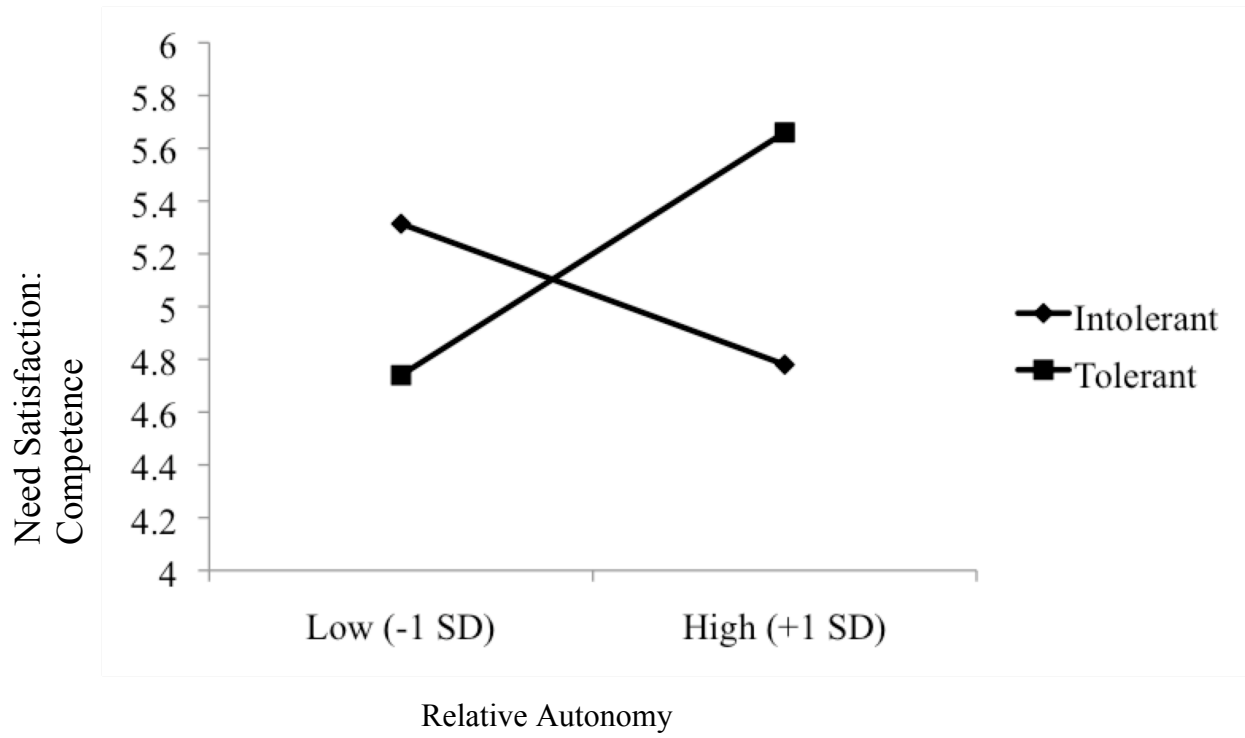


Figure 6. Simple slopes of satisfaction of the need for competence on relative autonomy among participants in each article condition.

In the same fashion, I examined next the link between participants' exercise intentions and behaviour in each condition. As shown in Table 17, the interaction of intentions \times article type was not significant, but I still chose to examine the simple slopes based on a priori predictions. As shown in Figure 7, in the intolerant condition, the relationship between intentions and behaviour was not significant, but in the tolerant condition the expected positive relationship between intentions and behaviour emerged ($\beta = .48, p < .01$). This supports the prediction internalization (i.e. the relationship between intentions and behaviour) is disrupted for participants who received feedback that was not tolerant of excuses.

Table 17

Summary of Hierarchical Regression Analysis for Relationships between Excuse Tolerance, Intentions and Behavior (N = 57).

Predictor	Total Physical Activity
Intentions	.33*
Excuse article	-.04
Article by intentions	.17

Note. ** $p \leq .01$, * $p \leq .05$, † $p \leq .10$. RA refers to Relative Autonomy. Numbers are slopes from a hierarchical regression analysis with the main effects entered first, followed by the interaction terms. The article was coded as -1 for intolerant and 1 for tolerant, so a positive relationship with the article would indicate a positive relationship with article tolerance.

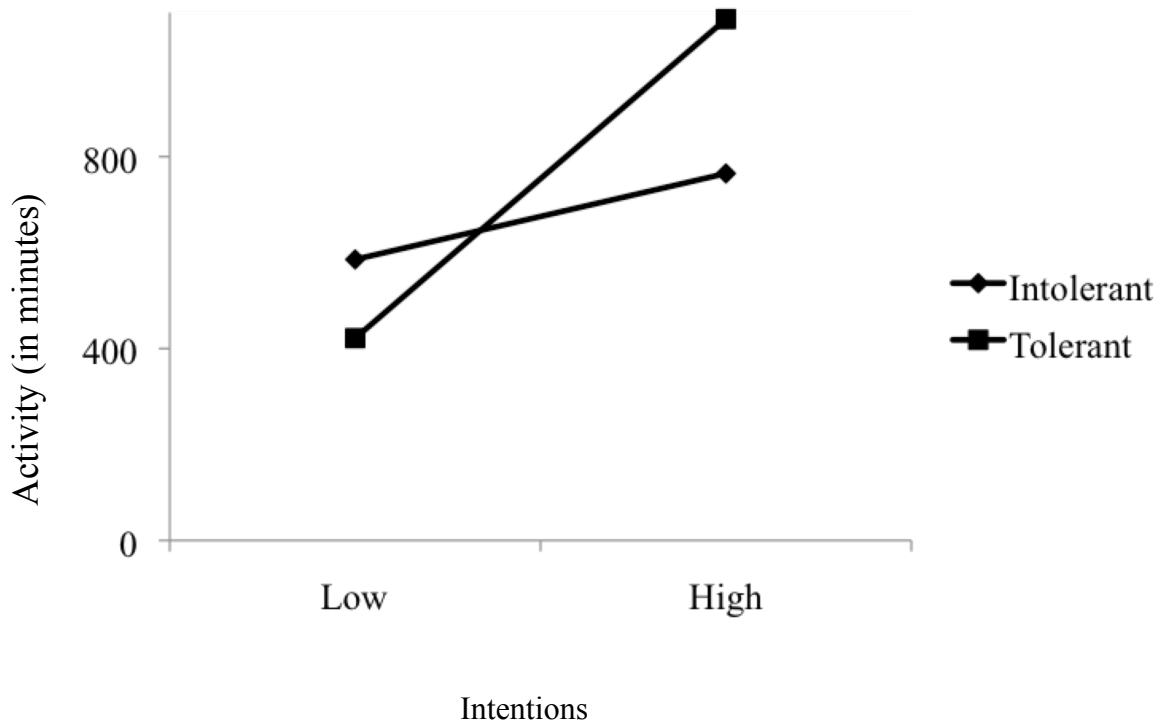


Figure 7. Simple slopes for the Intentions by excuse tolerance interaction on total physical activity.

Discussion

This study used 2 measures of internalization to examine whether excuse tolerance, in comparison with intolerance maintains internalization of an important physical activity goal. The first measure was the relationship between relative autonomy and basic need satisfaction through pursuit of a physical activity. In the present study, this relationship was only observed with respect to the need for competence when participants received feedback that was tolerant of excuses. The second measure was the relationship between intentions to exercise and exercise behaviour. Internalized behaviour should match intentions, such that individuals engage in behaviour that they mean to. In the present study, intentions to exercise only significantly predicted behaviour in the tolerant condition. Thus, both measures of internalization supported the prediction that internalization would be maintained with excuse tolerance, but disrupted with excuse intolerance.

One surprising finding was that relative autonomy did not have an effect on satisfaction of participants' needs for autonomy or relatedness. In hindsight, having just finished writing about a failure regarding their exercise goal, participants might have encountered a more salient threat to their need for competence than for either autonomy or relatedness. In sum, the findings suggest that the acceptance of excuses is useful in promoting exercise internalization and behaviour.

Limitations. One main limitation of this study was the lack of an excuse typology measure. Most of the participants in this study provided some kind of excuse for failure in this study, thus it is not possible to ascertain whether different relationships would have emerged for varying excuse-types.

The fact that participants received tolerance feedback in the form of an article was also a limitation because it may or may not accurately reflect the processes that would occur if the participant verbally excused his/her behaviour and then received feedback directly from another person, such as a close other or someone perceived as an expert. In order to examine this external validity issue, further research needs to address whether the dynamics are similar in everyday, verbal interactions.

In spite of these limitations, the results of this study showed, using two measures of internalization, that a social-normative context that tolerates excuses can maintain internalization, whereas one of intolerance disrupts this process. These findings add to the evidence of the previous studies showing that excuses can be beneficial for commitment. Furthermore, although it might be argued that if relatively autonomous individuals are non-defensive, then a social context limiting excuses would favor the development of internalization, the results of this study suggest the opposite response to excuses gives greater support to internal goal regulation.

General Discussion

From this thesis I expected to ascertain whether two central propositions of the model in Figure 1 were true. The first proposition was that relative autonomy limits excuse-making overall. This assertion was not supported. In both Studies 1 and 2, participants' tendencies either to endorse excuses in general or to provide them when asked did not vary based on relative autonomy, whether autonomy was examined as a measured characteristic or as a manipulated variable. A corollary of this prediction was that highly autonomous individuals would be particularly less likely to make prescription-identity excuses which distance the self from the pursuit, as compared with their less autonomous counterparts. This corollary was eventually

supported in the second study, after first being hinted at in Study 1, with both studies suggesting greater negative differentiation between the PI and the IE excuse among persons higher in relative autonomy toward exercise. Thus, highly autonomous individuals may be more discerning when choosing excuses, such that the PI excuse, which effectively distances the participants' identity from the goal, is the one excuse that these relatively autonomous participants reluctantly use.

The second central proposition of the model was that some kinds of excuse-making could promote commitment and internalization. Only the IE and PE excuses were expected to promote commitment, and individuals lower in relative autonomy were expected to receive the strongest benefits, because individuals higher in relative autonomy should already be experiencing them. Consistent with these expectations, the PI excuse yielded negative effects for commitment regardless of participants' relative autonomy, an effect that was replicated in both the open-ended and closed-ended conditions in Study 1, and in Study 2. Contrary to expectations, however, the consequences for commitment of the other 2 types of excuses either were not moderated by relative autonomy or were not stronger for individuals with lower relative autonomy. Combining these results across the two central propositions, it appears that if highly autonomous individuals are less likely to endorse the PI excuse in the first place, then they must have lower chances of experiencing the negative consequences of it for goal commitment.

All participants, regardless of their relative autonomy, preferred to use or endorse the identity-event excuse, in which the individual argues that a lack of personal control of circumstances prevented the behaviour from being carried out. In Study 1, it was the excuse most often provided in the open-ended condition, and in the closed-ended condition of Studies 1 and

2, it was the excuse most highly endorsed. Unlike the PI and PE excuse, the IE excuse was the only excuse that related consistently to lower culpability.

The IE excuse also appeared to be related to higher commitment, an effect that was moderated by relative autonomy, but not in the expected direction. In the closed-ended condition of Study 1, individuals with higher relative autonomy reported greater commitment after using the IE excuse. In Study 3, individuals higher in relative autonomy reported greater satisfaction of their need for competence after receiving expert feedback that was tolerant of excuses - - the majority of which, once again, were IE excuses. The proposition of the model that some excuses could assist commitment/internalization received partial support. Taken together, the results of this research suggest that of the excuse types in the triangle model the PI excuse is not beneficial to commitment/internalization for anyone, but the IE excuse may be beneficial for individuals higher in relative autonomy.

Comparisons with previous research. The finding that most excuse-making did not vary with autonomy was unexpected and at odds with the a finding by Hodgins and Liebeskind (2003) that individuals who received a dispositional autonomy prime were less likely than individuals who received other types of primes (control-oriented or impersonal) to make excuses for social transgressions. When Hodgins and Liebeskind's findings are closely examined, however, it seems that autonomy is related to *selective defensiveness* rather than to utter non-defensiveness. In the same study participants who received the autonomy prime and who imagined receiving severe reproach for their transgression exhibited another type of defensiveness, which simply involved giving shorter accounts for the transgression. As suggested by the authors, perhaps autonomously primed individuals chose the method of defensiveness that would result in the fewest repercussions for the relationship. This finding is similar to what was observed in the

present research. Specifically, higher autonomy participants were not less likely to show defensiveness (lowered excuse-making) in general, but they were more discerning in the types of excuses they employed for describing failures. Only intrinsically primed participants showed significant differentiation between the PI excuses and the others, thus selectively avoiding the excuse with the most damaging effects to commitment. Although the findings of this study fit well with the one previously described, Hodgins and colleagues completed additional studies arguing for the non-defensiveness of autonomous individuals.

In an anagram task, Hodgins and colleagues (2006) demonstrated that autonomously primed individuals were less likely to display self-serving biases in success and failure attributions. That is, autonomously primed participants did not accept responsibility for successes while denying responsibility for failures on the task. Further, in a self-handicapping study, Hodgins and colleagues found that autonomously primed rowers were less likely to provide self-handicapping statements before a race. There are fundamental procedural and construct-related differences between these two studies and the present research. First of all, in all cases, Hodgins and colleagues primed a general level of autonomy, instead of with respect to a specific personal goal. Because a general disposition is less susceptible to the effects of a single outcome, it makes sense that autonomy was not shaken by failure on an anagram task. Conversely, in the present research, the failures described were personally relevant and chosen by the participant. Additionally, in Hodgins and colleagues study involving rowers, participants were or were not making defensive statements *before a potential* failure occurred. The fact that these accounts occurred in anticipation of failures that may or may not occur makes the procedures different from those experienced in the present research. In the present work, all participants described a real failure that had already occurred, making the experience more

salient, a similar procedure to what Hodgins and Liebeskind (2003) adopted in study described previously. Taken together, the present research and Hodgins and colleagues' work on non-defensiveness indicate that given a stressful enough situation, that is, when individuals feel severely reproached, or when failure with respect to a personal goal is particularly salient, autonomous individuals will become selectively defensive by employing the least damaging form of defensiveness or avoiding the most damaging excuse.

Comparisons with the “negative feedback” model predictions. Several accurate predictions were made based on model presented in Figure 1. The first prediction supported by the present research is that IE excuse-making is beneficial, in that it relates to lowered culpability and increased commitment in the event of failure with respect to an important personal goal. Further, the present research also supported the prediction that PI excuse-making is harmful, in that it increases culpability and relates to lowered commitment. Relative autonomy was expected to moderate the effects of excuse-making, and this prediction was supported, although the interaction was not in the expected direction. Specifically, it appeared that low autonomy individuals experienced more culpability-related effects of excuses, whereas high autonomy individuals experienced more commitment-related consequences of excuses. Also, higher relative autonomy reduced the utility of excuse-making in general to remove culpability. The final prediction of the model that was supported by the present research was that internalization of the exercise goal is more likely to be expressed (in terms of higher commitment, basic need satisfaction, and intentionality of behaviour) when excuses are tolerated than when they are disallowed.

Results of both Studies 1 and 2 suggested that excuse-making may have differential consequences on culpability-removal versus commitment-protection for low versus high

autonomy individuals, respectively. I expected that both benefits would work in tandem for those with low relative autonomy, but that was not the case. High autonomy individuals experienced more commitment-related benefits of excuses, whereas low autonomy individuals experienced more of the culpability-reducing benefits. Another prediction that was not supported was that individuals with higher relative autonomy would exhibit greater responsibility-taking in the event of personal goal failures. Instead, relative autonomy was negatively related to responsibility-taking, even after controlling for excuses and social desirability, suggesting that relative autonomy buffers individuals from blaming themselves for perceived failures. This finding is similar to what was observed in Sheldon and Schachtman's research (2007) in which higher relative autonomy did not relate to increased responsibility-taking when individuals failed to fulfill an important duty or obligation. Sheldon and Schachtman's research (2007) also found similar tendencies for autonomous individuals to avoid making PI excuses, suggesting that these tendencies occur with respect to failures in duties and obligations as well as in personal goals.

In sum, the model in Figure 1 is wrong in its most central aspect. There can be no "negative feedback" loop if excuses protect commitment/internalization of those already high (rather than low) in relative autonomy, and such protection of relative autonomy from being undermined by failure does not decrease excuse-making (except perhaps of the damaging PI kind). A correct model, in view of these findings, should not propose that excuse-making after failure helps to draw externally regulated individuals into a goal pursuit, but rather that it keeps internally regulated individuals from dropping out.

Limitations

In the discussions for the particular studies, I briefly referred to some of the limitations of this work. One common limitation was the lack of a baseline measure of physical activity. If a

baseline had been taken, I would have been able to compare participants' activity to their own normal levels. That being said, the activity measure in absence of a baseline still provided some useful information such as the intention-action findings of Study 3, although the baseline would have increased the sensitivity of this measure.

In addition to lacking a baseline measure, the physical activity recall measure was based on self-reported activity. Individuals may overestimate the degree to which they are physically active and over-report on this measure. In a national U.S. population study, 7164 individuals wore accelerometers to objectively measure physical activity (Troiano, Berrigan, Dodd, Masse, Tiler & McDowell, 2008). For adults, only 5% of participants met the recommendation of exercising for 30 minutes/day, as compared to other surveys, which displayed a 25-30% compliance rate. It is possible that the participants in this study were also prone to answer in socially desirable ways, thus over-reporting their actual physical activity. In spite of these quantitative differences, patterns of physical activity remained, for example, the tendency for males to engage in more physical activity than females. It is possible that in the present research that even if the quantities of physical activity were over reported, that the relationships were still accurate and similar to what would have been observed with an objective measure of physical activity. In the future, an objective measure of physical activity should be included for more accurate measurement.

Another important limitation of the three studies was the retrospective and self-selected nature of the failure experiences. Although participants were asked to write about their most recent failure experience, variability in the time elapsed since failure would have existed. Further, any elapsed time between the failure experience and excuse-making could have lessened the effects. Most likely, a larger amount of time between the failure and the experience would

have reduced perceptions of the severity of the failure. Even a day after a failure has occurred, participants will have already had a significant amount of time to ruminate on the experience and consider many possible excuses. In the future, it would be interesting to examine the first excuses that participants generate after an experimentally controlled failure. Further participants may have selected a failure to talk about that did not present them in a bad light. This tendency was partially controlled for using the social desirability measure, which did not alter the main findings and conclusions, but an experimental failure would provide even better control.

These studies only addressed the short-term effects of one bout of excuse-making. In order to fully understand excuse tendencies and the effects of excuses on commitment, it is important to examine the effects of these excuses over time. Goethals and Darley (1980) argue that repeated excuse-making could lead to self-perceptions of low motivation and therefore, disengagement from the goal. These predictions could also be examined in conjunction with the properties of stability and globality established by attribution theory, such that variations in these constructs could relate to the beneficial or hampering nature of chronic excuse-making, although perhaps chronic excuse-making renders stability irrelevant if individuals are constantly able to come up with new reasons for failure (e.g. Weiner, 1985). For example, a stable and global attribution would be that “My body just can’t handle exercise.” This statement argues that all exercise is impossible (globality) and change is not possible (stability). A global, but unstable attribution would be that “I’m out of shape right now, so my body can’t handle too much exercise right now,” a condition that applies to all exercise, but can be changed. It would be interesting to examine whether negative effects become true over time for the IE and PE excuses. If chronic excuse-making of any kind leads to disengagement, at what point does this occur, particularly for the IE excuse which was shown to relate positively to commitment at first?

Perhaps autonomous individuals are cognizant of the time in which even the IE excuse begins to damage motivation and are careful to avoid over-using it. This is a prediction to examine in future research.

Studies 1 and 2, which looked at commitment outcomes were limited in that the results did not extend over all of the outcomes. Kruglanski and colleagues (2002) describe commitment as a product of the value of the goal and the expectancy of attaining it. It appears that the commitment measure tapped the value component of the variable because similar results were not obtained on the expected success outcome measure.

The empirical measure of relative autonomy did not reflect the theoretical conceptualization, in which the two subscales are supposed to sample from high and low portions of a single motivational or self-regulatory continuum (Sheldon & Elliot, 1999). This measure of relative autonomy is normally computed by creating 2 subscales, the first is made up of the extrinsic and introjected items, and the second subscale comprises the identified and intrinsic items (Sheldon & Elliot 1999). To compute an overall score for relative autonomy, the extrinsic/introjected subscale is subtracted from the identified/intrinsic subscale. When the 2 subscales are correlated with each other, the resulting score should be negative, but this was not the case in the sample of 2,342 participants who completed the preliminary survey ($r = -.02, p = .44$). To the extent that the subscales are independent, individuals with intermediate scores on relative autonomy could include those with high scores on both subscales or low scores on both subscales. If differences with respect to excuse-making truly exist between these groups of individuals, those differences would be undetectable by this measure, since both groups would have similar composite scores. Further, this issue may have affected the median split analyses. Given that the median score was generally in the positive range of relative autonomy, it is likely

that individuals above the median were a homogeneous group (i.e., all with high scores on the first subscale and low on the second) whereas those below the median were a mixed group (i.e., some with high on both, some with low on both, and everything in between). Mixing within groups tends to obscure differences between groups. This suggests that participants may experience competing motivations for exercise. Future research could examine which type of motivation exerts the strongest influence on behaviour. In spite of this, some of the effects using the measure of relative autonomy were replicated in Study 2 when relative autonomy was primed instead of measured.

Another limitation was that results varied across operationalizations, which were intended to replicate across studies or across the open- and closed-ended conditions of Study 1. In light of this limitation, the interpretation and conclusions of the findings were focused on effects that were consistently observed.

The final limitation to be discussed concerns the generalizability of the results, to other populations, to other goals, and to long-term experiences. Participants were all university students whose age fell around 20 years. It is important to this research to other populations. Research indicating the tendency for autonomy to increase over the lifespan (e.g. Sheldon & Elliot, 1999) suggests that some of the relationships in an older population would match the effects observed in the high autonomy participants, specifically, lower perceptions of responsibility in the event of personal goal failure, lowered effects of excuse-making on judgments of culpability, increased effects of excuses on commitment outcomes, and increased effects of excuse tolerance on satisfaction of the basic need for competence. The relationships between excuse-making, autonomy, and commitment were only examined with respect to

physical activity goals. Although there is no reason to suspect that different relationships would arise with other personal goals, expanding to other goals would be useful to the research.

The practical implications of this research may be limited to excuse-making for short-term failures in goal pursuit that is nevertheless attainable in the long run. To the extent that IE excuse-making facilitates commitment, regardless of attainability, chronic excuse-making of this kind could prevent someone from disengaging when he or she really should focus on another, more attainable self-improvement. This view is supported by Polivy and Herman's work (2002), which describes a model of self-change as a vicious cycle in which excuses for failure lead to renewed, but ultimately hopeless future attempts.

Implications

In conclusion, although the hypothetical model of relative autonomy and excuse-making was not supported, the combined results of the present studies have both theoretical and practical implications. A theoretical implication is that self-determination theory's uniformly negative view of excuses might be misplaced. Specifically, autonomous individuals, although they behave in a selectively defensive manner, are as likely as their less autonomous counterparts to make excuses. It appears that, given the right circumstances, excuses can even help autonomous individuals sustain their level of commitment to a personal goal in the wake of a failure.

A practical implication concerns those to whom excuses are made, such as people in positions of authority or giving guidance to others. These people should be mindful of the effects that an intolerant attitude toward excuses can have, notably obscuring or preventing the expression of internalization of an exercise goal. Thus, whether or not an excuse is believed, expressing faith that next time will yield better results may be the optimal response. For excuses

that do involve distancing the self from the goal, the optimal response may be the substitution of a less disengaging excuse.

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Definitely Not

Definitely

3. I intend to engage in physical activity the following number of times in the next 4 weeks:

- 1 = 0-4
- 2 = 5-8
- 3 = 9-12
- 4 = 13-16
- 5 = 17-20
- 6 = 21-24
- 7 = 25 or more

4. Fill in the bubble corresponding to the statement below that best describes your current physical activity pattern:

- 1 = I currently do not engage in physical activity and I am not thinking about starting.
- 2 = I currently do not engage in physical activity but I am thinking about starting.
- 3 = I currently engage in some physical activity but not on a regular basis.
- 4 = I currently engage in regular physical activity but I have only begun to do so within the last six months.
- 5 = I currently engage in regular physical activity and I have done so for longer than six months.

For question #s 5 to 7: Considering a 7-day period (a week), how many times on the average do you do the following kinds of exercise for more than 15 minutes during your free time? (Fill in the bubble corresponding to the exact number of times per week from 1-8, or use 9 if your answer is 9 or more times per week. Use 10 only if you do not normally do this particular kind of exercise, i.e., **not even once** in an average week)

5. Strenuous exercise (heart beats rapidly -- i.e., running, jogging, hockey, football, soccer, squash, basketball, cross-country skiing, judo, roller skating, vigorous swimming, vigorous long-distance biking)? _____ times per week

6. Moderate exercise (not exhausting -- i.e., fast walking, baseball, tennis, easy bicycling, volleyball, badminton, easy swimming, alpine skiing, popular and folk dancing)? _____ times per week

7. Mild exercise (minimal effort -- i.e., yoga, archery, fishing from a river bank, bowling, horseshoes, golf, snowmobiling, easy walking)? _____ times per week

8. Considering a 7-day period (a week), during your leisure time, how often do you engage in regular activity long enough to work up a sweat (i.e., heart beats rapidly)?

- 1 = never/rarely
- 2 = sometimes
- 3 = often

1. Have you previously set yourself the goal to integrate regular physical activity into your routine?

1 = Yes

2 = No

If you answered “no”, please skip the following 2 questions.

2. Have you ever failed to achieve this goal?

1 = Yes

2 = No

3. If yes, how many times?

1 2 3 4 5 6 7 8 9 10 or more

Appendix B

We all encounter failures when pursuing our personal goals. We understand that this is not your first attempt at your exercise goal. Think back to the last time you tried, but failed to reach your exercise goal.

Please List the **order of events** in the space below.

How long did you persist?

What activities did you engage in?

Appendix C

We all encounter failures when pursuing our personal goals. We understand that this is not your first attempt at your exercise goal. Think back to the last time you tried, but failed to reach your exercise goal.

Please List the **order of events** in the space below.

How long did you persist?

What activities did you engage in?

In the space below, please explain **why this failure occurred**.

Appendix D

We all encounter failures when pursuing our personal goals. We understand that this is not your first attempt at your exercise goal. Think back to the last time you tried, but failed to reach your exercise goal.

Please List the **order of events** in the space below.

How long did you persist?

What activities did you engage in?

Appendix F – Exercise Intentions

1. What is the **most important thing** you are currently trying to do to improve your health? Please select **only one behavior** from the following list and circle the corresponding number on the page.

- 1 = Get more physical activity/exercise
- 2 = Eat healthier foods and/or fewer calories
- 3 = Drink alcohol moderately (if at all)
- 4 = Quit or reduce smoking
- 5 = Reduce or better manage stress
- 6 = Other routine health/safety behavior(s)

Thinking of the behavior you selected as a goal (i.e., in question #1), please answer the following questions (#s 2 and 3) by writing the appropriate number in the blank beside the question. Use the following scale:

1	2	3	4	5	6	7	8	9	10
Not at All							Extremely		

2. Overall, how important is this goal to you? ____

3. How strongly committed are you to achieving this goal in the next 4-6 months? ____

Why are you pursuing this goal (i.e., the one you identified in question #1)? Please rate each of the following possible reasons (question #s 4 to 7 below) by writing the appropriate number in the blank beside the question. Use the following scale:

1	2	3	4	5	6	7	8	9	10
Not at All						Completely			
Because of This Reason						Because of This Reason			

4. Because someone else wants you to, or the situation seems to demand it. ____

5. Because you would feel ashamed, guilty, or anxious if you didn't. ____

6. Because you really believe it's an important goal to have. ____

7. Because of the fun and enjoyment that it provides you. ____

8. I intend to engage in physical activity at least ____ times in the next 4 weeks.

0-4	5-8	9-12	13-16	17-20	25+
-----	-----	------	-------	-------	-----

9. **Check the statement** that best describes your current physical activity pattern.

___ I currently do not engage in physical activity and I am not thinking about starting.

___ I currently do not engage in physical activity, but I am thinking about starting.

___ I currently engage in some physical activity, but not on a regular basis.

___ I currently engage in physical activity, but I have begun to do so only within the last 6 months.

___ I currently engage in regular physical activity and I have done so for longer than 6 months.

Appendix G – Balanced Inventory of Desirable Responding

Using the scale below as a guide, write a number beside each statement to indicate how much you agree with it.

1-----2-----3-----4-----5-----6-----7
 NOT TRUE SOMEWHAT TRUE VERY TRUE

- _____ 1. My first impressions of people usually turn out to be right.
- _____ 2. It would be hard for me to break any of my bad habits.
- _____ 3. I don't care to know what other people really think of me.
- _____ 4. I have not always been honest with myself.
- _____ 5. I always know why I like things.
- _____ 6. When my emotions are aroused, it biases my thinking.
- _____ 7. Once I've made up my mind, other people can seldom change my opinion.
- _____ 8. I am not a safe driver when I exceed the speed limit.
- _____ 9. I am fully in control of my own fate.
- _____ 10. It's hard for me to shut off a disturbing thought.
- _____ 11. I never regret my decisions.
- _____ 12. I sometimes lose out on things because I can't make up my mind soon enough.
- _____ 13. The reason I vote is because my vote can make a difference.
- _____ 14. My parents were not always fair when they punished me.
- _____ 15. I am a completely rational person.
- _____ 16. I rarely appreciate criticism.
- _____ 17. I am very confident of my judgments.
- _____ 18. I have sometimes doubted my ability as a lover.
- _____ 19. It's all right with me if some people happen to dislike me.
- _____ 20. I don't always know the reasons why I do the things I do.
- _____ 21. I sometimes tell lies if I have to.
- _____ 22. I never cover up my mistakes.
- _____ 23. There have been occasions when I have taken advantage of someone.
- _____ 24. I never swear.
- _____ 25. I sometimes try to get even rather than forgive and forget.
- _____ 26. I always obey laws, even if I'm unlikely to get caught.
- _____ 27. I have said something bad about a friend behind his or her back.
- _____ 28. When I hear people talking privately, I avoid listening.
- _____ 29. I have received too much change from a salesperson without telling him or her.
- _____ 30. I always declare everything at customs.
- _____ 31. When I was young I sometimes stole things.
- _____ 32. I have never dropped litter on the street.
- _____ 33. I sometimes drive faster than the speed limit.
- _____ 34. I never read sexy books or magazines.
- _____ 35. I have done things that I don't tell other people about.
- _____ 36. I never take things that don't belong to me.
- _____ 37. I have taken sick-leave from work or school even though I wasn't really sick.
- _____ 38. I have never damaged a library book or store merchandise without reporting it.

- _____ 39. I have some pretty awful habits.
- _____ 40. I don't gossip about other people's business.

Appendix H - Physical Activity Recall Items

Now we would like to ask you about your physical activity during the past 7 days. But first, let me ask you about your sleep habits.

1. On the average, how many hours did you sleep each night during the last five weekday nights (Sunday-Thursday)? _____ hours.

2. On the average, how many hours did you sleep each night during the last Friday and Saturday nights? _____ hours.

Now I am going to ask you about your physical activity during the past 7 days, that is, the last 5 weekdays, and last weekend, Saturday and Sunday. We are not going to talk about light activities such as slow walking, light housework, or un strenuous sports such as bowling, archery or softball. Please look at this list, which shows some examples of what we consider moderate, hard, and very hard activities. (Interviewer: hand subject card No. 9 and allow time for the subject to read it over.) People engage in many other types of activities, and if you are not sure where one of your activities fits, please ask me about it.

3. First, let's consider moderate activities. What activities did you do and how many total hours did you spend during the last 5 weekdays doing these moderate activities or other like them? Please tell me to the nearest half hour. _____ hours.

Activities

4. Last Saturday and Sunday, how many hours did you spend on moderate activities and what did you do? (Probe: Can you think of any other sports, job, or household activities that would fit into this category?) _____ hours.

Activities

5. Now, let's look at hard activities. What activities did you do and how many total hours did you spend in the last 5 weekdays doing these hard activities or other like them? Please tell me to the nearest half hour. _____ hours.

Activities

6. Last Saturday and Sunday, how many hours did you spend on hard activities and what did you do? (Probe: Can you think of any other sports, job, or household activities that would fit into this category?) ____ hours.

Activities

7. Now lets look at very hard activities. What activities did you do and how many total hours did you spend during the last 5 weekdays doing these very hard activities or other like them? Please tell me to the nearest half hour? ____ hours.

Activities

8. Last Saturday and Sunday, how many hours did you spend on very hard activities and what did you do? (Probe: Can you think of any other sports, job, or household activities that would fit into this category?) ____ hours.

Activities

9. Compared with your physical activity of the past 3 months, was last week's physical activity more, less, or about the same?

- 1. More
- 2. Less
- 3. About the same

Interviewer: Please below any activities reported by the subject which you don't know how to classify. Flag this record for review and contemplation.

Activity (brief description)	Hours: workday	Hours: weekend day
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Card 9.

Examples of Activities in Each Category

Moderate activity

Occupational tasks: 1) delivering mail or patrolling on foot; 2) house painting; and 3) truck driving (making deliveries, lifting, and carrying light objects).

Household activities: 1) raking the lawn; 2) sweeping and mopping; 3) mowing the lawn with a power mower; and 4) cleaning windows.

Sports activities (actual playing time): 1) volleyball; 2) Ping-Pong; 3) brisk walking for pleasure or to work (4.83 km/hour (3 miles/hour) or 20 minutes/km (mile)); 4) golf, walking and pulling or carrying clubs; and 5) calisthenics exercises.

Hard activity

Occupational tasks: 1) heavy carpentry; and 2) construction work, doing physical labor.

Household tasks: 1) scrubbing floors.

Sports activities (actual playing time): 1) tennis doubles; and 2) disco, square, or folk dancing.

Very hard activity

Occupational tasks: 1) very hard physical labour, digging or chopping with heavy tools; and 2) carrying heavy loads such as bricks or lumber.

Sports activities (actual playing time): 1) jogging or swimming; 2) singles tennis; 3) racquetball, and 4) soccer.

Appendix J – Study 2 Post-Description Survey

Please think back to the last time you tried, but failed to reach your exercise goal. Answer the following questions about that time. Please use the following scale to answer these questions. Please write your responses in the blanks in front of each question.

1	2	3	4	5
not at all				very much

1. ____ To what extent were you responsible for the failure?

2. ____ To what extent did the failure occur because there was something you could have or should have done differently?

3. ____ To what extent did the failure weaken your commitment to pursue your exercise goal?

4. ____ How successful to you expect to be in the future in your exercise goal?

5. ____ How justified did you feel for not meeting your goal?

To what extent did you personally feel these emotions, immediately after the incident you described?

Please use the following scale to answer these next questions.

1	2	3	4	5
very slightly				extremely

1. Irritable ____

2. Hostile ____

3. Guilty ____

4. Ashamed ____

Appendix K – Psychological Need Satisfaction in Exercise Scale

The Psychological Need Satisfaction in Exercise Scale

Please use the following scale to answer the next questions. Write your responses in the blanks in front of each question.

1	2	3	4	5	6	7
strongly disagree						strongly agree

1. ____ I feel that I am able to complete exercises that are personally challenging.
2. ____ I feel confident I can do even the most challenging exercises.
3. ____ I feel confident in my ability to perform exercises that personally challenge me.
4. ____ I feel capable of completing exercises that are challenging to me.
5. ____ I feel like I am capable of doing even the most challenging exercises.
6. ____ I feel good about the way I am able to complete challenging exercises.
7. ____ I feel free to exercise in my own way.
8. ____ I feel free to make my own exercise program decisions.
9. ____ I feel like I am in charge of my exercise program decisions.
10. ____ I feel like I have a say in choosing the exercises that I do.
11. ____ I feel free to choose which exercises I participate in.
12. ____ I feel like I am the one who decides what exercises I do.

For the next set of questions, please use the following scale to indicate your responses. Write your responses in the blanks in front of each question.

0	1	2	3	4	5
not at all true for me					very true for me

12. ____ I feel attached to my exercise companions because they accept me for who I am.

13. ____ I feel like I share a common bond with people who are important to me when we exercise together.

13. ____ I feel a sense of camaraderie with my exercise companions because we exercise for the same reasons.

14. ____ I feel close to my exercise companions who appreciate how difficult exercise can be.

15. ____ I feel connected to the people who I interact with while we exercise together.

16. ____ I feel like I get along well with other people who I interact with while we exercise together

Appendix L – Excuse Tolerant Article

Short-Term Excuses Are Not Dangerous to Exercise Goals!

"I was just too tired to exercise today."

"I had to hurry home to make dinner so I couldn't make it to the gym."

"My arthritis was hurting too much to exercise."

In today's health conscious world, there is a lot of pressure to engage in regular physical activity. We hear about how exercise benefits our health and about how not doing it can hurt us. Sure, knowing all of these things makes us see how important exercise is, but it also makes us feel guilty when we don't exercise as much as we planned. Even those who do manage to exercise regularly often experience difficulty fitting it in with everyday life. When these challenges do occur, excuses abound.

Jennifer McMillan is a certified personal trainer who has been in the field for 15 years, who has worked with professional athletes, celebrities, and models. Even with clients for whom exercise is in their job descriptions, McMillan has heard it all before. "When I ask a client if they have achieved all of their exercise goals for the past week, they often say 'no' and they follow it with some kind of excuse." According to McMillan, "short-term excuses that take note of transient obstacles such as an overly busy work-week do not seem to transfer to longer term failures. In the weeks following these excuses, my clients almost always meet their goals and it's the ones who do make short-term excuses who turn out to have the greatest success."

McMillan isn't the only personal trainer who holds these views. A survey conducted by the American College of Sport Medicine of 1127 certified personal trainers across 37 major US cities, accurate within +/- 3% found that 84% agreed that excuses for short-term exercise goal failures were not usually detrimental. Further, 67% claimed that sometimes excuses increased exercise behavior in the weeks after clients had voiced excuses for failures.

So the next time you're thinking of letting yourself off the hook, remember: excuses might actually help your long-term success with your exercise goals!

Appendix M – Excuse Intolerant Article

Short-Term Excuses Are Dangerous to Exercise Goals!

"I was just too tired to exercise today."

"I had to hurry home to make dinner so I couldn't make it to the gym."

"My arthritis was hurting too much to exercise."

In today's health conscious world, there is a lot of pressure to engage in regular physical activity. We hear about how exercise benefits our health and about how not doing it can hurt us. Sure, knowing all of these things makes us see how important exercise is, but it also makes us feel guilty when we don't exercise as much as we planned. Even those who do manage to exercise regularly often experience difficulty fitting it in with everyday life. When these challenges do occur, excuses abound.

Jennifer McMillan is a certified personal trainer who has been in the field for 15 years, who has worked with professional athletes, celebrities, and models. Even with clients for whom exercise is in their job descriptions, McMillan has heard it all before. "When I ask a client if they have achieved all of their exercise goals for the past week, they often say 'no' and they follow it with some kind of excuse." According to McMillan, "short-term excuses that take note of transient obstacles such as an overly busy work-week do seem to transfer to longer term failures. In the weeks following these excuses, my clients almost always fail to meet their goals and it's the ones who don't make short-term excuses who turn out to have the greatest success."

McMillan isn't the only personal trainer who holds these views. A survey conducted by the American College of Sport Medicine of 1127 certified personal trainers across 37 major US cities, accurate within +/- 3% found that 84% agreed that excuses for short-term exercise goal failures were usually detrimental. Further, 67% claimed that sometimes excuses decreased exercise behavior in the weeks after clients had voiced excuses for failures.

So the next time you're thinking of letting yourself off the hook, remember: excuses might actually hamper your long-term success with your exercise goals!

Appendix O - Coding Instructions for Studies 1 and 3

Question 5

Please categorize excuses into prescription-identity, identity-event, or prescription-event linkages based on the following criteria and examples:

Prescription-identity excuse:

These excuses are categorized by participants' attempts to distance themselves from the goal. For example:

“It wasn't my goal”

“I was only doing it because my friend wanted me to”

“It wasn't personally important”

“I didn't want to”

“I realized I don't like running”

Identity-event excuse:

These excuses refer to a lack of personal control over events, such that they were prevented from engaging in their behavior by unavoidable circumstances, or they did not have the materials or skills necessary to complete the behavior. For example:

“Something happened that I had no control over, or couldn't help”

“I didn't have the tools (skills or plans) I needed”

“Something happened that I couldn't have predicted”

“I hurt my foot”

Prescription-event excuse:

This excuse refers to unclear procedures, that is, not understanding what to do. It can also involve obscuring the definition of the goal so that failure itself can be questioned. For example:

“I was unclear about the goal, and I didn't know what to do”

“My goal is actually to achieve this over the long-run, so just because I didn't do it now, doesn't mean that I won't do it later. Now was not the time to pursue this goal.”

“I didn't know the proper form to use while doing squats, so I didn't do them because I didn't want to hurt myself.”

Appendix P – Coding Form for Studies 1 and 3

Coder name: _____

Participant number: _____

Question 1

Goal listed (please circle 1)

Exercise Eating Weight Loss Other

Total number of goals _____

Did participant follow instructions? Yes No

Question 4

Word count: _____

Did participant list extenuating circumstances? Yes No

If yes, how many? _____

Did participant follow instructions? Yes No

Question 5

Total number of excuses: _____

Number of prescription-identity excuses: _____

Number of identity-event excuses: _____

Number of prescription-event excuses: _____

Number of unclassifiable excuses: _____

Number of words: _____

Appendix Q – Coding Instructions for Study 2

There are two sets of categorizations for the reasons participants provide. Potentially, one reason can appear in 2 categories, for example, if a participant says they exercise because they view exercise as important to their health, that reason will fall under the identified category and the fitness category.

Intrinsic – reasons the participant lists because of the fun/enjoyment exercise provides. To fall in this category, the participant should not mention another goal for example, if the participant says they enjoy the sense of achievement, this response will not be selected as intrinsic because exercise is serving another goal.

Identified – These reasons refer to the participant viewing exercise as an important goal to have. If the participant talks about exercising as a form of achieving a higher goal that is important to them, the reason will be listed as identified. – Talking about exercise as instrumental to another important goal.

Introjected – These reasons refer to the participant engaging in exercise in order to avoid feeling anxious, guilty, or ashamed.

Extrinsic – These reasons refer to the participant exercising because the situation seems to demand it. For example, if another person compels them to exercise.

Competence – These reasons involve exercising in order to feel a sense of achievement, being able to perform well in sports, helping them perform well in academics. These reasons are also outlined in the attached questionnaire.

Appearance – Exercising to improve appearance – see attached questionnaire for other examples.

Fitness – Any of the health reasons, stress reduction, weight loss for health – see attached.

Social – Exercise provides opportunities for interaction. See attached.

Some of the reasons that fall into the competence, appearance, social, or fitness categories will not be able to be categorized as intrinsic, identified, introjected, or extrinsic, simply because the participant did not provide enough information. For example, if a participant exercises in order to look better although this will not be an intrinsic motive it could fall into the remaining 3 categories; identified if they believe that it is important to look good, introjected if they feel guilty/ashamed/anxious for not looking a certain way, or extrinsic if another person wants them to look a certain way.

Appendix R – Coding Form for Study 2

Coder name: _____

Participant number: _____

Word Count: _____

Number of intrinsic reasons for exercise listed. _____

Number of identified reasons for exercise listed. _____

Number of introjected reasons for exercise listed. _____

Number of extrinsic reasons for exercise listed. _____

Number of competence reasons: _____

Number of appearance reasons: _____

Number of social reasons: _____

Number of fitness reasons: _____

Number of unclassifiable reasons: _____

Did participant follow instructions? Yes No