Do Versus Don't:

The Impact of Framing on Goal Level Setting

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ABSTRACT

The consumer behavior literature extensively studied the impact of goal setting on behavior and performance. However, much less is known about the *antecedents* of *goal level* setting – consumers' decision of whether to work out twice or three times per week. Consumers can decide how many goal-consistent activities to undertake ('goal-consistent decision frame'; such as exercising two days per week) or to forego ('goal-inconsistent decision frame'; such as not exercising five days per week). While objectively the same decision, we argue that these different frames impact consumers' ambition. Making a decision to forego goal-consistent activities triggers negative, self-evaluative emotions and to compensate for these unfavorable self-evaluations, consumers set more ambitious goal levels. Across a variety of contexts, consumers are more ambitious when their focal decision is inconsistent with goal achievement. For instance, they decide to work out more often when they decide how many work-out sessions they would skip (versus attend). The impact of goal-inconsistent decision framing is mitigated when the activity is less instrumental towards goal achievement, and when negative self-evaluative emotions are alleviated through self-affirmation.

Keywords: goal setting, goal level, ambition, framing, self-discrepancy, motivation

Consumers continuously set goal levels: They decide to visit the gym once a week, to save 20% of their income, and to attend 12 out of 15 university lectures. Specifying goal levels is common (i.e., about half of our goals are specific; Wallace and Etkin 2017) and important: Specific goal levels are often more effective than vague, 'do your best' goals (Locke and Latham 2002). While previous research extensively examined the *consequences* of goal setting, remarkably little is known about its *antecedents*. We therefore study how consumers determine their goal levels and investigate how we can influence consumers to set more ambitious goal levels. We examine how we can prompt consumers to decide to work out twice rather than once per week, to save 25% instead of 20% of their discretionary income, or how we can prompt students to decide to attend 13 instead 12 lectures.

Consumers could determine their goal level in two different ways: They could consider how many goal-consistent activities to engage in (a goal-consistent decision), but they can also think about how many goal-consistent activities to forego (a goal-inconsistent decision). For example, a consumer might consider visiting the gym two days per week or decide to forego exercising five days per week. We propose that making a goal-inconsistent decision triggers more ambitious goal levels. Specifically, we expect that making a goal-inconsistent decision induce negative self-evaluative emotions, such as guilt, disappointment and regret, which lead to heightened self-improvement motivation and in turn cause consumers to set higher goal levels.

Our research makes three contributions. First, we study the determinants of goal levels, rather than the consequences. While the effects of higher versus lower goal levels on performance have been documented extensively (Latham and Locke 1991; Locke and Latham 2002), we know much less about how consumers determine their goal levels. Goal levels can be an integral part of the goal selection decision (e.g., whether to sign-up for a 5km run), or

externally defined (e.g., a sales representative who needs to reach a certain sales target), but consumers often determine their own goal levels, such as how much weight to lose. To achieve this goal, they can also determine other goal levels – running 30 min twice per week or foregoing unhealthy snacks 6 out of 7 days. The few studies that examined the antecedents of goal levels highlight expectancy and/or value of goal attainment as key drivers (Wofford, Goodwin, and Premack 1992). We contribute to this work by showing that negative, self-evaluative emotions, triggered by the nature of the goal-level decision, affect goal levels.

Our second contribution is to the framing literature. Previous research examined the impact of choose versus reject frames on choice (e.g., the number of short-listed candidates or the relative preference for a glue stick over M&M's). This work examined how framing affects certain aspects of the choice process, such as elaboration on the features of the choice set (e.g., the hedonic dimension of choice options is more salient in reject decisions; Dhar and Wertenbroch 2000; Huber, Neale, and Northcraft 1987; Laran and Wilcox 2011; Levin, Jasper, and Forbes 1998; Park, Jun, and Macinnis 2000; Yaniv et al. 2002). We contribute to this literature by examining the unique impact of goal-consistent vs. goal-inconsistent decision framing on goal levels.

Our third contribution is to the literature on self-discrepancy, self-evaluations and self-improvement (Allard and White 2015; Higgins 1987; Mandel et al. 2017) by identifying framing as a crucial determinant. We show that goal-inconsistent decision frames induce negative self-evaluative emotions, such as higher levels of guilt and regret (Monteith et al., 2002). These feelings in turn drive self-improvement motivations (Allard and White 2015) which results in more ambitious goal levels.

The rest of this article is organized as follows. First, we review the literature on goal setting and goal striving as well as the literature on framing, guilt and self-improvement to build our conceptual framework. In study 1 we present a set of studies in which we show the impact of framing on goal levels. In study 2, we rule out various alternative explanations based on reference point usage. In studies 3-5, we provide evidence for the proposed underlying process through both moderation and mediation.

GOAL SETTING AND GOAL STRIVING

Imagine that Sarah decides to improve her physical fitness. After considering various options, she joins a local gym that offers a 20-session fitness course. While Sarah is dedicated to improving her health, she also enjoys spending evenings with her friends and realizes that it might be difficult to attend all scheduled sessions. She thus decides upfront to attend 15 of the 20 sessions. Sarah feels energized during every fitness session, especially when she realizes that she is approaching her self-set goal. After the fitness course, Sarah is satisfied with her performance, because she achieved her personal goal to attend 15 sessions.

This example highlights two distinct phases in the process of goal pursuit – goal setting (which includes goal selection and goal level setting) and goal striving (going to the gym to achieve the desired goal level; see figure 1). Below, we provide a very brief and non-exhaustive review of the literature on goal setting and goal striving. Detailed reviews and frameworks can be found elsewhere (Austin and Vancouver 1996; Baumgartner and Pieters 2008).

Insert figure 1 about here

Goal setting phase. While often studied in conjunction, the goal setting phase essentially entails two different decisions: people select a goal (e.g., to improve physical health) and determine a goal level to strive for (e.g., to attend 15 gym sessions). A goal usually arises due to a divergence between a current state (e.g., not feeling fit) and a desired state (e.g., feeling fit). Although a thorough review is beyond the scope of this article, expectancy (i.e., the likelihood of goal attainment) and value (i.e., attractiveness of goal attainment) seem key drivers of goal selection (Atkinson 1957; Klein 1991; Klein, Austin, and Cooper 2008; Vroom 1964). These two factors determine goal selection in a multiplicative manner: A goal should be both feasible (high in expectancy) and desirable (high in value) in order to be chosen (Tubbs, Boehne, and Dahl 1993; VanEerde and Thierry 1996). Put differently, Sarah should perceive improving her physical fitness as something feasible and valuable. Prior research explored the determinants of expectancy and value evaluations. For instance, previous success or failure and the order in which a goal needs to be achieved influence expectancy, while variables such as group norms influence value evaluations (Bagozzi and Dholakia 1999; Donovan and Williams 2003; Jin, Huang, and Zhang 2013; Klein 1991)

Compared to the goal selection decision, the goal level decision has received considerably less research attention (see Wofford, Goodwin, and Premack 1992 for a review). This is not surprising, as goal levels are often an integral part of the goal selection decision (Oettingen and Gollwitzer 2001). For example, when deciding on whether to join a 5km or a

42km run, the goal level is a vital part of the decision to join the run or not (goal selection). If Sarah's gym requires 100% attendance, the 20 sessions are a key driver of her decision to sign up for the fitness course and will influence expectancy evaluations. An academic who chooses between different tenure-track positions (goal selection) will often be confronted with a certain number of publications required for tenure by each institution (goal level; see Locke and Latham 2002 for a detailed review on the impact of externally defined goal levels on performance). Hence, the externally provided goal level is an important driver of the goal selection decision. Nevertheless, goal levels are not always externally defined, and consumers frequently set their own goal levels (such as when Sarah decides to attend 15 rather than 20 work-out sessions, or to do 20 rather than 30 sit-ups every evening). While studied less often, expectancy and value also affect the goal level decision (Campbell 1982). Sarah will set more ambitious goal levels if she perceives getting fit as more valuable and if she expects that the likelihood of attaining the goal is higher. Among others, self-efficacy and prior goal level influence expectancy, while social norms and pressure affect value assessments (see Wofford, Goodwin & Premack 1992 for a detailed review). As we detail below, we aim to shed new light on how consumers determine goal levels independent from goal selection.

Goal striving. The goal striving phase focuses on how a given goal and goal level impact performance, the second stage in figure 1 (Bagozzi and Dholakia 1999). Higher goal levels typically lead to relatively better performance than lower goal levels and specific goal levels typically lead to relatively better performance than more vague, 'do your best' goals (Locke et al. 1981; see also Scott and Nowlis 2013 for a discussion of the effectiveness of range goals). For example, Sarah will perform best if she sets an ambitious goal level that is specific (e.g., attend 18 sessions) instead of a vague target, such as attending as many sessions as possible. Again,

expectancy and value of goal attainment influence the goal striving process (see Klein 1991 for a critical analysis of this relationship; Liberman & Forster 2008; Locke and Latham 2002). Recent work has mostly focused on the conditions under which the relationship between goal level and performance is stronger or weaker, such as when goal commitment is high versus low or when subgoals are absent versus present (Fishbach and Choi 2012; Fishbach and Dhar 2005; Gal and McShane 2012; Huang 2018; Huang, Jin, and Zhang 2017; Huang and Zhang 2011; Koo and Fishbach 2008, 2010; Locke and Latham 2006; Sharif and Shu 2017; Wallace and Etkin 2017; Zhang et al. 2011).

In sum, prior research highlights the importance of a concrete, ambitious goal level as a key determinant of performance. A better understanding of *how* consumers determine their goal levels is therefore crucial, not just from a theoretical, but also from a practical point of view. Since the relationship between goal levels and performance has been thoroughly documented in prior work, we focus on the goal level decision within the *goal setting phase* and in contrast with most prior work, we study goal level as the *dependent* rather than the *independent* variable.

THE IMPACT OF FRAMING ON GOAL LEVEL SETTING

We propose that a simple variation in terms of how consumers think about goal level setting may affect how ambitious they set their goal levels. Consumers can decide how many goal-consistent actions to undertake (e.g., attending 15 out of 20 work-out sessions) versus how many goal-inconsistent actions to undertake (e.g., skipping 5 out of 20 work-out sessions). To build the argument that the goal-inconsistent decision frame triggers relatively more ambitious goal levels, we draw from the literature on self-discrepancy and negative, self-evaluative

emotions (Bandura and Cervone 1983; Dijkstra and Buunk 2008; Higgins 1987). A self-discrepancy is the consequence of an incongruity between how one currently perceives oneself and how one desires to view oneself. When people realize that they fail to live up to their self-standards (i.e., self-discrepancy), they experience feelings of guilt, regret and disappointment. Because these emotions are negative and self-evaluative in nature (Allard and White 2015; Higgins 1987; Kivetz and Zheng 2006; Monteith et al. 2002), they trigger a motivation towards self-improvement to reduce this aversive emotional experience (Allard and White 2015). Consumers often engage in compensatory actions to directly address the source of negative, self-evaluative emotions. For instance, to resolve negative self-evaluative emotions triggered by smoking, consumers may simply decide to not light a cigarette. Indeed, smokers who expect improvements in their self-evaluative emotions are more likely to quit smoking (Dijkstra and Buunk 2008). But consumers may also attempt to improve self-evaluations indirectly by engaging in compensatory actions in domains unrelated to the source of the negative self-evaluative emotions. For instance, consumers who experience negative self-evaluative emotions are more likely to buy status products and cooperate more in a social bargaining game (Allard and White 2015; De Hooge, Zeelenberg, and Breugelmans 2007; Mandel et al. 2017).

We expect that making a goal-inconsistent decision induces negative self-evaluative emotions, because the decision to *forego* goal-consistent actions increases the discrepancy between the actual and the ideal self (i.e., as someone who *engages* in goal-consistent actions). Even though one is not yet behaving in a goal-inconsistent manner, merely deciding to forego goal-consistent actions can trigger negative, self-evaluative emotions (Duke and Amir 2019; see also Kivetz and Zheng 2006). In turn, these negative, self-evaluative emotions generate a motivation towards self-improvement directed at reducing these negative feelings (Allard and

White 2015; Dijkstra and Buunk 2008). A primary way to achieve self-improvement and to reduce the sense that one is not living up to one's self-standards within the context of goal level setting is by setting more ambitious goal levels (see Eidelman and Biernat 2007 for a more general discussion on the relationship between self-esteem and goal levels).

Overview of studies

We report seven studies in this research. In study 1A, we document effects of a goal-consistent vs. goal-inconsistent decision frame on goal level across different contexts. In study 1B, we establish that goal levels are higher for goal-inconsistent decision frames (rather than lower for goal-consistent decision frames). We also replicate previous work by showing that goal levels are a key determinant of performance (Locke and Latham 2002). In study 2, we rule out an alternative explanation in terms of reference points. In the subsequent studies, we provide evidence for the proposed mechanism through moderation (studies 3A, 3B and 4) and through direct measurement of the mediators (study 5). Across studies, we removed 32 out of 2212 participants (1.4%) based on consistently applied exclusion criteria (extremely short (e.g., -< 50 sec- or long -> 500 sec) completion times for single measure scenario studies or setting goal levels above the predetermined and communicated maximum). Whenever participants indicated a range as their goal level (e.g., 20-25; less than 1%), we took the arithmetic average (e.g., 22.5) as their goal level for analysis.

STUDY 1: THE GENERAL NATURE OF THE FRAMING EFFECT

Study 1A

The aim of Study 1A is to examine whether framing affects goal level setting across a variety of different self-selected goals (e.g., saving, eating, seminar attendance), different operationalizations of the decision frame (e.g., attend/miss, eat/skip, solve/skip), different maximum goal levels (e.g., 20, 15, self-defined), and different samples (e.g., online panels, students). We outline each setting briefly below, more details can be found in appendix A.

Seminar attendance. The context of this study was the number of evening seminars to attend. Two-hundred twenty post-graduate students from a business school participated in this study. They read a general introduction about the upcoming seminar series outlining that the business school organizes approximately 20 seminars (i.e., one seminar every two weeks during the October – June period). For room booking and catering purposes, the business school wanted to get an estimate of attendance for the coming year. We asked students to indicate how many of the 20 seminars they would [**want to attend / allow themselves to miss**].

Saving goals. The context of this study was the percentage of monthly discretionary income to save for a self-selected savings goal. One-hundred and forty-four participants from Amazon Mechanical Turk (MTurk) read a brief explanation of 'discretionary income' (i.e., money for unplanned purchases and for savings). We asked them to think about a goal for which they wanted to save money. Next, we asked participants to indicate their total discretionary income, followed by our crucial dependent variable: "How much of this $ [*own entry*] would you want to **[put on your savings account / omit from putting on your savings account]** this month." Non quantifiable responses or 0 to both questions were not further analyzed (seven responses). Percentage of discretionary income served as our variable of interest.

Earning raffle tickets. The context of this study was the number of puzzles to solve to earn raffle tickets. After completing the main study requirements (in reality a filler task), we offered 199 MTurk participants the opportunity to earn raffle tickets with an additional task, which 175 participants agreed to complete. In this task, they could solve up to 15 "Finding Waldo" puzzles. For every correctly solved puzzle they would earn a ticket to participate in a raffle in which we would give away 10 bonus payments of $10. Participants were asked to indicate how many of the 15 "Finding Waldo" puzzles they intended to [**solve / skip**], which served as our crucial measure of interest. Next, they started with the first puzzle, and they could solve as few or as many puzzles as they wanted. The number of puzzles solved served as the performance measure, which we treated as a secondary variable of interest, to investigate the relationship between goal level and performance. As task difficulty is a key determinant of performance (Locke and Latham 2002), we measured difficulty at the end of the task (1 = much more easy than anticipated; 7 = much more difficult than anticipated). A programming error invalidated the results of five participants, leaving 170 responses for final analyses.

Consuming vegetables. The context of this study was the number of vegetable bites to consume. Seventy-eight students participated in a large classroom, in exchange for the equivalent of $4.40 per participant. Six students did not follow the instructions and their responses were not taken into further account (results remain the same if we include them). Participants read that the World Health Organization (WHO) recommends an average of 400 grams of vegetable consumption per day, a goal that most people find difficult to reach. Therefore, the WHO recommends adding 15 'veggie bites' (e.g., slices of cucumber or carrot, a picture was provided) to one's daily diet. To help students achieve this, they read that we had prepared veggie bites for them. Then we asked students to think about how many veggie bites they would want to **[eat /**

skip], which was our crucial measure of interest. Next, they were instructed to walk to the front of the classroom and to take their veggie bites from the plate (see appendix A). Once they were back at their seats, they moved on to the final page of the study where they indicated how many pieces of cucumber, carrot and pepper they took (the sum of which served as the consumption measure). Without any further prompts, all participants consumed all their vegetables before leaving the room. Hence, the reported number of veggies taken is a perfect proxy for consumption.

Results

In this and all future studies, we recoded responses in the goal-inconsistent decision frame by deducting it from the predetermined or self-set maximum goal level, to represent the goal level. Across these five different contexts, we find that participants on average set 13% higher goal levels (Cohen's d = .54) in the goal-inconsistent decision condition relative to the goal-consistent decision condition (see table 1). Replicating previous findings (e.g., Locke and Latham 2002), both the raffle and the vegetable study show that different goal levels are in turn a key predictor of behavior (i.e., performance or consumption). Unsurprisingly, goal level mediated the effect of framing on performance and consumption (mediation models are included in appendix B).

Insert table 1 about here

Study 1B

The aim of study 1B is to examine whether making a goal-inconsistent decision causes higher goal level setting, or making a goal-consistent decision causes lower goal level setting. Specifically, we measure performance in the goal-consistent and goal-inconsistent decision conditions, as well as in a third condition in which participants engage in the focal task without setting a goal level. The third condition serves as a control group and helps to shed light on whether the difference in goal level we observe is the consequence of a compensation effect or a licensing effect (see Mullen and Monin 2016 for an extensive discussion on the challenges to distinguish between both).

Method

Participants. One-hundred ninety-eight MTurk participants (82 women, M_{age} = 35.4) completed this study in exchange for the equivalent of $6/h. We randomly assigned them to one condition of a three-cell design (control, goal-consistent decision, goal-inconsistent decision).

Procedure. Participants first completed a filler task to create the perception that they had completed the necessary requirements for payment. The aim of this procedure was to ensure that participation in the focal task was strictly voluntary and not perceived as part of the payment requirements. In this focal task, participants could raise money for the American Red Cross (ARC) by rating up to 30 pictures that the ARC considered using in advertisements. Each picture needed to be evaluated on 5 different aspects (suitability, engagement, ability to draw attention,

fit with ARC and overall favorability). Participants learned that for every picture they evaluated, we would donate $0.02 to the ARC on their behalf (the final amount of money raised and donated was $34.08). In addition, they learned that we would only reward serious responses and that they should take a moment to think about how many of the 30 pictures they would like to [**evaluate** (goal-consistent decision) / **skip** (goal-inconsistent decision) / **evaluate or skip** (control condition)]. Participants in the goal-consistent and goal-inconsistent decision conditions then indicated their goal level - how many pictures they intended to [**evaluate / skip]** – before engaging in the goal striving phase. Participants in the control condition started with the goal striving phase (picture evaluation) without determining a goal level. After every evaluation, participants could indicate whether they wanted to continue or quit. Demographics were measured at the end of the survey.

Hence, we examined the impact of framing on two dependent variables. First, we examined the goal level (the number of pictures participants plan to evaluate) as a function of the goal-consistent vs. goal-inconsistent decision frame. Second, we examined performance (the number of pictures evaluated) as a function of the two framing conditions against the performance of participants in the control condition. This informs us whether making a goal-inconsistent decision triggers more ambitious performance or whether making a goal-consistent decision leads to less ambitious performance.

Results

Goal level. As the task was voluntary and not announced upfront (i.e., the task would take more time than anticipated, which some participants might not have available), we

distinguish participants who decided to not pursue this goal (set 0 as their goal level) from those who do. Forty-one participants (31%, equally distributed between framing conditions, $\chi^2 = 0.68$, $p = .41$) opted out of this goal and were not considered in the analysis. As participants in the control condition did not set a goal level, this analysis only includes participants in the goal-consistent and -inconsistent decision conditions. We recoded the goal level in the goal-inconsistent decision condition to reflect the number of pictures participants planned to evaluate. In line with our hypothesis, participants who made a goal-inconsistent decision set a goal level that was 35% higher ($M = 22.9$, $SD = 10.49$, 76.3%) than the goal level of participants who made a goal-consistent decision ($M = 12.45$, $SD = 10.76$, 41.3%), $t(89) = 4.69$, $p < .0001$, $d = 0.98$. See table 2.

Performance. Next, we examine whether framing affects performance. A general linear model confirmed that there is a significant difference between conditions in number of pictures evaluated, $F(2,154) = 8.95$, $p < .001$, $\eta_p^2 = .10$. Participants evaluated 20.7% more pictures in the goal-inconsistent decision condition ($M = 16.48$, $SD = 12.40$, 54.9%) as compared to participants in the goal-consistent decision condition ($M = 10.26$, $SD = 10.34$, 34.2%), planned contrast $F(1, 154) = 7.46$, $p < .01$, $\eta_p^2 = .046$, see table 2. The number of pictures evaluated in the control condition ($M = 7.59$, $SD = 10.11$, 25.3%) was statistically indistinguishable from the number of pictures evaluated in the goal-consistent decision condition ($F(1, 154) = 1.65$, $p = .20$, $\eta_p^2 = .01$), but significantly lower than the number of pictures evaluated in the goal-inconsistent decision condition, $F(1, 154) = 17.67$, $p < .001$, $\eta_p^2 = .10$. Replicating previous research (e.g., Locke and Latham 2002) and study 1A, goal level was a crucial determinant of performance in both the goal-consistent ($r = .44$, $p = .002$) and in the goal-inconsistent decision condition ($r = .61$, p

<.001; the impact of framing on performance is fully mediated by goal level, indirect effect 95% CI [3.25; 10.12], direct effect 95% CI [-4.21; 4.85], see appendix B).

Insert table 2 about here

Discussion

Studies 1A and 1B show several important points. First, they indicate that making a goal-inconsistent decision leads to higher goal levels across a wide variety of contexts, maximum goal levels, samples and frame operationalizations. Note that we document these effects for self-selected goals in consequential situations, such as how much to work for charity or the amount of vegetables to consume. Second, these studies highlight the practical relevance of the framing manipulation, since we replicate the extensively documented association between goal levels and performance (see Locke and Latham 2002 for an extensive overview of this relationship). Finally, we included a control condition in study 1B to shed more light on whether making a goal-inconsistent decision drives goal levels up, or whether making a goal-consistent decision leads to lower goal levels. As it is impossible to expose participants to a self-selected goal level without confronting them with either one of the decision frames, we assessed their performance without asking for a specific goal level. Even though respondents in the control condition may have approached the task as a 'do your best' goal, we believe it is insightful to show that making

a goal-inconsistent decision triggers more ambition in performance and/or goal levels compared to the two other conditions.

STUDY 2: EXPLORING THE ROLE OF REFERENCE POINTS

Another explanation for the framing effect might reside in a focus on different reference points across conditions. Participants who make a goal-consistent decision might start with a reference point of attending 0 sessions, while participants who make a goal-inconsistent decision might start with a reference point of foregoing 0 sessions (i.e., attending 30 sessions). Participants may thus spontaneously consider different reference points or focus on different parts of a range goal (Scott and Nowlis 2013), depending on the frame. The aim of Study 2 is to test the viability of an explanation in terms of reference points.

Method

Participants. Three-hundred and six MTurk participants (170 women, 130 men, 2 other, 4 missing; M_{age} = 33.43) completed this study.

Procedure. We examined the impact of the framing manipulation (goal-consistent vs. goal-inconsistent decision) across three different response format conditions (open, slider, and range conditions; a screenshot of the different response formats is provided in appendix A). Participants read that they decided to improve their physical health and found a 30-session fitness course that would help them achieve this goal (details in appendix A). As the course was intense, they decided on the number of sessions they wanted to **[attend / skip]**. We randomly

assigned participants to one of three response format conditions. In the **open-ended condition**, which serves as our baseline, participants could indicate their goal level in a text box, comparable to how we assessed goal level in study 1.

In the **slider condition**, participants indicated how many sessions to attend/skip on a slider scale ranging from 0 to 30. Within the slider condition, we randomized whether the starting position of the slider was positioned at 0 or 30 (coded as the highest or lowest goal level depending on the framing condition). If the frames make participants spontaneously consider different starting points, then the framing effect should be attenuated when the initial position of the slider is fixed at a high vs low goal level. Furthermore, differences between making a goal-consistent and goal-inconsistent decision might be attenuated when all goal levels are 'externally' provided (via the slider scale) rather than generated 'internally' (when assessed using an open-ended response format).

In the **range condition**, participants indicated the range of sessions they would want to attend vs skip. Specifically, they were asked: "I would want to [**attend / skip]** between … and … sessions". We included two drop-down lists from which they could select any number between 0 and 30. The range condition tested the viability of another reference point explanation: Participants may have the same 'acceptable range of goal levels' across conditions, but they may use the lower bound as their goal level when making a goal-consistent decision and the upper bound as their goal level when making a goal-inconsistent decision (see Scott and Nowlis 2013). If the difference between conditions is due to selectively reporting the lower versus upper bound of an acceptable range, then the *average* of the lower and upper bounds should not be different across conditions.

Results

A general linear model with frame, response format, and their interaction as predictors and goal level as dependent variable revealed a main effect of frame, $F(1,300) = 21.10$, $p < .0001$, $\eta_p^2 = .066$, no main effect of response format, $F(2,300) = 0.18$, $p = .839$, $\eta_p^2 = .001$, and no interaction effect between frame and response format $F(2,300) = 0.40$, $p = .668$ $\eta_p^2 = .003$. We describe more detailed results below.

Open-ended response format. Participants set on average 9.7% higher goal levels when making a goal-inconsistent decision ($M = 25.04$, $SD = 5.81$, 83.5%) as compared to making a goal-consistent decision ($M = 22.13$, $SD = 8.25$, 73.8%), $t(91.57) = 2.08$, $p = .041$, $\eta_p^2 = .04$ (Welch-Satterthwaite correction for inequalities in variance).

Slider format. If the framing effect is due to differences in spontaneously generated reference points, then the framing effect should be attenuated when the starting position of the slider is fixed and when all potential goal levels are explicitly presented on a slider scale. However, we find that participants set on average 10.3% higher goal levels when making a goal-inconsistent decision ($M = 24.72$, $SD = 6.53$, 82.4%) as compared to participants making a goal-consistent decision ($M = 21.63$, $SD = 6.58$, 72.1%), $F(1,97) = 5.49$, $p = .021$, $\eta_p^2 = .05$. On the contrary, the high versus low starting point of the slider did not influence goal level, $F(1,97) = 0.43$, $p = .513$, $\eta_p^2 = .004$ and there was no interaction effect between the framing manipulation and whether the starting point was low versus high, $F(1,97) = 0.00$, $p = .957$, $\eta_p^2 = .000$, see figure 2.

Range format. If the difference between conditions is due to selectively reporting the lower versus upper bound of an acceptable range, then the *average* of the lower and upper

bounds should not be different across conditions. However, results show that participants set more ambitious goal levels when making a goal-inconsistent decision regardless of the minimum acceptable goal level ($M_{inconsistent}$ = 24.67, SD = 4.69, 82.2% versus $M_{consistent}$ = 17.86, SD = 8.04, 59.5%), $t(76.31) = 5.16$, $p < .001$, $\eta_p^2 = .22$), the average goal level ($M_{inconsistent}$ = 25.91, SD = 4.47, 86.4% versus $M_{consistent}$ = 21.48, SD = 7.47, 71.6%, $t(77.52) = 3.59$, $p < .001$, $\eta_p^2 = .12$) or the maximum acceptable goal level ($M_{inconsistent}$ = 27.15, SD = 4.47, 90.5% versus $M_{consistent}$ = 25.10, SD = 7.94, 83.7% , $t(74.70) = 1.59$, p $< .12$, $\eta_p^2 = .026$; most likely driven by a ceiling effect). All statistics corrected for inequalities in variance (Welch-Satterthwaite).

Insert figure 2 about here

Discussion

Study 2 replicates the framing effect across a variety of different measurement formats. Irrespective of whether participants determined the goal level with an open-ended response box, a slider scale with a high or low starting point or when they indicated a range of goal levels, they set higher goal levels when making a goal-inconsistent decision than when making a goal-consistent decision. On the contrary, differences in response format did not have any influence on the goal level, suggesting that goal level decisions are unlikely to be influenced by exogenous changes in the context, such as response format. These findings are difficult to reconcile with an interpretation in terms of reference points.

STUDY 3: FRAMING AND THE MODERATING ROLE OF NEGATIVE SELF-EVALUATIVE EMOTIONS

In Study 3, we aim to provide evidence for the proposed underlying process by manipulating the extent to which participants should experience negative self-evaluative emotions. Our theory predicts that the tendency to set higher goal levels under a goal-inconsistent frame should reduce in situations where negative self-evaluative emotions are less likely to emerge. We aim to test this boundary condition in two ways.

First, in study 3A, we manipulate the extent to which the activities for which goal levels are set will help goal achievement, that is, we manipulate the instrumental value of the activity towards goal achievement (Bagozzi and Dholakia 1999; Orehek et al. 2012). Making a goal-inconsistent decision for activities that are high in instrumental value (e.g., skipping a 1-h gym session) should trigger more negative self-evaluative emotions than making a goal-inconsistent decision for activities that are relatively low in instrumental value (e.g., skip taking the stairs). Consequently, we expect that the impact of a goal-inconsistent decision frame on goal level setting should be stronger for activities that are relatively high (vs. low) in instrumental value towards goal achievement.

Second, in study 3B we manipulate the extent to which people experience negative self-evaluative emotions while keeping the focal activity constant. Negative self-evaluative emotions can be alleviated not only through *direct resolution* (e.g., setting higher goal levels), but also through meeting other important self-standards (e.g., affirming the self in an unrelated domain; Allard and White 2017; Cohen and Sherman 2014; Gollwitzer et al. 1982; Mandel et al. 2017). For example, activities such as spending time with friends, updating one's Facebook page or

engaging in volunteering activities may all reduce the experience of negative self-evaluative emotions (Cohen and Sherman 2014). We expect that providing an out-of-domain self-affirmation should reduce the extent to which people experience negative self-evaluative emotions when exposed to a goal-inconsistent decision frame. As a consequence, the tendency to set higher goal levels should be reduced after affirming the self.

Study 3A: Framing and instrumentality towards goal achievement

Method

Participants. Three-hundred UK-based participants from Prolific (179 women, M_{age} = 39.06) completed this study in exchange for the equivalent of $8/h. In order to ensure relative homogeneity in the importance of the goal (improvement of work competencies), we only invited participants who declared 'being employed' (which included both self-employment and being employee) in the Prolific screening questionnaire (which participants completed at the time of joining the panel).

Procedure. The study employed a 2 (Framing: Goal-consistent decision vs. Goal-inconsistent decision) x 2 (Instrumentality: Higher vs. Lower) between-subjects design. Participants read a story in which they decided to improve their work performance. Participants in the higher instrumentality condition read that they had found a course that was perfectly tailored to help them improve on core competencies required for job performance. Participants in the lower instrumentality condition read that they found a course that was tailored to aspects of

their job that they would consider relatively less important (details in appendix A). The course would take place over a 10-week period with two lectures of 1h30 each week, taking place in the evenings. Participants were then asked to indicate how many lectures they planned to **[attend / miss].** Demographic questions followed at the end of the survey.

Results

Five participants did not indicate a specific goal level (e.g., 'it depends on my work schedule') and their responses were not taken into account. A GLM with framing and instrumentality as between-subjects factors revealed a main effect of framing, $F(1,291) = 4.22$, $p = .041$, $\eta_p^2 = .014$, a marginally significant main effect of instrumentality, $F(1,291) = 3.22$, $p = .074$, $\eta_p^2 = .01$, and a marginally significant interaction effect between the framing and instrumentality manipulations, $F(1,291) = 3.77$, $p = .053$, $\eta_p^2 = .013$. In the higher instrumentality condition, planned contrasts showed that participants set 7.2% higher goal levels when making a goal-inconsistent decision ($M = 17.13$, $SD = 3.05$, 85.6%) as compared to participants making a goal-consistent decision ($M = 15.65$, $SD = 3.68$, 78.2%), $F(1,291) = 7.78$, $p = .006$, $\eta_p^2 = .026$. On the contrary, there was no difference in goal level between the goal-inconsistent ($M = 15.75$, $SD = 2.82$, 78.8%) and goal-consistent ($M = 15.70$, $SD = 3.11$, 78.6%) decision condition in the lower instrumentality condition, $F(1,291) = 0.01$, $p = .934$, $\eta_p^2 = .00$, see figure 3.

Insert figure 3 about here

Further, the attenuation of the framing effect in the lower (vs higher) instrumentality condition was driven by lower goal levels in the goal-inconsistent decision condition ($M_{higher\ instrum}$ = 17.13; $M_{lower\ instrum}$ = 15.75), $F(1,291) = 6.71$, $p = .010$, $\eta_p^2 = .023$, while instrumentality had not affected goal level setting in the goal-consistent decision condition ($M_{higher\ instrum}$ = 15.65; $M_{lower\ instrum}$ = 15.71), $F(1,291) = 0.01$, $p = .916$, $\eta_p^2 = .00$. This confirms our reasoning that instrumentality should affect goal levels in the goal-inconsistent decision condition where negative self-evaluative emotions emerge. The observant reader might wonder why the overall impact of the instrumentality manipulation is relatively small. While speculative, we think that this can reflect a difference between goal selection and goal level – once participants feel that they've decided to take a course (goal selection) they feel that they should attend at least the majority of the sessions (goal level – the focal decision in this study). In other words, we think that the instrumentality manipulation may affect goal selection to a larger extent, which is beyond the scope of the current research.

Study 3B: Framing and self-affirmation

Method

Participants. One-hundred ninety-eight UK-based Prolific participants (130 women, M_{age} = 36.4) completed this study in exchange for the equivalent of $8/h.

Procedure. The experiment had a 2 (Framing: Goal-consistent vs. Goal-inconsistent) x 2 (Self-Affirmation: Present vs. Absent) between-subjects design. The study was advertised as a study related to working out. Participants read that they had decided to improve their health and found a 30-session fitness course, with two 1-h sessions in the evenings for 15 weeks. The course would be fun and help to achieve their goal. Yet, it would also be difficult to attend all the sessions (**self-affirmation absent condition**). In the **self-affirmation present condition**, the following sentence was added: '[…] **as you occasionally also engage in charity activities for your local community**'. Hence, participants read that before going to the first session, they decided to set themselves an allowance. They then indicated how many fitness sessions they planned to **[attend / skip]**. Demographics were measured at the end of the study.

Pretest. We first examined the effectiveness of the self-affirmation manipulation by exposing 107 participants from the same population to either the **self-affirmation absent** or **present** condition while keeping the frame and goal level fixed (i.e., all participants read that they decide to **attend 22 sessions and to skip 8 / skip 8 sessions and attend 22**, randomized between subjects). Then, they were asked to indicate how they would feel about this decision on three items aimed to measure negative self-evaluative emotions (I feel guilt, I feel regret, I feel disappointment, all 5-point scales where 1 = not at all, 5 = a great deal; $\alpha = .88$). In line with our prediction and *holding constant the actual goal level and decision frames*, participants reported feeling significantly less intense negative self-evaluative emotions in the self-affirmation present condition ($M = 2.50$, $SD = 1.15$) as compared to the self-affirmation absent condition ($M = 2.91$, $SD = 1.00$), $F(1, 103) = 4.27$, $p = .041$, $\eta_p^2 = .037$. Order did not influence these results.

Results

Six participants did not set a quantifiable goal level (e.g., "Not sure") and were excluded from further analysis. A GLM with framing, self-affirmation, and their interaction as predictors showed a main effect of frame, $F(1,188) = 19.17$, $p < .001$, $\eta_p^2 = .09$, but no main effect of the self-affirmation manipulation, $F(1,188) = 1.29$, $p = .258$, $\eta_p^2 = .007$. Importantly, there was a marginally significant interaction effect between the framing and self-affirmation manipulation, $F(1,188) = 3.56$, $p = .061$, $\eta_p^2 = .019$. Further analysis shows that the framing effect weakened in the self-affirmation present condition. That is, when self-affirmation is absent, participants set on average 15% higher goal levels when making a goal-inconsistent decision ($M = 25.02$, $SD = 3.32$, 83.4%) than when making a goal-consistent decision ($M = 20.52$, $SD = 5.23$, 68.4%), $F(1,188) = 19.61$, $p < .001$, $\eta_p^2 = .09$. However, the framing effect was less pronounced in the self-affirmation present condition, where participants set 6% higher goal levels when making a goal-inconsistent decision ($M = 22.85$, SD = 4.20, 76.2%) as compared to making a goal-consistent decision ($M = 21.06$, $SD = 6.46$, 70.2%), $F(1,191) = 3.10$, $p = .080$, $\eta_p^2 = .016$, see figure 4. This reduction in the size of the framing effect was driven by less ambitious goal levels in the goal-inconsistent decision, self-affirmation present (vs. absent) condition, $F(1,188) = 4.42$, $p = .037$, $\eta_p^2 = .023$, while the self-affirmation manipulation did not lead to any differences in goal level in the goal-consistent decision conditions, $F(1,188) = 0.29$, $p = .589$, $\eta_p^2 < .01$.

Insert figure 4 about here

Discussion

Study 3 confirms our theorizing: situations that reduce the extent to which participants experience negative self-evaluative emotions (e.g., self-affirmation) reduce the extent to which making a goal-inconsistent decision leads to more ambitious goal level setting. In study 3A, we found that the framing effect disappears when goal levels are set for activities that are lower in instrumental value towards goal achievement. In study 3B we found that an out-of-domain self-affirmation reduces the framing effect. Importantly, both the instrumentality and the self-affirmation manipulation influenced the goal level decision for participants making a goal-inconsistent decision, but not for participants making a goal-consistent decision. This is in line with our theorizing, as we expect negative self-evaluative emotions to emerge only when making a goal-inconsistent decision. Consequently, manipulations that reduce the emergence of these negative self-evaluative emotions should impact the goal level decision for the goal-inconsistent but not under the goal-consistent decision.

STUDY 4: FRAMING AND THE NATURE OF THE GOAL-RELATED BEHAVIOR

In study 4 we aim to provide further evidence for the notion that the framing effect is driven by negative self-evaluative emotions. In all prior studies, the goal-consistent decision was always a decision of *engaging in goal-consistent activities* (akin to a 'choose' frame; Laran and Wilcox 2011; Park, Jun and McInnis 2000), while the goal-inconsistent decision was always a decision of *foregoing goal-consistent activities* (akin to a 'reject' frame; Laran and Wilcox 2011;

Park, Jun and McInnis 2000). Yet, our theorizing predicts that the framing effect should emerge if the decision triggers negative self-evaluative emotions and irrespective of whether the decision is a 'choose' or 'reject' decision. To find support for this point, in study 4 we manipulate whether the goal-level is set for *goal-consistent activities* or for *goal-inconsistent activities*. For example, a person who wants to improve their health can decide how often to have or to skip healthy food (goal-consistent activity), or how often to have or to skip unhealthy food (goal-inconsistent activity). Both skipping healthy food (rejecting a goal-consistent activity) and having unhealthy food (choosing a goal-inconsistent activity) are *goal-inconsistent decisions*. Hence, both decisions should trigger negative self-evaluative emotions and lead to higher goal levels. On the contrary, having healthy food (choosing a goal-consistent activity) and skipping unhealthy food (rejecting a goal-inconsistent activity) are *goal-consistent decisions* and as a consequence should not trigger negative self-evaluative emotions and not lead to higher goal levels.

A second aim is to rule out differences in perceived effort as an alternative explanation. One may argue that the focal activity seems more effortful when making a goal-consistent decision (e.g., attending gym sessions) than when making a goal-inconsistent decision (e.g., skipping gym sessions) and people may therefore set less ambitious goal levels when making a goal-consistent decision (Campbell 1982; Wofford et al. 1992). In order to rule out perceived effort as the underlying driver of the framing effect, we manipulate effort in study 4. If goal levels in the goal-consistent decision frame are lower because engaging in the focal activity seems more effortful, then the framing effect should reverse if *not* engaging in the focal activity becomes relatively more effortful. However, according to an explanation in terms of the goal-

inconsistent nature of the decision, the framing effect should emerge irrespective of whether the focal activity is more versus less effortful.

Method

Participants. Four-hundred ninety-one MTurk participants (240 women, M_{age} = 37.2) completed this questionnaire in exchange for the equivalent of $6/h.

Procedure. In this study, we operationalize goal-consistent decisions both as choosing goal-consistent activities and rejecting goal-inconsistent activities. Goal-inconsistent decisions are operationalized as rejecting goal-consistent activities and choosing goal-inconsistent activities. As a consequence, the study employed a 2 (Frame-wording: Choose vs. Reject) x 2 (Activity: Healthy lunches vs. Unhealthy lunches) x 2 (Effort: Unhealthy lunch less effortful vs. Unhealthy lunch more effortful) between-subjects design. Participants read a story in which they had decided to improve their health (details in appendix A). Their workplace cafeteria introduced a 30-day lunch program to encourage healthy eating and only offered healthy lunches during these 30 days. Unhealthy options were available at comparable prices in a local restaurant, which was either **right next door (less effortful)** or **2 miles away (more effortful).** Participants then read that they decided to set themselves an allowance and were instructed to think about "*how many **[healthy / unhealthy]** lunches they decided to **[choose / skip]***". Before finishing, participants indicated their age and gender.

Pretest. We first conducted a pretest to confirm that having unhealthy lunches was perceived as more effortful than having healthy lunches only in the more effortful condition. 275

participants from the same population were exposed to one of the eight different scenarios as outlined above. Rather than setting a goal level, they evaluated how much effort it would take to have a healthy lunch and how much effort it would take to have an unhealthy lunch on two separate scales in randomized order (1 = very little; 7 = a lot). Confirming our manipulation, having an unhealthy lunch was perceived as more effortful in the more effortful condition (M = 3.96, SD = 1.89) than in the less effortful condition (M = 2.93, SD = 1.76), $F(1, 267) = 21.65$, $p < .001$.There were no main or interaction effects of the frame wording and activity conditions on effort evaluations of the unhealthy lunch (all $F's < 1.40$) and effort perceptions of the healthy lunch were not affected by any of the manipulations (all $F's < 1.04$). Most importantly, the unhealthy lunch was perceived as significantly *less effortful* (M = 2.93, SD = 1.76) than the healthy lunch (M = 3.39, SD = 1.90) in the 'unhealthy lunch less effortful' condition, $t(137) = 2.02$, $p = .045$, but as significantly *more effortful* in the 'unhealthy lunch more effortful' condition ($M_{unhealthy}$ = 3.96, SD = 1.88, $M_{healthy}$ = 3.15, SD = 2.02), $t(136) = 2.88$, $p = .005$ (see appendix A for more details). This pretest shows two important points. First, it shows that, while having healthy lunches is generally perceived as more effortful than having unhealthy lunches, this perception is not affected by the framing manipulation. This provides initial evidence against the notion that framing may influence effort perceptions and provides support for the orthogonality of the manipulated factors. Second, it shows the effectiveness of the effort manipulation, as the unhealthy lunch was perceived as more effortful in the more (vs. less) effortful condition while effort perceptions of the healthy lunch were unaffected by the effort manipulation.

Results

Five participants did not provide quantifiable responses (e.g., "I don't know yet") and we did not take their responses into consideration. We recoded responses such that they reflect a goal level for the number of healthy lunches participants would like to have. A GLM with frame-wording, activity, effort, and all the interaction terms as predictors and goal level as variable of interest revealed a main effect of frame-wording, $F(1,478) = 39.22$, $p < .0001$, $\eta_p^2 = .076$, a main effect of activity, $F(1,478) = 52.96$, $p < .0001$, $\eta_p^2 = .10$, and an interaction effect between frame-wording and activity, $F(1,478) = 126.20$, $p < .0001$, $\eta_p^2 = .21$.There were no main or higher order effects due to the effort manipulation (all *F's* < 1). Hence, whether participants perceived the focal activity (healthy lunches) or the alternative activity (unhealthy lunches) as relatively more effortful did not impact their goal level decision. We therefore collapsed the data across effort conditions.

Planned contrast analyses replicated the framing effect for the goal-consistent, healthy lunches: Participants set 10.2% higher goal levels when they made a 'reject' decision (M = 25.44, SD = 3.52, 84.8%) as compared to a 'choose' decision (M =22.37, SD = 6.42, 74.6%), $F(1,482) = 12.28$, $p < .001$, $\eta_p^2 = .025$. Confirming our hypothesis for goal-inconsistent, unhealthy lunches, participants set 36.4% higher goal levels when they made a 'choose' decision (M = 24.83, SD = 5.03, 82.8%) as compared to a 'reject' decision (M = 13.92, SD = 10.46, 46.4%), $F(1,482) = 153.22$, $p < .0001$, $\eta_p^2 = .24$. See figure 5.

Insert figure 5 about here

Discussion

Study 4 shows two important points. First, in line with our theorizing it confirms that making a goal-inconsistent decision increases goal levels, rather than choose versus reject frames driving the effect (e.g., Laran and Wilcox 2011; Park, Jun and McInnis 2000). Second, the framing effect is not affected by the effort manipulation. Our pretest confirmed the effectiveness of the effort manipulation as it flipped perceptions of most effortful activity from the healthy lunch to the unhealthy lunch but did not show any effects of the framing manipulation on effort perceptions. Further, the framing effect did not change as a consequence of whether the goal-consistent or goal-inconsistent activity was considered the more effortful one.

STUDY 5: THE MEDIATION PROCESS

After having provided evidence for the role of negative self-evaluative emotions through moderation in the previous studies, we aim to provide direct process evidence through mediation in study 5. Specifically, we posit that making a goal-inconsistent decision triggers negative, self-evaluative emotions, which in turn drive a motivation for self-improvement. We focus on guilt, regret and disappointment because these emotions have been linked to experienced self-discrepancies (Dijkstra & Buunk 2008; Higgins 1988; Zhang, Zeelenberg, Summerville and Breugelmans 2020). In order to capture the motivational effect of the goal-inconsistent decision and negative self-evaluative emotions, we measure self-improvement motivation (Allard &

White 2015) as a second step in the mediation process. Heightened levels of self-improvement motivation are in turn expected to drive higher goal levels in the goal-inconsistent condition.

Method

Participants. One-hundred and twenty UK-based Prolific participants (92 women, M_{age} = 34.4) completed the study in exchange for the equivalent of $8/h.

Procedure. The study employed framing (Goal-consistent vs. Goal-inconsistent) as a between-subjects variable. Participants read that they had decided to improve their health and found a 30-session fitness course, with two 1-h sessions in the evenings for 15 weeks. They read that they were going to decide how many sessions they planned to [**attend** / **skip]**. Next, and *before* indicating their goal level, they were asked to indicate how this decision made them feel on three items (in randomized order: "I feel guilt", "I feel regret", "I feel disappointment", 1 = not at all, 5 = a great deal; α = .89), followed by a measure of experienced self-improvement motivation, on four items adopted from Allard and White (2017): "I want to do better"; "I want to achieve success"; "I strive to be better"; "I want to prosper" (1 = strongly disagree, 7 = strongly agree, all randomized; α = .81). Then they were asked to indicate how many of the 30 gym sessions they planned to **[attend/ skip]**. While some scholars recommend measuring mediators after the crucial variable of interest, we expect substantially different effects on self-evaluative emotions when measured after vs. prior to goal level setting, since setting more ambitious goal levels can improve self-evaluations. Specifically, we argue that participants set higher goal levels to alleviate the negative self-evaluative emotions, and consequently,

differences between conditions in the intensity of self-evaluative emotions may be attenuated after goal setting. Demographic questions followed at the end of the survey.

Results

One participant did not indicate a quantifiable goal level ("as many as possible") and this response was not taken into consideration, leaving 119 observations. A t-test with framing as a between-subjects variable showed that participants set their goal levels on average 6.7% higher when making a goal-inconsistent decision (M = 25.80, SD = 4.82, 86%) as compared to making a goal-consistent decision (M = 23.78, SD = 6.58, 79.3%), $t(108.14) = 1.91$, $p = .058$, $d = 0.35$ (Welch-Satterthwaite correction for inequalities in variance).

Next, we tested for serial mediation with a 10000-bootstrap model (Preacher, Rucker, and Hayes 2007; Model 6). This model confirmed that the goal inconsistent decision frame led to higher goal levels by raising negative self-evaluative emotions (B = 1.12, $t = 5.42$, $p < .0001$) which increased self-improvement motivation (B = 0.16, $t = 2.54$, $p = .01$), which in turn increased goal levels (B= 2.52, $t = 2.21$, $p = .029$; indirect effect 95% CI [0.084; 1.32]). The direct effect of frame on goal level is no longer significant in this model, confirming full mediation 95% CI [-1.16; 3.76], see figure 6. There is no significant mediation through only negative self-evaluative emotions (95% CI [-0.96; 1.68]) or self-improvement motivation (95% CI [-1.12; 0.64]).

Insert figure 6 about here

Discussion

Study 5 compliments the process evidence obtained through moderation in the previous studies with evidence obtained through direct measurement of the mediators. We find that making a goal-inconsistent decision increases feelings of guilt, regret and disappointment, which increases self-improvement motivation and in turn leads to higher goal levels (Allard and White 2017). We conclude that participants directly resolve the aversive experience and improve self-evaluations by setting more ambitious goal levels.

GENERAL DISCUSSION

People set more ambitious goal levels when this decision triggers negative self-evaluative emotions. Across seven experiments with more than 2200 participants in total, we find that consumers set their goal levels on average 13% *higher* when they decide how many goal-consistent activities to *forego* compared to when they decide how many goal-consistent activities to *undertake*. These effects emerge in consequential and realistic situations, in a wide variety of different contexts, for a broad range of maximum goal levels, within different response formats and irrespective of whether the goal is assigned or self-selected.

Through both moderation and mediation, we show that these heightened goal levels are driven by negative self-evaluative emotions triggered by the goal-inconsistent decision. Studies 3A and 3B show that conditions aimed at alleviating these negative emotions (e.g., when the activity is lower in instrumental value or when an out-of-domain self-affirmation is provided)

reduce the extent to which making a goal-inconsistent decision leads to higher goal level setting. Study 4 shows that the framing effect is independent of whether a 'choose' or 'reject' frame is used, but crucially depends on the goal-inconsistency of the decision. Both choosing unhealthy food and rejecting healthy food are goal-inconsistent decisions which trigger negative self-evaluative emotions and lead to higher goal levels. Finally, study 5 provides further support for the underlying process: A goal-inconsistent decision leads to more negative self-evaluative emotions, which triggers self-improvement motivation and in turn stimulates higher goal levels.

Apart from providing support for the proposed underlying process, our studies also rule out various alternative explanations. In study 2, we did not find support for an explanation based on different reference points (e.g., saliency of different reference points; selective reporting of a lower or upper bound of a range of acceptable goal levels). This also helps to rule out an account of loss aversion – the framing effect emerged irrespective of whether the decision reflected a gain (e.g., starting from a low reference point) or a loss (e.g., starting from a high reference point). In addition, it is not a priori clear whether choosing or rejecting unhealthy lunches would be perceived as a loss (study 4) – rejecting unhealthy lunches helps to achieve a goal, while choosing unhealthy lunches can be pleasurable (do Vale et al. 2016). Arguably, both options contain some gains/benefits and some losses/costs, rendering a loss-aversion based explanation less parsimonious. Further, in study 4, we explored perceived effort as an alternative explanation of the framing effect. Yet, we observed the framing effect irrespective of whether the activity was more versus less effortful.

Another explanation could be that making a goal-inconsistent decision increases ambition because consumers want to compensate for a perceived lack of goal progress. Past work has shown the importance of progress perceptions on goal pursuit and performance (Campbell and

Warren 2015; Fishbach, Zhang, and Koo 2009; Huang, Zhang, and Broniarczyk 2012; Wang and Mukhopadhyay 2012). Our proposition is quite different, since participants determine goal levels *before* goal pursuit (e.g., see Duke and Amir 2019 for a discussion on the difference between initial decisions and subsequent actions). Nevertheless, the goal-inconsistent frame could potentially harm *anticipated* goal progress and consumers may want to compensate for "a lack of anticipated goal progress" through more ambitious goal levels. While an anticipated sense of falling behind one's goals may increase the experience of negative, self-evaluative emotions (Bandura and Cervone 1983; Wang and Mukhopadhyay 2012), we believe that an explanation in terms of compensating for a lack of anticipated progress is insufficient and less plausible for several reasons. First, it is unclear how affirming the self in an unrelated domain would resolve a goal-specific anticipated lack of progress and the out-of-domain self-affirmation in study 3B should not influence anticipated progress perceptions. Nevertheless, out-of-domain self-affirmation reduced the framing effect, which is difficult to reconcile with an anticipated lack of progress explanation. Second, it is unclear how goal inconsistent decision frames would only harm anticipated goal progress for high instrumental activities. Third, the mediation process illustrates the importance of negative self-evaluative emotions as the driver of the framing effect. In sum, our results show that consumers do not merely set higher goal levels to keep equal levels of perceived goal progress, but do so as a consequence of the experience of negative, self-evaluative emotions.

Theoretical Implications

The current work contributes to several streams of research. First, we contribute to the broad domain of goal setting and goal striving. Locke and Latham (2006) refer to the importance of high, specific goal levels as determinant of performance shown in over 88 different tasks (with over 40.000 participants) in the period between 1990 – 2006 alone. We contribute to this literature by unraveling *how* we can prompt consumers to set high(er) goal levels when the goal level decision is made independent of the goal selection decision. When setting goals, consumers oftentimes start with selecting a relatively higher order goal (a focal goal; Bagozzi and Dholakia 1999): They want to get fit or healthy, be more environmentally conscious or be a better friend. Then, they translate this into more concrete, lower-order or subordinate goals and set a particular goal level, such as deciding to skip meat from the menu twice per week or calling a friend at least once per week. We shed more light on the drivers of these concrete goal level decisions as well as on interventions that can help consumers set more ambitious goal levels. The mere consideration of foregoing goal-directed activities nudges consumers to set more ambitious goal levels. While it might seem contradictory that negative self-evaluations can have positive implications for ambition, this finding is consistent with other work showing that planning a 'cheat day' (i.e., foregoing goal-directed activities) when engaging in prolonged goal pursuit can be beneficial for long-term goal success (do Vale, Pieters, and Zeelenberg 2016). Hence, our work points to the interactive nature of motivation and self-evaluations. Goal setting is instrumental not only to goal achievement, but also to higher-order needs such as self-completion (e.g., Higgins 1988; Gollwitzer, Wicklund & Hilton 1982). We therefore contribute to a larger stream of research focusing on the role of the self in motivated (consumer) behavior (Moussa 1996; Toure-Tillery and Fishbach 2012, 2015). A feeling of failing to live up to important

standards is aversive and drives self-improvement motivations, even in the stage of the goal level decision and before any actual performance has taken place (see Duke and Amir 2019).

Second, we contribute to the framing literature by introducing a new approach to the goal framing literature and by identifying a new process through which framing can influence decisions. Specifically, we show that goal-(in)consistent decision frames affect ambition, irrespective of whether choose versus reject frames are used (Huber et al. 1987; Laran and Wilcox 2011; Levin, Jasper and Forbes 1998; Park et al. 2000; Yaniv et al. 2002). To the best of our knowledge, this type of framing, the proposed underlying process and goal level as the crucial variable of interest are new to the framing literature. For example, in their review of framing effects, Levin, Schneider and Gaeth (1998) examine whether a persuasive message has more appeal when it stresses the positive consequences of performing an act or the negative consequences of not performing that act (i.e., "goal framing"), but they do not find reliable differences in goal adoption. On the contrary, we focus on goal-consistent vs. goal-inconsistent decision frames and its impact on the *goal level* decision, rather than on goal selection or adoption. Drach-Zahavy and Erez (2002; see also Locke and Latham 2006) show that framing a difficult goal as a challenge (e.g., only 15% pass) leads to better performance as compared to framing the same goal as a threat (e.g., 85% fail). Here again, one can see commonalities between our work and prior research in that the goal-inconsistent decision frame might also impose a threat to the self, but we find that this frame has *positive* consequences for performance (via higher goal levels). A crucial distinction is that consumers in our studies could adjust goal levels to cope with the experience of negative self-evaluations. In contrast, this coping response is impossible in the context of externally provided goal levels (Drach-Zahavy and Erez 2002). This does not only highlight our contribution to the framing literature, but also further illustrates

that the impact of any framing manipulation crucially depends on the exact decision under consideration – whether it regards goal selection versus goal level, whether it involves goal levels that are self-set versus externally determined, or whether consumers can cope with a self-threat via goal levels or via performance (see figure 1).

Finally, we contribute to the literature on self-discrepancy, guilt and self-improvement motivation (Allard and White 2015; Duke and Amir 2019; Gollwitzer, Wicklund and Hilton 1982; Higgins 1988). Typically, the compensatory consumption literature focuses on how a self-discrepancy (e.g., triggered by failing a test, feeling powerless, social exclusion; Mandel et al 2017) affects *subsequent* consumer behavior. The frames in the current work are not only more subtle triggers of self-discrepancy, they also affect behavior in a more simultaneous manner. In the current work, the negative self-evaluative emotions are triggered by the exact same question through which they can be resolved. Put differently, the goal-inconsistent decision frame simultaneously plays a role of "problem creator" (i.e., trigger negative self-evaluative emotions) and "solution provider" (i.e., setting higher goals to reduce the negative self-evaluative emotions). Future work might explore whether framing manipulations in other contexts can influence decisions through self-improvement motivations and to what extent it would inevitably raise standards. For example, it may be possible that someone in charge of recruitment focuses not only on different qualities of applicants due to a reject vs. select frame, but also experiences guilt about having to reject (vs. select) job applicants. This person may cope with these negative feelings by more lenient acceptance standards in later stages of the decision process.

Practical Implications

The current findings are of immediate relevance to several services designed to help consumers achieve their goals, such as dieting organizations (e.g. Weight Watchers), gym memberships, and financial instruments, as well as to managers aiming to motivate their employees. The effectiveness of these services might benefit from taking self-concept related processes into account and from applying goal-inconsistent decision frames in particular. As confirmed by a brief study conducted among 200 participants, when setting goal levels for goal-consistent activities, people are generally inclined to determine goal levels in a goal-consistent manner (~ 88% indicated that goal-consistent decisions would be most natural when making decisions regarding exercising, saving, or social engagement activities). On the contrary, when setting goal levels for goal-inconsistent activities (e.g., unhealthy lunches), making a goal-consistent (48%) and a goal-inconsistent (52%) decision are considered equally natural decisions to make. This suggests that a goal-inconsistent decision frame might be a valuable intervention which could potentially lead to more ambitious goal level setting. When deciding on a goal level, there are often internal or external maximum goal levels – one cannot attend more lectures than provided, forego more daily coffees than one currently consumes or save more than one's discretionary income. In addition, consumers likely have more internal (perhaps even implicit) standards as to the upper and lower margins of acceptable goal levels – foregoing all coffee consumption might be unthinkable, while reducing coffee consumption with one cup per week is also undesirable (see also Wang and Mukhopadhyay, 2012). Our findings show that a simple intervention (e.g., let consumers decide on the number of work-out days they want to forego rather than attain) can push consumers to the upper ends of their considered goal levels, which in turn impacts goal-directed behavior (Locke and Latham 2002; 2006). As such, the usage of a goal-inconsistent decision frame would be recommended for government and advocacy agencies

developing programs to help consumers achieve their goals. For instance, public policy guidelines regarding exercising typically focus on the number of days or hours one should at least work out. Prompting consumers to consider how many days one can forego working-out could actually be more effective. Financial institutions more and more frequently aim to help consumers reach their saving or pension targets. Analogous to the 'saving targets' study (study 1A), they could prompt consumers to set goals based on goal-inconsistent decision frames. At the same time, caution is warranted. While higher goal levels should help alleviate the experienced negative self-evaluative emotions, this does not necessarily imply that consumers will feel equally good as those who were not exposed to a goal-inconsistent decision in the first place. This suggests that care should be taken when employing a goal-inconsistent decision frame to avoid adverse consequences for well-being (i.e., feeling that it is never enough). Emphasizing that goal levels are high and ambitious may already be an effective start.

DATA COLLECTION INFORMATION

Data for the "seminar attendance" study was collected by the second author at ESSEC Business School, Singapore in autumn 2018 and jointly analyzed by the first and second authors. Data for the "savings" (spring 2019), "earning raffle tickets" (summer 2017) and "evaluating pictures for the ARC" (spring 2019) studies were collected and analyzed by the first author on MTurk. Data for the "vegetable study" were collected by the second author at ESSEC Business School, Singapore in autumn 2019 and jointly analyzed by the first and second author. Data for studies 2 and 4 were collected on MTurk in the period January – July 2019. Data for studies 3a, 3b, and 5 were collected on Prolific academic in Spring 2019 (3a and 3b) and Spring 2020 (5). The data for studies 2-5 were collected and analyzed by the first author, in consultation with the third author.

APPENDIX A: OVERVIEW OF MATERIALS

Study 1.

Goal	Study Details
Seminar attendance	*Dear [..] student,* *We are currently putting together the line-up for this year for the external speaker series. We are looking to bring in exceptional leaders, managers and entrepreneurs who will share their insights with our students and alumni. While we are still in the process of putting the schedule together, we want to get an accurate estimate of the attendance for all the talks for room booking and catering purposes, which is why we would like your help in filling out this short survey.* *In the following academic year, starting from the month of October until the month of June, we would like to schedule a talk with an external speaker for one evening every two weeks. This means that in the period from October until June, there would be a total of 20 talks organised as a part of the external speaker series.* *We would like to get a better idea of the number of the external speaker talks you think you will attend / skip. Given how busy your schedule tends to be during the academic year, out of these 20 talks, how many do you plan to* ***[attend / skip]****?*
Savings	After having read a short introduction about consumer finances, the participants read: *On average, how much (in $) of your monthly income would you have in the category 'discretionary'? (hence, income minus fixed costs) _____ [open answer]* *You've just indicated that you have $ [own entry] for the category 'discretionary'. Now, please take a moment to think about a savings goal - what would you want to save money for?* *As outlined above, that part of the monthly income that falls in the category 'discretionary' is often used both for incidental or unplanned purchases, and also for savings. Even though consumers might be motivated to put all of the money in the category 'discretionary' on their savings account, it is considered wise to also take unplanned or incidental purchases into account (e.g., you might need new shoes or be asked to join friends for an unplanned dinner)* *Now, taking the considerations above as well as your savings goal into consideration, how much of the $ [own entry] would you want to* ***[put on / omit from putting on]*** *your savings account in the coming month?*
Earning raffle tickets	After completing a short (filler) task that satisfied payment requirements, participants read: *On the next few pages, we have displayed 15 "Where is Waldo" games. Each game contains a complex drawing in which Waldo is hidden. Waldo looks as follows:*

	 *He can also be dressed up in funny ways, but his hat and glasses are key characteristics of him.* *Below, you can find an example of a "Finding Waldo" picture, and Waldo is located below the white arrow <<example was provided>>* *Your task would be to identify Waldo in each drawing by clicking on the figure.* ***For every correctly identified Waldo, you will get a ticket to participate in a raffle****. Hence, the more Waldo's you find, the more tickets you collect, and the larger your chance of winning one of the bonuses. In this raffle, you have a chance of winning $10 bonus payment. In total, we give* ***10 bonuses of $10 away.*** *While this task can be fun to complete, it is also often considered a difficult task and many people are not able to find all 15 Waldo's. Therefore, we ask you to take a moment and to think about how many out of the 15 "Finding Waldo" puzzles you intend to* ***[solve / skip]****.* *What is the number of "Finding Waldo" puzzles you intend to* ***[solve / skip]?***
Vegetables	*Vegetables are an important part of a healthy diet. The World Health Organization (WHO) recommends a minimum of 400 grams of vegetable consumption on a daily basis. However, research shows that most of young adults have difficulties reaching this target.* *Therefore, we want to help you to achieve a goal of eating more veggies on a daily basis. WHO suggests that adding some veggie bites to a daily diet can have a significant impact on one's diet. A vegetable bite can include a slice of carrot or a cucumber or a strip of a pepper.* *Now, we offer you the opportunity to* ***consume 15 vegetable bites today.***  *We've prepared the veggies for you, and you can take them from the plates in front of the classroom. However, we also know that it might be difficult to add 15 vegetable bites to your daily consumption, as this could be a lot. Therefore, you can set your personal allowance by taking a moment to think about* ***how many of the recommended 15 vegetable bites you plan to [eat / skip] today.*** ***How many of the 15 vegetable bites are you going to [eat / skip]?***

	Upon receiving a signal from the researcher, they could walk to the front of the classroom and take their desired bits from the following plate 

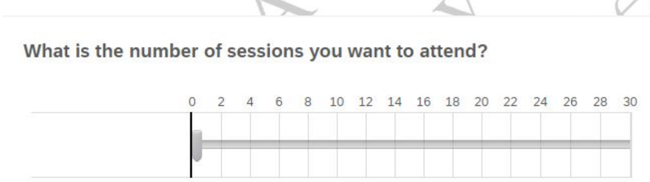
Study 2: Exploring the role of reference points

Imagine you've decided to improve your physical health. You've inquired at a number of gyms, and you found a gym that offers a 30-session 'fitness' course. This course is targeted at people like you, who want to improve their physical health. The course will take place over a 15 week period, and there are 2 sessions of 1 hour each week, taking place in the evenings. Even though you have to sign up for the whole course, you only pay the sessions which you attend.

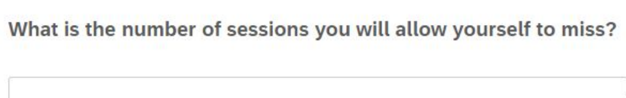
You are excited about the course, as you think it will both be fun and help you to achieve your goal. Yet, you also realize that it will be difficult to attend to all the sessions, as it is an intense course. Hence, before going to the first session, you decide to set an allowance for yourself. You think about how many of the 30 sessions in total you will ***[attend /allow yourself to miss].***

What is the number of sessions you ***[want to attend / will allow yourself to miss]****?*

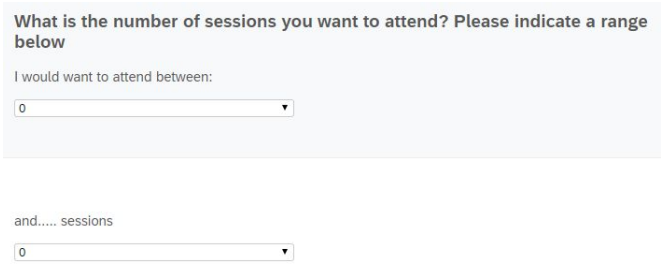
Slider condition (low and high starting point – goal-consistent condition)



Control condition (Goal-inconsistent frame)



Range condition (Goal-consistent frame)



Study 3A: Framing and instrumentality towards goal achievement

High instrumentality

Imagine you have decided to improve your work performance. You have found a course at the local community college which is ***tailored to aspects of your job that you consider relatively unimportant and that would not help you get promoted. You nevertheless decide to register, as the course is not expensive.*** *Yet, when you want to register it turns out that the course is full and you can enrol again only in 2020.*
You are recommended to take a look at another course. ***Interestingly, this course is perfectly tailored to help you improve on your core competencies required for your job performance and promotion objectives. You decide to register.*** *The course will take place over a 10 week period, and there are 2 lectures of 1h30 each week, taking place in the evenings.*
You are excited about the course, but you also realize that it will be difficult to attend to all the lectures. Hence, before going to the first lecture, you decide to set an allowance for yourself. You think about how many of the 20 lectures in total you will ***[attend / miss].***

What is the number of lectures that you plan to ***[attend / miss]?***

Low instrumentality

Imagine you have decided to improve your work performance. You have found a course at the local community college which is ***perfectly tailored to help you improve on your core competencies required for your job performance and promotion objectives.*** *Yet, when you want to register it turns out that the course is full and you can enrol again only in 2020.*
You are recommended to take a look at another course. ***While interesting, this course is tailored to aspects of your job that you consider relatively unimportant and that would not help you get promoted. You nevertheless decide to register, as the course is not expensive.*** *The course will take place over a 10 week period, and there are 2 lectures of 1h30 each week, taking place in the evenings.*
You are excited about the course, but you also realize that it will be difficult to attend to all the lectures. Hence, before going to the first lecture, you decide to set an allowance for yourself. You think about how many of the 20 lectures in total you will ***[attend / miss].***

What is the number of lectures that you plan to ***[attend / miss]?***

Study 3B: Framing and self-affirmation

Imagine you've decided to improve your physical health. You've inquired at a number of gyms, and you found a gym that offers a 30-session 'fitness' course. This course is targeted at people like you, who want to improve their physical health. Even though you sign up for the whole course, you only pay for the sessions that you attend. The course will take place over a 15 week period, and there are 2 sessions of 1 hour each week, taking place in the evenings.

You are excited about this course, as you think it will both be fun and help you to achieve your goal. Yet, you also realize that it will be difficult to attend all the sessions ***[as you occasionally also engage in charity activities for your local community].***
Hence, before going to the first session, you decide to set yourself an allowance. You think about how many of the 30 sessions in total you will ***[attend / allow yourself to skip]****.*

What is the number of sessions you [want to attend / will allow yourself to skip]?

Study 4: Framing and the nature of the goal-related behavior

Imagine you've decided to improve your health. Your workplace cafeteria introduces a 30-day lunch program to encourage more healthy eating. During the 30-day lunch program, your workplace cafeteria only offers healthy lunch menus. You decide to be mindful when you choose your lunches during the weekdays.
You are excited about the program, as you think it will help you to achieve your goal of eating more healthy. Yet, you also realize that it will be difficult to always eat a healthy lunch during 30 days.
Unhealthy lunch options are available at comparable prices in a local restaurant, which is located ***[right next to / 2 miles away from]*** *your workplace cafeteria.*
Before signing up to the lunch program, you decide to set an allowance for yourself. You think about how often you will ***[choose / skip]*** *a* ***[healthy / unhealthy]*** *lunch during the 30-day program.*
What is the number of ***[healthy / unhealthy]*** *lunches you would* ***[choose / skip]*** *during the 30-day program?*

Detailed results effort pretest

	Effort to have healthy lunch	*Effort to have unhealthy lunch*
Main effect frame	*F(1,267) = 0.00, p = .97*	*F(1,267) = 0.14, p = .71*
Main effect behavior	*F(1,267) = 0.05, p = .83*	*F(1,267) = 0.00, p = .99*
Main effect effort	*F(1,267) = 0.99, p = .32*	*F(1,267) = 21.65, p < .0001*
Frame X behavior	*F(1,267) = 1.03, p = .31*	*F(1,267) = 0.28, p = .60*
Frame X effort	*F(1,267) = 0.06, p = .81*	*F(1,267) = 0.00, p = .99*
Behavior X effort	*F(1,267) = 0.81, p = .37*	*F(1,267) = 1.39, p = .24*
Frame X behavior X effort	*F(1,267) = 0.75, p = .39*	*F(1,267) = 0.44, p = .51*

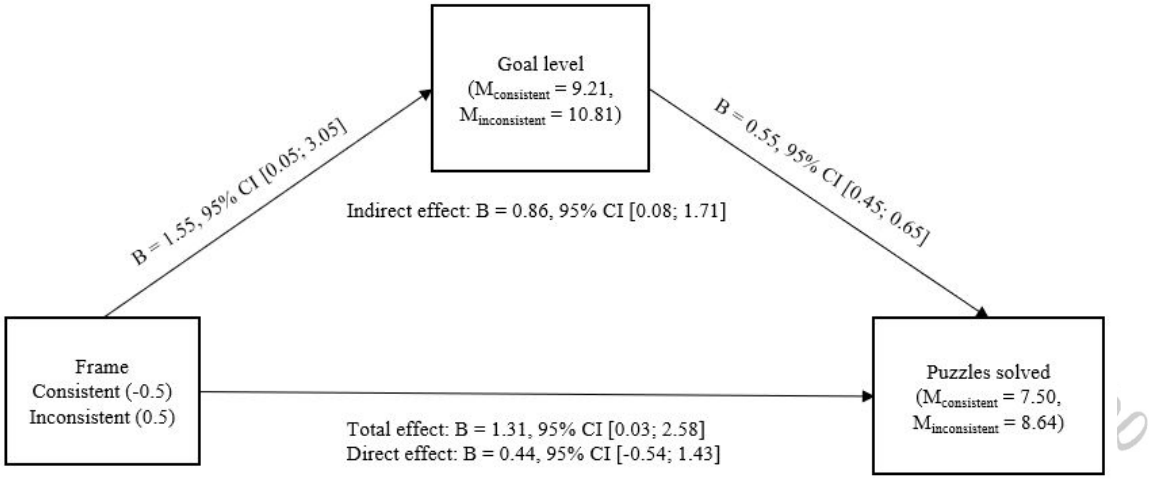
Effort evaluations of healthy and unhealthy lunches (Means and SD's) as a function of frame-wording, activity and effort manipulations – Effort manipulation pretest, Study 4

	Choose-frame		*Reject-frame*	
	goal-directed activity	*goal-undermining activity*	*goal-directed activity*	*goal-undermining activity*

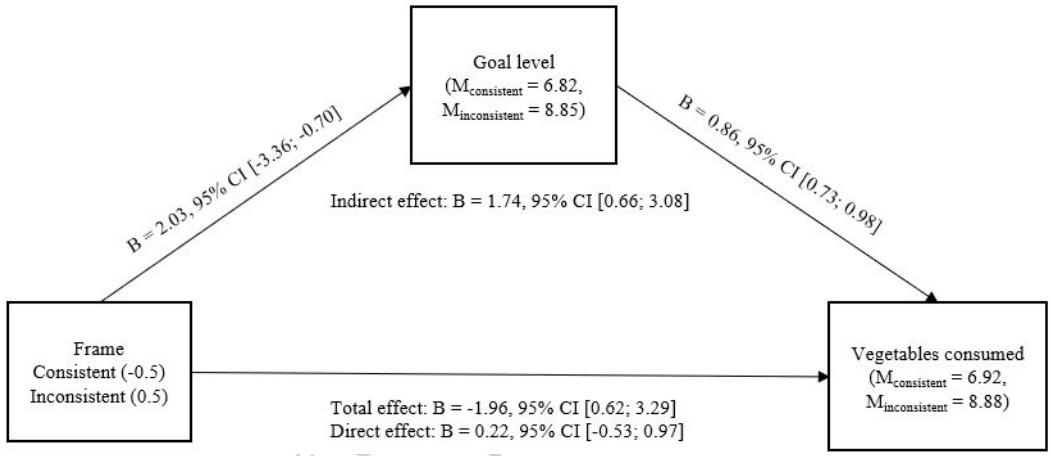
		M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Effort required for healthy lunches	*high effort*	*3.23*	*1.96*	*3.03*	*2.11*	*3.24*	*2.09*	*3.11*	*2.01*
	low effort	*3.52*	*1.84*	*3.33*	*1.67*	*3.00*	*2.06*	*3.71*	*2.04*
Effort required for unhealthy lunches	*high effort*	*4.26*	*1.88*	*3.74*	*1.90*	*3.91*	*1.97*	*3.91*	*1.84*
	low effort	*2.82*	*1.78*	*3.11*	*1.67*	*2.76*	*1.54*	*3.00*	*2.06*

APPENDIX B – MEDIATION MODELS STUDY 1

Finding Waldo (Study 1A)



Vegetable Consumption (Study 1A)



Evaluating Pictures for the ARC (Study 1B)

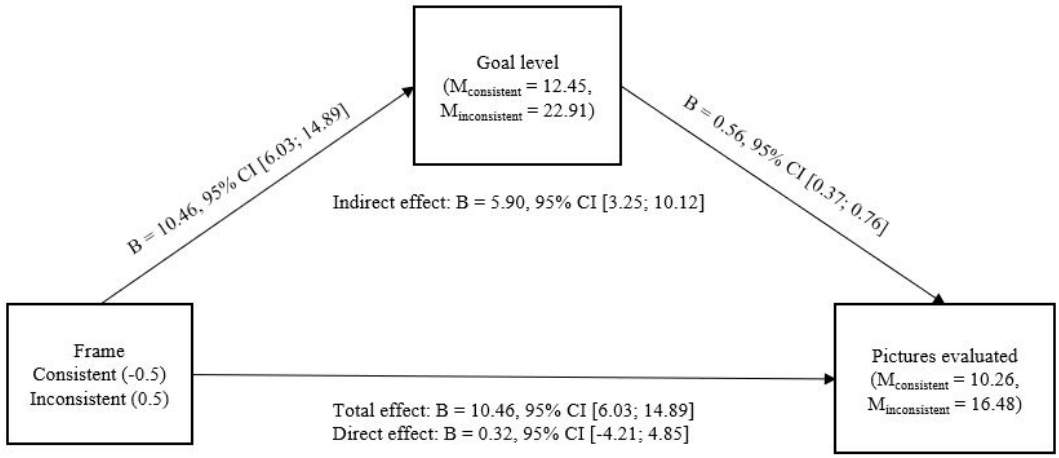


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Table 1. Overview of Framing Effect across Different Goals, Samples, and Operationalizations, Study 1.

Goal	N	Setting	Max level	Goal-consistent M (SD)	Goal-inconsistent M (SD)	Δ	Statistics
Seminars	220	lab	20	8.76 (4.08)	11.23 (4.31)	12.5%	$t(218) = 4.35$, $p < .001$, $d = 0.60$
Savings	137	online	self-set	39.9% (24.01)	56.8% (26.9)	16.9%	$t(135) = 3.85$, $p < .001$, $d = 0.66$
Raffle: GL	170	online	15	9.21 (5.30)	10.81 (4.31)	10.6%	$t(168) = 2.09$, $p = .038$, $d = .32$
Raffle: Performance	170	online	15	7.50 (4.95)	8.64 (4.42)	7.6%	$F(1,167) = 4.07$, $p = .045^{\dagger}$, $d = .31$; Mediation 95%CI [0.08; 1.71]
Veggies: GL	72	class	15	6.82 (2.21)	8.85 (3.39)	13.5%	$t(53.33) = 2.95$*, $p = .005$, $d = .73$
Veggies: consumption	72	class	15	6.92 (2.40)	8.88 (3.27)	13.1%	$t(70) = 2.92$, $p = .005$, $d = .70$; Mediation 95%CI [0.66; 3.08]

* Welch-Satterthwaite correction for inequalities in variance

† corrected for difficulty; uncorrected effect $t(168) = 1.55$, $p = .123$

GL = goal level setting

Table 2: Framing, Goal Level, and Performance, Study 1B.

	Goal-consistent		Control		Goal-inconsistent	
	M	(SD)	M	(SD)	M	(SD)
Goal level	12.45[a]	(10.76)	n/a		22.91[b]	(10.49)
Performance	10.26[a]	(10.34)	7.59[a]	(10.11)	16.48[b]	(12.39)

* different superscripts denote significant differences within rows at $p < .05$.

FIGURE 1: GOAL SETTING AND GOAL STRIVING

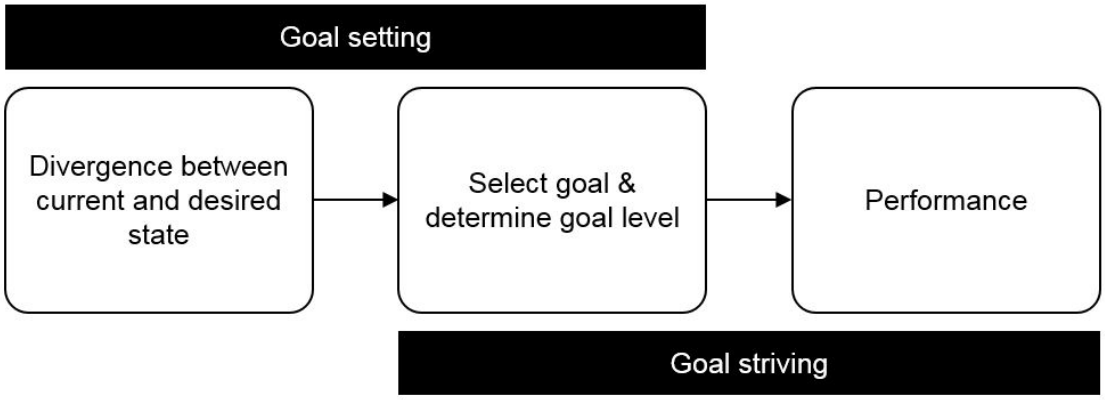
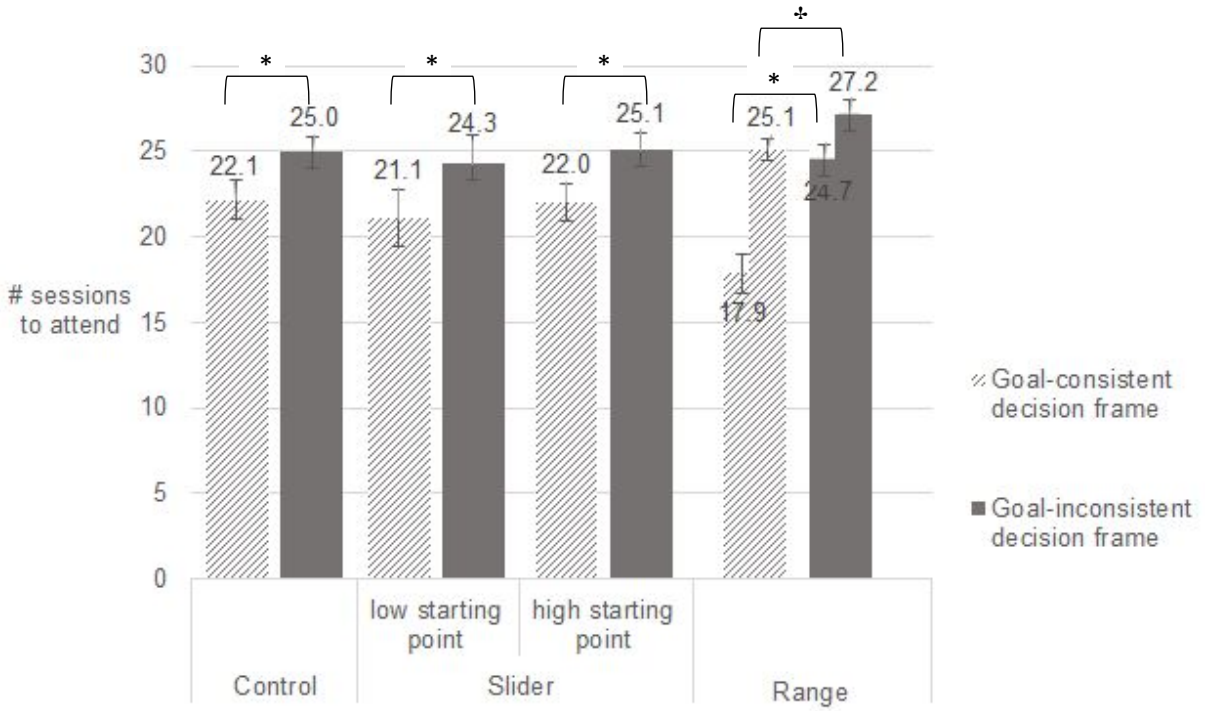
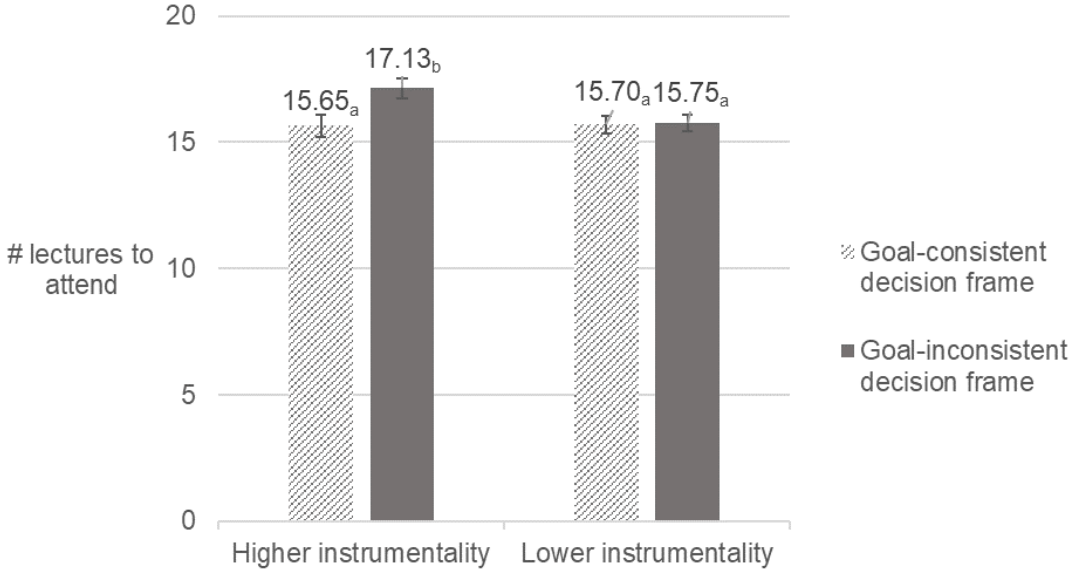


FIGURE 2: GOAL LEVEL AS A FUNCTION OF VARIOUS RESPONSE FORMATS, STUDY 2.



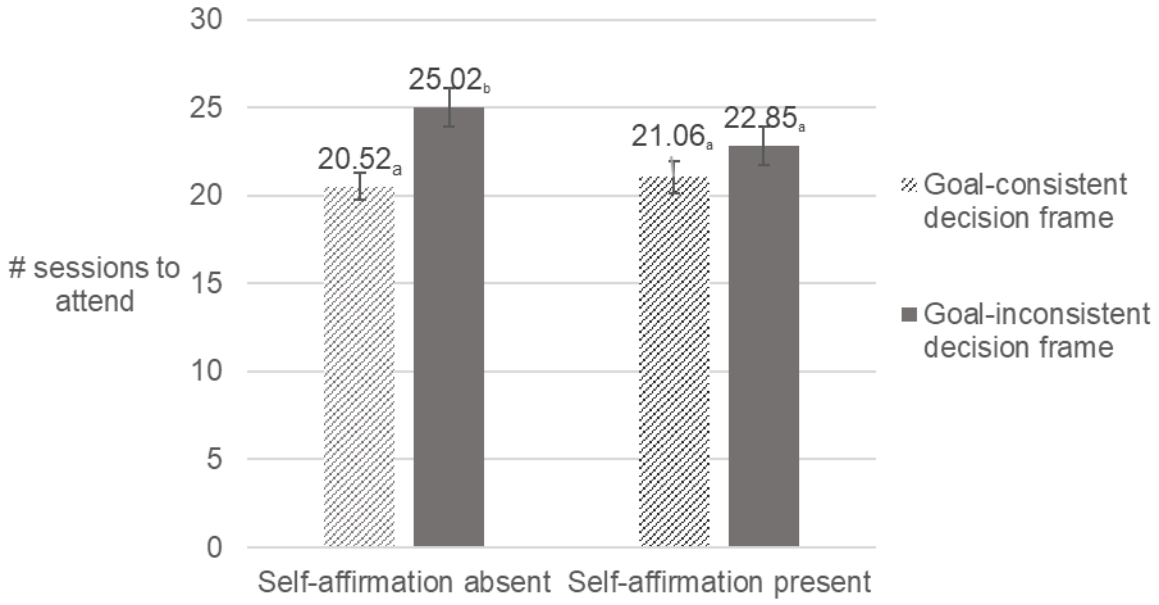
** significant difference at $p < .05$; † $p = .12$, error bars are standard errors*

FIGURE 3: THE IMPACT OF FRAMING AND INSTRUMENTALITY ON GOAL LEVEL, STUDY 3A



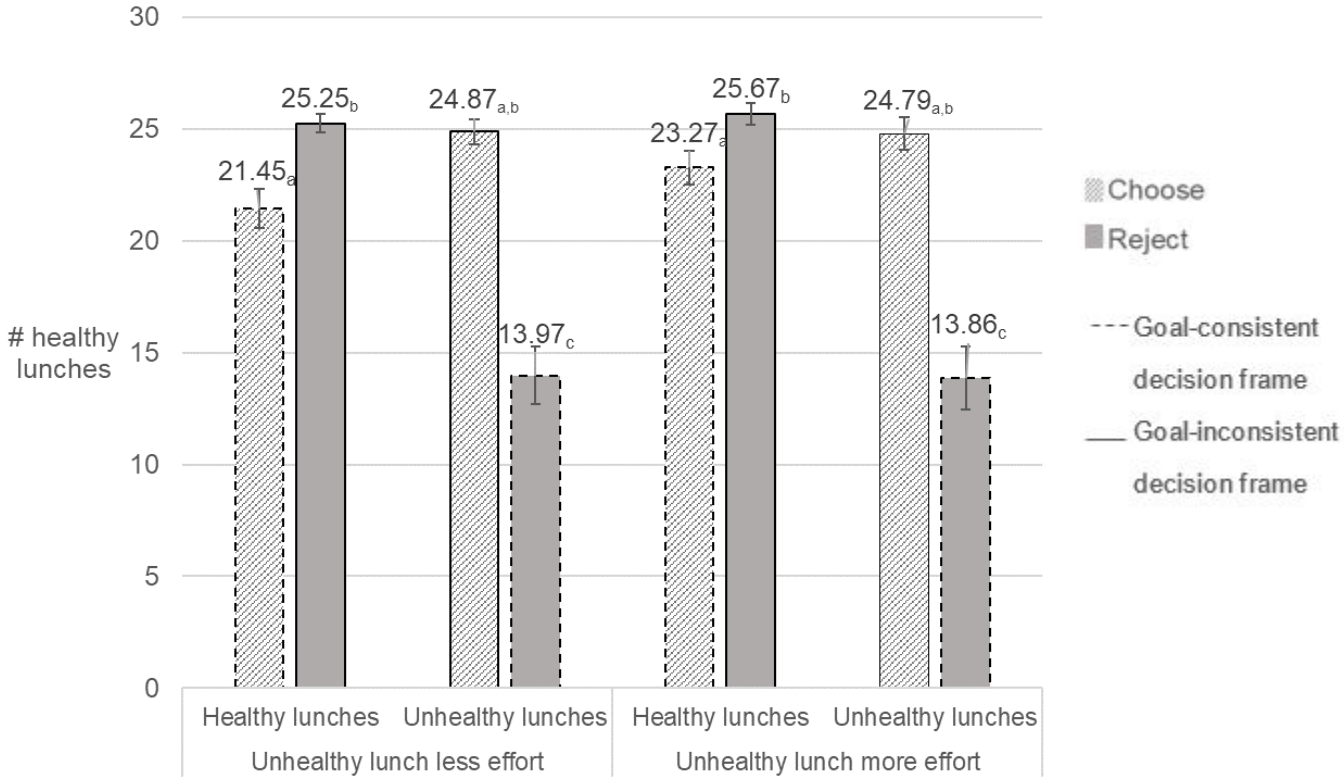
**different subscripts denote significant differences at p < .05, error bars are standard errors*

FIGURE 4: THE IMPACT OF FRAMING AND SELF-AFFIRMATION ON GOAL LEVEL, STUDY 3B



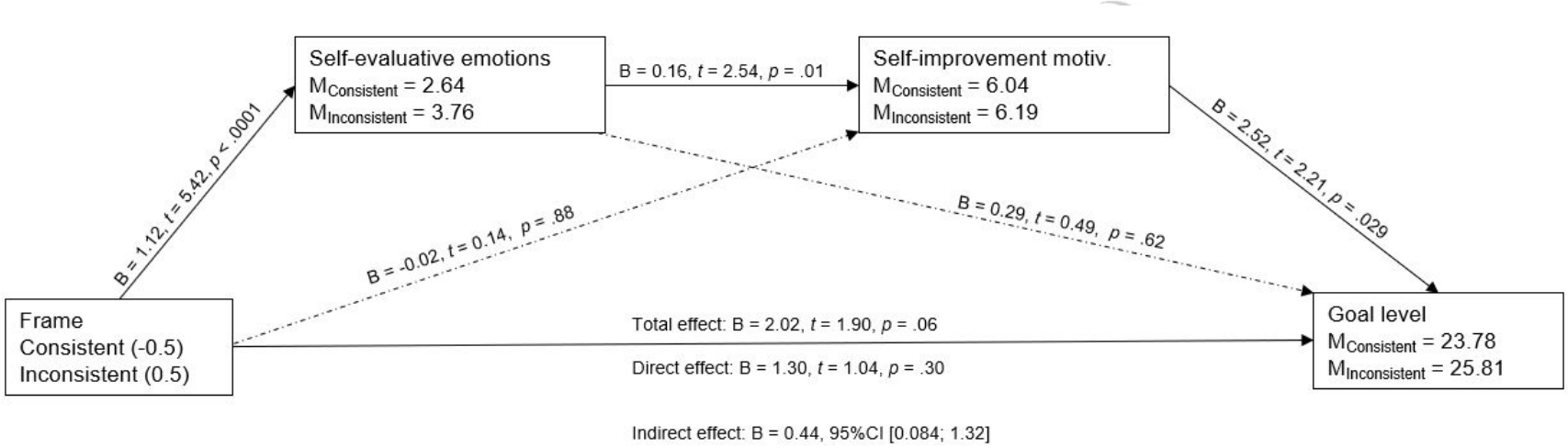
**Different subscripts denote significant differences at p < .05, error bars are standard errors*

FIGURE 5: THE IMPACT OF FRAMING AND THE NATURE OF THE GOAL-RELATED BEHAVIOR ON GOAL LEVEL, STUDY 4



**different subscripts denote significant differences at p < .05, error bars are standard errors*

FIGURE 6: FRAMING INFLUENCES GOAL LEVEL THROUGH SELF-EVALUATIVE EMOTIONS AND SELF-IMPROVEMENT MOTIVATION, STUDY 5



* *B coefficients are unstandardized*

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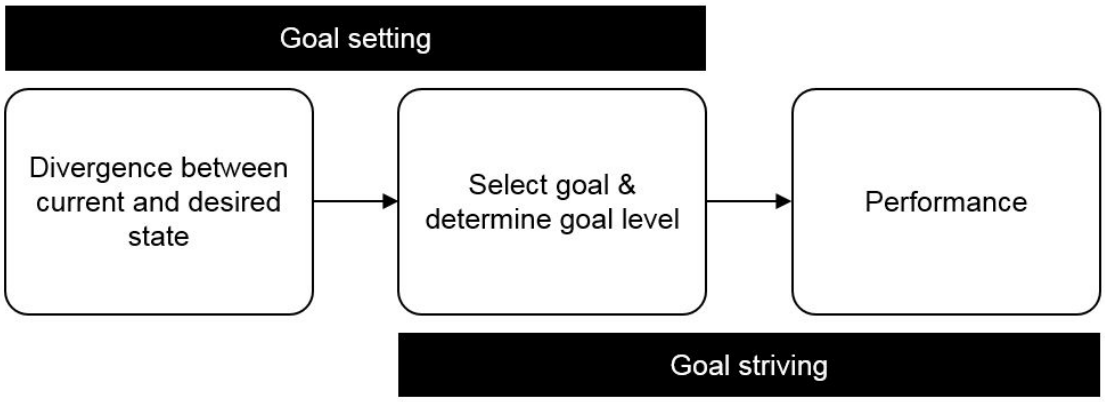
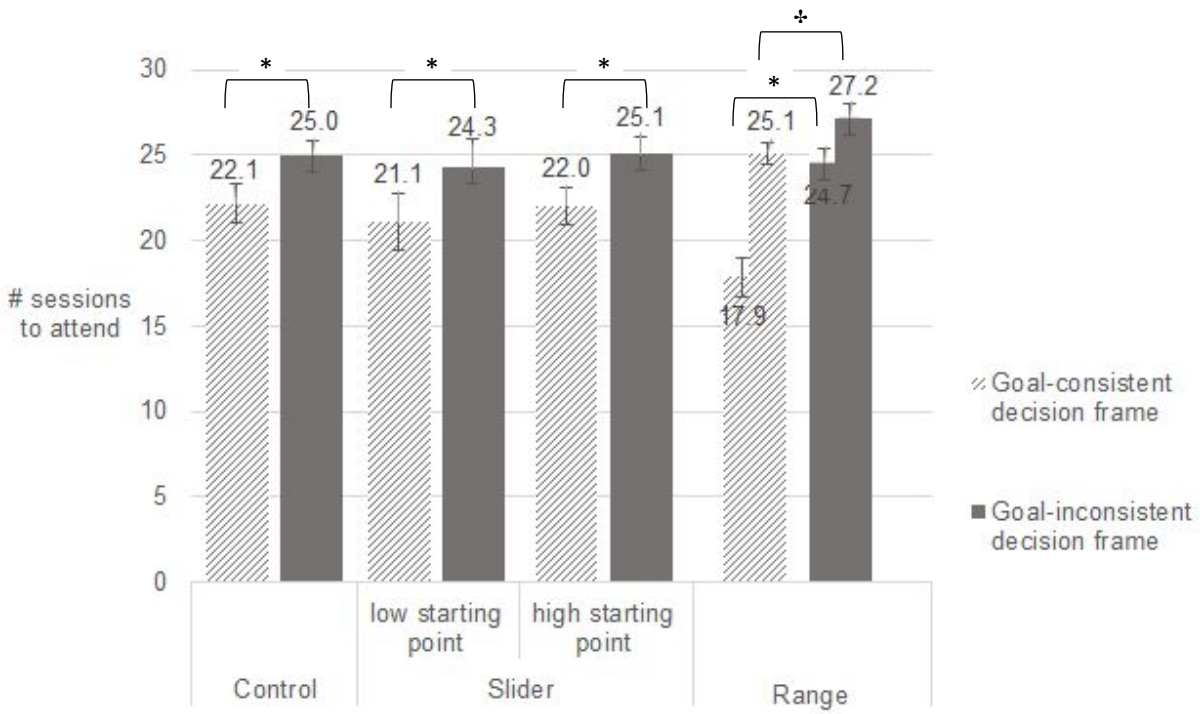
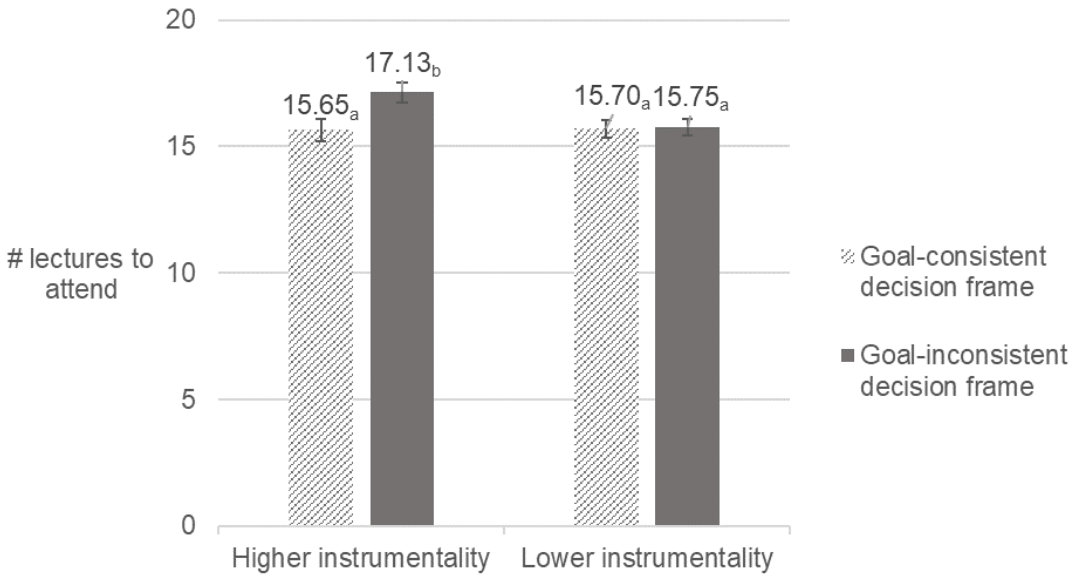
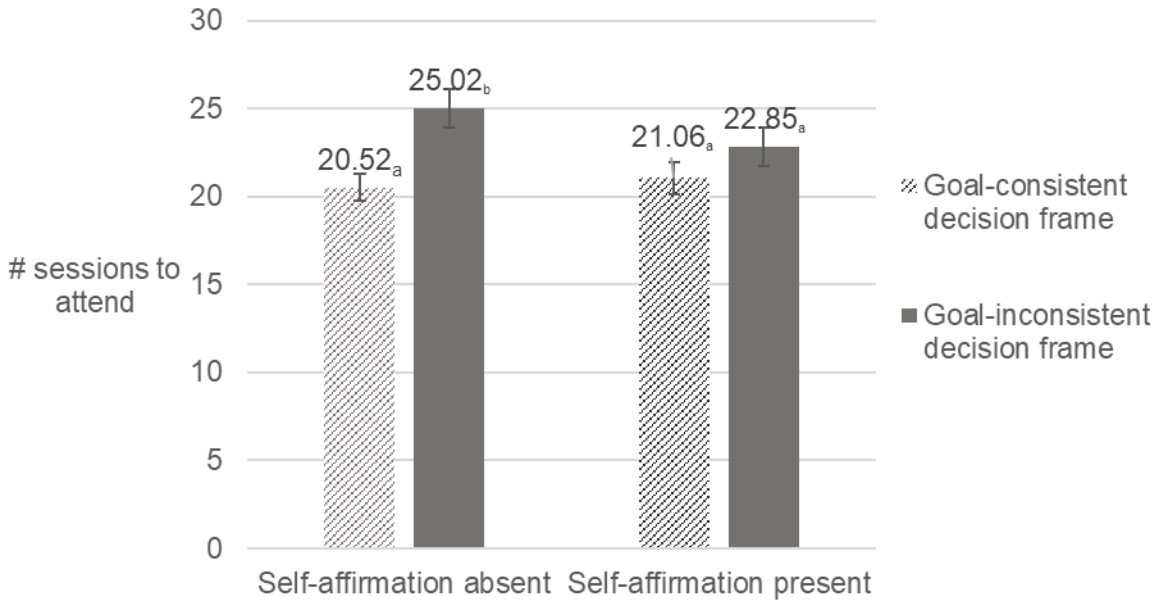
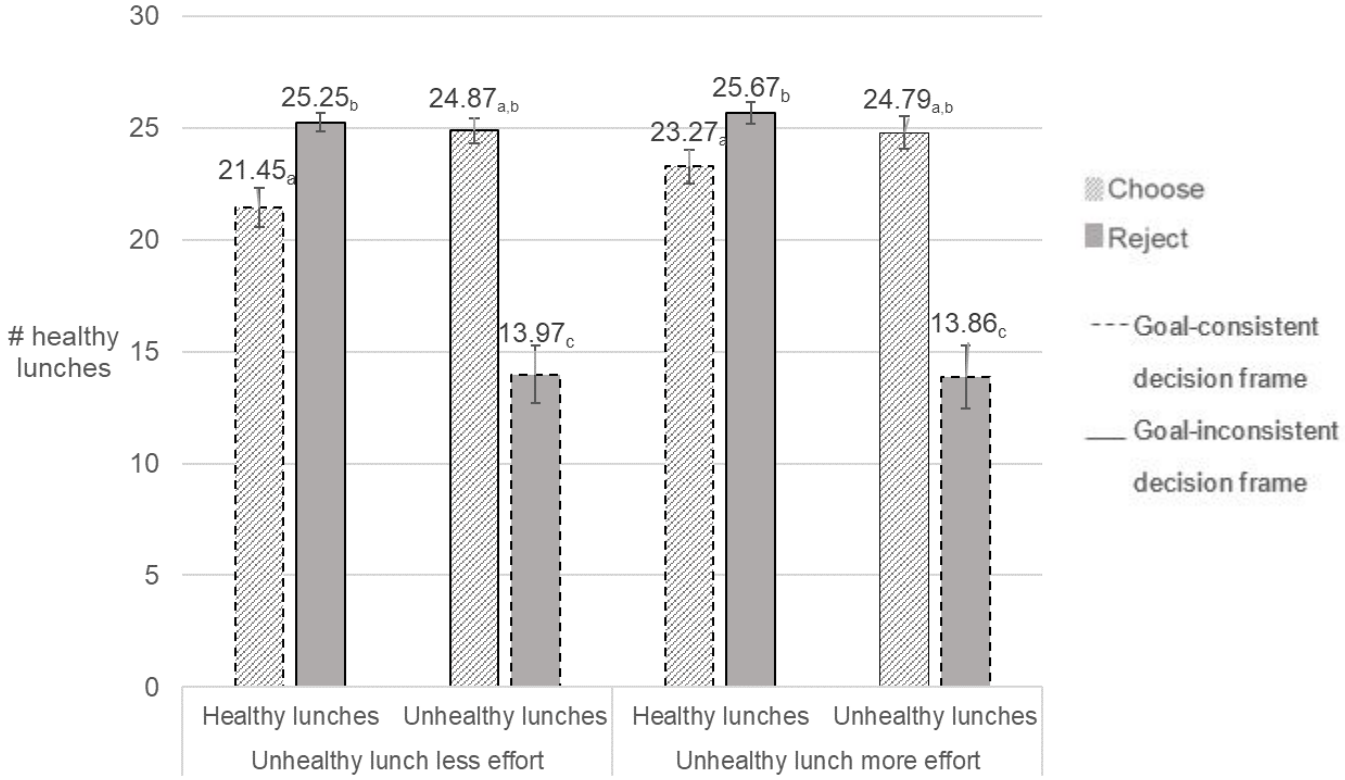
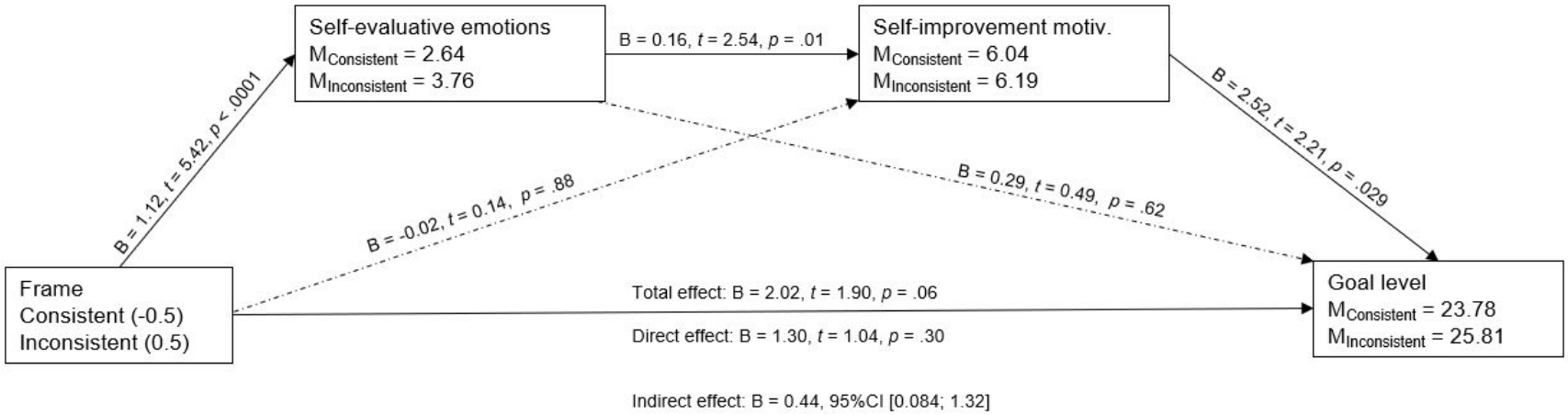




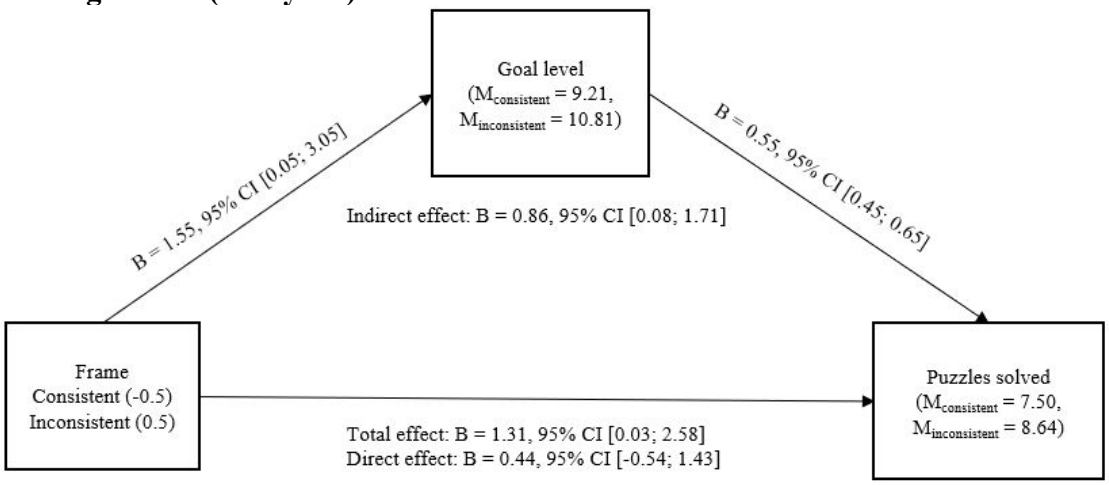




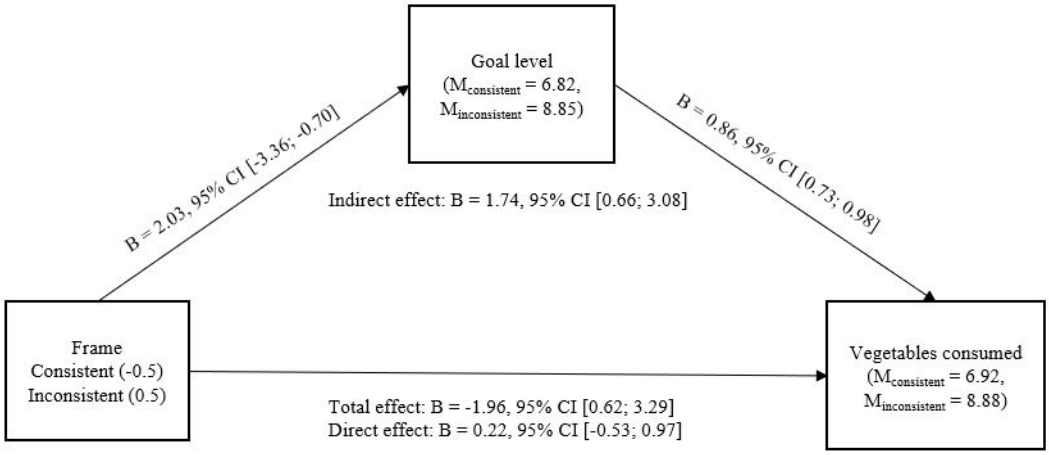




Finding Waldo (Study 1A)



Vegetable Consumption (Study 1A)



Evaluating Pictures for the ARC (Study 1B)