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# UNIVERSITY OF CALIFORNIA,

#### **IRVINE**

How Posting Goal-related Photos on Social Media Affects Consumer Goal Motivation:

The Divergent Effects of Photos About Goal Intent versus Goal Pursuit

# **DISSERTATION**

submitted in partial satisfaction of the requirements

for the degree of

DOCTOR OF PHILOSOPHY

in Management

by

Eun Jung (Kelly) Yoon

Dissertation Committee:
Professor Connie Pechmann, Chair
Professor Mary Gilly
Associate Professor Loraine Lau-Gesk

# **DEDICATION**

This dissertation is dedicated to my parents and sister; my mother, Young Sook Cho, my father, Tae Woon Yoon, and my sister Sun Jung Yoon.

For their unconditional love, endless support, encouragement and sacrifices.

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# FIELD OF STUDY

Consumer Motivation and Self-regulation

#### ABSTRACT OF THE DISSERTATION

How Posting Goal-related Photos on Social Media Affects Consumer Goal Motivation:

The Divergent Effects of Photos About Goal Intent versus Goal Pursuit

By

Eun Jung (Kelly) Yoon

Doctor of Philosophy in Management

University of California, Irvine, 2019

Professor Connie Pechmann, Chair

Innumerable people choose to make a public commitment to their personal goals in order to achieve success. The basis for this decision is that announcing goals in the presence of others can provide a strengthened commitment in those pursuing them.

While prior literature has focused on the effect of public commitment on online social support communities, very few studies have examined whether similar success would be attained by those who voluntarily share their goal pursuit photos in social media settings. In this research, we explore how posting images can impact consumers' motivation to persist with goal-focused behaviors, which then has the potential to increase the amount of goal-pursuit activities. Furthermore, we investigate how posting goal pursuit photos affects the perceived proximity between the current goal state and goal attainment, which in turn influences motivation. Moreover, we distinguish between photos that signal goal pursuit and goal intent and show they have divergent effects.

Across seven studies - one field study and six lab experiments - we discover that

| posting goal pursuit photos online leads to an increase in motivation, which then      |
|--|
| increases goal persistence. However, these effects are nullified or even reversed when |
| goal intent photos are posted because it signals that goal pursuers have made not      |
| sufficient progress. This research suggests that marketers can improve the efficacy of |
| goal programs online by harnessing the benefits of posting goal pursuit photos.        |
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|  |
| Keywords: social media, goal pursuit, goal intent, goal motivation, digital marketing  |
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#### Introduction

The range of social media platforms has drastically increased the volume of usergenerated content that we have access to. Twitter provides real-time opportunities for people to share information in an immediate way (Arvidsson and Caliandro 2015). Facebook allows users to interact with their social networks and share live events (Munson et al. 2015). Pinterest enables individuals to curate various types of information sourced online based on their needs and then to display it on their personal board (Grewal, Stephen and Coleman 2019). Instagram and Snapchat allow people to share every aspect of their daily lives by posting photos and videos (Franchina and Coco 2018). With the ever-increasing popularity of social media platforms and the widespread availability of cameras on mobile phones, posting photos to the web has become a daily activity for those who enjoy capturing life's moments and sharing them with their friends, or even those they don't have an existing relationship with (Diehl, Zauberman and Barasch 2016; Munson et al. 2015). This photo posting behavior is driven by a desire to express who we are through by the content we post in our online world (Jensen Schau and Gilly, 2003).

People routinely utilize social media when pursuing a variety of personal goals (Chung et al. 2017; Munson et al. 2015). For example, those striving to attain the goal of sustained health through exercise often rely upon social media to monitor their goal progress while actively engaged in their exercise program (Chung et al. 2017). Extensions of this behavior are the well-known activity referred to as the 'gym selfie', as well as the sharing of images of the clothing they wear while working out, or the gym where they train (Burke and Rains 2019). Similarly, people outlining their goals publicly via social media is commonplace, as they have an incentive to commit themselves based on a goal accountability mechanism (Munson et al. 2015).

Specifically, people often hold the belief that once goals are made public, it will increase the likelihood of persistent compliance behaviors (Nyer and Dellande 2010).

Interestingly, Instagram which focuses on photo posting has recently become a popular social media platform with over 600 million active users sharing 95 million photos each day (Franchina and Coco 2018). As society evolves to rely on social media platforms as a primary goal tool, goal-related photo posts are abundant. For instance, the number of Instagram photo postings with the hashtag "#cleaneating" is in excess of 442 million. The hashtag "#fitness" has had 340 million photo postings. "#fitspiration" is a popular social media trend that inspires users towards a healthy lifestyle and involves posting photos of exercise and appropriate foods. Thus, it is apparent that social media has already become an important part of consumers' goal-pursuit journey (Tiggemann and Zaccardo 2018).

Moreover, on social media platforms, goal-focused groups convey their aspirations with a specific hashtag in order to gather a greater number of similarly-motivated users. For example, a large number of women pay to join the 12-week online Bikini Body Guide (BBG) exercise and diet program. Bikini Body Guide (BBG) provides both a workout and diet plan and urges members to share a gym-selfie after they complete each workout. They also encourage users to hashtag "#bbg" on Instagram to connect with other members and then post photos of their progress including photos of workout gear and where they train. As a result, there are more than 7 million photos that included the "#bbg" hashtag.

These goal-related photo posts have attracted considerable interest from marketers who promote healthy lifestyles. A skincare brand, Rodan + Fields, launched a viral campaign that encouraged consumers to post makeup-free selfie photos with the hashtag "#RFgonaked". This campaign was designed to highlight the importance of healthy skin and the company donated \$1

per makeup-free selfie photo to non-profit organizations to highlight their commitment to the cause. MyFitnessPal provides a calorie-tracking mobile application and also encourages users to use the hashtag "#myfitnesspal" and share photos of what they eat when posting on social media (Gordon, Althoff and Leskovec 2019). Despite the increasing popularity of such phenomena, we do not yet understand how photo posting about goals affects the success of goal pursuit.

To date, research in the marketing literature has focused on the audience who observes the post, rather than those who make the post (Lamberton and Stephen 2016; Slater, Varsani and Diedrichs 2017). Simply observing posts that display images of fitness-based inspiration can increase body satisfaction and reduce negative mood (Tiggemann and Zaccardo 2018). However, very few studies have attempted to reveal the consequences of posting goal-related photos on goal progress, with a particular focus on the users who post as opposed to those who observe. Several studies have reported associations between posting and the behavioral consequences, yet they have yielded mixed conclusions. For example, posting photos of identity-related products that were relevant to a primed identity decreased purchase intention (Grewal, Stephen and Coleman 2019). In contrast, posting photos of food on social media led to an enhanced dining experience (Zhu et al. 2019). Overall, there is a lack of comprehensive studies which examine the effects of posts involving personal goals and that determine whether such photo posting behavior can enhance consumers' goal pursuit motivation. Such studies could potentially benefit both consumers and marketers who are striving to attain goals via the sharing of goal-related photos online.

Thus, the current research investigates a distinct and novel aspect of photo posting on social media: how might consumers' postings of goal-related photos on social media affect their goal motivation? We consider two distinct types of goal-related photos: photos of goal pursuit

meaning photos of objects used or behaviors enacted during a person's own goal pursuit, and photos of goal intent meaning photos that convey goal motivation but not enactment. The current research contributes to the literature in a number of ways. Firstly, we examine factors that influence users' goal-engagement through photo-posting on social media, whereas prior research has focused on the positive effects of public commitment to goals or answering questions about goals. Secondly, we demonstrate that the perceived proximity between the current state and the goal's end state is influenced by the ways consumers convey their goals in posting photos — whether the photos convey goal pursuit or goal intent — whereas past endeavors have tended not to consider this variable. Lastly, we show how posting goal photos for a significant period of time drives actual behavioral in goal pursuit. The conceptual framework for this research is illustrated in Figure 1. The framework posits that posting photos about goal pursuit versus goal intent will differentially affect the perceived proximity of the goal and in turn affect goal motivation.

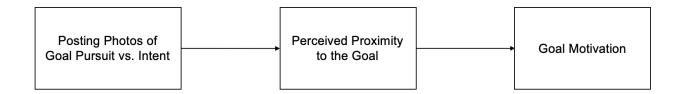


Figure 1. Conceptual Framework

The next section of this dissertation will discuss the increasingly prevalent phenomenon in which people post photos related to their goals on social media. We will also discuss numerous companies that encourage this type of posting behavior. After this, we will provide a detailed literature review of various streams of research related to consumers' conveyance of their goals and how this may affect consumers' goal motivation. The subsequent section of this

dissertation will elaborate on the conceptual framework for this research, and describe the specific research hypotheses that were tested. After this, we will describe the empirical studies that were conducted to test the research hypotheses and present the results. The final section of this dissertation will summarize the empirical findings and discuss the theoretical and substantive contributions of this research.

## The Phenomenon of Posting Goals on Social Media

Research demonstrates that people increasingly convey their goals and goal-related behaviors to others on social network sites (Bryan, Karlan and Nelson 2010; Chung et al. 2017; Munson et al. Zhu et al. 2015). For example, people engage in self-monitoring of their goals on social media; they keep public logs of their goal pursuit based on various parameters, that they use to evaluate the quality of their behaviors and obtain insights (Barrett et al. 2013; Swan 2013; Lupton 2013; Nafus and Sherman 2014). Research has proposed that self-monitoring promotes goal attainment, because it allows individuals to identify discrepancies between the current state and the goals' end state (Harkin et al. 2016). Moreover, monitoring goal progress can increase self-control (Baumeister 2002). For example, Chambers and Swanson (2012) found that dieters who monitored their weight on a regular basis tended to maintain their weight loss as compared to those who did not. The failure to monitor goal-incongruent behaviors is argued to contribute to the serious problems of childhood and adult obesity (Stragier, Evens and Merchant 2015).

Recent technologies, such as wearable devices (e.g., Fitbit, Apple Watch, Polar Loop) and smartphones with built-in GPS (Global Positioning System) tracking, have proliferated alongside consumers' tendency to monitor their goal attainment, e.g., related to their physical activity (Stragier, Evens and Merchant 2015). As a result, mobile fitness apps that provide

detailed analyses about people's fitness progress have become very popular in recent years. These apps encourage their users to find their peers who use the same apps and share their progress on social media networks, such as Facebook and Twitter; and therefore it has become the norm for people to share their goal pursuit activities and progress on social media (Chung et al. 2017; Munson et al. 2015; Stragier, Evens and Merchant 2015). In addition, these mobile fitness apps enable their users to identify how much effort and time they have invested in their goals, how much progress they have made, and what they need to do to succeed.

Prompted by the measurement capabilities and the social features that mobile fitness apps and wearable technologies provide, people increasingly turn to social media to share their health goals and find guidance and motivation from others pursuing similar goals and encountering similar challenges (Civan et al. 2010; Hartzler and Pratt 2011). People often share how many physical activities they have performed on Facebook or Twitter, e.g., "Just completed 5-mile run" (Stragier, Evens and Merchant 2015). The purpose of such status updating is to attempt to achieve exercise goals.

It is a very common phenomenon nowadays that consumers take screenshots of their goal-related activities and outcomes on their mobile devices and post the screenshots on social media directly from apps, using the apps' sharing features. The Strava, a popular mobile appbased fitness tracker, allows consumers to track their fitness activity through features such as recording a run, mapping a cycling run, analyzing daily progress, and sharing what they have achieved on social media (Kietzmann et al. 2011). Similarly, Asics, a footwear company, has partnered with the mobile fitness tracker, Run Keeper, to urge their consumers to earn points by completing a variety of fitness activities and tracking them on the app. The earned points can be used for special promotions of Asics product purchases.

In addition, there has been a proliferation of mobile food tracking apps that link to social media. Earlier methods for self-monitoring of food consumption relied on privately counting one's calories (e.g., MyFitnessPal) or using a food scoring system (e.g., Weight Watchers). Nowadays, consumers can use food tracker apps like Cronometer, which provides a detailed analysis of the nutritional composition of people's diet for those who want to restrict caloric intake while pursuing a balanced diet. In addition, these food tracker apps encourage their users to share what they have recorded about their nutritional intake on social network sites (e.g., Twitter, Facebook). Furthermore, people who follow a specific diet program are encouraged to share photos of what they eat with a specific hashtag that is relevant to the diet program they follow (e.g., #lowcarbdiet, #ketogenicdiet). Thus, the popularity of social media combined with the popularity of mobile tracking devices has created a new culture for those who are pursuing goals related to fitness, healthy eating or other healthy behaviors to regularly share their goals, goal activities and goal successes with others.

Numerous studies have found that monitoring and conveying goal pursuit behaviors and outcomes on social media can support goal attainment. For instance, Manzoor et al. (2016) found that utilizing social media to share physical activity data correlated with an increase in actual physical activity. Among the identified mechanisms of these positive effects are the social support received from one's social networks (Arvidsson and Caliandro 2015; Grewal, Stephen and Coleman 2019; Munson et al. 2015). For instance, Chung et al. (2017) found that dieters tended to consistently share what they are on Instagram to seek social support. Munson et al. (2015) found that regularly posting commitments on Facebook to pursue the goal of increased physical activity elicited supportive reactions from the posters' social networks. Munson and Consolvo (2012) found that sharing goal-directed behavior (e.g., minutes spent engaged in cardio

exercises) with one's social network online increased people's motivation to pursue the goal. The evidence suggests that sharing goals and goal progress on social media not only elicits social support from one's social network; it also creates a sense of accountability for achieving one's goals (Munson et al. 2015). In addition, posting goal pursuit activities allows individuals to appreciate their investment of time and effort in achieving their goal, which also tends to increase goal motivation (Fishbach and Choi 2012; Myrseth and Fishbach 2009).

Nevertheless, a few researchers have documented unintended negative consequences of the self-monitoring of goal-related activities. For example, Etkin (2016) found that self-monitoring goal-directed behavior tended to make previously enjoyable goal-related activities seem more like work, which lowered people's enjoyment. Interestingly, this reduced enjoyment subsequently decreased continued engagement in the activity. In the experiment, participants were given the option to wear (vs. not to wear) a pedometer for the day. Participants who wore a pedometer reported that enjoyed walking less, compared to those who were in the control group, regardless of how many steps they took. In another experiment, participants were given a book excerpt and asked to read it for eight minutes. The results showed that participants who had the option to view how many pages they had read reported that they were less likely to read additional pages, compared to those who had not been given the option to view how many pages they had read.

Although these studies found negative effects of self-monitoring goal-directed behavior, they did not study the effects of sharing this information on social media. One study that did this was Lindsay (2014), who tested how sharing goal-directed behaviors on Pinterest might affect one's goal motivation. Participants were shown a Pinterest board displaying Do It Yourself crafts projects. Their goal was to complete their own personal Do It Yourself Project. In the pin

condition, participants were asked to find and post a project they might like to do; whereas in the control condition, participants did not engage in this task. The result showed a marginal negative effect of posting. Participants who posted a project they might like to do showed a marginally lower motivation to complete their own projects compared to those who did not do so.

#### **Review of Literature Related to Goals**

#### Goals and Goal Motivation

Prior research has defined a goal as a cognitive representation of a desired state (Fishbach and Ferguson 2007). Goal researchers have proposed many goal categorizations such as long-term aspirations and short-term desires, and objectives that individuals pursue on their own or as part of a group (Locke and Latham 1990). However, all of these various types of goals indicate desired states that guide cognition and action (Aarts & Dijksterhuis 2000; Chartrand and Bargh 1996; Fishbach and Ferguson and Kruglanski 2003). In contrast, goal motivation refers to the psychological force that enables action toward attaining a goal (Lewin 1935). Goals motivate movement toward a desired outcome, and active goals facilitate motivation to reach the desired goal end state (Fishbach and Dhar 2005; Touré-Tillery and Fishbach 2011).

The relationship between goal setting and goal motivation has received much attention from researchers. Specifically, the research has shown a positive association between goal setting and motivation, as goal setting allows individuals to consciously consider the levels of effort and time required to achieve desirable outcomes (Locke and Latham 2006). Moreover, people who set goals are often dissatisfied with their current state, thus, simply setting a goal tends to lead to a change in behavior as the individual has a clear desire to move towards the established goal (Locke and Latham 2006). In addition, many motivational theories and studies have established

that strong motivation helps individuals persistent in pursuing their goals (Woolley and Fishbach 2016) and therefore attain their goals (Dellande, Gilly and Graham 2004).

However, research also indicates that there is a complex interrelationship between goal attainment and goal motivation. The goal-gradient hypothesis posits that motivation increases as distance to the goal decreases, meaning that people tend to exert more effort as they get closer to a goal's end state (Heath, Larrick and Wu 1999; Hull 1932; Kivetz, Urminsky and Zheng 2006). For instance, Kivetz, Urminsky and Zhang (2006) showed that individuals who drew closer to receiving a reward for rating songs online visited the rating site more frequently and rated more song per visit. Similar to this, the discrepancy theory of self-regulation posits that motivation increases as the discrepancy reduces between the current progress level and the level needed to attain the goal (Carver and Scheier 1990; Fishbach, Koo and Fishbach 2010; Heath, Larrick and Wu 1999; Higgins 1987; Kivetz, Urminsky and Zhang 2006; Locke and Latham 1990). Prior work has found empirical evidence for this effect as well. For instance, customers who joined a coffee shop's loyalty program accelerated their purchases as they progressed toward receiving the reward (Fishbach, Koo and Finkelstein 2014). That is, the reduced discrepancy between their current state and the desired end state motivated individuals to move further toward the goal end state (Campbell and Warren 2014).

On the other hand, considerable goal literature argues that goal motivation declines slowly as goal pursuit is attempted (Fishbach and Ferguson 2007, Touré-Tillery and Fishbach 2011). For instance, when an individual initially sets a goal, motivation is likely to be at its peak, as the goal is heavily primed by various contextual cues. After this, motivation tends to decrease as people move away from these contextual cues, which is most likely to happen toward the middle of goal pursuit (Fishbach and Dhar 2005). Furthermore, when people find that goal-

related tasks are difficult, their motivation to continue to engage in those goal-related tasks is reduced even further (Lee, Keil and Wong 2015). Therefore, although goals should be set high enough to encourage pursuit, they also should be set low enough to be attainable (Dholakia, Bagozzi and Basuroy 2003). Achieving goals requires individuals to complete multiple effortful tasks over the course of the goal pursuit (Fishbach, Koo and Finkelstein 2014). However, because individuals have limited psychological resources, unattainable goals can potentially deplete their ability to exert effort continuously (Touré-Tillery and Fishbach 2011). Furthermore, observing another individual reaching his or her goal end state tends to deactivate goal concepts and decrease motivation, which is called vicarious goal satiation (McCulloch et al. 2011). For instance, participants who observed an anagram task being completed by another person had significantly decreased motivation to complete the same anagram task themselves.

## Goal Priming

In the goal literature, in addition to the extensive work on goal motivation, there is another substantial but relatively independent body of work on goal priming (Bargh 1996; Bargh, Chen, and Burrows 1996). Goal priming refers to the mental activation of a goal, often without conscious awareness, which can then affect goal-relevant information processing and behavior (Bargh 1996; Dijksterhuis, Chartrand and Aarts 2007; Laran, Janiszewiski, and Cunha Jr 2008). Research has revealed that contextual cues in the environment which prime goals can lead to goal-directed behavior (Papies 2016). For instance, Fishbach, Friedman and Kruglanski (2003) found that when diet-concerned participants were primed with diet-relevant words or images, it affected their food choices significantly; they were more likely to select healthy food items over unhealthy food items. Also, seeing dieting advertisements while snacking significantly decreased

participants' overeating of unhealthy foods (Anschutz, Van Strien, and Engels 2008). Overall, Weingarten et al. (2016)'s meta-analysis found that exposure to goal-related words tended to trigger goal-directed behaviors, especially if a person perceived the primed outcome as valuable.

Research on the mechanisms of goal priming has shown that goal priming effects were often achieved without the individual's awareness (Laran, Janiszewiski, and Cunha Jr 2008). Moreover, countless studies have shown that people often failed to make a connection between a primed goal and the tasks influenced by the goal (Laran, Janiszewiski, and Cunha Jr 2008; Papies 2016). For example, Srull and Wyer (1979) showed that subliminal priming of words related to a prestige goal (e.g., prestige, luxury) led participants to choose prestigious products.

Building on prior work, Iso-Aloha and Miller (2016) directly compared the priming effects of both nonconscious and conscious goals within the context of an exercise goal. They manipulated the conscious prime by asking participants to write an essay about what it means to them to exercise. For the unconscious prime, participants were exposed to exercise-related logos (e.g., Nike, Under Armor, and Gatorade). The results revealed that participants who consciously wrote about the meaning of exercise reported more frequent exercise compared to those who were exposed to the more subtle exercise logos. These findings suggest that conscious goal primes could be more effective than unconscious goal primes at encouraging goal persistence. However, other work suggests that non-conscious goal primes may be more effective at facilitating goal persistence, so this issue is far from being resolved, and the specific effects likely depend on various contingent factors (Laran, Janiszewiski, and Cunha Jr 2008).

Public Commitment to a Goal

In addition, in the diverse and extensive literature on goals, there is considerable research on public commitment to a goal, which has shown that consumers can sometimes benefit from committing to goals publicly. Publicly announced goals can increase the likelihood of compliance with the activities needed to pursue a goal due to the desire to avoid the social disapproval and penalties that would result from failure (Bem 1967; Pallak, Cook and Sullivan 1980; Nyer and Dellande 2010; Parrott et al. 1998). For instance, Nyer and Dellande (2009) found that people who committed to a weight-loss goal in the presence of others elicited higher levels of motivation to lose weight, which subsequently resulted in increased weight loss. More specifically, participants who signed up for a 16-week weight-loss program were invited to participated in the study, and their goals were determined by a medical team. Participants in the public commitment condition had their weight-loss goals (i.e., "I will lose 5 lbs. by week 8") written on an index card along with their names, and the card was displayed publicly on a bulletin board. Participants in the control condition did not have their goals or names displayed on the bulletin board. Those who committed to their goal publicly showed higher levels of weight-loss motivation and actual weight loss compared to those in the control group.

Moreover, Baca-Motes et al. (2012) demonstrated that hotel guests who made a commitment at hotel check-in to reuse the hotel towels were more likely to do so than those who had made no such commitment. Specifically, participants were randomly assigned to receive a pin that symbolized their specific commitment to reusing towels, or a pin that symbolized their general commitment to environmental sustainability, or no pin. Participants in the specific public commitment condition were more likely to hang their towels for reuse compared to participants the other conditions.

#### The Question-Behavior Effect

Researchers have also documented a question-behavior effect, in which answering questions about one's future goal-related behaviors may affect one's subsequent goal behaviors (Sherman 1980; Spangenberg et al. 2016; Wilding et al. 2016). The question-behavior effect has been extensively examined in relation to health-related behaviors, in both laboratory and field settings (Wilding et al. 2016). Studies have found that consumers who answered questions about their future goal-related behaviors were more likely to behave consistently with the answers they gave to others (Spangenberg et al. 2016). For example, participants who were asked about their intention to increase their physical activity were more likely to increase their physical activity, relative to those who were not asked their intention (Spence et al. 2009). Similarly, participants who were asked about their intention to consume healthy foods exhibited more accessible attitudes towards choosing healthy foods relative to those in the control condition (Wood et al. 2014). Moreover, measuring the purchase intentions of consumers increased their future purchases (Chandon, Morwitz, and Reinartz 2004).

One of the underlying psychological mechanisms of the question-behavior effect seems to be that people tend to mentally simulate positive future behaviors during questioning, which in turn motivates them to perform those behaviors when given the opportunity. Relatedly, Song and Schwartz (2008) found that a mental simulation of individuals' future behaviors at the time of questioning was positively associated with the impression that the behavior would be easier to perform and thereby boosted motivation to execute. Other studies on the question-behavior effect have focused on the underlying psychological mechanism of cognitive dissonance (Aronson 1992; Festinger and Carlsmith1959; Stone and Cooper 2001). Cognitive dissonance refers to a tension state that motivates individuals to reduce dissonance (Festinger and Carlsmith1959;

Wilding et al. 2016). Answering questions about a behavior may increase the salience of social norms, and if a person's behavior is not consistent with norms, this may generate cognitive dissonance (Wilding et al. 2016). As a result, people may try to reduce such dissonance by acting in compliance with social norms and standards, which contributes to the question-behavior effect (Aronson 1992).

Despite the fact that numerous studies have determined a positive relationship between asking questions about behavioral intentions and achieving desired outcomes in relation to health behaviors, evidence for the question-behavior effect has not been consistently found across studies. For instance, while Knaus, Pinkeleton, and Austin (2000) showed that answering questions about safe sex behaviors increased participants' compliance with the measured safe sex behaviors, another study was unable to replicate these findings (Kvalem et al. 1996). Similarly, Godin et al. (2010) found that answering a questionnaire on intention to donate blood significantly increased blood donation, while van Dongen et al. (2012) did not find this effect.

## **Conceptual Framework and Research Hypotheses**

Goal Pursuit as Compared to Goal Intention

In studying how different types of goal-related photos on social media may affect goal motivation, we distinguish between the conveyance of goal intentions and the conveyance of previous goal pursuit. We examine how both the conveyance of goal intentions and the conveyance of goal pursuit on social media may affect goal motivation. According to Fishbach and Choi (2012), attending to a goal with intention means that an individual is considering a plan to initiate the goal. In other words, a goal intention means how a person plans or intends to

pursue an activity – not whether he or she has actually pursued it. For example, a person can plan how many times per week he or she will eat a healthy meal.

In contrast, attending to a goal with prior pursuit experience requires personal action. Pursuit of an activity indicates whether a person has actually invested his or her time and effort in goal engagement in the past (Fishbach and Ferguson 2007). In other words, a person already pursuing a goal-related activity recalls his or her own experiences. In line with this prior work, we will distinguish between posting photos on social media that show goal intent as compared to actual goal pursuit. In the sections that follow, we formulate hypotheses about how the posting of goal pursuit photos and goal intent photos may affect goal motivation. Although studies have examined the effects of sharing goals and goal activities on social media, they have not compared the effects of posting photos that highlight goal pursuit relative to goal intentions. We contend that depending on what photos people post – goal pursuit or goal intention photos – this will significantly influence their goal motivation, due to fundamental differences in these two approaches to conveying goals.

## Conveyance of Goal Pursuit

Pursuing a goal refers to the actual investment of time and effort in the goal, that is, the level of prior engagement in the goal activity (Fishbach and Choi 2012). Fishbach and Choi (2012) found that when people focused on their goal pursuit, i.e., their goal engagement experiences, this increased their goal persistence compared to those who instead considered the benefits of the goal. Similarly, the researchers found that that actually performing goal pursuit tasks led to an increased interest in continuing additional similar tasks. This prior work suggests that posting goal pursuit photos on social media could enhance both goal motivation and goal

persistence. Other work suggests a similar outcome. For instance, it has been shown that daily postings about daily goal-directed behavior on social media can increase motivation to engage in subsequent goal-directed behavior (Munson et al. 2015; Chung et al. 2017). Furthermore, it has been found that sharing the outcomes of goal-directed behaviors (i.e., duration and intensity of exercise) on social media has been found to be related to goal persistence (Stragier, Evens and Merchant 2015). Building on these prior findings, we contend that posting photos of actual goal pursuit on social media will positively relate to goal motivation.

H1. Posting photos on social media related to goal pursuit will increase goal motivation.

## Conveyance of Goal Intention

Prior work on goal intentions has identified two different forms of intention: a goal intention and a goal implementation intention (Sheeran and Webb 2016). A goal intention refers to a self-instruction to achieve a desired outcome (e.g., "I intend to exercise before this weekend.") (Triandis 1979). In contrast, goal implementation intentions tend to be more specific in terms of the when, where and how of achieving goals. The goal literature defines implementation intentions as "if-then" plans (Gollwitzer 1993). In other words, implementation intentions are self-instructions to perform specific actions that are aligned with attaining desired outcomes (e.g., "Every Monday or Wednesday, I intend to exercise at the local gym with my husband.") (Sheeran and Webb 2016). When people make implementation intentions, they plan to engage in certain goal-directed behaviors within an expected situational context (Gollwitzer 1993; Sheeran and Webb 2016). Gollwitzer (1993) found that forming implementation intentions about completing an important project (e.g., finding a new apartment) increased the likelihood of accomplishing the project. Participants were asked to form implementation intentions regarding

the when, where and how of achieving the project, and then were contacted to ask whether they had completed the project. Participants who had formed implementation intentions were more likely to report that they had completed their projects than those who did not form implementation intentions.

In this research, we focus on the posting of photos related to goal intentions rather than goal implementation intentions. We want to assess how the conveyance of one's commitment to a certain goal through the posting of goal intent photos influences goal motivation. For example, people often post photos that show motivational quotes of their weight-loss intentions (i.e., "I got this. I will lose 5 lbs in a week"). Another example is that people pursuing a healthy eating goal often post photos of healthy foods that they plan to eat in order to show their commitment.

Although these photos clearly show one's commitment by conveying their goal intentions to others, they did not clearly deliver a specific plan regarding how and when they will translate their intentions to actions. Thus, in this research, we focus on photos of goal intentions that convey goal commitment to achieving a certain end state.

Forming an intent to achieve a goal should arguably help to secure long-term goals (Baumister and Bargh 2014). People formulate goal intentions to prioritize among their various desires (Sheeran and Webb 2016). Since people have multiple desires which conflict with each other due to limited resources (i.e., time, talent, and energy), they must make decisions about which specific desire to pursue at any point in time (Gollwitzer 1993). Hence, forming goal intentions should allow individuals to prioritize their various goals and make a commitment to their most important goal at that time (Gollwitzer 1993).

However, past research shows that people do not always execute goal-directed behaviors as they intend to do. Prior research has found that the structural features of the goal can reduce

that were framed in terms of prevention or safety concerns were less likely to be translated into goal-directed behaviors, as compared to more aspirational or promotion goals (Higgins 1997). Similarly, when people perceived that goal-directed behaviors were difficult to perform, they were less likely to execute the relevant actions (Sheeran, Trafimow and Armitage 2003), though goal difficult does not always impede pursuit of intended goals (Armitage and Conner 2001; Sheeran 2002).

Overall, while numerous studies have examined the effects of forming goal intentions on goal pursuit (Armitage and Conner 2001; Sheeran and Orbell 1999; Sheeran, Trafimow, and Armitage 2003), the findings have been mixed. Even though forming intentions may lead to behavior change, this is far from guaranteed (Gollwitzer 1993; Fife-Schaw, Sheeran, and Norman 2007; Sheeran and Webb 2016), as translating intention to behavior requires a significant investment of time and effort (Gollwitzer 1993). Sheeran and Webb (2016) conducted a meta-analysis on the effects of forming intentions on goal motivation and revealed mixed findings across the research studies that were included A different meta-analysis of experiments that manipulated intention revealed that a medium-to-large-sized change in intention was predictive of only a small-sized change in behavior (Rhodes and Dickau 2012).

Gollwitzer et al. (2009) actually found a negative effect of conveying identity-related goal intentions in a public setting on motivation to pursue a goal. This research showed that when an identity-relevant intention was conveyed publically to others, the actual realization of the intention was hampered, because the person perceived that they already possessed the identity and thus were no longer motivated to translate their identity intention to action.

Likewise, we propose that posting photos of goal intentions will negatively affect goal motivation by decreasing the perceived proximity of goal attainment, as will be discussed below.

H2. Posting photos on social media related to goal intentions will decrease goal motivation.

Goal Conveyance and Perceived Proximity Between the Current State and the Goal End State

Prior research has shown that an individual's perceived progress toward a goal is likely to impact their goal motivation (Lewin 1935). Specifically, Huang, Zhang and Broniarczyk (2012) found that at the initial stage of goal pursuit, people tended to exaggerate their progress in order to signal higher goal attainability. Moreover, people tended to interpret the progress made toward a goal as an indicator of their commitment to the goal, which subsequently increased their goal motivation. Prior research using expectancy-value models has also found that an individual's cognitive evaluation that they were likely to attain their goal significantly increased their goal motivation (Atkinson 1957; Tolman 1995; Vroom 1965). Furthermore, studies using the social-cognitive model have shown that individuals' self-efficacy beliefs that goal was attainable increased their willingness to engage in goal-directed behaviors (Bandura 1997).

Thus, we can conclude that perceived positive progress toward a desirable end state will tend to signal that a goal is attainable, which in turn will tend to increase one's motivation to continue pursuit of the goal. On the other hand, individuals are likely to become discouraged and lose motivation to pursue a goal when they perceive that their progress is insufficient, which signals low goal attainability. When an individual has not accumulated sufficient progress toward attaining a goal, they are less likely to commit to the goal, which further decreases their perceived proximity to the goal (Huang, Zhang, and Broniarczyk 2012). When this occurs, people tend to perceive increased difficulty in progressing from their current state to their desired

end state and to calculate a need for a very significant investment of effort and time to achieve their goal. The greater perceived distance between the current state and the desired end state can lead to decreased goal attainability, which reduces one's motivation to pursue the goal (Atkinson 1957; Tolman 1995; Vroom 1965).

In the present research, we suggest that posting photos of goal pursuit will highlight the progress that people have made to date because it stresses the amount of time and effort the person has actually invested in goal engagement (Fishbein and Ajzen 1976). Therefore, posting photos of goal pursuit will make people believe they have made progress, that is, it will increase the perceived proximity of goal attainment, which in turn will increase their goal motivation (Heath, Larrick and Wu 1999; Hull 1932; Kivetz, Urminsky and Zheng 2006). Classic goal research has consistently documented that people have a tendency to finish what they have started, particularly when they perceive that they are close to finishing it (Hull 1932; Zeigarnik 1927).

On the other hand, we predict negative effects of posting goal-related photos that highlight goal intentions, because this will highlight the effort they need to make in future in order to translate their intentions into actual behaviors. Therefore, people tend to focus on what they need to do to achieve their goals, which will decrease the perceived proximity to the goal's end state. In other words, when people post photos of goals that highlight their intentions (i.e., plans), it will decrease the perceived proximity to goal attainment. This in turn will result in decreased goal motivation. Therefore, we make the final formal prediction below:

**H3**. The effects of posting goal-related photos on goal motivation will be mediated by the perceived proximity between the current state and goal attainment.

#### STUDY OVERVIEW

We present six lab experiments and one field study to test our conceptual framework (Figure 1). We begin with a field study (Study 1), in which we test H1 in the context of pursuing an exercising goal. In Studies 2 and 3, we measure motivation to pursue a goal of making money after posting goal pursuit photos, both in the short-term (Study 2) and in the long-term (Study 3). Study 4 examines both perceived goal proximity and goal motivation in the context of healthy eating, testing both H1 and H3. In Study 5, we test whether posting goal intention photos undermines goal motivation, as posited by H2. In Study 6, we continue to study goal intention photos but examine effects on perceived goal proximity as well as goal motivation, testing both H2 and H3. In Study 7, we directly compare the effects of posting goal pursuit photos as compared to posting goal intention photos on motivation to pursue the goal, testing both H1 and H2.

## Study 1: Posting Goal Photos of Being an Exerciser and Goal Persistence

In Study 1, we collected and analyzed social media data from Instagram, a popular photo-based social media platform. The purpose of this field study was to show how posting goal-related photos about goal pursuit versus goal intent influence persistence in a long-term goal. To examine this, we selected a popular exercise program called the Bikini Body Guide (BBG) by Kayla Itsines. This program has over seven million relevant posts on Instagram and provides three workouts per week for 12 consecutive weeks, at a \$19.99 monthly membership fee. The mobile app allows participants to watch workout demonstration videos and also plan three

different workouts per week based on their schedule. Furthermore, this program recommends that participants engage in at least one workout per week and be persistent in completing at least one workout per week throughout the entire 12 weeks. The program also encourages participants to post photos and use challenge-related hashtags (i.e. #bbgweek1, #bbg12weekchallenge) on social media to connect with other participants. Participants often search for these hashtags to find other people who are on the same week and interact with them by liking or commenting on their posts. In fact, a majority of participants created Instagram accounts solely for this challenge.

#### Methods

Our sample contained all Instagram users that posted photos using the hashtag "#bbgweek1" on January 15, 2018. Of these users, we only included those that made their accounts public. This resulted in a sample size of 253 participants. Then, we tracked all postings made by these users for the following 12 weeks until April 8, 2018. Four research assistants worked independently to weekly record 1) the type of posts and 2) the hashtags used in each post throughout the entire 12 weeks. Specifically, if a post showed any goal-directed behavior, such as a gym selfie or photo of workout gear, the post was coded as 1. Otherwise, it was coded as 0. For example, gym selfies, photos of gym equipment or healthy food were classified as goal-related photos. Random posts of pets, friends and family, or traveling were classified as non-goal-related photos. For goal-related photos, we also coded whether a photo conveyed a goal intention (i.e., inspirational quote or future workout plan) or a goal pursuit activity itself (i.e., elliptical machine or selfie at the gym). Intercoder agreement was used to measure the accuracy

of the coding each week, which was high: non-goal-related photos -97.1%, goal pursuit photos -97.3%, and goal intention photos -97.1%.

For the outcome variable, the RAs coded whether participants used goal attainment hashtags (i.e. #bbg12weekchallenge, #bbgweek1, #bbgweek8) in their posts. More specifically, if a participant used the hashtag "#bbgweek4", "#bbgweek12", or "#bbg12weekchallenge" at least once in a week, we coded it as 1 for that specific week, because this indicated the participant had attained the goal of reaching this week in the program. Otherwise, we coded it as 0. Intercoder agreement was used to measure the accuracy of the hashtag coding, which was 98%. Then, we counted how many consecutive weeks participants made a post with a goal-specific hashtag as previous literature recommends doing (Parri et al. 1986; Dimeo et al. 2001; Annesi 2003). For example, if a participant posted in weeks 1-3 but skipped week 4, we coded 3 as the outcome variable because a participant persisted for only three weeks (Annesi 2013; Dimeo et al. 2001; Perri et al. 1986). We also counted how many weeks participants made a post with a goal-specific hashtag in total (Beebee et al. 2011).

#### **Results**

We analyzed 7,757 photos posted by 253 individuals. Of these photos, 77.9% (5,906 / 7,577) were goal-related photos whereas 22.1% (1,671 / 7,577) were non-goal-related photos.

Among the goal-related photos, 76.4% (4,512 / 5,906) showed actual goal pursuit whereas 23.6% (1,394 / 5,906) only showed goal intentions. Then, we analyzed how the percentage of goal-related photos predicted goal persistence. Specifically, we used the percentage of goal-related photos as the independent variable and goal persistence as the dependent variable, and we ran univariate regressions. Consistent with H1, the analyses revealed that posting the goal photos

that highlighted actual goal pursuit significantly increased goal persistence ( $\beta$  = .24, t = 3.85, p < .001) whereas posting the goal photos that highlighted goal intentions did not impact goal persistence ( $\beta$  = .003, t = .040, p = .968). Finally, people who posted photos that were not related to the goal were significantly less likely to pursue the goal ( $\beta$  = -.24, t = 4.10, p < .001). See Figure 2.

In addition to this, we analyzed data in an alternative way as a robustness check. That is, we analyzed how the number of photos posted of each goal type related to the number of weeks that participants exercised. The results revealed that posting goal photos that highlighted actual goal pursuit significantly increased goal persistence ( $\beta$  = .24, t = 4.04, p < .001). On the other hand, posting goal photos that highlighted goal intentions did not impact goal persistence ( $\beta$  = -.032, t = -.51, p = .612). Finally, people who posted photos that were not related to the goal were significantly less likely to pursue the goal ( $\beta$  = -.24, t = -3.85, p < .001).

Thus, in this study, we found evidence that people who had posted more goal-related photos showing the act of goal pursuit were more likely to persist goal-directed behaviors after posting. On the other hand, posting more goal-related photos highlighting their goal intentions did not influence goal persistence. Interestingly, people who had posted photos that showed nogoal related behaviors were less likely to persist their exercise goals.

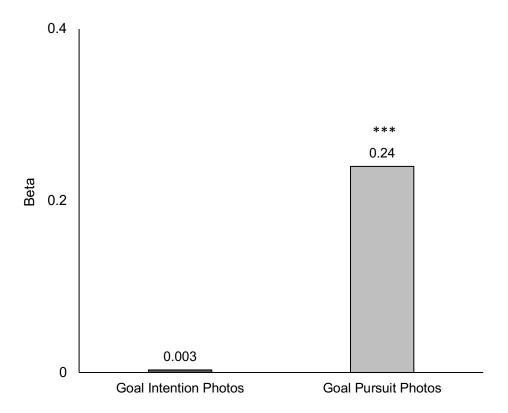


Figure 2. The posting of goal pursuit photos increased exercise persistence at p < .001 (\*\*\*) whereas the effect of posting goal intention photos was not significant at p = .968 (Study 1)

In Study 1, we examine the effect of posting goal-related photos on social media indicating either goal pursuit or goal intent on goal persistence in the context of an exercising goal. To capture people's actual behaviors, we collected real data obtained from Instagram where people voluntarily shared a variety of goal-relevant photos for up to 12 weeks. Interestingly, we found evidence that people who had posted more goal-related photos showing the act of goal pursuit tended to persist in their exercise longer. However, posting photos that displayed goal

intentions did not facilitate goal persistence. In the next study, we examine how individuals' postings of photos related to goal pursuit affect their motivation in a different goal setting.

# Study 2: Posting Goal Photos of Making Money and Goal Motivation

In Study 2, we tested whether the posting of photos about goal pursuit increased goal motivation in the context of pursuing the goal of making money. We used Mturk survey takers as our subject population. We predicted that posting photos about their goal pursuit would lead to an increase in their motivation. In the posting condition, participants were asked to find three items that they frequently used when they were taking surveys. They were then asked to take pictures of these items and post them on an Instagram account that was created for this study only. In the control condition, participants were asked to find three items that are commonly found in the kitchen, take pictures of these items, and post them on the new Instagram account. Hence, we controlled for photo posting behavior by ensuring everyone posted photos on Instagram.

#### Methods

One hundred thirty-five members of Amazon Mechanical Turk who reported being Instagram users participated in the study (40.7% female, mean age = 34.5). We also screened participants for being English native speakers (see Methodological Appendix for details). Participants were randomly assigned to two conditions: posting photos of either goal-pursuit objects or goal-irrelevant objects.

Firstly, we asked the participants to think about the goal of making money since the majority of Amazon Mechanical Turk users appear to pursue the goal of making money in that they complete a large number of surveys weekly. Afterwards, we asked the participants to post photos of their own items on Instagram that they frequently used when taking surveys. In the control condition, participants were asked to post photos on Instagram of three items that are commonly found in any kitchen. We asked participants to create new Instagram accounts for these three postings to protect their privacy as required by MTurk and our university IRB. Finally, after having completed this photo-taking and posting task, participants were asked their motivation for pursuing the goal in the future: "How many surveys are you likely to complete within the next 24 hours?" (Spangenberg et al. 2016). Finally, participants were asked to provide their demographic information, including gender and age. For study instructions and details, see the Methodological Appendix. Participants who were dropped because they failed the screener or did not comply with the posting instructions described in the Methodological Appendix for this study and all other studies.

### Results

We predicted that participants would have greater goal motivation to pursue the goal if they posted goal-pursuit photos. To test our prediction, we estimated an analysis of variance (ANOVA) model with condition as the between-subjects manipulated factor. The model was significant (F (1, 124) = 5.91, p = .017). Specifically, the result revealed that those who had posted photos of goal pursuit reported a motivation to complete more surveys (M = 38.8) as compared to those in the control condition (M = 24.9) (Figure 3).

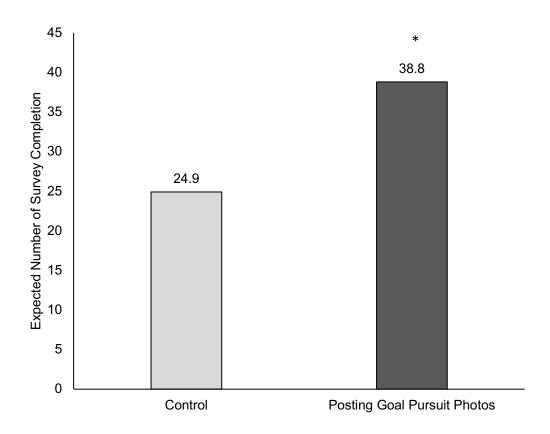


Figure 3. The posting of goal pursuit photos related significantly and positively to the expected number of surveys completed in future at p < .05 (\*) (Study 2)

Study 2 replicated our previous findings in the field study (Study 1) and provided additional support for H1. People who posted photos showing goal pursuit on Instagram expected to complete more surveys in future compared with those who had posted non-goal photos. In Study 3, we examine the effect of posting goal photos on goal persistence during a longer time period.

## Study 3: Posting Goal Photos of Making Money and Goal Persistence

In Study 3, we examined the longer-term consequences of posting photos of goal-pursuit behavior on social media. Study 3 tested whether the posting of goal-pursuit photos for a longer period of time would result in a significant and positive effect on goal persistence. We adopted the same goal as in Study 2 (i.e., making money). All procedures in Study 3 were similar to those in Study 2, with the exception of a posting period. In this study, we asked people to post pictures on Instagram for three days and then measured how many surveys the participants completed over the same three-day period. In other words, we examined how posting behavior at time 1 (t<sub>1</sub>) affected participants' actual goal pursuit in the same time frame (during t<sub>1</sub>). We controlled for photo posting behavior by ensuring everyone posted photos on Instagram.

#### Methods

One hundred twenty members of Amazon Mechanical Turk who were Instagram users participated in the study (58.3% female,  $M_{age} = 35$  years). We also screened participants for being an English native speaker (see Methodological Appendix for details). All procedures in Study 3 were similar to those in Study 2, with the exception of the posting period. In this study, we asked participants to post for three days (i.e. day 1 to day 3) – an additional two days compared to the previous study. Then, we measured the self-report of actual number of surveys completed, whereas in Study 2 we measured their expected behavior.

The participants were randomly assigned to one of two conditions. Those in the condition involving the posting of goal pursuit photos were asked to find and take pictures of three personal items that they used during goal pursuit (i.e., taking survey). Then, they were asked to

post these photos on their newly created Instagram account. In the control condition, they were asked to find three items that are commonly found in the kitchen. Then, they took pictures of these items and posted them to their new Instagram accounts. On Day 2 and 3, participants received reminder emails that they were required to post three similar photos each day. On Day 4, participants were invited to complete the final survey. In the survey, we asked the number of surveys they completed in the past three days (i.e. Day 1 to Day 3 – photo posting period) – "In the past three days (i.e., photo posting period), how many surveys did you complete?" (Woolley and Fishbach 2016). Finally, the participants were asked to provide their demographic information, including gender and age. For study instructions and details, see Methodological Appendix.

#### Results

In Study 3, we predicted positive effects of posting photos related to goal pursuit compared to those in the control condition. The one-way ANOVA results revealed a significant main effect. After completing the three-day goal pursuit photo posting task, participants in the posting condition who had posted goal pursuit photos reported that they completed more surveys (M = 49.6) compared to those in the control condition (M = 33.8) (F (1, 113) = 4.78, p = .031) (Figure 4). Thus, Study 3 provided additional support for H1. See Figure 4.

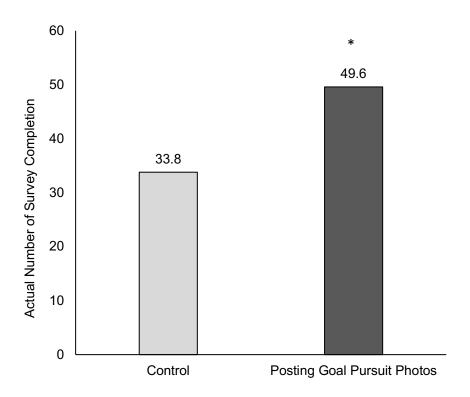


Figure 4. The posting of goal pursuit photos for three days improved the self-reported actual goal pursuit behavior over the same three-day period at p < .05 (\*) (Study 3)

In Study 3, we examined the effect of posting goal pursuit photos on consumers' goal persistence over time. Consistent with Studies 1-2 and H1, we confirmed that those individuals who were randomly assigned to post goal pursuit photos on Instagram, as compared to goal unrelated photos, reported that they had completed more surveys during the posting period than those in the control condition. Thus, this study supports our main hypothesis and extends our previous findings indicating that the posting of goal pursuit photos increases goal persistence.

# Study 4: The Mediating Effect of Perceived Proximity to the Goal Within the Context of an Exercise Fitness Goal

Study 4 provides evidence that when people share goal photos on social media that convey their goal pursuit, they tend to have greater goal motivation because they view their goal as more proximal to their current state, consistent with H3. Study 4 demonstrates this mediating psychological mechanism because it directly measures the perceived proximity between the current goal state and the state of goal attainment. We asked participants to think about posting goal pursuit photos on a Facebook exercise group. Then, we measured how likely they were to pursue their exercise fitness goal, and how close they were to attaining this goal, as compared to those who thought about posting non-goal-related photos.

#### Methods

Two hundred ten of Amazon Mechanical Turk participate in the study (59.5% women,  $M_{age} = 38.5$  years). We screened participants for being an active Facebook account holder and an English native speaker (see Methodological Appendix for details). Participants were randomly assigned to one of two conditions: thinking about posting photos related to goal pursuit versus thinking about posting non-goal-related photos. All participants were told that they had joined the "Elliptical Workout Exercisers" Facebook group. They also read that the group members often post which elliptical machine workout program they followed and shared their goal progress by posting photos. Afterwards, participants in the thinking about posting goal pursuit photos condition were asked to consider posting goal-pursuit photos in the Facebook exercise group page. Participants in the thinking about posting no-goal photos condition were asked to

think posting other photos that did not convey the goal. In both conditions, appropriate sample photos were provided (see Methodological Appendix).

Afterwards, participants were asked to answer how far or close they were to becoming an exerciser. We measured this using two overlapping circles. No overlapping two circles indicated that the current state of goal pursuit was far from goal attainment whereas completely two overlapped circles indicated the current state was close to goal attainment (Aron, Aron and Smollan 1992). Participants also answered a question about goal motivation: "Pursuing an exercising goal is important to me" (1 = strongly disagree, 7 = strongly agree) (Orbell et al. 2001). Finally, the participants were asked to provide their demographic information, including gender and age. For study instructions and details, see the Methodological Appendix.

#### Results

Goal Motivation. We predicted that thinking about posting goal pursuit photos would positively predict motivation to pursue the exercising goal compared to thinking about posting non-goal-related photos (i.e., control condition). To test this prediction, we conducted a one-way ANOVA with the thinking about posting condition as our independent variable and goal motivation as our dependent variable. The one-way ANOVA results revealed a significant main effect (F (1, 208) = 7.15, p = .029), indicating that participants in the posting goal pursuit photos condition showed greater goal motivation (M = 5.49) compared to those in the control condition (M = 5.03).

Perceived Proximity to the Goal. The one-way ANOVA results regarding posting goal-related photos on participants' perceived proximity to the goal's end state revealed a significant main effect (F (1, 208) = 7.15, p = .008). Participants who considered posting goal pursuit photos

online perceived that they were closer to the goal of being an exerciser (M = 4.22), compared with those in the control condition (M = 3.56).

*Mediation*. We conducted a mediation analysis (Hayes 2017) (SPSS Macro PROCESS) to test the psychological mechanism. We performed a bootstrap analysis using 5,000 samples (Model 4), where thinking about posting goal pursuit photos was the independent variable (posting = 1, control = 0), perceived proximity to the goal was the mediator, and goal motivation was the dependent variable. As we predicted in H3, the indirect effect indicating mediation was significant (b = .21, SE= .09, 95% CI [.05, .41]). Consistent with our prediction, thinking about posting goal pursuit photos increased the perceived proximity to goal attainment, which in turn increased goal motivation to pursue the exercising goal (Figure 5).

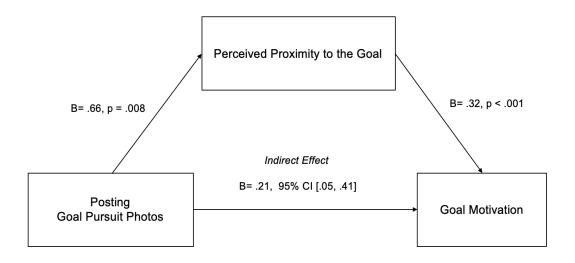


Figure 5. The mediating role of perceived proximity to the goal, producing the main effect of posting goal pursuit photos on goal motivation (Study 4)

In Study 4, we showed that thinking about posting of goal-related photos which highlighted goal pursuit increased people's motivation to engage in goal-directed behavior. Moreover, we identified the mediation process leading this result. The posting of goal-related photos that emphasized their engagement in the goal increased the perceived proximity to the goal which then likely signaled that the goal was more attainable. The increased proximity to the goal subsequently increased motivation to pursue the goal. Thus, Study 4 provides additional support for H1 and H3.

### Study 5: Negative Effects of Posting Photos of Goal Intent on Goal Motivation

In Study 5, we examined whether goal-related photo postings that highlighted goal intentions, rather than goal pursuit, would yield similar or different results. People often share goal-relevant photos that do not show their own goal pursuit activities. They have the desire to convey the goal that they are pursuing, however, they do post photos of this pursuit. Instead, they often post photos of inspirational products or quotes that signal their intent to attain the goal. Thus, in Study 5, we tested whether posting photos of goal intentions on would affect individuals' motivation to pursue a goal. We studied the goal of healthy eating and, consistent with H2, we predicted that posting goal intent photos would negatively affect motivation to pursue the goal by making salient the intentional effort required.

#### Methods

One hundred ten members of Amazon Mechanical Turk who reporting having the goal of being healthy eaters and who were also active social media users participated in the study (54.5% women,  $M_{age} = 39$  years). Participants were randomly assigned on one of two conditions in a single-factor between-subjects design: posting of goal intent photos or no photos.

First, participants were asked to consider the goal of being a healthy eater and then to consider a new Facebook feature called Facebook Curations in which people curated photo albums of themselves as "Me as a Healthy Eater". These albums displayed a variety of healthy meals. In the condition involving posting of goal intent photos, participants were instructed to find five healthy food recipes online that represented an intent to eat healthy. Then, they were instructed to think about posting these photos on their Facebook album called "Me as a Healthy Eater." Afterwards, participants provided the URLs for the photos of healthy food recipes that they had selected to signal their intent to eat healthy. In the control condition, participants considered the goal of being a healthy eater and the Facebook Curations photo albums on "Me as a Healthy Eater" but they did not post photos of recipes signaling an intent to eat healthy. For the study instructions and details, see the Methodological Appendix.

Afterwards, participants indicated their motivation to pursue the healthy eating goal using a Likert scale (1= "very unlikely," and 7 = "very likely") and these specific questions: "How likely are you to eat healthy for lunch today?", "How likely are you to eat healthy for the next week", "How likely are you to eat healthy for the next 6 months?" (Spangenberg et al. 2016). We averaged the ratings for these three items to obtain the participants' goal motivation ( $\alpha$  = .89). Finally, participants answered standard demographic questions including gender and age.

#### **Results**

We predicted that participants who posted goal intent photos compared with those who did not post photos would actually report lower motivation to pursue the goal. To test this prediction, we conducted a one-way ANOVA with the posting condition as the independent variable and goal motivation as the dependent variable. The one-way ANOVA results revealed a significant main effect (F (1,104) = 7.97, p = .006). Goal motivation (3 items,  $\alpha$  = .89) was lower for those who posted photos conveying goal intentions (M = 4.92) compared with those who did not post (M = 5.63) (Figure 6).

As a robustness test, we also analyzed the effect of posting goal intent photos on each item in our goal motivation measure. We found consistent results across all three measures. For "how likely are you eat to healthy for lunch today?", goal motivation was lower for those who posted photos conveying goal intentions (M = 5.06) compared with those who did not post (M = 5.80) (F (1, 104) = 8.19, p = .005). For "how likely are you eat to healthy for the next week?", goal motivation was lower for those who posted photos conveying goal intentions (M = 5.02) compared to those who did not post (M = 5.70) (F (1, 104) = 5.52, p = .021). For "how likely are you eat to healthy for the next 6 months?", goal motivation was lower for those who posted photos conveying goal intentions (M = 4.68) compared with those who did not post (M = 5.39) (F (1, 104) = 5.94, p = .017).

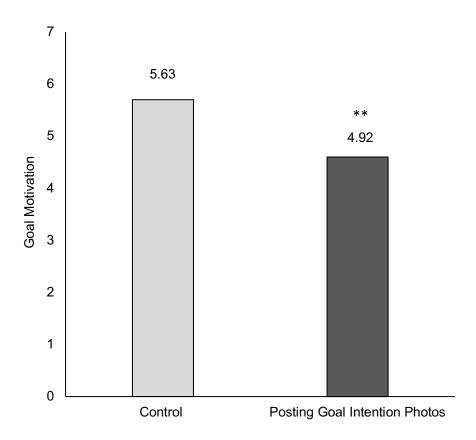


Figure 6. Posting photos about goal intentions decreased goal motivation at p < .01 (\*\*)

(Study 5)

Study 5 found that individuals' motivation to pursue a focal goal actually decreased after they posted photos conveying their goal intentions. These results provided additional support for H2. Specifically, we found that when people posted photos healthy food recipes on Facebook that highlighted their intentions to eat healthy, this decreases their motivation to pursue the goal of healthy eating. In Study 6, we replicated this finding and documented the psychological mechanism that caused goal intent photo posting to lower goal motivation.

# Study 6: The Mediating Effect of Perceived Proximity to the Goal Within the Context of a Healthy Eating Goal and Goal Intent Photos

The previous study showed that posting photos about goal intentions can negatively influence goal motivation, even though consumers conveyed interest in the goal by posting the photos. In Study 6, we examined how posting goal intention photos lowered goal motivation by investigating the underlying process mechanism. Consistent with H2 and H3, we posted that posting goal photos which made salient the intended goal and all it entailed would reduce the perceived proximity to the goal, which in turn would lower the poster's goal motivation.

#### Methods

One hundred seventy members of Amazon Mechanical Turk who stated they had the goal of being a healthy eater and were active Pinterest users participated in the study (79.4% women,  $M_{age} = 38.5$  years). Participants were randomly assigned to one of two conditions: posting versus not posting healthy food recipes. In the posting condition, participants were asked to search for five healthy food recipes online that convey their intentions to pursue a healthy eating goal. Then, they were asked to create a public board "Me as a Heathy Eater" on Pinterest to share the photos of their goal intention. In the control condition, participants did not perform this task, but instead proceeded to the next step.

All participants were asked to complete a three-item scale that measured the degree to which they were motivated to pursue the goal of being a healthy eater: "How likely are you to put a lot of time and energy into the goal of being a healthy eater?", "How likely are you to feel very motivated to succeed at the goal of being a healthy eater?", and "How likely are you to do

everything possible to ace the goal of being a healthy eater?" (1 = strongly disagree, 7 = strongly agree) (Stornelli, Pereira and Vann 2010; Vasquez and Buehler 2007). We averaged the ratings for these three items to obtain the participants' goal motivation ( $\alpha$  = 0.91). We also measured perceived proximity to attaining the goal of being a healthy eater using five items ( $\alpha$  = 0.94): "Being a healthy eater reflects my identity", "Being a healthy eater reflects who I am", "Being a healthy eater expresses the personality that I want to communicate to others", "Being a healthy eater reflects the way I want to present myself to others", and "Being a healthy eater suits me well" (1 = strongly disagree, 7 = strongly agree) (Grewal, Stephen and Coleman 2019). The participants were then asked to provide their demographic information, including gender and age.

#### Results

Goal Motivation. We predicted that posting goal photos about intentions would negatively predict goal motivation compared to those who did not engage in posting. To test this prediction, we conducted a one-way ANOVA with the posting condition as our independent variable and goal motivation as our dependent variable. The model was significant (F (1,165) = 11.13, p = .001) and the results revealed that participants who posted goal photos about their intentions showed decreased motivation to pursue the healthy eating goal (M = 5.16) compared to those in the control group (M = 5.75).

As a robustness test, we also analyzed the effect of posting goal intent photos on each item in our goal motivation measure. Across all three measures, we found consistent results. For "How likely are you to put a lot of time and energy into the goal to be a healthy eater?", participants who posted goal photos about their intentions showed decreased motivation to

pursue the healthy eating goal (M = 5.24) compared to those in the control group (M = 5.77) (F (1, 165) = 8.16, p = .005). For "How likely are you to feel motivated to succeed at the goal to be a healthy eater?", participants who posted goal photos about their intentions showed decreased motivation to pursue the healthy eating goal (M = 5.30) compared to those in the control group (M = 5.93) (F (1, 165) = 10.98, p = .001). For "How likely are you to do everything possible to ace the goal to be a healthy eater?", participants who posted goal photos about their intentions showed decreased motivation to pursue the healthy eating goal (M = 4.93) compared to those in the control group (M = 5.55) (F (1, 165) = 9.05, p = .003).

Perceived Proximity to the Goal. A one-way ANOVA results revealed a significant main effect on perceived goal proximity (F (1,165) = 5.39, p = .022). Participants who posted photos of goal intentions perceived that they were farther from the goal of being a healthy eater (M = 4.71), compared with those in the control condition (M = 5.19).

*Mediation*. We predicted that posting photos of goal intentions would decrease goal motivation through lower perceived proximity to the goal's end state. To examine this, we conducted a mediation analysis (Hayes 2017) using the SPSS Macro PROCESS. We performed a bootstrap analysis using 5,000 samples (Model 4), where posting photos of goal intentions was the independent variable (posting = 1, control = 0), the perceived proximity to the goal was the mediator, and goal motivation was the dependent variable.

As we predicted, the indirect effect indicating mediation was significant (b = -.24, SE=,10, 95% CI [-.45, -.04]). Consistent with H3, the posting of goal-related photos that emphasized the participant's goal intentions reduced the perceived proximity to the goal, signaling that the goal was less attainable. The reduced proximity between the current goal state and the desired goal state decreased goal motivation (Figure 7).

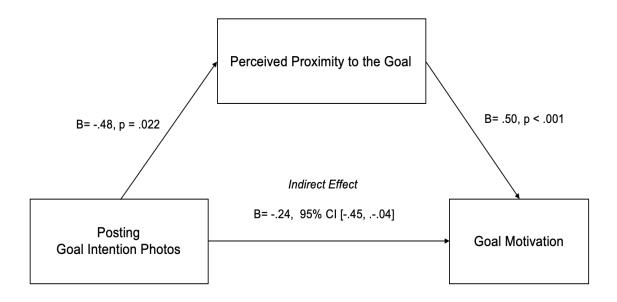


Figure 7. The mediating role of perceived proximity to the goal on the effect of posting goal intention photos on goal motivation (Study 6)

In Study 6, we tested whether posting goal-related photos which highlighted goal intentions decreased motivation to engage in goal-directed behavior, and we examined the underlying mediating process We found that the posting of goal-related photos that highlighted goal intentions reduced the perceived proximity to the goal, which signaled that thecurrent state was far from goal attainment. This in turn lowered participants' motivation to pursue the goal. Thus, Study 6 provides additional support for H2 and H3.

Study 7: Direct Comparison of Photo Postings about Intending vs. Pursuing a Goal

In Study 7, we directly compare the effects of posting photos about goal pursuit relative to posting photos about goal intentions. Consistent with H1 and H2, we predicted that posting goal-relevant photos would increase the motivation to pursue the goal when the photos highlighted actual goal pursuit as opposed to goal intentions. We studied the same goal as Study 2, i.e. making money. We asked people who were survey takers on MTurk to post photos on Instagram that signaled either their actual goal pursuit or their goal intentions and then measured the expected number of surveys they planned to complete within the next 24 hours. We controlled for photo posting behavior by ensuring everyone posted photos on Instagram.

#### Methods

One hundred eighty-eight members of Amazon Mechanical Turk who reported using Instagram participated in the study (47.9% female, Mage = 35 years). Participants in all conditions were asked to consider the goal of making money. Then participants were randomly assigned to one of two conditions. Participants in the condition involving posting photos of goal pursuit were asked to find and take pictures of three personal items that they used when pursuing their goal of making money. Then, they were asked to post these photos on new Instagram accounts. Participants in the condition involving posting photos of goal intentions were asked to search for photos of three items online that conveyed their intent to be a good survey taker. Then, they were asked to post these photos on new Instagram accounts. After the posting task, we measured goal motivation by asking: "How many surveys are you likely to complete within the next 24 hours?" (Spangenberg et al. 2016). The participants were then asked to provide their demographic information, including gender and age.

## **Results**

We predicted that posting goal pursuit photos on social media as opposed to posting goal intention photos would lead to greater goal motivation. To test our prediction, we estimated an analysis of variance (ANOVA) model with condition as the between-subjects manipulated factor and the model was significant (F (1, 174) = 5.76, p = .017). Participants who posted photos about their goal pursuit were motivated to complete more surveys (M = 28.5) than those who posted photos about their goal intentions (M = 19.6) (Figure 8).

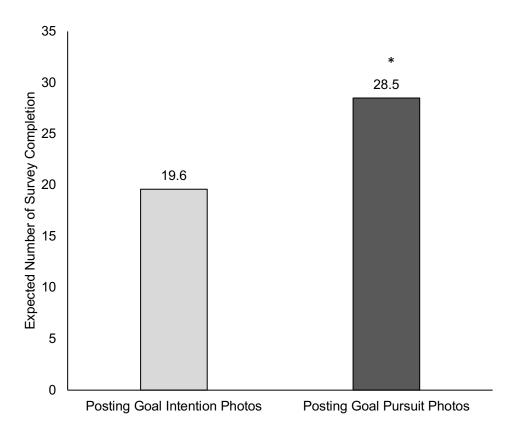


Figure 8. The posting of goal pursuit photos related significantly and positively to the expected number of surveys to be completed in future, compared to the posting of goal intention

photos, at p < .05 (\*) (Study 7)

In Study 7, we examined the effect of posting photos of goal pursuit on consumers' goal motivation, as compared to posting photos of goal intentions. Consistent to H1 and H2, we found that people who were randomly assigned to post goal photos that highlighted their goal pursuit reported more goal motivation than people who were randomly assigned to post photos about their goal intentions.

#### **General Discussion**

The increasing capabilities of social media has enabled people to use it in numerous aspects of their lives (Phua, Jin and Kim 2017). In particular, people are embracing social media to pursue their goals as they often share photos that show goal-directed behaviors on social media. Therefore, understanding the consequences of individuals' posting actions on their goal attainment outcomes is both important and timely.

The current research investigates distinct and novel aspects of goal sharing on social media. We ask: how might consumers' postings of photos on social media about either their goal pursuit or their goal intentions affect their perceptions of goal proximity and their goal motivation? Previous research has established that public commitment to a goal increases the likelihood of compliance (Nyer and Dellande 2010; Pallak, Cook and Sullivan 1980) but has not examined public commitment to the goal through the behavior of photo posting of goal pursuit or goal intention. Although posting photos about goals is very common and indicates public commitment to the goal, this topic has not attracted attention in literature. Therefore, it has not been established whether the posting of goal-relevant photos on social media might be related to perceived goal proximity or to goal motivation. The current research fills these gaps by

investigating these phenomena from a goal theory perspective. We propose that posting photos of goal pursuit increases goal motivation by increasing the perceived proximity to the goal compared to either posting photos of goal intentions, posting non-goal-related photos, or no photo posting. Across one field study and six experiments, we provide empirical evidence to support these propositions.

# Theoretical and Managerial Contributions

This research makes several theoretical contributions. From a theoretical perspective, we contribute to the growing body of literature that examines how individuals behave on social media and its consequences (Grewal, Stephen and Coleman 2019; Wilcox and Stephen 2012; Zhu et al. 2019). Building on previous research, we expand our understanding of how consumers act on social media by considering the goal pursuit context. In particular, we focus on consumers who post goal-related photos instead of those who view the posts. In addition, we investigate how posting goal-related photos on social media can alter one's motivation to pursue a goal depending on what is posted – photos of goal pursuit versus goal intentions.

Although earlier research on the question—behavior effect showed that answering goal intention questions increased actual goal pursuit behaviors, we did not find such effects from posting goal intention photos (Spangenberg et al. 2016). We contend that posting goal intention photos leads to mentally simulating how much time and effort must be invested to attain the goal. The substantial level of investment that is required to move forward with the goal tends to be highly salient and de-motivating. On the other hand, merely answering goal intention questions does not necessarily make salient = the discrepancy between the current state and the desired goal state and the amount of time and effort that would be needed to reduce that

discrepancy. Verbally announced goal intentions are less likely to be translated into mental simulations to assess the investment required to reach the goal, because verbal intentions are likely to be abstract and ambiguous in contrast to visualizing concrete goal intentions through photo posting.

Moreover, our findings indicate that the effects of posting goal photos on social media differs from prior goal priming effects. Earlier work on goal priming revealed that environmental cues can lead to goal-directed behaviors (Papies 2016). Goal priming effects are often achieved without a person's awareness (Sheeran and Webb 2016). Accordingly, various studies have examined the effect of subliminal priming on increasing goal-consistent behaviors (Laran, Janiszewiski, and Cunha Jr 2008, Papies 2016). In our research, posting goal intent photos actually lowered goal-related motivation and behavior, which is the opposite of a goal priming effect. We believe that posting goal intent photos produced opposite effects because it was a highly conscious and deliberate activity. When people post goal photos on social media, they are likely to be highly engaged in the process. In other words, their conveying of goal intent is likely to be thoughtful and deliberate, which is not typical of priming effects which are often subconscious and automated.

This research also makes several practical contributions. Drawing on our findings, we suggest that marketers who seek to promote the pursuit of valuable goals, such as healthy eating, exercising, or saving, should encourage consumers to post photos that convey actual goal pursuit rather than their goal plans or intentions. Furthermore, social media marketing practitioners should highlight the progress that consumers have made to date on their goals, because we found that when people perceive they are closer to the desired goal end state, this motivates them to persist in their goal pursuit.

Our results can be used by health and wellness companies who seek to promote workout programs or diet plans utilizing social media by asking followers to frequently post. For example, the Nike Training App provides a variety of workout videos which all display the sharing feature at the end of the workout. When users have finished their workout, they are asked to connect to their social media accounts on the web and share their workout outcomes (e.g., duration, intensity) with friends on social media. Another popular program and mobile application is the Bikini Body Guide (BBG), which encourages members to post their gym selfies on social media along with BBG specific hashtags at the end of their workouts.

Similarly, many sports brands are increasingly offering mobile fitness apps to increase their digital presence and engage with target consumers. Numerous mobile fitness apps including Nike Running App, Endomondo, and Run Keeper, encourage users to monitor their workout results and then share the results with their friends on social media. For example, the athletic apparel maker Under Armour spent \$475 million in 2015 to acquire the nutrition app MyFitnessPal, as well as the running app Endomondo. With both the MyFitnessPal and Endomondo apps, there are approximately 100 million registered users who routinely share their goal pursuits, which are tracked by the apps and linked to social media. In particular, Endomondo displays details about one's running activity, such as distance, duration, and maximum heart rate, which the user can post on Facebook or Twitter. While not as substantial as Under Armour's acquisition, Fitbit spent \$24.8 million to purchase the fitness platform FitStar, which provides users with workout training videos and also allows them to create personalized workouts. These numerous and recent cases provide clear evidence that people will be increasingly encouraged by major marketers to share their goal pursuit activities on social media. Our findings suggest that these are promising new developments; because when people share

their health goal pursuits on social media, this should enhance their goal motivation and goal attainment.

On the other hand, Stickk.com is using a completely different approach to encourage goal attainment that based on the current research seems much less promising. The Stickk.com website encourages s users to announce their goal intentions such as, "I will lose 10 pounds this month." Then, they can choose to attach a monetary commitment to their goal – essentially, a donation – and to which charity or cause their money will go. To maintain impartiality, a third party is assigned as a referee to evaluate whether or not one has achieved the goal. If people fail to translate their intentions to goal attainment, their money is donated to a charity of their choice. Our findings indicate that is website is not likely to help users achieve their goals. This is because the mere announcement of intentions may cause people to seriously contemplate how much effort and time must be e invested in order to obtain their goals, which may de-motivate them from even trying.

## Limitations and Directions for Future Research

In the current research, we focused on how posting goal pursuit or goal intention photos on social media might affect goal motivation. We did not study how supportive actions from others might alter the effects of posting goal pursuit or goal intention photos, so future research should investigate how such social support might impede or improve consumers' goal motivation. Moreover, in this research, we did not directly examine whether participants considered the potential audience of their posts, and we asked participants to create new social media accounts solely for our experiments, to protect their privacy as required by MTurk and our university IRB. People might behave differently if they post on their own social media accounts

with friends and family as audience members. Therefore, future research should examine how different observers who observe posts might affect consumers' motivation to pursue goals they have conveyed through posting goal-related photos (Diehl, Zauberman and Barasch 2016). Moreover, we only studied goals related to being a healthy eater, exerciser or survey taker. Therefore, future research might want to examine different types of personal goals such as savings or academic goals.

Another research limitation is that only Study 1 measured actual goal persistence whereas the remaining studies measured self-reported goal persistence or expected behaviors. To measure goal persistence, we should conduct a new experiment that allows us to measure participants' actual behaviors. For example, within the context of exercise, we could measure how many minutes participants actually persisted their running on a tread mill. Within the context of healthy eating, we could measure the amount of healthy (vs. unhealthy) food (i.e., carrots vs. chocolate) that is consumed after posting goal photos that highlight goal intentions or goal pursuit behaviors on social media. Furthermore, future research might want to investigate whether people have abstract (vs. concrete) mental representations of their perceived goal progress after posting different types of goal posting as this may potentially function as a mediating mechanism (Huang, Zhang and Broniarczyk 2012). Finally, in future research, we can compare the effects of posting photos that clearly convey specific plans about intentions (e.g., implementation intentions) with those that merely convey goal intentions. Posting photos of implementation intentions may highlight mental representations of goal progress differently compared to posting photos merely of goal intentions (Sheeran and Webb 2016).

In summary, we find that photo postings on social media can either increase or decrease consumers' goal motivation depending on what the photos highlight: goal pursuit or goal

intentions. We demonstrate that posting goal pursuit photos increases the perceived current-end state proximity, which subsequently increases consumers' motivation to pursue the goals. Posting goal intent photos tends to have the opposite effects. Thus, marketers who want to promote goal pursuit should encourage consumers to utilize social media postings effectively, by guiding them to post goal pursuit photos rather than goal intent photos, both of which are prevalent, but only goal pursuit photos seem to motivate goal-directed behaviors.

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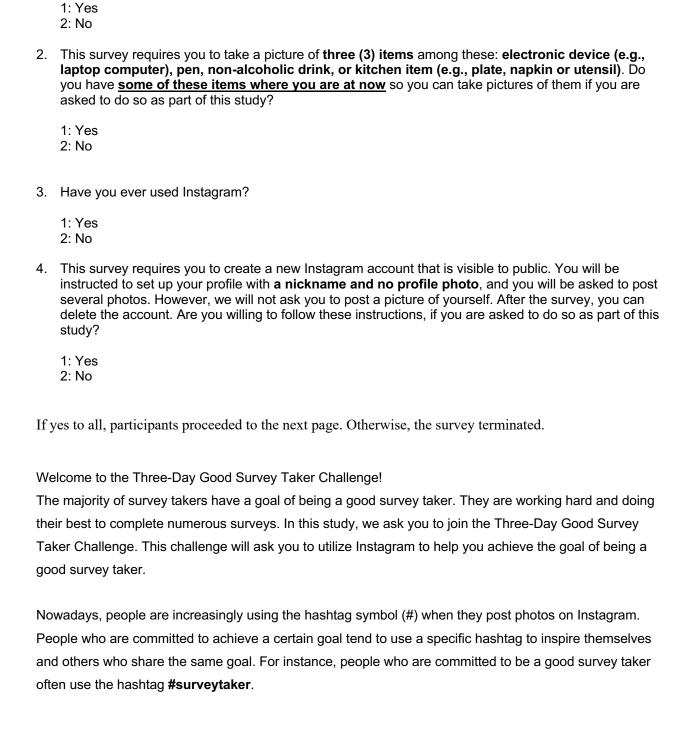
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## **Methodological Appendix**

# Study 2 & 3

Pre-screening Questions

1. Is English your first language?



(For the control condition)

As a part of this survey, you will be asked to take pictures of **three (3) random items that you can commonly find in any kitchen**. You should select three (3) items that you can easily find in any kitchen such as a **plate, spoon, and napkin**. Please think about **the most standard items in any kitchen**. You will be asked to take pictures of these (3) ordinary kitchen items. Then, you will be asked to post these pictures on a newly created Instagram account.



(For the posting goal pursuit photos condition)

As a part of the survey, you will be asked to take pictures of <u>three (3) personal items that represent</u> <u>your survey taker identity</u>. You should select three (3) items that you use when <u>taking surveys</u> such as a <u>laptop computer, pen, and drink</u>. Please think about <u>survey items that are personal to you</u>. You will be asked to take pictures of these (3) items. Then you will be asked to post these pictures on a newly created Instagram account.



Here are the **seven steps** that are required to complete the survey:

- Step 1. Prepare three (3) different items to photograph along with a survey code
- Step 2. Download the Instagram app on your phone
- Step 3. Create a new Instagram account for this survey only (you will have an option to delete the account after your work is approved)

- Step 4. Set up your profile with a nickname and no profile photo
- Step 5. Take pictures as instructed
- Step 6. Post pictures on the new Instagram account
- Step 7. Answer some survey questions

In Study 3, participants were instructed to post the similar photos for two more days (three days in total), then invited to complete the final survey.

For the purposes of the next survey questions, we would like you to consider the goal of being a **good survey taker**.

| (Study 2)  |
|--|
| How many surveys are you likely to complete within the next 24 hours? Write a number here:   |
| (Study 3) <u>In the past three days</u> (i.e., Day 1 to Day 3 – photo posting period), how many surveys did you complete' Write a number here: |
| What is your gender?   |
| What is your age?  |
|  |

In Study 2, 135 participants initially participated. Of these, 9 participants were dropped because they failed at the attention check question.

In Study 3, 120 participants initially participated. Of these, 5 participants were dropped because they did not follow the posting instructions (i.e., posting random photos, making the account private). Also, three participants were dropped because they failed at the attention check question.

Pre-screening Questions

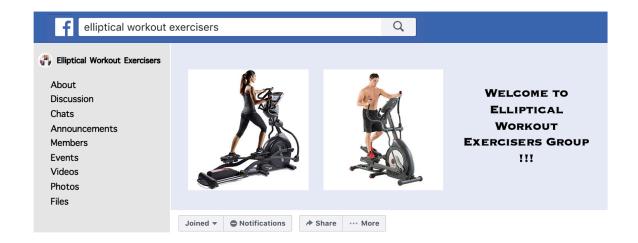
- 1. Is English your first language?
  - 1: Yes
  - 2: No
- 2. Do you have an active Facebook account?
  - 1: Yes
  - 2: No

If yes to all, participants proceeded to the next page. Otherwise, the survey terminated.

"Elliptical Workout Exercisers" is a Facebook group for users who want to achieve their fitness goals. The users primarily exercise on elliptical machines. Elliptical machines are stationary exercise machines that allow people to step up and down while pumping their arms for an excellent cardio workout that is not stressful on the body (see picture below). This Facebook group provides a variety of free elliptical workouts, such as "Elliptical Workout for Fat Burning" and "Elliptical Workout for Core Training." Group members often post which workouts they follow and share their progress by posting photos.

Please consider that you are a member of the "Elliptical Workout Exercisers" group and you would like to engage with this community.

Please consider that you are a member of the "Elliptical Workout Exercisers" group and you would like to engage with this community.

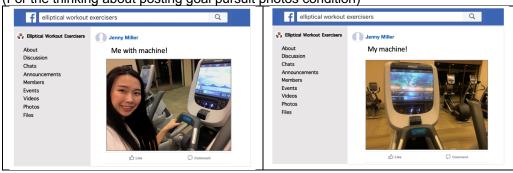


Please think about that you have posted photos on the "Elliptical Workout Exercisers" Facebook group. Here are the examples of photos similar to those you posted:

(For the control condition)



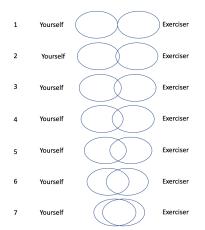
(For the thinking about posting goal pursuit photos condition)



How much do you agree or disagree with this statement? (1 = Strongly disagree, 7 = Strongly agree)

Pursuing an exercising goal is important to me.

Think about the photos you posted on the "Elliptical Workout Exercisers" Facebook group. In your mind, to what extent does "exerciser" overlap with yourself? Choose one answer below, to indicate to what extent an exerciser does versus does not define yourself.



What is your gender?

What is your age?

In Study 4, no participant was dropped.

Pre-screening Questions

- 1. Is English your first language?
  - 1: Yes
  - 2: No
- 2. Do you have an active Facebook account?
  - 1: Yes
  - 2: No

If yes to all, participants proceeded to the next page. Otherwise, the survey terminated.

Welcome to our study.

We are interested in developing strategies to help people pursue goals in their life. In this study, we will ask you questions about the goal to eat a healthier diet. There are no right or wrong answers; we are only interested in what you think. The following questions will help us to better understand how you think about this goal. Please answer honestly and reflect how you really feel.

Please read the following carefully:

## **Facebook Curations**

Facebook has recently started developing a new feature for its site. Facebook's newest feature is called **Facebook Curations**. Founded in 2004, Facebook's mission is to give people the power to share and make the world more open and connected. People use Facebook to stay connected with friends and family, to discover what's going on in the world, and to share and express what matters to them. Therefore, their newest venture is a feature that allows users to access and interact with the world's information through pictures. It makes information universally accessible in a format everyone can connect with.

The way Facebook currently displays information is on a person's timeline. On the side of a person's timeline is a number of permanent features that visually represents information about the individual (such as favorite music, books, and television shows).

With the new Facebook Curations feature, people will be able to store content about products in a visual manner that won't disappear as more content is added to your timeline. Unlike status updates, this is a

permanent feature that can be accessed at any time by looking to the right-hand side of your timeline. This feature is a new way that Facebook will allow its users to choose and showcase their product preferences to themselves and others.

Below is an example of how this feature will appear on your timeline. As you can see, this is a way to visually represent product information on your Facebook timeline in a way that is visual for all of the people in your social network to see. Here is an example of Facebook Curations.



Now we want you to continue with this task as though you are going to interact with the new Facebook Curations feature on YOUR Facebook.

But first, please consider the following scenario:

You visit your doctor for your annual physical exam. Your doctor tells you that an unhealthy diet causes a variety of negative health outcomes and says that you should set a goal to adopt a healthier diet. A healthier diet includes a variety of fruits and vegetables of many colors, whole grains, good fats, and lean proteins. You should try to be a healthy eater. Adopting a healthy diet will give you major benefits.

(Only for the thinking about posting goal intention photos condition)

Now please look up five photos online that represent that you will be a healthy eater. These are the photos that you can use to show that you will be a healthy eater. Please consider that you have posted these photos on your Facebook account. Copy the product url, paste it into one of the lines below, and write the name of the photo on the following line. You will be doing this for five different photos that are all representative of your being a healthy eater.

Please type 'Photo 1' url:

What is this? (example: grilled chicken salad)

(These questions were repeated for five different photos)

For the purposes of these questions, we'd like you to please consider the goal of being a healthy eater.

How likely are you to eat healthy for lunch today? (1: Very unlikely --- 7: Very likely)

How likely are you to eat healthy for the next week? (1: Very unlikely --- 7: Very likely)

How likely are you to eat healthy for the next 6 months? (1: Very unlikely --- 7: Very likely)

What is your gender?

What is your age?

In Study 5, 110 participants initially participated. Of these, four participants were dropped because they failed at the attention check question.

Pre-screening Questions

Do you have a goal to be a healthy eater?

1: Yes

2: No

Do you have a Pinterest account?

1: Yes

2: No

This survey requires you to use your own Pinterest account. You will have an option to set up your profile with a nickname and a non-identifiable profile photo temporarily. You may need to create a board which is visible to public and pin several photos on the board. After the survey, you can change your profile back to normal and delete the board. Are you willing to follow these instructions, if you are asked to do so as part of this study?

1: Yes

2: No

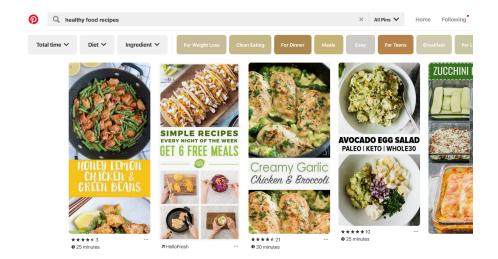
If yes to all, participants proceeded to the next page. Otherwise, the survey terminated.

### Please consider the following scenario:

You visit your doctor for your annual physical exam. Your doctor tells you that an unhealthy diet causes a variety of negative health outcomes and says that you should set a goal to be a healthy eater. Being a healthy eater means eating a variety of fruits and vegetables of many colors, whole grains, good fats, and lean proteins. Adopting the goal to be a healthy eater will give you major benefits. Now, you have decided to be a healthy eater. You are interested in the goal to be a healthy eater and feel that it is important.

### Please read the paragraph below:

Pinterest offers specialized boards that can be used by people to post photos to express a specific identity online, e.g., photos indicating that they are or plan to be a healthy eater. The most common way to do this is through "pinning". People find a photo on Pinterest that they want to pin, and then they choose the board they want pin it on. For example, someone may find a healthy food recipe on Pinterest, and then pin it on their "Recipe" board or "Food" board to convey that they are or plan to be a healthy eater. Pinning a specific photo on a Pinterest board allows a person to represent some aspect of their identity.

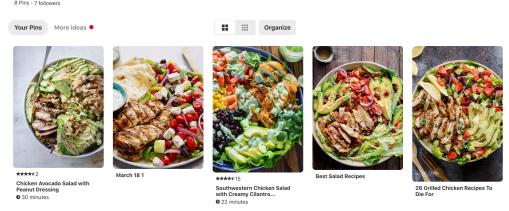


(Only for the posting goal intention photos condition)

Now, we want you to set up your profile on Pinterest with a nickname and a non-identifiable profile photo. Then, we want you to create a board 'Me as a Healthy Eater' and search for photos on Pinterest that convey that you are a healthy eater. You will search for photos and then post these photos on a board on Pinterest.

To begin, please login to Pinterest following the instructions below. Change your profile to use a nickname and a non-identifiable profile photo. Find five (5) photos on Pinterest that represent that you are a healthy eater. For each photo you believe showcases you as a healthy eater, post it on a Pinterest board called "Me as a Healthy Eater". Ensure your "Me as a Healthy Eater" board is public. You will be doing this for five (5) different photos, all representative of your being a healthy eater. Please only chose photos of food items. Do not choose photos of quotes or non-food items. Remember, all of your food photos must be different from one another, and must represent yourself as a healthy eater. Finally, please save the URL of the board 'Me as a Healthy Eater'.

# Me as a Healthy Eater



For the purposes of these questions, we'd like you to please consider the goal to be a healthy eater.

(1: Totally unlikely --- 7: Totally likely)

How likely are you to be a healthy eater at your next meal?

How likely are you to be a healthy eater for the next week?

How likely are you to be a healthy eater for the next 6 months?

Please indicate how much you agree or disagree with each statement below.

(1 = Strongly Disagree to 7 = Strongly Agree)

Being a healthy eater reflects my identity.

Being a healthy eater reflects who I am.

Being a healthy eater expresses the personality that I want to communicate to others.

Being a healthy eater reflects the way I want to present myself to others.

Being a healthy eater suits me well.

What is your gender?

What is your age?

In Study 6, 170 participants initially participated. Of these, three participants were dropped because they failed at the attention check question.

Pre-screening Questions

1. Is English your first language?

- Yes
   No
   This survey requires you to take a picture of three (3) items among these: electronic device (e.g., laptop computer), pen, or non-alcoholic drink. Do you have some of these items where you are at now so you can take pictures of them if you are asked to do so as part of this study?
   Yes
   No
- 3. Have you ever used Instagram?
  - 1: Yes
  - 2: No
- 4. This survey requires you to create a new Instagram account that is visible to public. You will be instructed to set up your profile with a nickname and no profile photo, and you will be asked to post several photos. However, we will not ask you to post a picture of yourself. After the survey, you can delete the account. Are you willing to follow these instructions, if you are asked to do so as part of this study?
  - 1: Yes
  - 2: No

If yes to all, participants proceeded to the next page. Otherwise, the survey terminated.

Welcome to the Good Survey Taker Challenge!

The majority of survey takers have a goal of being a good survey taker. They are working hard and doing their best to complete numerous surveys. In this study, we ask you to join the Good Survey Taker Challenge. This challenge will ask you to utilize Instagram to help you achieve the goal of being a good survey taker.

Nowadays, people are increasingly using the hashtag symbol (#) when they post photos on Instagram. People who are committed to achieve a certain goal tend to use a specific hashtag to inspire themselves and others who share the same goal. For instance, people who are committed to be a good survey taker often use the hashtag #surveytaker.

(For the posting goal intention photos condition)

As a part of the survey, you will be asked to find pictures of three (3) items that represent a survey taker identity by using the search engine, Google. You should search for three (3) such as a laptop computer, pen, and drink. Please think about these survey items. You will be asked to post pictures of these (3) survey taker items on a newly created Instagram account.

Here are the six steps that are required to complete the survey:

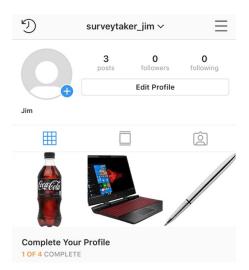
Part 1 (Step 1 to Step 6)

- Step 1. Search for three (3) different items to post using Google and save them on your computer
- Step 2. Download the Instagram app on your phone
- Step 3. Create a new Instagram account for this survey only (you will have an option to delete the account after your work is approved)
- Step 4. Set up your profile with a nickname and no profile photo
- Step 5. Post pictures on the new Instagram account
- Step 6. Answer some survey questions

If you are willing to follow every step above, please continue the survey. If you do not agree to follow every step above, please quit the survey.

(Detailed instructions were provided for each step)





(For the posting goal pursuit photos condition)

As a part of the survey, you will be asked to take pictures of three (3) personal items that represent your survey taker identity. You should select three (3) items that you use when taking surveys such as a laptop computer, pen, and drink. Please think about survey items that are personal to you. You will be asked to take pictures of these (3) survey taker items. Then you will be asked to post these pictures on a newly created Instagram account.

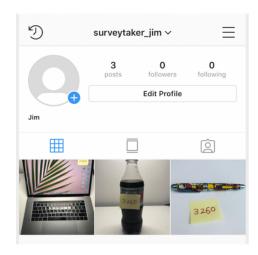
Here are the seven steps that are required to complete the survey:

- Part 1 (Step 1 to Step 7)
- Step 1. Prepare three (3) different items to photograph along with a survey code
- Step 2. Download the Instagram app on your phone
- Step 3. Create a new Instagram account for this survey only (you will have an option to delete the account after your work is approved)
- Step 4. Set up your profile with a nickname and no profile photo
- Step 5. Take pictures as instructed
- Step 6. Post pictures on the new Instagram account
- Step 7. Answer some survey questions

If you are willing to follow every step above, please continue the survey. If you do not agree to follow every step above, please quit the survey.

(Detailed instructions were provided for each step)





At the beginning of the survey, we described about the goal of being a good survey taker. That is, the majority of survey takers have a goal of being a good survey taker. They are working hard and doing their best to complete numerous surveys.

For the purposes of the next survey questions, we would like you to consider the goal of being a good survey taker.

How many surveys are you likely to complete within the next 24 hours? Write a number here: \_\_\_\_\_\_

What is your gender?

What is your age?

In Study 7, 188 participants initially participated. Of these, 8 participants were dropped because they did not follow the posting instructions (i.e., posting random photos, making the account private). Also, four participants were dropped because they failed at the attention check question.