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The Impact of Goal-Relevant Resources on Social Goal Adoption

A Thesis submitted in partial satisfaction of the

requirements for the degree Master of Arts

in Psychological and Brain Sciences

by

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June 2018

The thesis of Christopher William Bromberg is approved.

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June 2018

ABSTRACT

The Impact of Goal-Relevant Resources on Social Goal Adoption

by

Christopher William Bromberg

Research on approach and avoidance goal adoption has largely focused on dispositional factors, despite theoretical models accounting for situational influences. Recent work has found that the goal-relevant resources that individuals possess influence approach and avoidance goal adoption, such those with greater resources adopt more approach goals. However, goal-relevant resources have only been examined in the achievement domain. We aim to expand this recent work into the social domain through two studies. Study 1 experimentally manipulated the resources of a hypothetical target as a first step in examining whether or not the social resources of social competence and social support would influence approach and avoidance social and achievement goals. In support of our hypotheses, higher social resources led to ratings of more approach social and achievement goals. Study 2 manipulated participants' own sense of social competence and then examined social outcome expectancy as a mediator between social competence and social goal adoption. Participants in the high social competence condition had higher social outcome expectancy, which predicted more approach social goals. However, participants did not differ by condition on achievement goals or achievement outcome expectancy. These results lend further support

for goal-relevant resources as a situational influence on approach and avoidance goal adoption.

The Impact of Goal-Relevant Resources on Social Goal Adoption

Approach and avoidance motivation are distinct, but related, systems of motivation that underlie behavior and goals (Gable, 2015). Though there have been a variety of conceptualizations of approach and avoidance motivation (Carver & White, 1994, Higgins, 1998), there is a general consensus that approach motivation is based in the pursuit of incentives and rewards, while avoidance motivation is based in a desire to avoid threats or punishments (Gable, 2015). These motivations influence behavior in both the achievement and social domains (Elliot, 1997, 2006; Gable, 2006) and one of the primary ways in which they do so is through the goals that individuals adopt (Elliot, 2014). Approach goals are goals concerned with achieving a positive outcome, while avoidance goals are concerned with avoiding negative outcomes (Gable, 2006). While the difference between approach and avoidance goals is the framing (e.g., Wanting to be friendly towards others vs. Wanting to avoid being unfriendly towards others), these differences have been found to influence important social and personal outcomes. For example, approach goals are associated with greater relationship satisfaction and less loneliness and avoidance goals show the opposite associations (Gable, 2006, 2015). This is due, in part, to the standards for success that underlie approach and avoidance goals. Success for an avoidance goal is defined by avoiding failure, which is often difficult or impossible to prevent. In contrast, success for an approach goal is defined by achieving a positive outcome, allowing for failure in the process of goal pursuit and easier conditions for goal fulfillment (Gable, 2015).

An important finding in this research is that individuals differ in their dispositional approach and avoidance motivation, and that motivation in turn influences the types of goals

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that individuals adopt (Elliot, 2006, 2014, Carver & White, 1994). Individuals who are dispositionally higher in approach motivation are more likely to adopt approach goals in daily life, whereas individuals higher in avoidance motivation are more likely to adopt avoidance goals. Studies such as these conceptualize approach and avoidance motivation as a stable individual difference variables. However, theoretical models of approach and avoidance goal adoption have also considered the influence of situational factors on goal adoption (Gable, 2006). For example, recent work suggests that goal-relevant *resources* may be one important factor that can influence approach and avoidance goal adoption (Schnelle, Brandstätter, & Knöpfel, 2010). Resources in this context are defined as "material, social, or personal characteristics that a person possess that he or she can use to make progress toward her or his personal goals" (Diener & Fujita, 1995). The possession of such resources provide a sense of mastery and competence that facilitates goal striving. Work by Elliot and Church (1997) further finds that having a greater sense that one can achieve one's goals (e.g. outcome expectancy) leads to the adoption of approach goals, whereas a belief that one has low competency leads to the adoption of avoidance goals. To investigate this previously untested situational factor, Schnelle and colleagues (2010) conducted four studies examining the influence of goal-relevant resources in relation to approach and avoidance achievement goals. These researchers found that when individuals have higher levels of goal-relevant resources (such as time, energy, and self-confidence), they are more likely to adopt approach goals, but when individuals have lower levels of goal-relevant resources they are more likely to adopt avoidance goals. In an experiment in which individuals were given differing amounts of time to take an IQ test, individuals with greater amounts of time reported having

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a stronger belief in their ability to do well on the IQ test and this was found to mediate the relationship between amount of time and the achievement approach goals adopted (Schnelle, Brandstätter & Knöpfel, 2010 Study 4). It is important to note that whether a resource is relevant to the goal in question determines whether changing this resource will influence outcome expectancy. For example, the resource of money would be largely irrelevant to the goal of a student who has an exam the next day that they have not prepared for. Receiving a large sum of money the day before the exam will not change the student's belief in their ability to accomplish the goal of passing the exam. However, if the professor delays the exam by a week, then having the resource of time will likely change their belief in their ability to perform well on the exam and their subsequent goals.

In summary, recent work suggests that the presence of goal-relevant resources can affect the types of goals that people adopt in the achievement domain, and these effects are mediated, at least in part, by outcome expectancy. There are however, several limitations to the previous work conducted on the influence of goal-relevant resources. First, while Schnelle, Brandstätter, and Knöpfel (2010) examined a variety of different personal and social resources (time, energy, determination, finances, support from family, support from friends, concentration, stress resistance), the methods used have largely been examined as part of composite measures. This limits our knowledge of the extent to which specific social resources influence approach and avoidance goal adoption. This is important as several key goal-relevant resources may be driving differences, or resources may only have a significant effect in the aggregate. Another limitation is that only approach and avoidance *achievement* goals were examined, meaning that there is currently no evidence for the influence of goal-

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relevant resources or outcome expectancy on approach and avoidance goal adoption in other

domains, such as the social domain. Finally, the only study showing the mediating role of

outcome expectancy was done in relation to a specific laboratory task, an IQ test (Schnelle,

Brandstätter & Knöpfel, 2010 Study 4), limiting the generalizability of this evidence to real

world situations.

The Present Research

The current studies aim to expand previous research on approach and avoidance goal

adoption in three ways. First, we examine the influence of goal-relevant resources on

approach and avoidance goals in the *social domain*. Previous research on the influence of

goal-relevant resources has only examined approach and avoidance goal adoption in the

achievement domain, despite the incorporation of situational influences in theoretical models

of approach and avoidance social motivation (Gable, 2006). Second, we examine the

influence of two specific goal-relevant resources; social competence and social support. Both

social competence and social support have been the subject of extensive research that has

demonstrated their relevancy to social and achievement behavior (Feeney & Collins, 2015,

Buhrmester, Furman, Wittenberg, & Reis, 1988, Cutrona, et al., 1994). In addition, both are

subject to temporal and situational fluctuations (Maisel & Gable, 2009, Master, et al., 2009),

making them both goal-relevant resources and variables that could be experimentally

manipulated in a laboratory setting. We do note that work by Schnelle, Brandstätter, and

Knöpfel (2010) had previously examined social support as a goal-relevant resource for

achievement goals, but had only done so simultaneously with other resources such as

finances, time, determination, and energy. Thus, it is impossible to determine the unique

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value (if any) of social support in the achievement domain. In Study 1, we aim to examine the influence of social competence and social support independent of other goal-relevant resources using vignettes in which a hypothetical student is either high or low in social competence or social support. In Study 2, we will experimentally manipulate participants' sense of social competence through a memory task in which they recall a time at which they felt socially competent, socially incompetent, or a neutral memory. Doing so will allow for stronger claims about the nature of the phenomenon as we manipulate the goal-relevant resources of participants. Third, outcome expectancy has been examined as a mediator of approach and avoidance goal adoption only in relation to one resource- time (Schnelle, Brandstätter, and Knöpfel, Study 4, 2010). In Study 2, we seek to replicate and expand this previous work by examining outcome expectancy in the social domain and in relation to individuals' general goals, rather than in relation to goals for a specific laboratory task.

Study 1

Study 1 aimed to provide initial evidence for the influence of social competence and social support on approach and avoidance social and achievement goal adoption. As this was the first examination of approach and avoidance social goals, we decided to include two goal-relevant resources to explore whether different goal-relevant resources would relate to approach and avoidance social goals. A one-way design with four experimental conditions was used, consisting of a high social competence condition, low social competence condition, high social support condition, and low social support condition. Although there were four conditions, we were primarily interested in the comparison of the high and low levels of social competence and social support as we did not expect differences based on the

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type of resource. To experimentally manipulate social competence and social support,

participants read a vignette about a hypothetical student who was presented as being high or

low in social support or social competence. Participants were then asked to choose the

approach and avoidance social and achievement goals that they believed the hypothetical

student would adopt. Our primary hypothesis is that participants in the high social

competence and high social support conditions will choose more approach (vs. avoidance)

social goals than participants in the low social competence and low social support conditions.

Our secondary hypothesis is that participants in the high social competence condition and

high social support condition will choose more approach (vs. avoidance) *achievement* goals

than participants in the low social competence condition and low social support condition.

Methods

Participants

Our participants were 128 students recruited through a psychology subject pool at the

University of California, Santa Barbara. Participants received course credit in exchange for

their participation. We aimed to recruit a minimum of 120 participants with 30 in each

condition. Our data collection cutoff point was week 8 of the university quarter. Participants'

ages ranged from 17 to 22 ($M = 18.89$, $SD = 1.03$). Our sample consisted of 92 females

(72%) and 35 males (27%) (one participant declined to provide their gender). Thirty-seven

percent of participants classified themselves as Hispanic or Latino, 24% as White, 22%

percent as Asian, 9.5% as Other, 4% as Black or African American, 1.6% as Native Hawaiian

or Pacific Islander, and .8% as American Indian or Alaska Native.

Procedure

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Participants completed the study in a laboratory setting and were seated at an individual computer station. The cover story provided to participants was that they were part of a study about social perspective taking. They were told they would read a vignette about a target person and then complete some questionnaires. Consent forms were then distributed, signed, and collected by a research assistant. Participants then proceeded with the study on their own individual computer at their own pace.

All participants read instructions telling them that they would be reading about a hypothetical University of California, Santa Barbara student. They were asked to read the following page carefully and to concentrate on the student's feelings and thoughts. Each participant was then randomly assigned by the computer to one of four conditions: high social support, low social support, high social competence, or low social competence. Participants read the vignette in their assigned condition and were then immediately asked to complete approach versus avoidance social goal and achievement goal questionnaires from the perspective of the hypothetical student. Participants subsequently completed demographic, personality, and manipulation check questionnaires. After all participants had completed the study, they were debriefed and informed about the true purpose of the study.

Materials

Social Competence and Social Support Vignettes. Based on procedures developed by Schnelle, Brandstätter, and Knöpfel (2010), we created four vignettes to manipulate the social resources of a hypothetical college student (the "target"). Specifically, we developed four vignettes in which a hypothetical student at the University of California, Santa Barbara had a high level of social competence, a low level of social competence, a high level of social

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support, or a low level of social support. These vignettes described the actions, interactions, and feelings of the hypothetical student in order to convey a high or low level of social support or social competence (see Appendix A for all vignettes). As our sample was likely to be majority female (due to the nature of our subject pool), we decided to make the hypothetical student female to facilitate perspective taking. In each vignette, the hypothetical UCSB student was named Alex and was indicated as female through the use of the pronouns "she" and "her." The name Alex was chosen as it is a common name for females and males. This was to reduce any difficulty male participants might have adopting the perspective of a hypothetical female student. The basic structure of the vignettes was based upon those used by Schnelle, Brandstätter, and Knöpfel (2010). The high and low versions of the social competence vignettes mirrored each other in terms of content, such that only key components were altered. This was also true for the high and low social support vignettes. Word count was fairly similar between the four vignettes. In subsequent sections, the hypothetical student in the vignettes is referred to as the "target."

Approach versus Avoidance Achievement Goals. Participants were presented with a series of achievement goals and asked to choose the goals they believed *the target* (the hypothetical student) would choose. Our achievement goal measure consisted of 8 dichotomous forced choice goal items. Each goal item was split into two choices, one framed with approach wording and one with avoidance wording. For example, the goal "To pass my exams" was framed as "I want to successfully pass my exams" for the approach option, and "I do not want to fail my exams" for the avoidance option (see Appendix A for all achievement goal items). This goal measure was procured from Schnelle, Brandstätter, and

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Knöpfel (2010). The authors created these achievement goal items through a pilot study in which college students provided the achievement goals they were currently pursuing, the goals were sorted into overarching categories, and then the categories were rated by a new group of students in terms of importance. Each achievement goal was then split into an approach goal framing and an avoidance goal framing. Participants were instructed to choose which version of the achievement goal they believed that the target they had read about would choose. The order of the approach and avoidance goal choices was alternated such that half of the items presented the approach goal first and half of the items presented the avoidance goal first. Dichotomous forced-choice items were chosen to better emulate everyday goal adoption in which a goal may only be framed a single way. If they did not believe that the target would adopt either of the goal options, then they were instructed to skip the question. Only 8 of the original 11 goal items were used in our study as 3 of the original goal items overlapped conceptually with social goals. The 8 achievement goal items were coded as '0' for an avoidance goal and '1' for an approach goal. We averaged across all 8 items to create a proportion of achievement goals chosen, with a proportion of 1 indicating that all approach achievement goals were chosen and a proportion of 0 indicating that all avoidance achievement goals were chosen. Participants' achievement goal proportions ranged from 0 to 1 with a mean of .70, SD= .30, indicating that the majority of achievement goals selected were approach goals.

Approach versus Avoidance Social Goals. We developed a social goal measure to mirror the achievement goal measure described above (and used by Schnelle and colleagues, 2010). Our social goal measure consisted of 13 dichotomous forced choice goal items. Each

goal item was split into two choices, one framed with approach wording and one with avoidance wording. For example, the goal "Being friendly" was framed as "I want to be friendly" for the approach option, and "I don't want to be unfriendly" for the avoidance option (see Appendix A for all social goal items). The social goal items were derived from previous research by Gable and colleagues. Participants were instructed to choose which version of the social goal they believed *the target* (the hypothetical student) would choose. The order of the approach and avoidance goal choices was alternated such that half of the items presented the approach goal first and half of the items presented the avoidance goal first. Dichotomous forced-choice items were chosen to better emulate everyday goal adoption in which a goal may only be framed a single way. If they did not believe that the target would adopt either of the goal options, then they were instructed to skip the question. Only 13 of the original 25 social goal items were used in our study to avoid redundancy in goal content. The goal items chosen also reflected those that were best suited to be framed as both approach and avoidance goals. The 13 social goal items were coded as 0 for an avoidance goal and 1 for an approach goal. We averaged across all 13 social goal items to create a proportion of approach social goals chosen, with a proportion of 1 indicating that all approach social goals were chosen and a proportion of 0 indicating that all avoidance social goals were chosen. Participants' social goal proportions ranged from 0 to 1 with a mean of .76, SD= .22, indicating that the majority of social goals chosen were approach goals.

Manipulation Checks. Additional questions were created to assess the extent to which the target was seen as possessing social resources and how participants related to the target across conditions. Participants rated how socially skilled the target was and how much

support the target had from friends and family. Both items were rated on 7-point Likert scales with higher scores indicating higher levels of the social resource. Three other questions were developed to see how participants perceived the target and how much they related to the target. These three measures were rated on 7-point Likert scales that examined how similar the target's situation was to their own (similarity), how easily participants could imagine themselves in the situation of the target (imagine), and how much they liked the target (liking). These three questions were based on items previously used by Schnelle, Brandstätter, and Knöpfel (2010).

Additional measures. Participants were also asked to provide their age, biological sex, and self-reported race.

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Results

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Preliminary Analyses

To determine whether participants perceived the target as possessing the appropriate level of social resources, we examined participants' ratings of the target's social competence and social support. An independent samples t-test found that participants in the high social competence condition rated the target as being significantly higher in social competence (M= 6.06, SD= .669) than participants in the low social competence condition (M= 3.19, SD= 1.15), $t(62)$= 12.24, $p < .001$, two-tailed. A second independent samples t-test found that participants in the high social support condition rated the target as being significantly higher in social support (M= 5.31, SD= 1.256) than participants in the low social support condition (M= 2.59, SD= 1.46), $t(62)$= 8, $p < .001$, two-tailed. These results indicate that the

manipulation of social resources was successful - the target's social resources were perceived as intended in each of the four vignette conditions.

We also examined whether there were any differences in how participants perceived and related to the target by vignette condition. A one-way ANOVA was conducted examining whether participants differed by vignette condition in how similar they perceived the target's situation to their own, how easily they could imagine themselves in the situation of the target, and how much they liked the target. There was no significant difference between conditions on how similar participants' rated their situation to the situation of the target, $F(3, 120) = 2.01$, $p = .117$. There was also no significant difference between conditions on how easily participants could imagine themselves in the target's situation, $F(3, 120) = .69$, $p = .558$. However, there was a marginally significant difference in how much participants liked the target, $F(3, 120) = 2.52$, $p = .061$. Fisher's LSD post-hoc tests found that participants in the high social competence condition liked the target significantly more ($M= 5.71$, $SD= .90$) than participants in the low social competence condition ($M= 4.97$, $SD= 1.45$), $p = .013$, or participants in the low social support condition ($M= 5.06$, $SD= 1.26$), $p = .031$. None of the other vignette conditions significantly differed from each other in liking of the target. Due to this marginally significant difference in liking of the target, liking was controlled for in all subsequent analyses.

Next, because the target of the vignettes was female, we wanted to examine if there were gender differences in participants' perception of the target. Independent samples t-tests were run to compare male and female participants' ratings of the target's social competence and social support as well as similarity, imagine, and liking. No significant differences were

found by gender (see Table 1). We then ran a 2 (Gender) by 4 (Vignette Condition) ANOVA

to see if gender influenced participants' perceptions of the target in particular vignettes.

Participant's social competence rating, social support rating, similarly, imagine, and liking

were the dependent variables. Significant interactions were found between gender and

participants' ratings of social support, similarity, and imagine. Female participants in the high

social competence condition rated the target as having greater social support than males in

the high social competence condition did, themselves as being in a more similar situation to

the target than males in the high social competence condition did, and reported having an

easier time imagining being in the target's situation than males in the high social competence

condition did. Due to these gender differences in target perception, we controlled for gender

in all subsequent analyses.

Primary Analyses

Social goals. To test our hypothesis that targets with higher levels of social resources

would be expected to adopt more approach social goals, we conducted a one-way ANCOVA

to examine participants' social goal proportions by vignette condition. A significant

difference between vignette conditions was found for participants' ratings of the target's

social goals, $F(3, 119) = 10.43$, $p < .001$. As predicted, Fisher's LSD post-hoc tests found that

participants in the high social competence condition ($M = .92$, $SD = .11$) chose a significantly

higher proportion of approach social goals than participants in the low social competence

condition ($M = .64$, $SD = .21$), $p < .001$. Participants in the high social support condition ($M = .80$, $SD = .19$) also chose a significantly higher proportion of approach social goals than

participants in the low social support condition ($M = .68$, $SD = .26$), $p = .031$ (see Figure 1).

Achievement goals. Next we examined the influence of vignette condition on achievement goals. A one-way ANCOVA was conducted to examine if higher levels of social resources would influence the adoption of approach (vs. avoidance) achievement goals. A significant difference between vignette conditions was found in participant's ratings of the target's achievement goals, $F(3, 19) = 9.56$, $p < .001$. As predicted, Fisher's LSD post-hoc tests indicated that participants in the high social competence condition ($M= .87$, $SD= .17$) chose a significantly higher proportion of approach achievement goals than participants in the low social competence condition ($M= .58$, $SD= .26$), $p < .001$. Participants in the high social support condition ($M= .77$, $SD= .25$) also chose a significantly higher proportion of approach achievement goals than participants in the low social support condition ($M= .55$, $SD= .35$), $p = .002$ (see Figure 2)

Brief Discussion

The results of Study 1 were consistent with our hypotheses. Participants believed that hypothetical students with higher levels of social resources would adopt more approach social goals and less avoidance social goals, providing evidence for our main hypothesis. This provides evidence for the influence of goal-relevant resources on approach and avoidance *social* goal adoption and specifically for the relevancy of social competence and social support to approach and avoidance social goal adoption. While previous research had examined the influence of social support on approach and avoidance achievement goal adoption (Schnelle, Brandstätter, & Knöpfel, 2010), to our knowledge, approach and avoidance social goal adoption has not been previously examined. In addition, higher levels of social support and social competence also led to the adoption of more approach and less

avoidance *achievement* goals. These results support our secondary hypothesis that social

competence and social support would be goal-relevant resources in regards to approach and

avoidance achievement goals. This finding replicates and extends prior research. Previous

research by Schnelle, Brandstätter, and Knöpfel (2010) has examined social support as a

goal-relevant resource, but only as part of a composite variable with other resources such as

finances, time available, determination, and energy. The current results expand upon this

previous work by solely examining the influence of social support on approach and

avoidance achievement goals, while also providing evidence for social competence as a goal-

relevant resource in the achievement domain. In addition, the differences between vignette

conditions on ratings of perceived social competence and social support indicate that the

differences in social and achievement goal adoption were likely due to the perception of the

target's social resources.

Study 1 has a number of limitations that prevent strong claims about the influence of

social competence and social support on approach and avoidance social and achievement

goals. Most notably, participants were choosing approach and avoidance social and

achievement goals of a hypothetical person. Thus, it is possible that these results reflect

social norms, stereotypes, or schemas regarding individuals that possess high and low levels

of social resources. For example, it is possible that individuals who are low in social

competence would be expected to avoid embarrassment in social situations and would

endorse more avoidance goals. Hence, it is possible that goal-relevant resources do not relate

to the approach and avoidance goals that individuals would adopt for *themselve*s, but are

perceived to do so by others. To address this limitation, Study 2 experimentally manipulated

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participants' own level of social competence (through a directed memory task) and then examined the social and achievement goals adopted.

Study 2

In Study 2, we experimentally manipulated a goal-relevant resource (social competence) for the *self* in order to provide a more rigorous test of the influence of social resources on the adoption of approach and avoidance goals. A secondary goal of Study 2 was to replicate and extend Schnelle et al.'s (2010) work on *outcome expectancy* as a potential mediator between social resources and goal adoption. To explore these issues, we used a guided memory task to manipulate participants' sense of social competence and then asked them to report their current approach and avoidance goals in both social and achievement domains. We also asked participants to report their expectations about the likelihood of achieving their current goals in the social and achievement domains. A one-way design with three experimental conditions was used, including a high social competence condition, low social competence condition, and a neutral condition. The neutral condition was included to provide a baseline comparison to the high and low social competence conditions. Our primary hypothesis is that participants in the high social competence condition will choose more approach social goals than participants in the neutral condition, who will select more approach social goals than participants in the low social competence condition. We also hypothesize that participants in the high social competence condition will choose more approach achievement goals than participants in the neutral condition, who will select more achievement social goals than participants in the low social competence condition. Our secondary hypotheses are that participants in the high social competence condition will have

greater social and achievement outcome expectancy than participants in the neutral condition, who will have greater social and achievement outcome expectancy than participants in the low social competence condition. Finally, we hypothesize that the relationship between social competence and approach (vs. avoidance) social and achievement goals will be mediated by outcome expectancy, such that those with higher social and achievement outcome expectancy will adopt more approach social and achievement goals, respectively.

Methods

Participants

Our participants were 172 students recruited through the same subject pool as in Study 1. Participants received course credit in exchange for their participation. We aimed to recruit a minimum of 150 participants with 50 per condition. Thirty participants were excluded from our sample for failing to appropriately complete the memory task. The specific rules that determine whether participants were included or excluded and the number of participants per rule that were excluded can be found in Appendix B.

This reduced our sample to 141 participants. Participants in the final sample ranged in age from 17 to 37 ($M=$ 19.16, $SD=$ 1.96). Our sample consisted of 104 females (73.2%) and 37 males (26.1%, one participant declined to provide their gender). Thirty-one percent of participants classified themselves as Asian, 25% as White, 25% as Hispanic or Latino, 11% as Other, 6% as Black or African American, and 2% as Native Hawaiian or Pacific Islander. All subsequent analyses use this reduced sample.

Procedure

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Participants completed the study in a laboratory setting and were seated at an individual computer station. The cover story provided to participants was that they were part of a study that was interested in understanding peoples' ability to recall past social events. They were informed that they would write about a memory from their past and complete some questionnaires. After consent forms were collected, participants were told to move to the next page of the online survey on their computers. They were then given 2 minutes by the research assistant to think of a memory that was in accordance with the instructions on their individual computer screen. These instructions were based on the condition to which the participant was randomly assigned by the computer: high social competence, low social competence, or neutral control. It was not possible for participants to advance in the online survey until 2 minutes had elapsed.

After 2 minutes had passed, participants were instructed by the research assistant to move on to the next page and follow the instructions for how to write about the memory they had chosen. The participants were informed that they would have 5 minutes to write about their memory and were asked to continue writing until 5 minutes had passed. It was not possible for participants to advance in the online survey until 5 minutes had elapsed. After 5 minutes passed, participants were instructed by the research assistant to stop writing about their memory, move on to the next page, and proceed with the rest of the study at their own pace. Research assistants conveyed this information in a light tone to avoid interfering with participants' immersion in their memory. Directly after completing the memory task, participants were asked to to briefly describe what it was in the memory that made them feel

socially competent, what it was in the memory that made them feel socially incompetent, or what food they ate for breakfast, depending upon the condition they were assigned.

Participants were then asked to complete approach versus avoidance social and achievement goal measures in relation to themselves and their current goals. Next, participants completed measures of their social and achievement outcome expectancy. Participants subsequently completed demographic, personality, and manipulation check questionnaires. After all participants had completed the study, they were debriefed and informed about the true purpose of the study.

Materials

Social competence manipulation (memory task). Three variations of a memory task were developed in which participants wrote about a different memory from their past. Participants were assigned to one of these three conditions: high social competence, low social competence, or neutral/control. In the high social competence condition, this memory was one in which the participant felt highly socially skilled or competent and was meant to increase participants' sense of social competence. In the low social competence condition, the memory was one in which the participant felt especially socially unskilled or incompetent was meant to lower participants' sense of social competence. In the neutral condition, the memory was of a recent breakfast of the participant was meant to avoid manipulating participants' sense of social competence or other potential resources. Two minutes was provided to think about a memory that fit the instructions of the participant's condition.

Participants were given 5 minutes to write about the memory they chose. When writing about the memory chosen, participants were instructed to write about the

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circumstances of the memory, to pay particular attention to how they felt at the time of the memory, what the outcome of the memory was, and how socially skilled or unskilled they felt at the time. For participants in the neutral condition, they were not asked to describe their sense of social competence in the memory they chose. Examples were provided to aid participants in producing memories. Directly afterwards, participants were asked to briefly describe what it was in the memory that made them feel socially competent, what it was in the memory that made them feel socially incompetent, or what food they ate for breakfast, depending upon the condition they were assigned. The purpose of this last task and the instructions of the memory were to emphasize the portion of the memory related to the participant's sense of social competence.

Approach versus Avoidance Achievement Goals. The same approach and avoidance achievement goal measure used in Study 1 was also used in Study 2, however participants were instructed to choose the version of each goal that reflected *their* current achievement goals, as opposed to the goals of a target. Participants' achievement goal proportions ranged from .25 to 1 with a mean of .83, SD= .17, indicating that the majority of achievement goals were approach goals.

Approach versus Avoidance Social Goals. The same approach and avoidance social goal measure used in Study 1 were also used in Study 2. Participants were instructed to choose the version of each goal that reflected *their* current social goals, as opposed to the goals of a target. Participants' social goal proportions ranged from .15 to 1 with a mean of . 78, SD= .19, indicating that the majority of social goals were approach goals.

Social and Achievement Outcome Expectancy. First, we developed a general measure of outcome expectancy in order to examine participants' belief in their ability to achieve their goals. This scale contained 5 items that were rated on a 7-point scale with 1 representing lower outcome expectancy and 7 representing higher outcome expectancy. One example was "How likely do you think you are to reach your goals?". Two of the items were reverse coded. These items were based on a scale used by Schnelle, Brandstätter, and Knöpfel (2010) to measure outcome expectancy for an intelligence test.

We then adapted the general outcome expectancy measure to create scales measuring social outcome expectancy and achievement outcome expectancy. This was done by altering each item to refer to a social or achievement goal. For example, the item "How likely do you think you are to reach your goals?" was altered to read "How likely do you think you are to reach your *social* goals?" in the social outcome expectancy scale or "how likely do you think you are to reach your *academic* goals?" in the achievement outcome expectancy scale (see Appendix C for all outcome expectancy items). The 5 items for the social outcome expectancy scale were averaged together to form a composite measure of social outcome expectancy. Participants' social outcome expectancy averages ranged from 1.4 to 7 with a mean of 4.67, *SD*= 1.1 (Cronbach's alpha = .88). This was also done for the achievement outcome expectancy scale. Participants' achievement outcome expectancy averages ranged from 3 to 6.4 with a mean of 4.73, *SD*= .77 (Cronbach's alpha = .76).

Social Competence Manipulation Checks. Participants' sense of social competence was measured using three different measures, each of which were completed after the memory task manipulation. The first two measures of social competence (*Long and Short*

Social Competence) were included to check if our memory task manipulation altered

participants' sense of social competence as intended in the high social competence, low

social competence, and neutral conditions. The third (*memory social competence*) was

included to see if participants wrote about a memory that was appropriate for their assigned

condition.

Long social competence consisted of 10 items that were taken from the Interpersonal

Competence Questionnaire (ICQ; Buhrmester, Furman, Wittenberg, & Reis, 1988).

Participants were asked to indicate their level of competence and comfort in addressing

different social interactions on a 9-point scale, with 1 indicating that they would be unable to

handle the social interaction and 9 indicating they were extremely good at handling the social

interaction. The ICQ contains 40 items based around 5 factors (Initiation, Negative Assertion,

Disclosure, Emotional Support, and Conflict Management). We reduced the ICQ to 10 items

due to the length of our study and chose 2 items from each of the 5 underlying factors. A

composite measure was created by averaging together the 10 items ($M = 6.19$, $SD = 1.18$,

Cronbach's alpha = .825).

Short social competence consisted of two face valid items measuring social

competence. The two items were "How socially competent do you feel right now?" and

"How socially skilled do you feel right now?". Participants rated the items on a 9-point scale

with 1 indicating low social competence and 9 indicating high social competence. These two

items were averaged together to form the composite form of short social competence ($M =$

5.84, $SD = 1.64$, Cronbach's alpha = .86). Short social competence was included as an

additional manipulation check to determine if participants' sense of social competence was manipulated as intended.

Memory social competence was one item in which participants rated how socially competent they felt at the time of the memory they wrote about (memory social competence). Participants rated themselves on a 7-point scale with 1 indicating they did not feel at all socially competent at the time of the memory and 7 indicating they felt extremely socially competent at the time of the memory ($M = 4.32$, $SD = 1.77$). Memory social competence was included for two reasons. The first was to have an additional manipulation check for the types of memories participants wrote about in different conditions, in addition to our coders' ratings of participants' social competence. The second was so that we could examine whether participants in the neutral condition inappropriately wrote about a memory that might influence their sense of social competence and exclude them from our sample if so. This determination was done in conjunction with coding data (see Appendix B for the specific exclusion rule).

Behavioral Inhibition System and Behavioral Activation System. Participants' dispositional sensitivity to the Behavioral Inhibition System (BIS) and the Behavioral Activation System (BAS) was measured using the Carver and White (1994) scale. Participants indicated the degree to which they typically agreed with 20 statements on a 5-point Likert scale (1= Strongly Disagree, 3= Neutral, and 5= Strongly Agree). Thirteen of the statements are averaged to compute the BAS scale (ex. I'm always willing to try something new if I think it will be fun) ($M = 3.82$, $SD = .47$, Cronbach's alpha = .831) and the other 7 statements are averaged to create the BIS scale (ex. I worry about making mistakes) ($M =$

3.63, *SD* = .56, Cronbach's alpha = .728). Two of the statements were reverse coded (ex. I have very few fears compared to my friends). As dispositional differences in approach and avoidance motivation have been shown to influence social and achievement goal adoption (Gable, 2006), BIS and BAS were both controlled for in all subsequent analyses.

Additional measures. Participants were also asked to provide their age, biological sex, and self-reported race.

Memory Coding

Three coders were trained to code participants' memories for 6 characteristics. This was done as a manipulation check to ensure participants in our sample appropriately completed the memory tasks as intended. An initial 30 memories were assigned for practice coding. Reliability for the first 30 memories was low on achievement/social orientation so an additional 30 memories were assigned for additional practice. Following this second set of 30, reliability improved for the rating of achievement/social orientation. Each of the 112 remaining memories were then assigned to at least two coders. After all assigned memories had been coded, all three coders recoded the first 30 memories that were initially assigned. Coders were kept blind to the memory condition each memory belonged to throughout the coding process. Please see Appendix B for detailed information on coder reliability.

<div align="center">

Results

</div>

Preliminary Results

To determine whether participants wrote about appropriate memories in relation to the memory task condition they were assigned, we examined coders' ratings of participants' social competence and participants' memory social competence. A one-way ANOVA

examining coder ratings of social competence found that there was a significant difference between memory task conditions, $F(2, 139) = 638.88$, $p < .001$. Fisher's LSD post-hoc tests found that participants in the high social competence condition had significantly higher coder ratings of social competence ($M= 4.29$, $SD= .72$) than participants in the neutral condition ($M= 3.02$, $SD= .26$), who had higher ratings of social competence than participants in the low social competence condition ($M= 1.5$, $SD= .57$) (all p values $< .001$). A one-way ANOVA examining memory social competence found that there was a significant difference between memory task conditions, $F(2, 139) = 72.05$, $p < .001$. Fisher's LSD post-hoc tests found that participants in the high social competence condition had significantly higher memory social competence ($M= 5.84$, $SD= .98$) than participants in the neutral condition ($M= 4.26$, $SD= 1.5$), who had higher memory social competence than participants in the low social competence condition ($M= 2.84$, $SD= 1.25$) (all p values $< .001$). These results indicate that participants in each condition wrote appropriate memories in relation to the memory task condition they were assigned as measured by the perception of the memory by coders and participants' rating of how socially competent they felt at the time of the memory they wrote about.

Next, we examined whether memory task condition influenced participants' sense of social competence differences in participants' sense of social competence by memory task condition in order to determine if our manipulation was successful in influencing participants' goal-relevant resources. A one-way ANOVA was conducted examining whether participants differed on the *long social competence* measure by memory task condition. There was no significant difference between conditions on long social competence, $F(2, 139)$

= 1.622, p = .201. We then conducted a one-way ANOVA examining whether participants different on the *short social competence* measure by memory task condition. We found a significant difference between memory task conditions for short social competence, $F(2, 139)$ = 4, p = .02. Fisher's LSD post-hoc tests found that participants in the high social competence condition reported higher levels of short social competence (M= 6.35, SD= 1.32) than participants in the low social competence condition (M= 5.57, SD= 1.77), p = .017 or participants in the neutral condition (M= 5.54, SD= 1.7), p = .016 (See Table 2). These results indicate that our manipulation of participants' sense of social competence was not particularly strong. However, it still does appear that we manipulated the social competence of participants in the high social competence condition.

Primary Results

Social and achievement goals. To test our primary hypotheses that participants in the high social competence condition would adopt more approach social goals, we conducted a one-way ANCOVA to examine the influence of memory task condition on social goal proportions (see Table 3). In contrast to hypotheses, there was no significant difference found between the memory task conditions for participants' approach and avoidance social goals, $F(2, 137)$ = .642, p = .528. Next, to test our hypothesis that participants in the high social competence condition would adopt more approach achievement goals, we conducted a one-way ANCOVA examining achievement goal proportions. In contrast to our hypothesis, no significant differences were found between conditions for approach and avoidance achievement goals, $F(2, 137)$ = .047, p = .954 (See Table 3 for group means).

Outcome expectancy. For our secondary hypotheses, that participants in the high social competence condition would have higher levels of social outcome expectancy and higher levels of achievement outcome expectancy, two one-way ANCOVAs were run examining differences by memory task condition. As predicted, there was a significant difference between conditions for social outcome expectancy, $F(2, 137) = 4.146$, $p = .018$. Fisher's LSD post-hoc tests found that participants in the high social competence condition reported higher levels of social outcome expectancy ($M = 5$, $SD = .98$) than participants in the low social competence condition ($M = 4.49$, $SD = 1.06$), $p = .027$ or participants in the neutral condition ($M = 4.5$, $SD = 1.21$), $p = .009$. However, there was no significant difference between conditions for achievement outcome expectancy, $F(2, 137) = .122$, $p = .885$ (see Table 3 for group means). These results provide evidence that participants who recall a high social competence memory had a greater belief in their ability to achieve their social goals, which is consistent with our hypothesis.

Mediation Analysis.

While we did see a significant difference between memory task conditions for social outcome expectancy (our proposed mediator), we did not see a significant difference by condition on the proportion of social approach goals (our ultimate outcome). However, despite the lack of a total effect of social competence on social goals, contemporary approaches to mediation suggest that it is still appropriate to test for a significant *indirect effect* of condition on social goals as mediated by social outcome expectancy (Hayes, 2013). One way to do this is to use the manipulated social competence variable (dummy coded) as the independent variable in a mediation analysis. Another way is to use the manipulation

check (self reported social competence, a continuous variable measured *after* the directed memory task) instead of the manipulation itself. We hypothesized that participants with higher levels of social competence (as manipulated or measured by the *short social competence* index) would have higher social outcome expectancy and that outcome expectancy would lead people to adopt more approach social goals. To test these hypotheses, we conducted regression analyses following guidelines provided by Baron and Kenny (1986) and Hayes (2013). All of the betas reported below are unstandardized. Hayes' (2013) Process macro in SPSS was used to conduct all analyses.

Model 1 using the manipulated social competence variable. First, memory task condition was regressed on approach and avoidance social goal adoption. Memory task condition was dummy coded such that the high social competence condition and low social competence condition were compared (D1) and the high social competence condition and the neutral condition were compared (D2). As would be expected, based on the prior ANCOVA, the D1 ($b = -.009$, $p = .794$) and D2 ($b = .031$, $p = .398$) comparisons did not show significant differences between conditions on approach social goals. Second, social outcome expectancy was regressed on memory task condition. As predicted, participants in the high social competence condition had higher levels of social outcome expectancy than participants in the low social competence condition ($b = -.455$, $p < .05$) or the neutral condition ($b = -.551$, $p < .01$). Finally, we regressed social goal proportion on memory task condition and social outcome expectancy simultaneously. As predicted, participants with higher levels of social outcome expectancy adopted more approach social goals ($b = .0556$, $p < .001$). Finally, we used nonparametric bootstrapping (Preacher & Hayes, 2004, 2008) to test the significance of

the indirect (mediated) effect. In this analysis, mediation is significant if the 95% bias

corrected and accelerated confidence interval for the unstandardized indirect effect (IE) does

not include zero. Results based on 5,000 bootstrapped samples confirmed that the indirect

effect (the mediated effect) was statistically significant for both D1 (IE = -.0253, SE = .0137,

95% CI = -.0603- -.0048) and D2 (IE = -.0307, SE = .0153, 95% CI = -.0701 - -.0077).These

findings are consistent with the hypothesis social competence has an indirect effect on social

goals through its effect on social outcome expectancy.

Model 2 using the measured social competence variable. To further examine our

hypothesis that social outcome expectancy would mediate the relationship between social

competence and social goal proportion, we performed a second mediation analysis using the

short social competence variable (the continuous manipulation check) *in place of* the

manipulated competence variable. First, social goal adoption was regressed on short social

competence. As predicted, participants with higher levels of social competence adopted more

approach social goals (b = .0328, p = .001). Second, social outcome expectancy was

regressed on short social competence. As predicted, participants with higher levels of social

competence had higher levels of social outcome expectancy (b = .392, $p <$ .001). Finally, we

regressed approach social goal adoption on social competence and social outcome

expectancy simultaneously. As predicted, participants with higher levels of social outcome

expectancy adopted more approach social goals (b = .035, p = .041). In addition, the

association between short social competence and approach and avoidance social goals

observed in the first equation (b= .0328) was reduced and no longer significant after

controlling for social outcome expectancy (b = .0191, p = .105). Once again, to test the

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significance of the indirect effect, we used nonparametric bootstrapping (Preacher & Hayes, 2004, 2008). Results based on 5,000 bootstrapped samples found that the indirect effect (the mediated effect) was statistically significant (IE = .0137, SE = .0069, 95% CI = .0015-.0291). These findings are consistent with the hypothesis that social competence (measured as a continuous variable after the memory task) was associated with approach social goals because individuals with greater social competence had greater social outcome expectancy in regards to their social goals.

As there were no differences between memory task conditions on achievement goal proportion or achievement outcome expectancy, mediation analyses were not run to examine whether achievement outcome expectancy mediated achievement goal proportion by memory task condition.

General Discussion

This study had multiple aims as part of an effort to better understand the phenomenon of approach and avoidance goal adoption. The first was to examine whether goal-relevant resources would influence approach and avoidance goal adoption in the social domain. Study 1 and 2 provide evidence that this relationship is not exclusive to the achievement domain (Schnelle, Brandstätter, & Knöpfel , 2010). We found that the social goal adoption of a target (Study 1) and an individual (Study 2) were altered by goal-relevant resources. Next, we aimed to determine whether social competence and social support would serve as goal-relevant resources in the social and achievement domains. In Study 1, social support and social competence were important for goal adoption in both the social and achievement domains, while in Study 2, social competence was only found to influence goals (and

outcome expectancy) in the social domain. These findings provide preliminary evidence for social support and social competence as goal-relevant resources in the social domain. However, the lack of differences in either achievement goal proportion or achievement outcome expectancy in Study 2 suggest that social competence may not be a goal-relevant resource in the achievement domain. It may be that social competence may not be a relevant enough resource for academic goals to influence goal adoption. Another possibility is that the achievement goals we used would be expected to occur on a more long term time scale (ex. I want to get a grade with the least effort) than the social goals (ex. I want to be friendly) and hence the individuals state level of social competence was not relevant, whereas trait would be. Finally, we were able to examine whether outcome expectancy mediated the relationship between goal-relevant resources (social competence) and approach and avoidance goal adoption. While we did not find a direct effect of the manipulated social competence variable on social goal adoption in Study 2, we did find an indirect effect by social outcome expectancy. We also found a relationship between self-reported social competence (our manipulation check) and the approach social goals such that participants who were higher in social competence (after the memory manipulation) were more likely to say that they would adopt approach (versus avoidance) social goals. In addition social outcome expectancy, when measured as a continuous variable, fully mediated the effect of measured social competence on social goal proportion, providing encouraging evidence that outcome expectancy may be the reason why goal-relevant resources influence approach and avoidance goal adoption. These differences were found while controlling for dispositional differences in approach and

avoidance motivation that have been shown to influence approach and avoidance social goal adoption (Gable, 2015).

These findings contribute to the existing literature of social approach and avoidance motivation, in particular in relation to approach and avoidance social goal adoption. Previous research had focused largely on the achievement domain (Gable, 2006, Elliot, 2006) and been interested in the dispositional influences on approach and avoidance goal adoption (Gable, 2014). While the influence of goal-relevant resources in the achievement domain had been previously demonstrated (Schnelle, Brandstätter, and Knöpfel , 2010), the current studies are the first (to our knowledge) that demonstrates the relevancy of goal-relevant resources in the social domain. In addition, previous work has only examined the resource of social support in conjunction with other goal-relevant resources. The results of Study 1 suggest that social support may be a significant goal-relevant resource in the social and achievement domains on its own.

While our results were generally consistent with our hypotheses, there were a number of limitations that may have prevented us from finding certain effects. In Study 2, our failure to find a direct effect of memory task condition on social goal proportion or achievement goal proportion seems to contradict findings in Study 1 that found strong links between different levels of social competence and social support and social and achievement goal proportions. However, the one previous study that has directly manipulated individuals' goal-relevant resources, in this case time (Schnelle, Brandstätter, & Knöpfel , 2010, Study 4), had a sample size of over 1,000 participants and still had a rather small effect size. This suggests that our sample size may be too small to pick up on the direct effect between condition and

approach and avoidance goal adoption, which may be a small effect overall. This limitation may have been compounded by our need to exclude a significant portion of our sample due to them having failed to appropriately complete the memory task. Future studies should endeavor to increase our sample size and decrease exclusions. One possible way to do so would be through alterations of the neutral condition prompt as almost half of our exclusions were from the neutral condition.

One important limitation to address was our measure of short social competence. While our results with this measure were consistent with our hypotheses, the measure consisted of only two items and had not been previously tested. In contrast, our measure of long social competence was based on previous research and been demonstrated to be reliable and valid (Buhrmester, Furman, Wittenberg, & Reis, 1988), but did not differ by condition. One possibility is that long social competence measured participants' *trait social competence* while short social competence measure participants' *state social competence*. In that case, a more reliable measure of state social competence should be used in future research that attempts to replicate these findings.

As approach goals have been clearly linked to positive outcomes (Gable, 2015), one potential application of this research is in the realm of interventions. While providing resources to individuals who need them will undoubtedly facilitate better outcomes, this research suggests that individuals who receive resources that are relevant to their goals are also likely to experience better outcomes due to the adoption of approach goals (Elliott, 2006). In contrast, a longitudinal study by Elliot and colleagues (2014) found individuals who adopted more avoidance goals had lower levels of executive resources over time,

demonstrating that the adoption of avoidance goals may deplete resources. These finding suggest that altering the types of goals adopted by individuals may be possible through providing goal-relevant resources and this may lead to self-reinforcing positive social and personal outcomes.

These findings are a first step towards understanding the relationship between goal-relevant resources and approach and avoidance goal adoption. Our results provide evidence that goal-relevant resources influence approach and avoidance goal adoption across domains, that social competence and social support are likely goal-relevant resources in the social domain, and that outcome expectancy mediates the relationship between resources and goal adoption. Future research should expand these findings by examining actual goal-directed behavior, the influence of other potential goal-relevant resources, and whether manipulations of goal-relevant resources can lead to better social and personal outcomes, as previously demonstrated by research on approach and avoidance social goals (Gable, 2015).

Tables and Figures

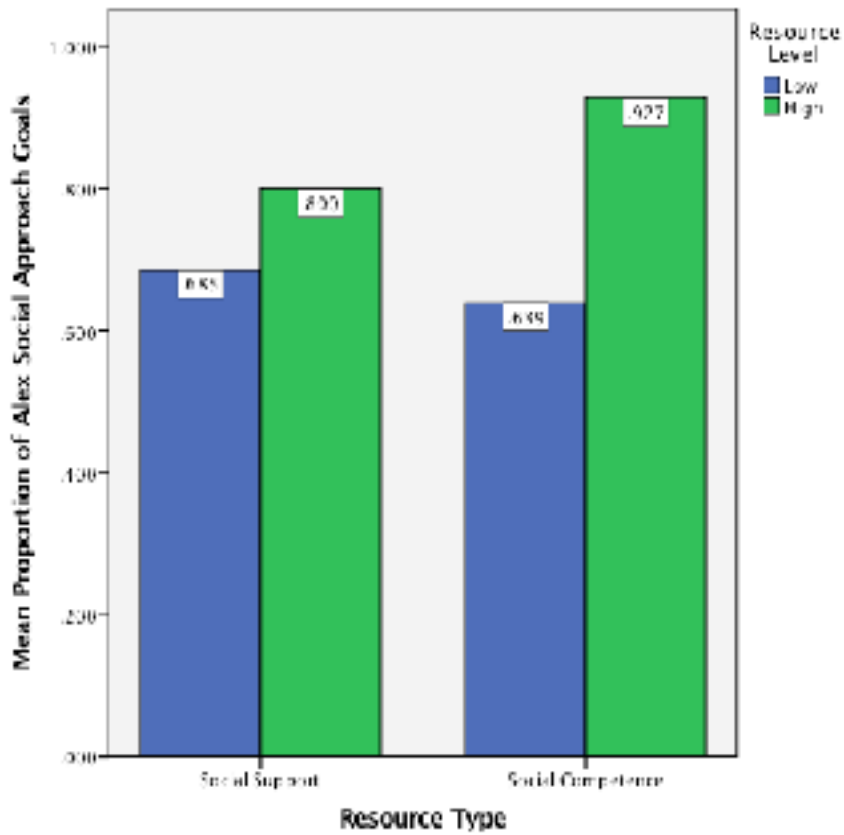Figure 1. Social Goal Proportions by Vignette Condition.

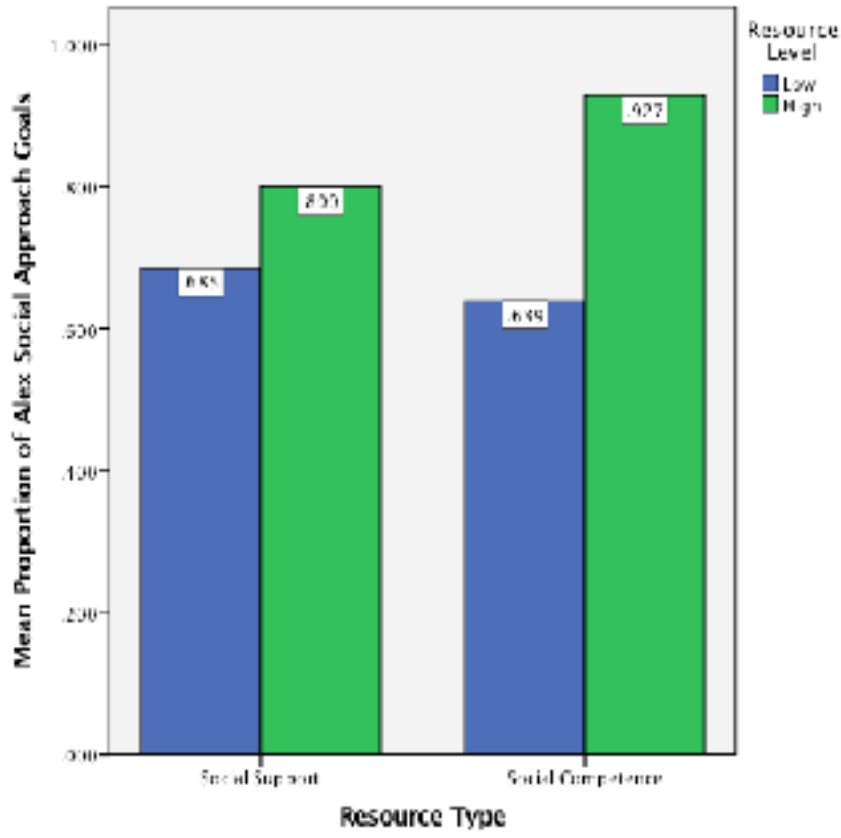Figure 2. Achievement Goal Proportions by Vignette Condition.

Table 1.

Study 1 Gender Differences for Manipulation Checks and Perception of Target

	Female		Male			
	M	*SD*	*M*	*SD*	*t*	*Sig.*
Social Competence Rating	4.64	1.614	4.57	1.501	-0.222	0.825
Social Support Rating	4.10	1.726	3.57	1.77	-1.526	0.130
Similarity	4.27	1.62	5.09	1.409	0.127	0.899
Imagine	5.39	1.583	5.09	1.311	-0.997	0.321
Liking	5.36	1.239	4.57	0.981	-1.154	0.251

Table 2.

Study 2 Manipulation Checks by Memory Task Condition

Manipulation Check	High Condition	Low Condition	Neutral Condition	F	sig.
Coder Ratings of Social Competence	4.29_a	3.02_b	1.5_c	638.9	.000***
Memory Social Competence	5.84_a	4.26_b	2.84_c	72.05	.000***
Long Social Competence	6.42_a	6.01_a	6.12_a	1.62	.201
Short Social Competence	6.35_a	5.57_b	5.54_b	4	.02*

Note. *. significant at the .05 level, **. significant at the .01 level, ***. significant at the .001 level. Each mean with a different subscript is significantly different at $p < .05$ according to Fisher's LSD test.

Table 3.

Study 2 Dependent Variable Means by Memory Task Condition

Manipulation Check	High Condition	Low Condition	Neutral Condition	F	sig.
Social Goal Proportion	.78$_a$	.75$_a$	.81$_a$	0.642	0.528
Achievement Goal Proportion	.84$_a$	.81$_a$	.85$_a$	0.047	0.954
Social Outcome Expectancy	5$_a$	4.49$_b$	4.51$_b$	4.146	.018*
Achievement Outcome Expectancy	4.76$_a$	4.70$_a$	4.73$_a$	0.122	0.885

Note. *. significant at the .05 level, **. significant at the .01 level, ***. significant at the .001 level. Each mean with a different subscript is significantly different at $p < .05$ according to Fisher's LSD test.

Hypothetical Student Vignettes

High Social Support Vignette:

Alex, age 19, started her studies at the University of California, Santa Barbara 3 months ago. Her family back home is very busy, but has been able to touch base with her regularly to offer encouragement and see if she has all the things she needs. She is living in a campus dorm where many of her classmates also live. Alex has become close with a group of people who live along her hall and luckily their schedules are similar so they often hang out and get meals together. It is her first time living with a roommate and they get along well enough, but don't have much in common. She is excited to be rooming with one of her new friends in an off campus house next year. Alex has been working at the campus bookstore part-time since the end of the past quarter. The only open position was at the bookstore register and she has been able to get to know her coworkers while on the job. Alex wants to explore the surrounding area and has started biking off-campus. Recently she got a flat tire while off-campus, but one of her new friends was able to pick her up. Over her next break she plans on visiting San Francisco to see a friend from high school. This friend has been very absorbed in her studies during the fall quarter, but they have managed to stay in touch.

Low Social Support Vignette:

Alex, age 19, started her studies at the University of California, Santa Barbara 3 months ago. Her family back home is very busy and has not been able to touch base with her regularly to offer encouragement and she if she has all the things she needs. She is living in a campus dorm where many of her classmates also live. Alex has become close with a group of people who live along her hall; unfortunately their schedules are so different that that they do not have the chance to hang out and get meals together very often. It is her first time living with a roommate and they get along well enough, but don't have much in common. She would like to room off campus next year, but the friend she planned to room with has to transfer to another school. Alex has been working at the campus bookstore part-time since the end of the past quarter. The only open position was stocking shelves in the backroom and she has been unable to get to know her coworkers while on the job. Alex wants to explore the surrounding area and has started biking off-campus. When she recently got a flat tire while off campus, no one was available to pick her up and she had to walk her bike back to campus. Over her next break, she plans on visiting San Francisco to see a friend from high school. This friend has been very absorbed in her studies during the fall quarter and they have not managed to keep in touch.

High Social Competence Vignette:

Alex, age 19, started her studies at the University of California, Santa Barbara 3 months ago. She is confident in her ability to handle social situations in her new environment. She is living in a campus dorm where many of her classmates also live. Alex

feels comfortable striking up conversations with people in her dorm that she hasn't met yet. It is her first time living with a roommate and they get along well enough, but don't have much in common. She recently talked to her roommate about some habits that had been bothering her and reached a satisfying compromise. Alex has been working at the campus bookstore part-time since the end of the past quarter. She wants to get to know her coworkers better and is going to hang out with them next week. Alex wants to explore the surrounding area and has started biking off-campus. When she biked down to the beach recently, she met an attractive classmate and is going to go biking with him in the near future. Over her next break, she plans on visiting San Francisco to see a friend from high school. This friend has been having a rough time and Alex has been providing support and advice to her from a distance throughout the past quarter.

Low Social Competence Vignette:

Alex, age 19, started her studies at the University of California, Santa Barbara 3 months ago. She is worried about her ability to handle social situations in her new environment. She is living in a campus dorm where many of her classmates also live. Alex feels uncomfortable striking up conversations with people in her dorm that she hasn't met yet. It is her first time living with a roommate and they get along well enough, but don't have much in common. She wants to talk to her roommate about some habits that had been bothering her, but feels hesitant to bring them up. Alex has been working at the campus bookstore part-time since the end of the past quarter. She wants to get to know her coworkers better, but feels too socially awkward to ask them to hang out. Alex wants to explore the surrounding area and has started biking off-campus. When she biked down to the beach recently, she saw an attractive classmate, but she felt too shy to introduce herself to him. Over her next break she plans on visiting San Francisco to see a friend from high school. This friend has been having a rough time and Alex has been unsure how best to support her from a distance throughout the past quarter.

Achievement Goal Items

1.
To pass my exams

I want to successfully pass my exams ☐   ☐ I do not want to fail my exams

2.
To appear self-confident

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| I want to avoid appearing insecure to my fellow students | ☐ | | ☐ | I want to appear self-confident to my fellow students |

3.
Find a study group

| I do not want to study by myself | ☐ | | ☐ | I want to be part of a study group |

4.
Study by oneself

| I want to be able to study on my own | ☐ | | ☐ | I want to avoid relying on other people when studying |

5.
To apart oneself from the mass

| I want to be an exceptional student | ☐ | | ☐ | I do not want to be an average student |

6.
Develop strategies for studying

| I do not want to study inefficiently | ☐ | | ☐ | I want to study efficiently |

7.
Minimize effort

I want to avoid failing my
classes with the least
possible effort ☐　　　☐ I want to excel at my
classes with the least
possible effort

8.
Study continually

I want to avoid being
unprepared for lectures ☐　　　☐ I want to be well prepared
for lectures

Social Goal Items

1.
I want to stay in contact with my family vs. I don't want to lose contact with my family

2.
I want to make new friends vs. I want to avoid missing out on making new friends

3.
I want to get along well with my parents vs. I want to avoid conflicts and disagreements with
my parents

4.
I want to feel close to others vs. I want to avoid feeling lonely

5.
I want to be polite and considerate to other people vs. I want to avoid offending or being rude
to other people

6.

I want to be a sympathetic listener vs. I don't want to be an unsympathetic listener

7.

I want to feel secure around others vs. I want to avoid feeling insecure around others

8.

I want to care for those close to me vs. I want to avoid neglecting those close me

9.

I want to be accepted by others vs. I don't want to be rejected by others

10.

I want to be friendly vs. I don't want to be unfriendly

11.

I want to be around positive people vs. I don't want to be around negative people

12.

I want to have meaningful conversations vs. I want to avoid having only superficial conversations

13.

I want to trust other people vs. I don't want to distrust other people

Appendix B. Coding Information Study 2

In order to determine if participants appropriately completed the memory tasks, research assistants coded the memories written by participants. Research assistants were trained to code for six characteristics of the memory: 1) how socially competent the participant felt at the time of the memory, 2) how socially based or achievement based the participants sense of competence was, 3) whether the participant "rebounded" after writing about a low social competence memory, 4) whether the participant wrote about a breakfast they had had, 5) if the participant did write about a breakfast, if the memory included social content, and 6) whether the memory task written was not appropriate for an additional reason such as being unrelated to social competence or breakfast.

The social competence participants felt at the time of the memory was coded for in order to determine if participants wrote about an appropriate memory in regards to their sense of social competence. A 5-point scale was used to code for how socially competent the participant felt at the time of the memory (1= Felt socially incompetent, 2= Felt somewhat socially incompetent, 3= Felt neither socially incompetent or competent, 4= Felt somewhat socially competent, 5= Felt socially competent). Coders were instructed to pay particular attention to how socially competent participants expressed themselves as feeling in the memory. If participants did not express feelings of social competence, coders placed greater emphasis on the actions taken and outcomes experienced by the participant. Participants in the high social competence condition who had an average rating lower than 3 and participants in the low social competence condition who had an average rating above 3 were

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excluded from our sample. Six participants were excluded for this reason, 5 from the high social competence condition and 1 from the low social competence condition.

The type of competence that participants were expressing (social or achievement) was coded for to avoid cases in which participants in appropriately interpreted the memory task prompt as asking them to write about their general sense of competence, such as in academics or a work setting. Coders rated the achievement/social orientation of the memory on a 5-point scale (1= Entirely achievement oriented, 2= Largely achievement oriented, somewhat socially oriented, 3= Equally achievement and socially oriented/Neither, 4= Largely socially oriented, somewhat achievement oriented, 5= Entirely socially oriented). Coders based this rating on the expressed source of the participant's sense of competence. For example, a participant who wrote about a successful interview could be rated as a 2 or a 4, depending on whether or not they expressed feelings of competence about their ability to build rapport with the interviewer or feelings of competence about successfully exercising their self-presentation skills. Participants in any condition who had an average rating that was lower than 3 were excluded from our sample. Only 1 participant was excluded for this reason.

We coded for whether or not participants in the low social competence condition "rebounded". By rebounded, we mean that the participant wrote about a memory in which they felt socially incompetent, but ended the memory with content expressing their social competence. For example, participants would write about an embarrassing memory in which they felt socially incompetent, but would then express that they are much more socially competent in the present day. Rebounds were coded for in participants' memories as they

could conceivably diminish the effect of the low social competence memory on participants' sense of social competence. Coders indicated whether the memory contained a rebound or not using '1' and '0' respectively. Participants in the low social competence condition who rebounded were excluded from our sample. Eight participants were excluded for this reason.

As participants in the neutral condition were asked to write about a recent breakfast, we coded for whether or not the participant mentioned breakfast in their memory in order to determine if they had completed the memory task in accordance with instructions. Coders indicated that the memory contained breakfast content with a '1' and that it did not with a '0'. For memories that did contain breakfast content, coders were then instructed to see if the memory contained any social content. This would include any content in which the participant interacted with another person. The coding instructions for the breakfast characteristic and the social content characteristic were very broad. Any mention of breakfast or social content within the breakfast memory was sufficient to code them as such. Participants in the neutral condition who did not write about a breakfast were excluded from our sample. No participants were excluded for this reason. Participants in the neutral condition who wrote about a breakfast and included some social content were excluded only if they also reported feeling a high level of social competence at the time of the memory they described (defined as a 6 or a 7 on a 7-point scale). While the neutral condition was meant to avoid manipulating participants' sense of social competence, these participants appeared to have described memories that we would expect to increase their social competence. For that reason, they were excluded. Fourteen participants were excluded for this reason.

Finally, we coded for any additional reasons why the memory task might not have been appropriately completed, beyond the reasons listed above. This included, but was not limited to, memories that were not focussed on the participant's sense of social competence or breakfast, memories that were impossible to understand due to spelling or grammar, and incomplete memories that did not allow for coding. Coders designated any memory they believed was not appropriate for miscellaneous reasons as a '1' and as '0' if it was appropriately completed. Participants in any condition who were coded as having inappropriately completed the memory task for a miscellaneous reason were excluded from our sample. Nine participants were excluded for this reason.

Overall, the coders had high levels of agreement on how socially competent participants felt in their memories and on the ratings of achievement/social orientation (see Table A). Coders' ratings for both measures were averaged together to form composite measures of social competence and achievement/social orientation. There was also high agreement on the categorical variables of rebounds, breakfast, social content in breakfast, and appropriateness of the memory task (see Table B). All disagreements for these measures were resolved by the primary researcher.

In total, 30 participants were excluded from the sample. Six participants in the high social competence or low social competence conditions were excluded for writing about an inappropriate social competence memory, 1 participant was excluded for writing about a memory in which his competence was achievement based and not socially based, 8 participants in the low social competence condition were excluded for rebounding, 14 participants in the neutral condition were excluded for writing about a social breakfast at

which they reported feeling highly socially competent, and 9 participants were excluded for writing inappropriate memories for additional reasons. There was some overlap between exclusion categories as 8 participants belonged to more than one category.

Table A.

Reliability between Coders for Social Competence and Achievement/Social Orientation

Cronbach's Alpha	Coders 1//2/3	Coders 1/2	Coders 1/3	Coders 2/3
Memory Social Competence Rating	.959	.924	.942	.952
Memory Achievement/Social Orientation	.845	.737	.849	.854

Note. Participants that were excluded from the sample overall were not included when calculating Cronbach's alphas

Table B.

Reliability between Coders for Categorical Variables

Categorical Coded Variables	Coders 1/2	Coders 1/3	Coders 2/3
Rebound	.85	.97	.89
Breakfast Content	1	1	1
Social Content w/Breakfast Content	.87	.89	.85
Inappropriate Memory Task Completion	.84	.93	.89

Note. All values are percentages

Appendix C. Study 2 Items

Memory Task Instructions

High Social Competence Memory Task Instructions

Choosing Memory Instructions:
Please think back to an instance when you felt especially socially skilled or confident in an interaction with a **friend, acquaintance, family member, or close other**. This can be a recent experience or something from your past.

Examples:
- Providing emotional support when a friend was going through a rough time
- Having a positive interaction with someone you just met
- Asserting yourself to someone who had wronged you
- Managing conflict with another person or between others

Writing about Memory Instructions:
Please describe the memory you have chosen in the space below. Please write about the circumstances of the memory, paying particular attention to how you felt at the time, the outcome of the interaction, and what portion of the memory made you feel socially skilled. Please only write about the memory you have chosen. The experimenter will let you know when to stop writing.

Focus of Memory Instructions:
Please briefly describe what it was about this memory that made you feel socially skilled or confident.

Low Social Competence Memory Task Instructions

Choosing Memory Instructions:
Please think back to an instance when you felt especially socially unskilled or awkward in an interaction with a **friend, acquaintance, family member, or close other**. This can be a recent experience or something from your past.

Examples:
- Being unable to provide emotional support when a friend was going through a rough time
- Having an awkward interaction with someone you just met
- Failing to assert yourself after someone wronged you
- Being unable to managing a conflict with another person or between others

Writing about Memory Instructions:

Please describe the memory you have chosen in the space below. Please write about the circumstances of the memory, paying particular attention to how you felt at the time, the outcome of the interaction, and what portion of the memory made you feel socially unskilled. Please only write about the memory you have chosen. The experimenter will let you know when to stop writing.

Focus of Memory Instructions:
Please briefly describe what it was about this memory that made you feel socially unskilled or awkward.

Neutral Memory Task Instructions

Choosing Memory Instructions:
Please think back to a breakfast meal you have recently had. It can be your breakfast from this morning or a morning in the past week.

Writing about Memory Instructions:
Please describe the memory you have chosen in the space below. Please write about the circumstances of the memory, paying particular attention to how you felt at the time, the outcome of the meal, and any additional details. Please only write about the memory you have chosen. The experimenter will let you know when to stop writing.

Focus of Memory Instructions:
Please briefly describe the specific food in the breakfast you chose to write about.

Social Outcome Expectancy Items

Please answer the questions below in relation to your current social goals. The questions are on a 1-7 scale with 1 being the lowest option and 7 being the highest option

1. How likely do you think you are to reach your social goals? (1= Extremely Unlikely, 7= Extremely Likely)

2. How effective do you think your efforts to meet your social goals will be? (1= Extremely Ineffective, 7= Extremely Effective)

3. How difficult do you believe achieving your social goals will be? (1= Extremely Easy, 7= Extremely Difficult)

4. To what degree do you believe you will reach your social goals? (1= Not at all, 7= Completely)

5. How probable is it that you will FAIL to reach your social goals? (1= Extremely Improbable, 7= Extremely Probable)

Achievement Outcome Expectancy Items

Please answer the questions below in relation to your current academic goals. The questions are on a 1-7 scale with 1 being the lowest option and 7 being the highest option

1. How likely do you think you are to reach your academic goals? (1= Extremely Unlikely, 7= Extremely Likely)

2. How effective do you think your efforts to meet your academic goals will be? (1= Extremely Ineffective, 7= Extremely Effective)

3. How difficult do you believe achieving your academic goals will be? (1= Extremely Easy, 7= Extremely Difficult)

4. To what degree do you believe you will reach your academic goals? (1= Not at all, 7= Completely)

5. How probable is it that you will FAIL to reach your academic goals? (1= Extremely Improbable, 7= Extremely Probable)

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