

Perceiving Greater Variety Among Past Conflicts with a Focal Goal Reduces

Expected Goal Conflict

Supplemental Materials

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Supplemental Studies

Pilot Study

Participants and Design

One hundred twelve Prolific Academic panelists who were pre-screened as having a fitness, dieting, or savings goal completed the study in exchange for a small payment. After exclusions, we were left with a sample of $N = 109$ participants (50% female, $M_{\text{age}} = 36$ years, $SD = 12.41$ years). Participants were randomly assigned to one of two expected conflict conditions: low versus high.

Procedure

First, similar to studies 1 and 2, participants described an ongoing, recurring personal goal. Based on responses to the screener survey, we either asked about a fitness goal (“how many times per week are you trying to exercise?” $N = 35$), a diet goal (“how many days per week are you trying to follow your diet?” $N = 29$), or a savings goal (“how much money are you trying to save each month?” $N = 45$). Each participant considered just one of these goals. Those who indicated having multiple goals in the screener survey were randomly directed to focus on one.

Second, we manipulated expectations of goal conflict. All participants read that “people sometimes experience events that conflict (interfere with) their goals” and were given examples (e.g., “Someone with a savings goal makes purchases or has expenses that interfere with saving. Someone with a diet goal eats tasty [but unhealthy] food. Someone with an academic goal gets sick and misses class, or spends time on other activities instead of studying. Someone with a fitness goal runs out of time or energy to exercise.”)

In the low-expected-conflict condition, participants were asked to assume they could expect “no or very little conflict” with their goal in the near future and that there would be “no

events at all that could interfere with, conflict with, or hurt the pursuit” of their goal. In the high-expected-conflict condition, participants were instead asked to assume they could expect “a lot of conflict” with their goal in the near future and that there would be “many events that will interfere with, conflict with, or hurt the pursuit” of their goal.

Third, we measured intentions to change approach to goal pursuit. All participants answered the following two questions: “Would you approach your goal differently?” (1 = *definitely not*, 2 = *probably not*, 3 = *might or might not*, 4 = *probably yes*, 5 = *definitely yes*). “What would you do? How would you approach your goal this week?” (open-ended).

Finally, we measured intentions to engage in specific goal-related strategies. All participants reported their intentions to do the following: “I would do extra planning,” “I would prepare through careful scheduling,” “I would adjust my goal downward,” “I would adjust my goal upward”, and “I would prepare by finding ways to mitigate any interference with my goal” (1 = *definitely not*, 2 = *probably not*, 3 = *might or might not*, 4 = *probably yes*, 5 = *definitely yes*).

Results

As discussed in the main text, participants in the high (vs. low) expected conflict condition were more inclined to utilize proactive strategies to mitigate potential interference, engage in goal-related planning, and revise their goal levels. See Table SM.1 for details.

Table SM.1

Results of Pilot Study

	High-Expected Conflict		Low-Expected Conflict		
	Mean	SD	Mean	SD	
Intentions					
Take a different approach***	3.65	(0.93)	2.63	(1.20)	$F(1, 107) = 24.89, p < .001, d = .96$
Extra planning***	3.55	(1.10)	2.70	(1.33)	$F(1, 107) = 13.00, p < .001, d = .69$
Careful scheduling	3.33	(1.05)	2.96	(1.32)	$F(1, 106) = 2.62, p = .109, d = .31$
Adjust goal down***	3.15	(1.25)	1.72	(0.98)	$F(1, 106) = 43.54, p < .001, d = 1.27$
Adjust goal up***	2.16	(1.07)	3.48	(1.22)	$F(1, 107) = 35.91, p < .001, d = 1.15$
Find mitigation strategies**	3.71	(0.88)	3.04	(1.20)	$F(1, 107) = 11.23, p = .001, d = .64$

*** $p < 0.001$, ** $p < .01$, * $p < .05$

Study 5 Post-Test of Self-Relevance Manipulation

Participants and Design

Two hundred Prolific Academic panelists completed the study in exchange for a small payment. We targeted a sample size of at least 90 participants per self-relevance condition, net any exclusions. After exclusions, we were left with a sample of $N = 195$ (51% female, $M_{\text{age}} = 35$ years, $SD = 11.77$ years). Participants were randomly assigned to condition in a 2 (self-relevance: high vs. low; between-subjects) \times 2 (goal domain: diet vs. fitness; between-subjects) design, with goal domain as a blocking factor across which we collapsed.

Procedure

The basic procedure was the same as study 5. All participants read about the focal goal (diet or fitness) and three past instances of goal conflict (i.e., failure to adhere to this goal), and we manipulated the self-relevance of these events (i.e., by describing them as either experienced by oneself or by another person, “Sam”).

To measure self-relevance, participants answered three questions, all on 7-point scales ($\alpha = .93$): “To what extent did you feel that the information in the scenario was relevant to you (vs. another person)?” (1 = *Relevant to another person*, 7 = *Relevant to me*); “How much does the information in the scenario concern you (vs. another person)?” (1 = *Concerns another person*, 7 = *Concerns me*); and “How much did you think about things that affect you (vs. things that only affect others)?” (1 = *Things that affect another person*; 7 = *Things that affect me*).

To measure interest in engaging in causal search, participants answered three questions ($\alpha = .92$): “To what extent would you like to know why [you vs. Sam] failed to stick to [your vs. their] [diet vs. exercise] goal last week?” (1 = *Not much*, 7 = *Very much*); “How important is it for you to find an explanation for last week's results?” (1 = *Not important at all*, 7 = *Very*

important); and “How important is it for you to understand the cause of last week's results?” (1 = *Not important at all*, 7 = *Very important*).

Results

As noted in the main text, the manipulation successfully influenced self-relevance. Further, as intended, the low (vs. high) self-relevance condition reduced interest in engaging in causal search. See Table SM.2 for details.

Table SM.2

Results of Study 5 Post-Test of Self-Relevance Manipulation

	High Self-Relevance		Low Self-Relevance		
	Mean	SD	Mean	SD	
Self-relevance ***	5.54	(1.61)	2.92	(1.79)	$F(1, 193) = 115.96, p < .001, d = 1.54$
Interest in causal search ***	5.12	(1.60)	3.44	(1.78)	$F(1, 193) = 48.13, p < .001, d = .99$

*** $p < 0.001$, ** $p < .01$, * $p < .05$

Study 6 Post-Test of Valence Manipulation

Participants and Design

Two hundred Prolific Academic panelists completed the study in exchange for a small payment. We targeted a sample size of at least 90 participants per valence condition, net any exclusions. After exclusions, we were left with a sample of $N = 193$ (47% female, $M_{\text{age}} = 34$ years, $SD = 11.76$ years). Participants were randomly assigned to either a negative or positive events condition.

Procedure

The basic procedure was the same as study 6. All participants read about the same focal goal (to get an “A” on each of 10 graded assignments over a semester-long course), and we manipulated the valence (and prevalence) of salient past events.

To measure event valence, participants answered three questions, all on 7-point scales ($\alpha = .74$): “To what extent do these grades represent undesirable outcomes (vs. desirable

outcomes)?” (1 = *Desirable outcomes*; 7 = *Undesirable outcomes*); “How much do the events depicted in this situation represent negative (vs. positive) events?” (1 = *Positive events*, 7 = *Negative events*); and “Are these grades mostly about times when conflict interfered versus did not interfere with your goal?” (1 = *Times when goal conflict did not interfere*; 7 = *Times when goal conflict interfered*).

To measure interest in engaging in causal search, participants answered three questions ($\alpha = .88$): “To what extent would you like to know why you got these grades?” (1 = *Not very much*, 7 = *Very much*); “How important is it for you to find an explanation for these grades?” (1 = *Not important at all*, 7 = *Very important*); “How important is it for you to understand the cause(s) of these grades?” (1 = *Not important at all*, 7 = *Very important*).

Results

As noted in the main text, the manipulation successfully influenced valence. Further, as intended, the positive-events (vs. negative-events) condition reduced interest in engaging in causal search. See Table SM.3 for details.

Table SM.3

Results of Study 6 Post-Test of Valence Manipulation

	Negative Events		Positive Events		
	Mean	SD	Mean	SD	
Negative Valence ***	5.28	(0.75)	3.96	(1.02)	$F(1, 191) = 104.83, p < .001, d = 1.47$
Interest in causal search *	6.20	(0.99)	5.83	(1.19)	$F(1, 191) = 5.28, p = .023, d = .33$

*** $p < 0.001$, ** $p < .01$, * $p < .05$

Study 6 Post-Test of Inferences of Unstable Causes Questions

Participants and Design

Two hundred Prolific Academic panelists completed the study in exchange for a small payment. We targeted a sample size of at least 90 participants per valence condition, net any exclusions. After exclusions, we were left with a sample of $N = 194$ (50% female, $M_{\text{age}} = 35$

years, $SD = 11.93$ years). All participants were assigned to the positive-events valence (i.e., low causal search) condition. Participants were randomly assigned to answer the unstable causes questions before or after reporting their interest in engaging in causal search.

Procedure

The basic procedure was the same as study 6's positive-events valence condition. All participants read about the same focal goal (to get an "A" on each of 10 graded assignments over a semester-long course) and were administered the positive-events valence (i.e., low causal search) manipulation.

All participants then answered two questions about unstable causes questions and three about their interest in engaging in causal search (order based on condition). To measure inferences of unstable causes, participants answered the same two questions as in study 6: "The circumstances that resulted in lower (high) grades were probably temporary" and "The circumstances that resulted in lower (high) grades were probably one-off events" (1 = *Strongly disagree*, 4 = *Neither agree nor disagree*, 7 = *Strongly agree*; $r = .78$).

To measure interest in engaging in causal search, participants answered three questions ($\alpha = .92$): "To what extent would you like to know why you got these grades?" (1 = *Not very much*, 7 = *Very much*); "How important is it for you to find an explanation for these grades?" (1 = *Not important at all*, 7 = *Very important*); "How important is it for you to understand the cause(s) of these grades?" (1 = *Not important at all*, 7 = *Very important*).

Results

As noted in the main text, answering the unstable causes questions before measuring interest in engaging in causal search did not substantially change those results ($M_{\text{unstable-causes-first}} = 5.98$, $SD = 1.06$ vs. $M_{\text{unstable-causes-second}} = 6.21$, $SD = .98$; $F(1, 192) = 2.55$, $p = .112$, $d = .23$).

Study 6 Follow-Up

Participants and Design

One thousand, two hundred five Prolific Academic panelists completed the study in exchange for a small payment. We targeted a sample size of at least 280 participants per experimental condition, net any exclusions. After exclusions, we were left with a sample of $N = 1,163$ (51% male, $M_{\text{age}} = 36$ years, $SD = 13.16$ years). Participants were randomly assigned to condition in a 2 (perceived variety: high vs. low) $\times 2$ (valence: negative vs. positive events) between-subjects design.

Procedure

First, participants read about a focal savings goal (i.e., to follow a weekly budget in order to save money).

Second, we manipulated the valence of past events (similar to study 6). In the negative-events condition, participants read that they recently “failed to pursue” their goal as intended: “One week, you failed to stick to your budget and spent too much money on eating out. Another week, you failed to stick to your budget and spent too much money on clothing. Another week, you failed to stick to your budget and spent too much money on transportation.” In the positive-events condition, participants instead read they recently “were successful in pursuing” their goal as intended: “One week, you stuck to your budget and even saved extra money on eating out. Another week, you stuck to your budget and even saved extra money on clothing. Another week, you stuck to your budget and even saved extra money on transportation.”

Third, we manipulated perceived variety. Same as in studies 3 and 4, we used visual cues and an open-ended prompt to influence the perceived relationship among past events. In the high-variety condition, we bolded and underlined differences (i.e., variation) among past events

and asked participants to “describe how these experiences were different from each other.” In the low-variety condition, we bolded and underlined commonalities among past events and asked participants to “describe how these experiences were similar to each other.”

Fourth, we measured expectations. Participants answered one question about the extent to which they expected similar events (i.e., negative vs. positive, depending on condition) to occur in the future: “To what extent do you expect that you will continue to experience failure (success) pursuing your financial goal in the future?” (1 = *Very little*, 7 = *A lot*).

Finally, as a manipulation check, participants completed the same three-item variety measure as in previous studies ($\alpha = .83$). Results supported the manipulation ($M_{\text{high-variety}} = 4.21$, $SD = 1.29$ vs. $M_{\text{low-variety}} = 2.97$, $SD = 1.05$; $F(1, 1161) = 324.46$, $p < .001$, $d = 1.05$).

Results

Consistent with study 6, a 2 (valence) \times 2 (variety) ANOVA revealed a main effect of valence condition ($F(1, 1159) = 123.48$, $p < .001$), and a main effect of variety condition ($F(1, 1159) = 10.58$, $p = .001$), qualified by a marginal interaction ($F(1, 1159) = 2.88$, $p = .090$).

As expected and consistent with the prior results, in the negative-events condition, perceiving greater variety influenced expectations. Compared to the low-variety condition ($M = 4.85$, $SD = 1.53$), participants in the high-variety condition had lower expectations of future interference with the focal goal ($M = 4.43$, $SD = 1.71$; $F(1, 1159) = 12.45$, $p < .001$, $d = .24$).

Importantly, in the positive-events condition, this effect was attenuated ($F(1, 1159) = 1.19$, $p = .276$). Compared to the low variety condition ($M = 5.63$, $SD = 1.14$), participants in the high-variety condition had similar expectations (in this case, of *not* encountering future interference with the focal goal; $M = 5.50$, $SD = 1.23$).

Detailed Measures and Analyses (Study 4)

Study 4 Detailed Measures of Alternative Attributional Dimensions

To measure perceptions of uncontrollable causes, participants answered three questions, all on 7-point scales ($\alpha = .93$): “To what extent do the causes of these events reflect something controllable versus something uncontrollable?” (adapted from the Attributional Style Questionnaire; Peterson et al., 1982; 1 = *Reflect something controllable*; 7 = *Reflect something uncontrollable*); “The circumstances that resulted in [eating high calorie foods / overspending your budget / failing to exercise] were probably something over which there was no control”; and, “The circumstances that resulted in [eating high calorie foods / overspending your budget / failing to exercise] were probably out of your control” (1 = *Strongly disagree*, 7 = *Strongly agree*).

To measure perceptions of external causes, participants answered three questions, all on 7-point scales ($\alpha = .88$): “To what extent do the causes of these events reflect something about you (like your ability) versus something other than you (like other people or circumstances)?” (adapted from the Attributional Style Questionnaire; Peterson et al., 1982; 1 = *Reflect something about me*; 7 = *Reflect something other than me*); “The circumstances that resulted in [eating high calorie foods / overspending your budget / failing to exercise] were probably something external”; and, “The circumstances that resulted in [eating high calorie foods / overspending your budget / failing to exercise] were probably something outside of me” (1 = *Strongly disagree*, 7 = *Strongly agree*).

Study 4 Detailed Results of Mediation Analyses**Table SM.4***Detailed Results of Mediation Analyses*

Type	Effect	Estimate	SE	95% CI	
				Lower	Upper
<i>Focal Mediator: Stability</i>					
Total*	High vs. Low Variety -> Expected Goal Conflict	-0.28	(0.13)	-0.53	-0.04
Direct	High vs. Low Variety -> Expected Goal Conflict	0.03	(0.10)	-0.17	0.24
Indirect*	High vs. Low Variety -> Unstable -> Expected Goal Conflict	-0.32	(0.07)	-0.46	-0.18
<i>Alt. Mediator 1: Controllability</i>					
Total*	High vs. Low Variety -> Expected Goal Conflict	-0.30	(0.12)	-0.55	-0.06
Direct*	High vs. Low Variety -> Expected Goal Conflict	-0.29	(0.12)	-0.54	-0.05
Indirect	High vs. Low Variety -> Uncontrollable -> Expected Goal Conflict	-0.01	(0.02)	-0.04	0.02
<i>Alt. Mediator 2: Locus of causality</i>					
Total*	High vs. Low Variety -> Expected Goal Conflict	-0.29	(0.13)	-0.54	-0.05
Direct*	High vs. Low Variety -> Expected Goal Conflict	-0.26	(0.13)	-0.50	-0.01
Indirect*	High vs. Low Variety -> External -> Expected Goal Conflict	-0.04	(0.02)	-0.08	-0.01
<i>Parallel Mediation Model</i>					
Total*	High vs. Low Variety -> Expected Goal Conflict	-0.29	(0.13)	-0.54	-0.05
Direct	High vs. Low Variety -> Expected Goal Conflict	-0.01	(0.10)	-0.20	0.20
Total Indirect*	All Indirect Paths	-0.29	(0.08)	-0.45	-0.15
Unstable*	High vs. Low Variety -> Unstable -> Expected Goal Conflict	-0.34	(0.08)	-0.50	-0.19
Uncontrollable*	High vs. Low Variety -> Uncontrollable -> Expected Goal Conflict	0.06	(0.03)	0.01	0.11
External	High vs. Low Variety -> External -> Exp. Goal Conflict	-0.01	(0.01)	-0.04	0.02

Participant Exclusions

Across all studies, we applied the following three rules for excluding observations. First, in scenario studies, we excluded participants who provided incorrect responses to a simple multiple-choice attention check about the scenario. Second, we excluded participants who provided nonsensical responses to an open-ended English comprehension/attention check question. Third, we excluded those with extreme values of time spent on the survey, including the fastest and slowest participant and those who spent more than three standard deviations above the mean time. See Table SM.5 for exact text used and number of participants excluded based on each criterion and in total across studies.

Table SM.5

Summary of Participant Exclusions Across all Studies

Study	Criteria	Exclusions	Total
Pilot Study	English comprehension check Nonsensical or missing answers to the open-response question about their goal.	0	3
	Time spent on survey	3	
Study 1 (preregistered)	English comprehension check Nonsensical or missing answers to the open-response question about their goal or conflicts.	70	79
	Time spent on survey	9	
Study 2	English comprehension check Nonsensical or missing answers to the open-response question about their goal or conflicts: "Please briefly describe (1-2 sentences max) the most delicious thing you ate yesterday and why it was delicious."	0	7
	Time spent on survey	7	
Study 3 (preregistered)	Attention check "What was this scenario about?" (Multiple choice)	8	27
	Time spent on survey	19	
Study 4 (preregistered)	Attention check "What was this scenario about?" (Multiple choice)	5	12

	Time spent on survey	18	
Study 5	Attention check “What was this scenario about?” (Multiple choice)	0	15
	Time spent on survey	15	
Study 5 Self-relevance Post-test	Attention check “What was this scenario about?” (Multiple choice)	0	5
	Time spent on survey	5	
Study 6 (preregistered)	Attention check “What was this scenario about?” (Multiple choice)	2	13
	Time spent on survey	11	
Study 6 Valence Post- test	Attention check “What was this scenario about?” (Multiple choice)	1	7
	Time spent on survey	6	
Study 6 Inferences of unstable causes measure Post- test	Attention check “What was this scenario about?” (Multiple choice)	0	6
	Time spent on survey	6	
Study 6 Follow-up Study	Attention check “What was this scenario about?” (Multiple choice)	20	42
	Time spent on survey	22	

Selected Stimuli

Study 6

Past Events and Valence Manipulation:

Negative-Events	Positive-Events
<ul style="list-style-type: none"> - Assignment 1: Got an “A” - Assignment 2: Got a lower grade - Assignment 3: Got an “A” - Assignment 4: Got a lower grade - Assignment 5: Got a lower grade 	<ul style="list-style-type: none"> - Assignment 1: Got a lower grade - Assignment 2: Got an “A” - Assignment 3: Got a lower grade - Assignment 4: Got an “A” - Assignment 5: Got an “A”

Variety Manipulation:

Low-Variety	High-Variety
The circumstances that resulted in the [lower vs high] grades on assignments 2, 4, and 5 were quite similar to each other. Overall, these events had a lot in common.	The circumstances that resulted in the [lower vs high] grades on assignments 2, 4, and 5 were quite different from each other. Overall, these events had very little in common.