



# Don't give up? It's a little complicated: Action Crisis Moderates Consequences of goal support

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Accepted: 10 August 2022 / Published online: 20 September 2022

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## Abstract

Social support for goals can be beneficial for goal pursuit, but often has unintended negative consequences for the recipient. We propose that action crisis—the state in which an individual is considering disengaging from a goal they are currently pursuing—may result in people experiencing more ambivalent reactions to goal support. Drawing on both experimental and longitudinal methods, we show that action crisis increases negative consequences of goal support, but does not reduce positive consequences of goal support. In Study 1, we experimentally manipulated goal phase (action crisis, deliberative, or implemental) and had participants imagine support or neutral interactions. In Study 2, we measured experiences of action crisis and receipt of goal support in first-year pre-health students over the course of the academic year. Action crisis predicted more negative appraisals of support, but did not impact positive appraisals of support. Similarly, action crisis predicted more negative emotions and depressive symptoms among people who received goal support, but did not impact positive emotions. These results suggest that action crisis increases the extent to which support is received as a “mixed blessing”.

**Keywords** Action crisis · Social support · Goal disengagement · Mindsets

## Introduction

Personal goals, both large and small, exert an enormous impact on thoughts, feelings, relationships, and even an individual's identity. While personal goals—from health goals to relationship goals to leisure and work goals—feature prominently in daily life, goal pursuit can entail facing struggles and barriers to success. Importantly, even personal goals that are pursued independently are embedded in and impacted by the goal pursuer's social context (Fitzsimons et al., 2015). Significant others can provide support for goal pursuit in a wide variety of ways, such as offering verbal encouragement, alleviating other responsibilities to provide time for goal pursuit, and directly providing instrumental advice and effort toward completing the goal. Support has

the potential to increase goal progress and achievement, with support provision predicting more goal-consistent behavior (Berli et al., 2018; Brunstein et al., 1996; Nielsen & Bauer, 2019), more exploration (i.e. seeking out new experiences and information; Feeney 2004), and availability of support predicting better inter- and intrapersonal well-being (Holt-Lunstad et al., 2010; Uchino et al., 1996). However, social support in general and goal-related support in particular are not always received positively. In contrast to the perception that support is available, the actual experience of receiving support can have negative consequences, including increased depression and anxiety (Bolger et al., 2000), feelings of relationship inequity or indebtedness (Bar-Kalifa et al., 2018; Gleason et al., 2003), and lower self-efficacy (Bolger & Amarel, 2007). Goal support more specifically can also be experienced negatively. A support provider's personal investment in the support recipient's goal achievement can result in support provision that isn't responsive to the recipient's requests and needs, resulting in negative appraisals by the support recipient, and lower levels of goal attainment (Kappes & Shrout, 2011).

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## Consequences of Action Crisis

In the present work, we propose that one factor that predicts whether goal support has positive or negative consequences is the extent to which the support recipient is considering disengaging from the goal—a state known as action crisis. Action crisis describes when one has already invested substantially in a goal, but has suffered setbacks or a loss of desire for the goal, and as a result becomes stuck between continuing goal pursuit or disengaging altogether (Brandstätter et al., 2013). For example, if an individual has started training for a marathon but finds it to be more difficult or less satisfying than they thought it would be, they may struggle with whether or not they still want to run the marathon at all, indicating an action crisis. While obstacles to goal pursuit may initiate action crisis, action crisis differs from failure. When failure occurs, an individual is forced to give up on the goal by factors beyond their control. By contrast, an individual in a state of action crisis retains autonomy over whether to continue with the goal or to disengage. A number of cognitive and emotional consequences mark the state as distinct from other phases of goal pursuit. Cognitively, action crisis represents a shift from the optimism of the implemental mindset to a more objective focus on the costs and benefits of goal pursuit (Brandstätter & Schüler, 2013; Vann et al., 2018)—similar to the mindset associated with deliberation (Herrmann & Brandstätter, 2015), but with some potential differences, given that resources have already been invested into goal pursuit, and goal striving is at least nominally ongoing. Action crisis also increases salience of goal-related doubt when working on the goal (Ghassemi et al., 2021). Finally, experiencing an action crisis predicts a decrease in psychological and physiological well-being over time, particularly increasing the prevalence of depressive symptoms (Brandstätter et al., 2013; Holding et al., 2017).

## Action Crisis and reactions to support

While much work has focused on the consequences of action crisis for the individual, the process of considering disengagement may lead to consequences in interpersonal contexts as well. One context in which we might see such consequences is in reactions to interpersonal support for one's goals. We propose that the cognitive and affective consequences of action crisis could lead to more negative interpretations of and reactions to support for the relevant goal. Several existing lines of research provide support for this hypothesis. Action crisis is more likely to occur when goal pursuit is going poorly (Ghassemi et al., 2021) and similarly, people are less open to receiving goal support for difficult

goals (Righetti et al., 2014) and goals for which they have lower expectations of success (Kappes & Shrout, 2011). In addition, evidence suggests that depressive symptoms, a known consequence of action crisis (Holding et al., 2017; Klinger, 1975), moderate responses to recalling instances of support. Specifically, people with high levels of depression report having *less* access to support after recalling an instance of receiving support compared to non-depressed people, who feel *more* supported after such a manipulation (Keeler & Siegel, 2016). Furthermore, the interpretation of the recipient may be more important than the intention of the provider when it comes to the helpfulness of a support strategy. An analysis of social support during stressful waiting periods found that many support behaviors with similar intentions resulted in both helpful and unhelpful interpretations of the behavior depending on the individual recipient and the situation (Dooley et al., 2020). To the extent that action crisis may impact interpretation of goal support, goal support may elicit more negative reactions when targeting goals currently in action crisis.

Indeed, there is much reason to believe that action crisis could cause more pessimistic interpretations of goal support, resulting in more negative consequences of receiving such support. Looking beyond the state of action crisis, goal phases more generally are understood to influence perception and emotion. Implemental mindsets, characteristic of the action phase in which active effort is put into goal pursuit, are associated with greater optimism about goal pursuit (Armor & Taylor, 2003), more optimistic time predictions for goal completion (Brandstätter et al., 2015), inflated perceptions of personal control (Gollwitzer & Kinney, 1989) and generally lower perceptions of risk (Keller & Gollwitzer, 2017), presumably to facilitate continued action toward goals, even in the face of challenges. By contrast, deliberative mindsets, evoked when a person is deciding whether or not to pursue a goal, are characterized by more openness to information (Fujita et al., 2007), broader visual processing (Büttner et al., 2014), more reflection on prior goal performance (Puca, 2001), and a generally more negative perception of personal abilities and potential for achievement (Taylor & Gollwitzer, 1995), which is thought to facilitate setting realistic goals. To our knowledge, previous research has not explored the impacts of goal phases and their associated mindsets on perceptions of goal support. However, given the broad impacts of such mindsets on perceptions of both goal pursuit and available resources more generally, it seems likely that goal phase will impact perceptions of goal-related support as well.

## Affective and cognitive mechanisms

A number of possible mechanisms may mediate the impact of experiencing an action crisis on outcomes of goal support. First, receiving support for a goal one is considering disengaging from may lead to feelings of guilt or shame, especially to the extent that support is perceived as costly, time-consuming, or self-sacrificing on the part of the support provider. For example, a student who is thinking about leaving university may feel guilt or shame if offered instrumental support in the form of help with tuition. However, shame may also be evoked even when support is *not* costly, as support provision indicates that someone is aware of how goal pursuit is proceeding, which, by making any goal struggles more public, may result in shame (Smith et al., 2002). Second, support may also be less effective for goals that are in action crisis because it is perceived as less self-verifying. Self-verification refers to the perception that a person's views about themselves accord with the views close others hold of them (Swann Jr. & Buhrmester, 2012). People prefer relationship partners who are self-verifying, even to the extent of preferring partners who share one's negative views of oneself, and challenging positive feedback that is inconsistent with negative self-beliefs (Swann et al., 1992). Since social support often implicitly or explicitly conveys positive beliefs the provider has about the recipient, support can be experienced as threatening needs for self-verification to the extent that it conflicts with negative beliefs the recipient has about themselves (Katz et al., 1996; Marigold et al., 2014). Threats to self-verification could, in turn, reduce clarity and certainty about the self-concept (Emery et al., 2018), which in turn could lead to broader negative outcomes like poorer psychological well-being and impaired self-regulation (Light, 2017). In the present research, we tested the hypothesis that experiencing action crisis would result in more negative reactions to receiving goal support. We did not hypothesize that action crisis would lead to a comparable reduction in positive reactions to goal support, as previous research has noted that negative reactions to support (e.g. negative mood, feelings of indebtedness, lower self-esteem) can often co-occur with positive reactions, especially relationship closeness and positive appraisals of the support provider (Gleason et al., 2008). Using the framework of goal phases, action crisis resembles a return to deliberation after a period of implementation (Brandstätter & Schüller, 2013). It is therefore possible that action crisis and deliberation will have similar consequences for outcomes of goal support. However, action crisis may come with unique social baggage, as abandoning a goal that has already been initiated may evoke more shame than simply deciding not to pursue a goal one has not put effort into. This means that action crisis and deliberative phases of goal

pursuit could have similar consequences for experiences of goal support, but differ from how goal support is received in an implemental phase. By contrast, it is also possible that action crisis will result in more negative reactions to goal support than either deliberation or implementation phases.

## Present Research

In Study 1, we experimentally manipulated both goal phases and goal support, and compared action crisis to both deliberative and implemental phases. In Study 2, we used a longitudinal data set of first-year pre-health college students to explore action crisis and goal support as prospective predictors of identity confusion and depressive symptoms.

### Study 1: imagining support for different goals

(Pre-registration materials available at [https://osf.io/rqmpv/?view\\_only=a7c48bb77a8b49aba67ec53c70de5444](https://osf.io/rqmpv/?view_only=a7c48bb77a8b49aba67ec53c70de5444))

## Methods

### Participants and design

All materials were approved by the IRB at the first author's institution. All data were collected between February 8 and 9, 2021. A total of 361 participants were recruited from MTurk. On inspecting participants' responses, 29 (8%) identified goals for which the wording of the support manipulation was deemed inappropriate (e.g. "I am considering giving up on my relationship or at least reducing the amount of effort that I put in.") In addition, the goal descriptions of 36 participants suggested their goals were in a different phase of goal pursuit than their corresponding goal phase condition (e.g. "I am thinking about quitting smoking," in the action crisis condition). Excluding these participants resulted in a final sample of  $n = 301$ . Given the 3(action crisis vs. deliberative vs. implemental) x 2(support vs. neutral) design with one pre-registered covariate, sensitivity analyses indicated that this sample size could detect effect size of  $d = 0.32$  or higher with power = 0.80.

Ages ranged from 19 to 81 ( $M = 39.21$ ,  $SD = 13.15$ ). Of these, 96 identified as men, 186 as women, 3 identified as non-binary, and 16 declined to report their gender. 71.2% of participants identified as White, 8.5% as Black, 7.2% as Hispanic/Latino/Latina, 8.2% as Asian/Pacific Islander, 1% as Middle Eastern, 0.3% as Native American, and 0.3% as Other.

## Procedure

To manipulate goal phase and their associated mindsets, participants were randomly assigned to think of personal goals that were either in the pre-decisional phase (deliberative mindset), action phase (implemental mindset), or in action crisis. While previous research has used similar techniques to explore action crisis (e.g. Vann et al., 2018), we were concerned that not all participants would have a personal goal in each phase, which might result in differential attrition of certain groups from each condition. This, in turn, could lead to a violation of random assignment and threaten internal validity (Zhou & Fishbach, 2016). Given strong associations between depression and action crisis (Holding et al., 2017; Koppe & Rothermund, 2017; Kuhl & Helle, 1986; Wrosch & Miller, 2009), we were particularly concerned that participants with higher levels of depression might find it easier to identify goals in action crisis compared to goals in other phases, leading to selective attrition across conditions<sup>1</sup>. As a result, we planned to control for depressive symptoms in all analyses, as noted in the pre-registration. Depressive symptoms were measured prior to any manipulations, using the Center for Epidemiological Studies Depression scale (Radloff, 1977). Participants responded to all 20 items on a four-point scale, from *Rarely or none of the time* to *Most or all of the time*. Items were averaged to create an index of depressive symptoms ( $\alpha=0.93$ ,  $M=1.84$ ,  $SD=0.64$ ).

Next, participants were randomly assigned to either a deliberative goal phase mindset, an implemental goal phase, or a state of action crisis condition. Following Taylor & Gollwitzer (1995), participants in the deliberative condition identified a goal they were considering but had not yet committed to pursuing, and weighed the positive and negative consequences of choose to pursue vs. not pursue the goal. Specifically, participants received the following instructions:

Please describe a potential goal which you are currently deliberating whether or not to take action to pursue. This problem should also be something: that you are not yet sure whether to take action in order to change things; that you feel very uncertain and you ask yourself whether it might not be better to leave things as they are; that you haven't decided to take action,

but you haven't decided against it either. Please do not select tasks that are easy, or those for which you have already made a decision or will likely never make one. Now, please analyze the likelihood of the immediate and long-term positive and negative consequences of deciding to take action on this problem in a way that would require change.

Next, please list the expected difficulties involved with taking this change action.

Finally, please list the expected positive and negative consequences involved with deciding against taking this change action and instead leaving things as they are.

Participants in the implemental condition identified a goal they had already committed to pursuing, and described steps they need to take in order to achieve that goal. Specifically, participants in this condition received the following instructions:

Please describe a goal which you are currently intending to achieve. This goal should also be something: that you intend to realize someday; that you have decided to take action in this matter; that you feel determined to achieve the project. This project should be complex and you should be able to achieve it within the next 3 months. Please use a project for which you have already made a decision, do not invent one for the purpose of the exercise.

Now, please write about the implementation steps involved in completing this intended project. First, write the most important steps for achieving the project, such as what specific behaviors need to be executed.

Finally, write about the implementation of these behaviors, such as where, when, and how they will be executed.

Following Vann, Rose, and McCrea. (2018), participants in the action crisis condition identified a goal they were already pursuing, but which they were thinking about disengaging from, and considered positive and negative consequences of continuing to pursue the goal vs. disengaging. These participants were given the following instructions:

Please describe one personal goal that you are considering giving up on, quitting, or reducing effort. This goal should also be something: that you have already decided to work toward; that you have been working toward for at least 1 month (please do not invent a new goal); that you have invested a lot of time, energy, or resources into.

<sup>1</sup> Chi-square tests demonstrated that neither attrition ( $\chi^2(2)=0.22$ ,  $p=.90$ ) nor exclusion due to failure to follow instructions ( $\chi^2(2)=1.70$ ,  $p=.43$ ) significantly differed by goal condition. Higher levels of depressive symptoms were negatively associated with attrition ( $B=0.28$ ,  $SE=0.14$ ,  $Wald=3.86$ ,  $p=.05$ ) but positively associated with exclusion due to failure to follow directions ( $B=0.32$ ,  $SE=0.13$ ,  $Wald=5.90$ ,  $p=.015$ ). However, the relationship between depressive symptoms and attrition/exclusion did not significantly differ by condition.

**Table 1** Frequency and Examples of Personal Goals in Study 1 by Category

	Frequency	Examples
Health/Fitness	23.9%	“getting to 50 straight push-ups”, “losing weight”
Family/Friends	1.0%	“spend more time with family”, “Try to meet new people and make new friends”
Self-change	0.7%	“be more optimistic about life, and trusting of others”, “find some personal purpose”
Religion/Spirituality	0.3%	“trust that God will continue to provide for us”, “being a Communion Minister for inmates at a county jail”
Leisure/Hobbies	13.4%	“playing guitar”, “crochet the Harry Potter characters”
Career	25.8%	“searching for a new job”, “studying for certifications to get a promotion at my work”
Academics	8.2%	“going back to school”, “physics class”
Financial	7.5%	“pay down my debt”, “try and be more financially stable”
Home or Living Situation	15.4%	“relocate due to feeling burnt out living in NYC”, “sell my house”
Other	3.9%	“run for treasurer of the NE Region of the Oklahoma Libertarian Party”, “learning how to drive”

Now, please analyze the likelihood of the immediate and long term positive and negative consequences of continuing to pursue this goal.

Next, please list the expected difficulties involved with continuing to pursue this goal.

Finally, please analyze the likelihood of the immediate and long term positive and negative consequences of deciding to abandon this goal.

Common categories of goals generated by participants and examples of each are displayed in Table 1.

Immediately after the goal phase manipulation, participants completed the Action Crisis Scale (ACRIS; sample item: “Lately I feel torn between continuing to strive for this goal and abandoning it”; Brandstätter & Schüller 2013) as a manipulation check. Participants rated their agreement with a series of statements on a seven-point, fully-labeled scale from *Strongly Disagree* to *Strongly Agree*. Items were

averaged to create an index of experienced action crisis ( $\alpha = 0.84$ ,  $M = 4.43$ ,  $SD = 1.36$ ).

We then randomly assigned each participant to either a support or a neutral condition. In the support condition, participants were told:

Please think about someone close to you, this may be a friend, family member, or partner. This person wants to check in with you regarding the goal that you previously described. They say, “Hey! How’s it going with that project you’ve been working on? Are you enjoying it? Can’t wait to see how it turns out. I’m sure it’ll be great!”

In the neutral condition, participants were told:

Please think about someone close to you, this may be a friend, family member, or partner. This person says, “Hey! What are you up to this weekend? Let me know if you want to hang out. See you soon!”

In both conditions, participants were asked to write how they would think, feel, and respond to the interaction described. To validate that this manipulation was perceived as goal support, 161 participants recruited from Prolific read two short scenarios in which one woman said the dialogue from the support condition (scenario 1) or the neutral condition (scenario 2) to a friend, with reference to the other woman’s personal goal. The support recipient’s personal goal was either to complete a home renovation project, or to lose weight (counterbalanced across participants). These were based on common personal goals identified by participants in the main study, and were selected to represent a less sensitive (home renovation) and more sensitive (weight loss) target for support. All participants rated both scenarios. Regardless of the support recipients’ goal, pilot study participants rated the speaker in the support condition as more supportive ( $t(160) = 27.62$ ,  $p < .001$ ,  $d = 2.18$ ), more encouraging ( $t(160) = 22.66$ ,  $p < .001$ ,  $d = 1.79$ ), and having greater intentions to be helpful ( $t(158) = 10.50$ ,  $p < .001$ ,  $d = 0.83$ ) compared to the speaker in the neutral condition. By contrast, pilot study participants perceived the speaker in the neutral condition to be more self-focused ( $t(157) = 11.06$ ,  $p < .001$ ,  $d = 0.69$ ) and less likely to be thinking about the support recipients’ goal ( $t(159) = 13.45$ ,  $p < .001$ ,  $d = 1.06$ ) compared to the speaker in the support condition. Pilot study participants did rate the support condition as putting more pressure on the support recipient compared to the neutral condition ( $t(157) = 5.41$ ,  $p < .001$ ,  $d = 0.43$ ), although they rated the support condition as significantly more supportive than pressuring ( $t(159) = 16.76$ ,  $p < .001$ ,  $d = 1.11$ ).

After reading and responding to the supportive vs. neutral condition, participants in the main study were then asked to rate the interactions on eight items drawn from Marigold et al., (2014) that reflected four dimensions: (1) negative appraisals (items: “My friend’s statement makes me feel worse,” “My friend’s statement is disappointing”;  $\alpha=0.89$ ), (2) positive appraisals (“My friend’s statement was intended to make me feel good”, “My friend’s statement shows that he/she truly believes that I can do it”;  $\alpha=0.71$ ), (3) self-verification (“My friend’s statement makes me more sure of myself”, “My friend’s statement doesn’t fit who I am”;  $\alpha=0.32$ ), and perceived responsiveness (“My friend’s statement lets me know that he/she cares about me”, “My friend’s statement shows that he/she understands me”;  $\alpha=0.74$ ). Participants responded on a seven-point fully-labeled scale from *Strongly Disagree* to *Strongly Agree*.

Participants responded to the full Self-Concept Clarity Scale (sample item: “My beliefs about myself often conflict with one another”; Campbell et al., 1996) on a five point, fully-labeled scale from *Strongly Disagree* to *Strongly Agree* ( $\alpha=0.94$ ).

To measure emotions, participants completed the Modified Differential Emotions Scale (Fredrickson et al., 2003). We calculated separate indices for negative emotions (anger, shame, boredom, contempt, disgust, embarrassment, guilt, hatred, rejection, sadness, fear, and stress;  $\alpha=0.94$ ) and positive emotions (amusement, awe, excitement, gratitude, hope, feeling in control, inspiration, joy, interest, love, pride, satisfaction, and serenity;  $\alpha=0.96$ ) by averaging responses to each emotion.<sup>2</sup>

## Results

### Manipulation check

We first assessed the impact of the goal phase manipulation on responses to the ACRISS. A one-way ANOVA revealed a significant effect of goal phase manipulation on reported action crisis,  $F(2, 303)=61.74, p<.001, d=1.28^3$ . Partici-

pants in the Action Crisis condition reported higher levels on the ACRISS ( $M=5.05, SE=0.10$ ) compared to participants in the Implemental condition ( $M=3.52, SE=0.13; t(217)=9.05, p<.001, d=1.20$ ). Unexpectedly, participants in the Deliberative condition also reported significantly higher levels on the ACRISS ( $M=5.00, SE=0.10$ ) relative to the Implemental condition ( $t(208)=8.57, p<.001, d=1.14$ ), and did not significantly differ from the Action Crisis condition ( $t(181)=0.40, p=.68, d=0.05$ ). This may reflect known similarities between action crisis and deliberative mindsets, or the tendency for deliberation and action crisis to co-occur, a point we will return to in the General Discussion. Regardless, the manipulation seems to have been generally successful in evoking the thoughts and emotions associated with action crisis, especially as compared to the Implemental condition.

### Support ratings

We analyzed each of the four dimensions of support ratings using a 3(Goal phase: Actions Crisis vs. Deliberative vs. Implemental)  $\times$  2(Support vs. Neutral) ANCOVA, controlling for depressive symptoms<sup>4</sup>. A summary of ANCOVA results predicting evaluations of and reactions to support are presented in Table 2. Goal phase and support condition significantly interacted to predict negative appraisals of the interaction,  $F(2, 293)=6.13, p=.002, d=0.40$  (see Fig. 1). There was a main effect of Interaction type,  $F(1, 293)=28.33, p<.001, d=0.62$ , such that participants generally had more negative appraisals of the Support condition than the Neutral condition. Participants in the Action Crisis condition rated the Support interaction more negatively ( $M=3.59, SE=0.21$ ) than the Neutral interaction ( $M=2.00, SE=0.24; F(1, 293)=25.15, p<.001, d=0.58$ ), as did participants in the Deliberative condition ( $M_{support}=3.16, SE=0.23; M_{neutral}=2.03, SE=0.24; F(1, 293)=11.27, p=.001, d=0.38$ ), while participants in the Implemental condition did not differ in their negative appraisals of the Support condition ( $M=2.45, SE=0.20$ ) and Neutral condition ( $M=2.29, SE=0.19; F(1, 293)=0.31, p=.58, d=0.06$ ). Participants in the Action Crisis condition had significantly more negative appraisals of the Support interaction than participants in the Implemental condition ( $p<.001, d=0.66$ ), though their appraisals did not differ from participants in the Deliberative condition ( $p=.18, d=0.25$ ). Participants in the

responses to the ACRISS did not significantly differ between support conditions,  $F(1, 320)=0.01, p=.91$ , nor was there a significant interaction with goal condition,  $F(2, 320)=0.51, p=.60$ .

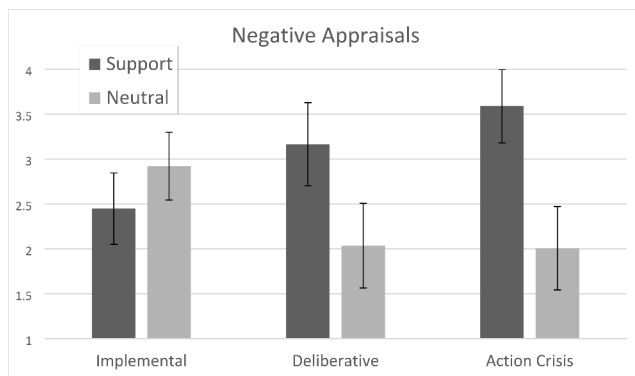
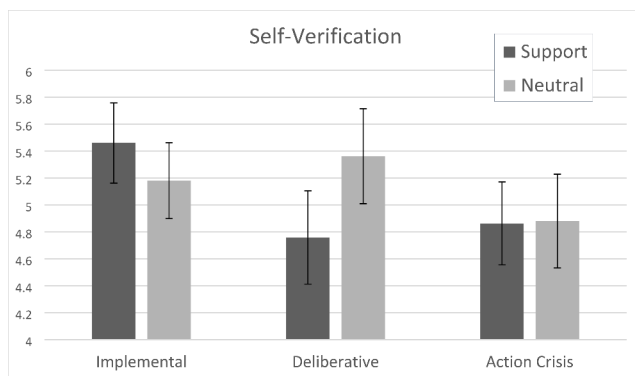
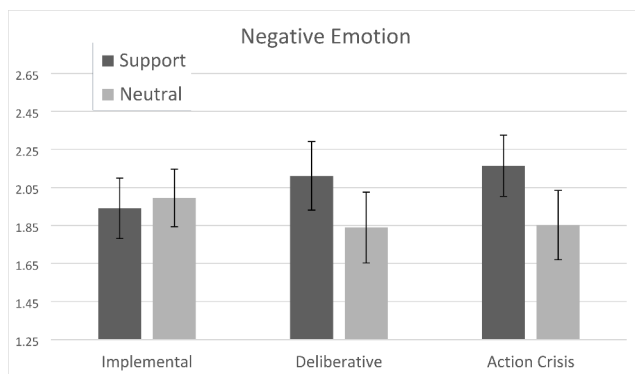
<sup>4</sup> As planned in our pre-registration, all analyses of the predicted Goal Phase  $\times$  Support interaction included depressive symptoms as a covariate. Pattern and significance of results did not differ when depressive symptoms were not controlled for, except for analyses predicting negative emotion.

<sup>2</sup> We additionally measured relationship quality and self-esteem. To measure relationship quality, participants rated the quality of their relationship with the person they had in mind on a seven-point fully-labeled scale from *Strongly Disagree* to *Strongly Agree*. (sample items: “I am very committed to my friendship”, “I am extremely happy with my friendship”;  $\alpha=0.93$ .) To measure self-esteem, participants completed the Self-Liking/Self-Competence Scale (Tafarodi & Swann, 1995;  $\alpha=0.96$ ). Given close associations between self-concept clarity and self-esteem (DeMarree & Bobrowski, 2017), it is generally advisable to measure self-esteem when measuring self-concept clarity to allow for analyses disambiguating between the two variables. However, we had no predictions regarding self-esteem in this study.

<sup>3</sup> Support was manipulated after participants completed the ACRISS, and thus was not included as a factor in the manipulation check. However, confirming that there was no failure of random assignment,

**Table 2** Summary of results of ANCOVAs predicting evaluations of and reactions to support manipulation by goal phase in Study 1

	Dependent Variable						
	Negative Appraisals	Positive Appraisals	Self-verification	Perceives Responsiveness	Positive Emotions	Negative Emotions	Self-Concept Clarity
Depression	$p < .001^{**}$	$p = .66$	$p = .005^{**}$	$p = .27$	$p < .001^{**}$	$p < .001^{**}$	$p < .001$
Goal Condition	$p = .11$	$p = .032^*$	$p = .017^*$	$p = .28$	$p = .055^\dagger$	$p = .88$	$p = .18$
Support	$p < .001^{**}$	$p = .011^*$	$p = .40$	$p = .72$	$p = .045^*$	$p = .013^*$	$p = .17$
Goal Condition x Support	$p = .002^{**}$	$p = .58$	$p = .027^*$	$p = .62$	$p = .86$	$p = .054^\dagger$	$p = .73$

**Fig. 1** Study 1: Negative appraisals as a function of goal condition and imagined interaction type. Error bars denote 95% confidence intervals**Fig. 2** Study 1: Self-verification as a function of goal condition and imagined interaction type. Error bars denote 95% confidence intervals**Fig. 3** Study 1: Negative emotion as a function of goal condition and imagined interaction type. Error bars denote 95% confidence intervals

Deliberative condition also had more negative appraisals of the Support condition than did participants in the Implemental condition ( $p = .022$ ,  $d = 0.42$ ). However, negative reactions to the Neutral interaction did not significantly differ by goal phase,  $F(2, 293) = 0.57$ ,  $p = .57$ ,  $d = 0.24$ .

By contrast, the Goal Phase x Support condition interaction did not significantly impact positive reactions to the imagined interaction,  $F(2, 293) = 0.54$ ,  $p = .58$ ,  $d = 0.12$ . There was simply a main effect of goal phase,  $F(2, 293) = 3.50$ ,  $p = .032$ ,  $d = 0.30$ , such that participants in the Action Crisis condition has less positive reactions overall ( $M = 5.31$ ,  $SE = 0.11$ ) than participants in either the Deliberative condition ( $M = 5.68$ ,  $SE = 0.12$ ;  $p = .022$ ) or the Implemental condition ( $M = 5.65$ ,  $SE = 0.10$ ;  $p = .022$ ), while participants in the Deliberative and Implemental condition did not significantly differ in their positive appraisals of the imagined interaction ( $p = .84$ ). In addition, participants generally had more positive appraisals of the Support condition ( $M = 5.71$ ,  $SE = 0.09$ ) than the Neutral condition ( $M = 5.39$ ,  $SE = 0.09$ ;  $F(1, 293) = 6.58$ ,  $p = .011$ ,  $d = 0.30$ ).

The overall Goal Phase x Support condition interaction significantly impacted perceptions of self-verification,  $F(1, 293) = 3.65$ ,  $p = .027$ ,  $d = 0.32$ . Perceptions of self-verification significantly differed by goal phase in the support condition,  $F(2, 293) = 5.69$ ,  $p = .004$ ,  $d = 0.40$ , but did not significantly differ in the neutral condition,  $F(1, 293) = 1.85$ ,  $p = .16$ ,  $d = 0.22$ . Participants in the action crisis condition perceived the support manipulation as significantly less self-verifying ( $M = 4.86$ ,  $SE = 0.16$ ) than participants in the Implemental condition ( $M = 5.46$ ,  $SE = 0.14$ ;  $p = .007$ ,  $d = 0.51$ ), though they did not significantly differ from the deliberative condition ( $M = 4.76$ ,  $SE = 0.18$ ;  $p = .66$ ,  $d = 0.08$ ). However, participants in the action crisis did not find the support condition less self-verifying than the neutral condition ( $M = 4.88$ ,  $SE = 0.18$ ;  $p = .94$ ,  $d = 0.00$ ). Participants in the implemental condition also found the support and neutral ( $M = 5.18$ ,  $SE = 0.14$ ) to be similarly self-verifying ( $p = .18$ ,  $d = 0.16$ ). By contrast, participants in the deliberative condition found the neutral condition to be more self-verifying ( $M = 5.36$ ,  $SE = 0.18$ ) than the support condition ( $p = .018$ ,  $d = 0.29$ ).

There were no significant effects of either goal phase,  $F(1, 271) = 1.38$ ,  $p = .25$ ,  $d = 0.20$ , support,  $F(1, 271) = 0.009$ ,

$p = .92$ ,  $d = 0.00$ , or their interaction,  $F(1, 271) = 0.47$ ,  $p = .63$ ,  $d = 0.10$ , on perceived responsiveness.

## Emotion

As with support ratings, we analyzed positive and negative emotions using a 3(Goal phase: Action Crisis vs. Deliberative vs. Implemental)  $\times$  2(Support vs. Neutral) ANCOVA, controlling for depressive symptoms<sup>5</sup>. The Goal Phase  $\times$  Support condition interaction for self-reported negative emotions was marginally significant,  $F(1, 284) = 2.94$ ,  $p = .054$ ,  $d = 0.28$ . The Support manipulation evoked marginally more negative emotion among Action Crisis participants ( $M = 2.16$ ,  $SE = 0.08$ ) relative to Implemental participants ( $M = 1.94$ ,  $SE = 0.08$ ,  $p = .054$ ,  $d = 0.27$ ). Deliberative participants' self-reported negative emotion in the support condition ( $M = 2.11$ ,  $SE = 0.09$ ) did not significantly differ from either the action crisis condition ( $p = .67$ ,  $d = 0.10$ ) or the Implemental condition ( $p = .17$ ,  $d = 0.19$ ). Moreover, participants in the action crisis condition reported marginally higher negative emotion in the support condition compared to the neutral condition ( $M = 1.85$ ,  $SE = 0.09$ ,  $F(1, 284) = 6.35$ ,  $p = .012$ ,  $d = 0.30$ ), as did participants in the deliberative condition ( $M = 1.84$ ,  $SE = 0.09$ ,  $F(1, 284) = 4.24$ ,  $p = .040$ ,  $d = 0.25$ ). Participants in the Implemental condition experienced equal levels of negative emotions in the Support condition as in the Neutral condition ( $M = 2.00$ ,  $SE = 0.08$ ,  $F(1, 284) = 0.24$ ,  $p = .63$ ,  $d = 0.06$ ). By contrast, self-reported positive emotions showed only a significant main effect of support condition,  $F(1, 284) = 4.07$ ,  $p = .045$ ,  $d = 0.24$ , and a marginal main effect of goal phase,  $F(1, 284) = 2.93$ ,  $p = .055$ ,  $d = 0.28$ .

Finally, when predicting self-concept clarity, there were no significant effects of either goal phase,  $F(2, 278) = 1.74$ ,  $p = .17$ ,  $d = 0.22$ , support,  $F(1, 278) = 1.88$ ,  $p = .17$ ,  $d = 0.16$ , or their interaction,  $F(2 \text{ m } 278) = 0.32$ ,  $p = .73$ ,  $d = 0.08$ <sup>6</sup>.

To summarize, focusing on both action crisis and deliberative goals led to heightened reports of experienced action crisis. While we had not anticipated that the deliberative condition would also result in heightened levels of self-reported action crisis, we believe there are several possible explanations for this result, including intrinsic overlap between mindsets evoked by action crisis and deliberation, and the possibility that deliberation and action crisis

frequently co-occur in personal goals. We discuss these possibilities further in the General Discussion.

These two conditions also led to more negative appraisals of support, less perception that support was self-verifying, and more negative emotion in response to support relative both to the implemental condition and to an interaction that did not include offers of support. However, the action crisis and deliberative conditions did not result in differential positive appraisals, positive emotions, or perceptions of the significant other's responsiveness or relationship quality in response to support. Thus, while the action crisis-inducing goal conditions elicited more negative responses to support, they did not diminish positive responses.

Study 1 was able to experimentally manipulate goal phase and goal support to test the causal impact of action crisis, deliberation, and implementation goal phases on consequences of goal support. However, the support manipulation asked participants to simply imagine a supportive (vs. neutral) interaction with a significant other. Actually receiving support may result in different consequences. Moreover, Study 1 focused on immediate interpretations of and consequences of goal support, while both goal pursuit (and disengagement) and social support occur over much longer periods of time. Compounding and chronic experiences of action crisis and miscalibrated goal support could add up to more significant consequences over a longer period of time. As a result, we sought to provide converging evidence in Study 2 by exploring naturalistic experiences of action crisis and support and their consequences over the course of an academic year. In addition to emotion and self-concept clarity, we explored consequences of support for depressive symptoms. Previous research has generally found a robust tendency for instrumental support to predict lower levels depression (Santini et al., 2015). In Study 2, we investigated whether this relationship would be moderated by experiences of action crisis.

## Study 2: Longitudinal Survey of Pre-Health Students

Study 2 sought to replicate the results of Study 1 with naturally-occurring support for goals pursued over a longer period of time. Study 2 used a longitudinal design, and focused on pre-health students (e.g. pre-med students) at a university specializing in health sciences. Analyses focused on participants' experiences of action crisis and goal support for their goal of attending a graduate training program in their chosen health profession. This population and focal goal were chosen because high levels of attrition are observed among pre-health students (Chen, 2013), suggesting that high levels of action crisis could be observed during the study. Moreover, while students differ somewhat in their preparation for and commitment to such programs of

<sup>5</sup> As planned in our pre-registration, analyses controlled for depressive symptoms. When depressive symptoms were not included as a covariate, the predicted Goal Phase  $\times$  Support interaction was not significant,  $F(1, 285) = 1.41$ ,  $p = .25$ ,  $d = 0.20$ .

<sup>6</sup> In addition, there were no significant effects of goal phase, support, or their interaction on reports of relationship quality, self-competence, or self-liking, all  $ps > 0.10$ .



study, we could anticipate that participants were relatively matched both in terms of the difficulty of their academic/career goals, and in terms of the importance they placed on that goal. We hypothesized that receiving goal support would predict experiencing fewer negative emotions and depressive symptoms two months later, but that this relationship would be moderated by experiences of action crisis at the time that support was received. Additionally, we explored self-concept clarity as a potential mediator of these effects.

## Method

**Participants.** First-year pre-health undergraduate students were recruited to participate in a study on first year experiences through their orientation classes, and through a message on the college's pre-health advising program website. Students were eligible to participate if they were entering their first year, and intended to pursue further study after completion of their undergraduate degree in one of the following types of programs: medical school, nursing school, occupational therapy, physical therapy, dental school, or veterinary school. Participants were recruited in two cohorts—those entering undergraduate education in 2017, and in 2018. Sample size was determined by the total number of participants who could be recruited in two years of data collection. A total of 68 participants completed the intake survey and at least two follow-up surveys. All students were of traditional age for entering college ( $M=18.00$ ,  $SD=0.39$ ), and 75% identified as female, 25% as male.

**Design.** This study used a longitudinal panel design. Participants were asked to complete a total of five surveys over the course of their first year of undergraduate study. Participants completed the intake survey within one month of arriving on campus, and completed follow-up waves of data collection approximately every two months, with waves in November (middle of first semester), January (between first and second semesters), March (middle of second semester), and May (after the end of the second semester.) Participants completed an average of 3.69 follow-up waves, with 77.6% of participants completing all four follow-up waves. The data for the present analyses were collected exclusively in the four follow-up waves, during which participants completed identical surveys assessing a wide variety of variables related to academic goal pursuit, well-being, and self-concept (see Supplementary Materials for a full description of variables collected).

## Materials

### Goal support

Goal support was measured using 19 items designed to assess different aspects of support for career goals, including support focused on the goal's value ("To what extent do people in your life think your career goals are valuable?"), support focused on the individual's efficacy ("To what extent do the people in your life think your career goals are something that you are capable of achieving?"), support focused on knowledge of understanding of the goal ("To what extent do the people in your life understand your career goals?"), and direct provision of support ("To what extent do the people in your life give you opportunities to pursue your career goals?"). Participants responded to these items on five-point, fully-labeled scale from *Not at all* to *A great deal*. Items were averaged to create an index of how much goal support participants received at T1 ( $M=4.07$ ,  $SD=0.60$ ,  $\alpha=0.91$ ). See Supplementary Materials for full details of the scale and its validation.

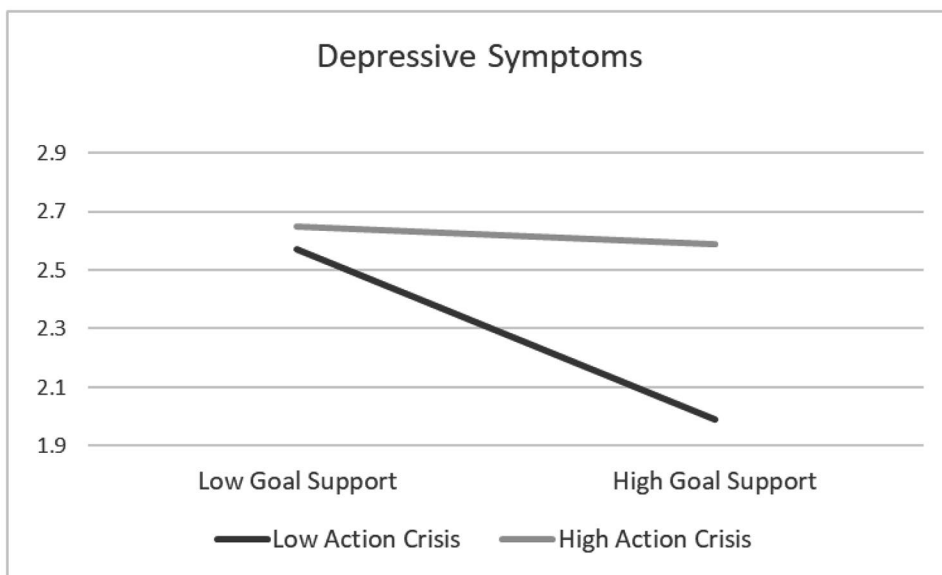
### Action Crisis, depressive symptoms, Emotions, and Self-Concept Clarity

Action crisis ( $M=3.46$ ,  $SD=1.13$ ,  $\alpha=0.79$ .), depressive symptoms ( $M=2.48$ ,  $SD=0.80$ ,  $\alpha=0.95$ ), positive emotions ( $M=3.45$ ,  $SD=0.72$ ,  $\alpha=0.94$ ), negative emotions ( $M=2.36$ ,  $SD=0.78$ ,  $\alpha=0.93$ ), and self-concept clarity were measured using the same methods as in Study 1. The directions for the action crisis measure prompted participants to respond while thinking of their goal to become a health professional. Action crisis and goal support were not measured during the intake survey, but were measured in each of the four subsequent follow-up surveys. All other measures were taken at all five time points.

### Analytic approach

We hypothesized that the experiences of action crisis and goal-related support would both prospectively predict later depression, emotion, and self-concept clarity, but that experiencing action crisis would diminish the benefits of goal-related support in buffering subsequent outcomes. To test this hypothesis, we used a multi-level modeling approach to capture within-person variance in measured variables. We additionally incorporated time-lagged variables in our analysis in order to assess how action crisis and goal support prospectively predicted later outcomes. This multi-level modeling approach allowed us to assess the relationship between action crisis and goal support at earlier timepoints (labeled as T1) on depressive symptoms, emotion, and self-concept

**Fig. 4** Depressive symptoms two months later as a function of prior action crisis and goal support at T1



clarity two months later (labeled as T2) for all waves of data simultaneously. Action crisis was not assessed at intake, and given that our approach used earlier action crisis and goal support as predictors of later outcomes, this meant that there were three waves of data collection that could be entered into the multi-level model. Responses from November were used to predict responses in January; responses in January were used to predict responses in March; and responses in March were used to predict responses in May. The analysis thus enables us to model action crisis and goal support as predictors of outcomes two months later, while controlling for individual differences in outcome variables. All variables were standardized (mean centered) prior to analysis to permit reporting of standardized coefficients for effect size (Lorah, 2018). All analyses were conducted using SPSS’s Linear Mixed Models procedure.

**Power and sensitivity analyses**

Power analysis for multi-level modeling is complex, and depends on many factors including the within-person variance for time-dependent factors (Arend & Schäfer, 2019). As such, power analyses are typically conducted using Monte Carlo simulation methods. We conducted separate sensitivity analyses for each dependent variable, using the R package *simr* (Green & MacLeod, 2016). These analyses indicated that the number of responses was sufficient to achieve 80% power for detecting an effect size of  $Z=0.145$  for analyses focusing on negative emotion; an effect size of  $Z=0.132$  for analyses focusing on positive emotion; an effect size of  $Z=0.14$  for analyses focusing on depressive symptoms; and an effect size of  $Z=0.14$  for analyses focusing on self-concept clarity.

**Results**

We tested the interactive effects of each prior time point’s action crisis and goal-related support predicting subsequent, depressive symptoms two months later. We additionally controlled for wave as a factor, as well as cohort. The model included a random intercept for participant (representing the fact that participants varied in their mean level of depressive symptoms.) Results for depressive symptoms are presented in Table 3. As predicted, there was a significant interaction between goal support and action crisis predicting depressive symptoms two months later ( $\beta=0.16$ ,  $SE=0.06$ ,  $t(152.48)=2.40$ ,  $p=.016$ ). Re-centering action crisis at + 1 SD and – 1 SD relative to the mean revealed that when action crisis was low (-1 SD), higher levels of support predicted lower levels of depressive symptoms two months later ( $\beta = -0.36$ ,  $SE=0.11$ ,  $t(162.72)=3.28$ ,  $p=.001$ ). However, when action crisis was high (+ 1 SD), support did not significantly predict later depressive symptoms ( $\beta = -0.05$ ,  $SE=0.079$   $t(152.07)=0.54$ ,  $p=.59$ ; see Fig. 4).

**Table 3** Summary of results of ANCOVAs predicting evaluations of and reactions to support manipulation by goal phase in Study 1.

	Dependent Variable						
	Negative	Positive	Self-verification	Perceives	Positive Emotions	Negative Emotions	Self-Concept Clarity
Goal Condition	$p=.11$	$p=.66$		$p=.27$			
Support			$p=.40$	$p=.72$		$p=.88$	$p=.18$
							$p=.17$

**Table 3** Summary of results of ANCOVAs predicting evaluations of and reactions to support manipulation by goal phase in Study 1.

Dependent Variable						
Goal	$p = .58$	$p = .027^*$	$p = .62$	$p = .86$	$p = .054^\dagger$	$p = .73$
Condition x Support						

Next, we tested the interactive effects of prior time point's action crisis and goal-related support predicting subsequent positive and negative emotions two months later. Similar to the pattern observed for depressive symptoms, there was a significant interaction between goal support and action crisis predicting negative emotion two months later ( $\beta = 0.17$ ,  $SE = 0.07$ ,  $t(151.11) = 2.49$ ,  $p = .014$ ). Re-centering action crisis at +1 SD and -1 SD relative to the mean revealed that when action crisis was low, higher levels of prior support predicted lower levels of negative emotions two months later ( $\beta = -0.39$ ,  $SE = 0.12$ ,  $t(162.73) = 3.34$ ,  $p = .001$ ). However, when action crisis was high, prior support did not significantly predict later negative emotions ( $\beta = -0.05$ ,  $SE = 0.10$ ,  $t(150.5) = 0.55$ ,  $p = .59$ ).

However, for subsequent positive emotions, there were only significant main effects for goal support ( $\beta = 0.23$ ,  $SE = 0.08$ ,  $t(162.97) = 2.75$ ,  $p = .007$ ) and action crisis ( $\beta = -0.16$ ,  $SE = 0.07$ ,  $t(150.89) = 2.18$ ,  $p = .031$ ), while the interaction between prior goal support and action crisis was not significant ( $\beta = -0.07$ ,  $SE = 0.07$ ,  $t(150.67) = 1.02$ ,  $p = .31$ ).

Finally, we conducted a similar analysis predicting subsequent time point's self-concept clarity. This analysis yielded a significant main effect of action crisis, ( $\beta = -0.17$ ,  $SE = 0.071$ ,  $t(154.47) = 2.33$ ,  $p = .021$ ), and a marginal main effect of goal support ( $\beta = 0.15$ ,  $SE = 0.084$ ,  $t(156.65) = 1.81$ ,  $p = .072$ ), qualified by a significant action crisis x goal support interaction ( $\beta = -0.21$ ,  $SE = 0.065$ ,  $t(152.70) = 3.27$ ,  $p = .001$ ). Re-centering action crisis at +1 SD and -1 SD relative to the mean revealed that when action crisis was low, higher levels of support predicted higher levels of self-concept clarity two months later ( $\beta = 0.37$ ,  $SE = 0.12$ ,  $t(158.27) = 3.18$ ,  $p = .002$ ). However, when action crisis was high, earlier goal support was unrelated to subsequent self-concept clarity ( $\beta = -0.06$ ,  $SE = 0.098$ ,  $t(157.98) = 0.62$ ,  $p = .53$ ).

Consistent with the experimental results in Study 1, Study 2 found that the experience of action crisis moderated the effects of goal-related support. Specifically, support for career goals prospectively predicted lower levels of depression and negative emotion for people experiencing low levels of action crisis, but experiencing high levels of action crisis seemed to erase the benefits of such support on negative emotion and depression. However, action crisis did not alter the positive impact of goal support on later experience of positive emotions.

## Mediation analyses

If hypothesized goal support is associated with more negative outcomes during action crisis because it is perceived as less self-verifying, thereby increasing self-concept confusion, then we would predict that self-concept clarity would mediate the relationship between the goal support x action crisis interaction and negative outcomes. We tested this hypothesis using multilevel conditional process modeling and the MLmed macro for SPSS (Hayes & Rockwood, 2020).

We first explored indirect effects on depressive symptoms. This model revealed a significant index of moderated mediation for between-subjects effects (Estimate = 0.13, Monte Carlo CI: (0.02, 0.25)). When action crisis was low (-1 SD), there was significant between-subjects indirect effect of goal support on depressive symptoms, mediated by self-concept clarity ( $\beta = -0.30$ ,  $SE = 0.11$ ,  $Z = 2.90$ ,  $p = .004$ ), as well as a significant between-subjects direct effect of goal support on depressive symptoms ( $\beta = -0.23$ ,  $SE = 0.09$ ,  $t(64.68) = 2.58$ ,  $p = .01$ ). By contrast, when action crisis was high (+1 SD), this indirect path through self-concept clarity was non-significant ( $\beta = -0.04$ ,  $SE = 0.10$ ,  $Z = 0.40$ ,  $p = .69$ ).

A similar analysis predicting negative emotions also resulted in a significant index of moderated mediation for the between-subjects effect (Estimate = 0.14, Monte Carlo CI: (0.04, 0.25)). When action crisis was low (-1 SD), there was a significant between-subjects indirect effect of goal support on negative emotions, mediated by self-concept clarity ( $\beta = -0.31$ ,  $SE = 0.11$ ,  $Z = 2.88$ ,  $p = .004$ ), as well as a significant between-subjects direct effect of goal support on negative emotions ( $\beta = -0.24$ ,  $SE = 0.10$ ,  $t(65.83) = 2.46$ ,  $p = .02$ .) When action crisis was high (+1 SD), the indirect effect mediated by self-concept clarity was non-significant ( $\beta = -0.04$ ,  $SE = 0.10$ ,  $Z = 0.36$ ,  $p = .72$ ).

Thus, self-concept clarity partially mediated the effects of the goal support x action crisis interaction on both depressive symptoms and negative emotions, consistent with the hypothesis that goal support threatens self-verification motives for people experiencing an action crisis.

## General discussion

Although support can improve goal outcomes (Berli et al., 2018) and increase relationship closeness (Gleason, Iida, Shrout, et al., 2008), receiving support has been described as a "mixed blessing" (Rafaeli & Gleason, 2009). The present two studies suggest that the experience of action crisis may be one context that exacerbates this ambivalent response to support. In an experiment (Study 1) and a longitudinal

study of pre-health students (Study 2), action crisis led to more negative appraisals, higher levels of negative emotion, and predicted more depressive symptoms following support compared to participants whose goal pursuit was unconflicted. Interestingly, both studies found that action crisis did not moderate the impact of support on positive emotions.

While both studies suggest that action crisis predict more negative outcomes of support, the results of the two studies differ in some respects. In Study 1, the support condition evoked more negative reactions overall than the neutral condition, whereas Study 2 found that support generally predicted more positive outcomes, although this association was not evident when participants' goals were in action crisis. It is important to note that the more negative reactions to the support manipulation in Study 1 were in contrast to the neutral condition, which involved a pleasant interaction making plans with a friend. However, data were collected in February of 2021 during the COVID-19 pandemic, a time in which social isolation and loneliness due to social distancing guidelines were quite prevalent (Hajek & König, 2022). Thus, the prospect of making plans with a friend might have been particularly appealing, leading this “neutral” condition to be evaluated more positively in comparison to the supportive interaction. However, the distinction between reactions to provision of support in Study 1 and general perceptions of support in Study 2 mirrors findings that feeling that support is available predicts positive outcomes, while directly receiving support is experienced more negatively (Gleason & Iida, 2015).

In addition, Study 2 found that action crisis and goal support interactively predicted self-concept clarity, while Study 1 found no effect of either the goal type or support manipulation on self-concept clarity. We note, however, that in Study 1, action crisis and goal support impacted perceived self-verification. Previous research has found that a chronic lack of self-verification predicts reduced self-concept clarity (Emery et al., 2018). We suspect that a single hypothetical interaction with a significant other may have been insufficient to impact the self-concept, but that repeated instances of support that does not feel self-verifying over a longer period of time may erode individuals' sense of self-clarity. Indeed, mediational analyses in Study 2 found that self-concept clarity partially mediated the effect of the goal support x action crisis interaction on depressive symptoms and negative emotions.

### Overlap between Action Crisis and Deliberation

Study 1 also found that focusing on both deliberative and action crisis goals elevated reports of action crisis relative to focusing on implemental goals, and in fact the deliberative and action crisis conditions did not differ in their impact on

the ACRISS. These results reflect commonalities between deliberation and action crisis identified in previous research (Brandstätter & Schüler, 2013; Herrmann & Brandstätter, 2015), highlighting that action crisis may be more of a return to deliberative mindset rather than its own separate state. Given that both phases are states of indecision, in which costs and benefits are being weighed, it is reasonable that both would induce similar feelings.

In addition to overlap between the cognitive consequences of action crisis and deliberation, other factors may have contributed to the high levels of action crisis reported by participants in the deliberative condition in Study 1. First, participants may have actively worked to interpret items from the ACRISS in ways that made sense for them in the context of their personal goal. For example, participants may have interpreted the item “Lately I feel torn between continuing to strive for this goal and abandoning it,” as a reflection of feeling ambivalent about adopting a goal vs. abandoning it, in line with their deliberation about the goal. Second, an inspection of participants' descriptions of their goals revealed that many of the deliberated goals would require disengaging from a current goal in order to pursue the new goal—for example, multiple participants mentioned deliberating about taking a new job, which would involve leaving their current job. Participants' higher levels on the ACRISS in the deliberative condition may therefore reflect feelings of action crisis regarding the current goal that must be abandoned for the deliberated new goal. This potentially complicates comparisons between the action crisis condition and the deliberative condition. However, this may reflect a broader tendency for these goal phases to regularly co-occur. Given that goal pursuit draws on limited resources of time, energy, and money (Louro et al., 2007), adopting new goals always has the potential to draw resources away from current goals. As such, the process of deliberation may frequently involve a consideration of which of one's current goals may need to be disengaged from in order to adopt the new goal. We believe the inclusion of participants engaging in such deliberation in our study may reflect the deliberation phase as it occurs “in the wild”. We encourage future research to explore goal phases in the context of goal systems to quantify the frequency of these kinds of experiences.

### Mechanisms linking Action Crisis to support outcomes

Why might goal support be experienced as less self-verifying for people in action crisis? Previous research has noted that negative consequences of support arise because support threatens self-efficacy (Gleason & Iida, 2015), personal control (Ryon & Gleason, 2018), and violates norms of reciprocity to the extent that the support recipient is receiving

more benefit from the relationship than the support provider (Bar-Kalifa et al., 2018). The experience of action crisis may exacerbate these consequences, amplifying the negative effects of support receipt. To the extent that action crisis reduces optimism about one's ability to achieve the goal (Vann et al., 2018), threats to self-efficacy may be particularly impactful—echoing the finding that goal support becomes more unwanted to the extent that the goal is seen as more difficult (Righetti et al., 2014). Goal support may also be experienced as coercive, given the sometimes shaky boundary between social support and social control (Kappes & Shrout, 2011; Tian et al., 2020). Support that feels controlling may make the support recipient feel that they cannot disengage from the goal, and this threat to autonomy may exacerbate their experience of action crisis (Holding et al., 2017).

In addition to threatening self-verification, support for goals in action crisis may produce negative outcomes for other reasons. For example, concerns about reciprocity may also be elevated by action crisis, as the prospect of receiving unreciprocated support for a goal that one may ultimately choose to disengage from may evoke intense feelings of guilt or shame. We suspect that this may be a particular concern for the pre-health students in Study 2, whose families likely provided both emotional and financial support for their academic goals. Considering disengaging from their career goals may raise concerns about “wasting” parents' money, and future needs for financial assistance that could highlight uncomfortable feelings of indebtedness.

Finally, the overlap between action crisis and deliberative mindsets (Herrmann & Brandstätter, 2015) suggests another explanation for these findings. Previous research highlights the latitude support recipients have to interpret support positively or negatively, depending on their thoughts and feelings about themselves (Nadler & Jeffrey, 1986), their goals (Righetti et al., 2014), their relationship to the support provider (Uno et al., 2002), and the support provider's relationship to the goal (Kappes & Shrout, 2011). Implemental mindsets promote an optimistic bias towards oneself and one's outcomes (Taylor & Gollwitzer, 1995), potentially leading people to focus on positive interpretations of support. By contrast, both action crisis (Brandstätter & Schüler, 2013; Vann et al., 2018) and deliberation (Taylor & Gollwitzer, 1995) are associated with more attention to negative information. This may lead negative interpretations of support to be more accessible, resulting in more negative evaluations of support and more negative emotions. This explanation is supported by the finding in Study 1 that focusing on goals in both action crisis and deliberation led to more negative evaluations of support relative to goals in the implementation phase. Moreover, the even-handed focus on both costs and benefits that characterizes the

deliberative mindset fits with results indicating that while action crisis and deliberation increased negative appraisals of goal support, they did not decrease positive appraisals. In other words, both action crisis and deliberation may lead to less optimistic interpretations relative to implemental mindsets, but may not lead to more pessimistic interpretations.

### Limitations and future directions

The present research is not without its limitations. First, although we manipulated support receipt in Study 1 with an imagined vignette, and measured general actual levels of general support in Study 2, we did not observe the impacts of specific instances of support receipt. Given discrepancies between how people respond to general availability of support and actually receiving support, future research observing the consequences of actually receiving support could bolster the present research's claims. In addition, it is worth noting that Study 1 was conducted in February of 2021, at the height of the COVID-19 pandemic in the United States. Obstacles imposed by the pandemic may have threatened participants' personal goals by limiting opportunities for goal pursuit, reducing available resources like time and money, and requiring adaptation of goal pursuit strategies to the pandemic context (e.g. remote work and learning). This could result in higher levels of action crisis in general, as people consider which goals are attainable and worth working on under the constraints. The pandemic could also have impacted people's perceptions of support because many people had been in isolation and have not seen their friends and family in person for a long time which could make it more difficult to imagine a scenario effectively or possibly bring up feelings of sadness or loneliness.

As previously noted, findings regarding self-concept clarity as an outcome of action crisis and goal support were inconsistent between Study 1 and Study 2. We speculate that a single, hypothetical instance of goal support may not be strong enough to impact self-concept clarity, while repeated experiences of unwanted support over months may have a more observable impact. Additionally, in both studies, self-concept clarity was measured using a scale designed to measure trait self-concept clarity rather than state self-concept clarity, which is more appropriate for the longitudinal design in Study 2 than the brief experimental design in Study 1. Using a state self-concept clarity measure instead (Ellison et al., 2021) might reveal effects of brief support manipulations on self-concept clarity. However, this inconsistency renders results for this variable more tenuous, and merits further research to validate whether effects on self-concept clarity (or mediated by self-concept clarity) are robust and reliable. Finally, we note that Study 2 was

somewhat underpowered with regard to analyses focusing on negative emotion.

The present studies highlight challenges for people hoping to support others through the stage of action crisis. While support is perceived positively and predicts positive outcomes for people whose goal pursuit is unproblematic, support can have more negative consequences if the support recipient's commitment to the goal is in question. We note that in our two studies, goal support was primarily operationalized as providing encouraging words, or directly contributing resources for goal pursuit. There are, however, other ways of providing support which might not lead to such negative consequences. For example, support providers could focus on validating the negative experiences the recipient is having with their goal, an approach that has been shown to benefit people with low self-esteem, who similarly react negatively to positively-framed support (Marigold et al., 2014). Self-regulation strategies that cultivate clarity about both one's goals and the strategies to achieve them (such as mental contrasting; (Oettingen et al., 2018) or support focused on increasing clarity about oneself in relation to the goal (Slotter & Gardner, 2014) could also benefit people in a state of action crisis. Future research should explore the potential for such approaches to allow for people in action crisis to experience the benefits of support.

Moreover, it may be worth exploring the downstream consequences of action crisis for close relationships. Previous research has found that avoidance of goal support predicts poorer relationship well-being (Righetti et al., 2014), presumably because people who do so are failing to capitalize on their partner's instrumentality as a means of increasing closeness in the relationship (Fitzsimons & Fishbach, 2010). Especially given the relationship between action crisis and depression (Holding et al., 2017), avoidance of support may put people in states of action crisis at high risk for relationship dysfunction. Future research should explore such outcomes.

## Conclusion

Overall, the present studies increase our understanding of how action crisis operates, and how such states impact perceptions of and reactions to interpersonal interactions. This work identifies action crisis as an important predictor of reactions to goal support, and motivates future research on how significant others and professionals alike can offer responsive support when people experience action crisis.

**Supplementary Information** The online version contains supplementary material available at <https://doi.org/10.1007/s11031-022-09977-8>.

**Acknowledgments** The authors would like to thank Krusha Patel for assistance with coding participant responses, and John Van Dusen for comments on previous drafts of this manuscript.

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