

The Relationship Problem Solving (RePS) Model: How Partners Influence One Another to Resolve Relationship Problems

Personality and Social Psychology Review
1–25

© 2019 by the Society for Personality
and Social Psychology, Inc.

Article reuse guidelines:

sagepub.com/journals-permissions

DOI: 10.1177/1088868319881243

pspr.sagepub.com



Levi R. Baker¹ and James K. McNulty²

Abstract

In this article, we synthesize existing literatures across numerous domains to introduce a novel model—the Relationship Problem Solving (RePS) model—for understanding the process through which romantic partners influence one another to resolve relationship problems. The first section briefly describes the key constructs and stages of the model. The second section details the *interpersonal* behaviors that influence various *intrapersonal* factors (e.g., affect, self-efficacy) that ultimately influence partners' motivation and ability to progress through the stages of the model. The third section uses the model to generate novel predictions that suggest that the effectiveness of these interpersonal behaviors often depends on contextual factors. Finally, the fourth section discusses the implications of this model for understanding relationship problem solving, highlights the need to consider the role of context in the problem-solving process, and offers numerous specific predictions to be addressed by future research.

Keywords

problem solving, romantic relationships, conflict, context

Some of the most important relationships people form and maintain are with romantic partners. People typically spend considerable time (Gerstel & Sarkisian, 2006) and create meaningful memories with romantic partners (Philippe, Koestner, & Leks, 2013), and such relationships ultimately change the way people view themselves (Aron & Aron, 1997) and others (Murray, Holmes, Dolderman, & Griffin, 2000). Moreover, romantic partners are critical for meeting many of life's challenges. Not only are romantic partners often essential for meeting survival and reproductive goals, but people increasingly depend on romantic partners for assistance, advice, companionship, and emotional support (Feeney & Collins, 2014; Finkel, Hui, Carswell, & Larson, 2014; Fitzsimons, Finkel, & vanDellen, 2015). The benefits of romantic relationships are so far-reaching, in fact, that people tend to be healthier, happier, and report greater meaning in their lives to the extent that they are in satisfying and stable romantic relationships (Proulx, Helms, & Buehler, 2007; Robles, Slatcher, Trombello, & McGinn, 2014).

Of course, forming and maintaining romantic relationships also presents numerous challenges. Relationships are characterized by interdependence, or the tendency for relationship members to influence one another (Kelley & Thibaut, 1978), not only in desirable ways but also in undesirable ways. Furthermore, the increased interdependence that characterizes romantic relationships can result in disagreement

and conflict regarding competing goals and self-interests (Murray, Holmes, & Collins, 2006; Rusbult, Olsen, Davis, & Hannon, 2001) that can directly affect both partners' well-being. Given that relationship problems can erode relationship quality (e.g., McNulty, O'Mara, & Karney, 2008; McNulty & Russell, 2010; Neff & Karney, 2004) and thus individual psychological and physical well-being (Baker, McNulty, Overall, Lambert, & Fincham, 2013; Proulx et al., 2007; Robles et al., 2014), people often attempt to resolve, or minimize the severity of, their relationship problems by influencing their partners' behavior; for example, they might demand partners change their behavior, provide partners with assistance, or encourage partners who doubt their ability to enact necessary behaviors.

Yet, despite the critical role of romantic relationships and the importance of problem solving to relationship maintenance, relationship science lacks an organizing framework for understanding how partners influence one another to

¹The University of North Carolina at Greensboro, USA

²Florida State University, Tallahassee, USA

Corresponding Author:

Levi R. Baker, Department of Psychology, The University of North Carolina at Greensboro, 296 Eberhart Building, Greensboro, NC 27412, USA.

Email: levirbaker@gmail.com

Table 1. Evaluation of relevant extant theoretical perspectives.

Perspective	Relevant citations	Emphasizes	Does not address
Basic problem-solving models	Bransford and Stein (1993); Hayes (1989); Pretz, Naples, and Sternberg (2003); Sternberg (1985); Zimmerman and Campillo (2003)	Stages of problem solving Ability	Dyadic considerations Motivation Contextual factors
Clinical problem solving models	D’Zurilla and Goldfried (1971); Epstein and Baucom (2002); Jacobson and Margolin (1979); W. R. Miller (1983); Prochaska, DiClemente, and Norcross (1992)	Stages of problem solving Motivation	Dyadic considerations Ability Contextual factors
Conflict and opposition	Overall and McNulty (2017)	Oppositional behavior	Stages of problem solving Intrapersonal mediators Contextual factors
Social support	Feeney and Collins (2014)	Cooperative behavior	Stages of problem solving Intrapersonal mediators Contextual factors
Context	Bradbury and Fincham (1991); Karney and Bradbury (1995); McNulty (2016)	Contextual factors Intrapersonal mediators	Stages of problem solving Partner regulation behaviors
Transactive goal dynamics	Fitzsimons, Finkel, and vanDellen (2015)	Dyadic considerations	Stages of problem solving Partner regulation behaviors Intrapersonal mediators
Affect integration	Forgas (1995); Gawronski and Bodenhausen (2006); C. R. Jones, Olson, and Fazio (2010); Payne, Hall, Cameron, and Bishara (2010)	Affect integration	Stages of problem solving Partner regulation behaviors Intrapersonal mediators

effectively manage such problems. In particular, although several theoretical perspectives describe various specific aspects of the problem-solving process, each of these perspectives ignores other key aspects. For example, several cognitive and clinical models of problem solving outline the stages people traverse when resolving individual problems but do not consider how partners influence one another throughout this process or consider contexts in which such behaviors will be more or less effective. Similarly, models of partner regulation describe how partners influence one another but do not link these interpersonal behaviors to stages of the problem-solving process, address what types of behaviors may be more or less effective at which stage, or consider the likely mechanisms of such effects. Table 1 provides a list of relevant extant models, the focus of each that is relevant to relationship problem solving, and the aspects of relationship problem solving that is missing from each.

The goal of this article is to review and synthesize research from numerous disciplines, including cognitive science, clinical psychology, social psychology, family science, developmental psychology, education, and communication, to provide a novel model—the Relationship Problem Solving (RePS) model—for understanding how people influence a partner to resolve problems in romantic relationships. In pursuit of this goal, the remainder of this article is organized into four sections. The first section briefly clarifies our working definitions of the key constructs and identifies the stages of the RePS model. The second section details *interpersonal* behaviors that people engage in to resolve their interpersonal problems and argues that these behaviors operate by influencing *intrapersonal* factors (e.g., affect,

self-efficacy) that influence partners’ progression through the stages of the RePS model. The third section uses the RePS model to generate novel predictions that suggest that the effectiveness of these interpersonal behaviors for problem solving may depend on contextual factors such as (a) partners’ existing levels of motivation and ability, (b) discordance between partners about the problem, and (c) how the behaviors are integrated into existing evaluations of the self, partner, problem, and solutions. Finally, the fourth section discusses the implications of this model for future research on close relationships.

Definitions and Stages of the Problem-Solving Process

Definitions

Before introducing the RePS model, it is first important to clarify the focal variable of interest. At the broadest level, we are interested in developing a model of how individuals manage distress in their romantic relationships. Across literatures, such sources of distress are commonly referred to as “relationship problems,” and we continue that tradition here. Given that a relationship problem can affect either personal or relational well-being, we define a relationship problem as (a) anything that negatively affects the relational well-being of either partner or (b) any factor involving one member of the couple that negatively affects the personal or relational well-being of his or her partner. For example, some relationship problems result more from one partner’s actions than from the other partner’s actions (e.g., substance abuse), other

problems result from both partners' actions (e.g., communication difficulties) or incompatibilities between partners (e.g., different religious beliefs), and still other problems result from external factors that negatively affect the relationship (i.e., illness, financial strain).

We have opted to focus primarily on problems that affect romantic relationships, as opposed to other types of relationships, for three reasons. First, romantic partners tend to be highly interdependent (i.e., involve two people who have the ability to influence one another; Kelley & Thibaut, 1978). Given that the RePS model was developed to account for how people can influence their partners to resolve relationship problems, the interpersonal processes described in this model are more relevant to and common in romantic relationships than other types of relationships that are less interdependent (e.g., acquaintances). Second, the great majority of people enter into at least one serious romantic relationship, and such relationships serve as the foundation upon which people rest many of their goals (Finkel et al., 2014; Fitzsimons et al., 2015). Third, the majority of previous research has examined problem solving within the context of romantic relationships and thus we are more confident describing how these processes operate in romantic relationships. That said, we suspect that many of the stages and processes described by the RePS model would apply to other types of relationships and we speculate about how these processes might differ across different types of relationships in the final section of this article.

Considering the problems people face in their romantic relationships reveals that such problems can vary on at least two additional dimensions. First, relationship problems can vary in the severity of their consequences. For example, although a disagreement between romantic partners regarding where to go to dinner may be temporarily disruptive, the impact likely would be less severe than a disagreement regarding whether or not to have children. Notably, the severity of the problem may differ for each person in the relationship, an issue we address later; for example, a disagreement over whether to have children may harm one partner more than the other. Second, relationship problems can vary in the ease/simplicity of their solutions. Specifically, some problems have relatively simple solutions, others have solutions that are more difficult, and still others may lack complete solutions (e.g., death of a child). The RePS model attempts to describe the process through which people can influence their partners to minimize the severity of, and potentially even fully resolve, their relationship problems.

Stages of the RePS Model

Resolving relationship problems is not a simple task; it involves progressing through a series of separate stages. Despite this, the majority of research examining relationship problem solving has failed to consider the stages of the resolution process and has often led to inconsistent findings, an

issue we devote considerable attention to in later sections. For example, while some studies have demonstrated that oppositional behaviors harm couples (e.g., Pasch & Bradbury, 1998), other studies have demonstrated that they can benefit couples (e.g., McNulty & Russell, 2010). We propose that whether problem-solving processes benefit or harm relationships often depends on the stage in which they are occurring, and such inconsistent findings may be the result of ignoring the stages of problem solving. In this section, we draw from existing theory and research to develop a process model of these stages that can be applied to close relationships. The entire RePS model, including the various predictors and moderators of the stages that are described throughout this article, appears in Figure 1, where Level A specifically illustrates the four stages of the relationship problem-resolution process introduced in this section: (a) recognizing the problem, (b) identifying a resolution strategy, (c) implementing the resolution strategy, and (d) reappraising the problem.

The stages in Level A were derived by integrating numerous basic models of problem solving (Bransford & Stein, 1993; Hayes, 1989; Pretz, Naples, & Sternberg, 2003; Sternberg, 1985; Zimmerman & Campillo, 2003), which emphasize the cognitive processes and abilities required to resolve a problem, with clinical models of problem solving (D'Zurilla & Goldfried, 1971; Epstein & Baucom, 2002; Jacobson & Margolin, 1979; W. R. Miller, 1983; Prochaska, DiClemente, & Norcross, 1992), which emphasize the motivational factors required to resolve a problem. Integrating these perspectives offers a novel framework for considering both the stages and the intrapersonal processes required to solve a problem and thus offers a foundation for considering how partners may influence one another through these stages. Specifically, relationship problems are unique because they, and thus their potential solutions, involve two people. As such, a model of relationship problem solving also needs to account for both the intrapersonal and interpersonal processes involved in solving relationship problems. Thus, although the RePS model focuses primarily on individual-level psychological processes, such as sources of individuals' motivations and abilities to resolve relationship problems, the model also addresses interpersonal processes, such as how people influence their partners, given the dyadic nature of relationship problems. We lay out the specific individual stages of the RePS model in the remainder of this section and then provide a richer account of the complex interplay between intrapersonal, interpersonal, and contextual factors that predict navigating these stages in the remaining sections of the article.

Stage 1: Problem recognition. Before people can even attempt to resolve a problem, they must first *recognize* that there is a problem to be resolved. We posit that this initial stage involves two key processes: (a) identifying there is a problem and (b) understanding the source(s) of the problem. Consider, for example, a married couple facing financial difficulties. Before

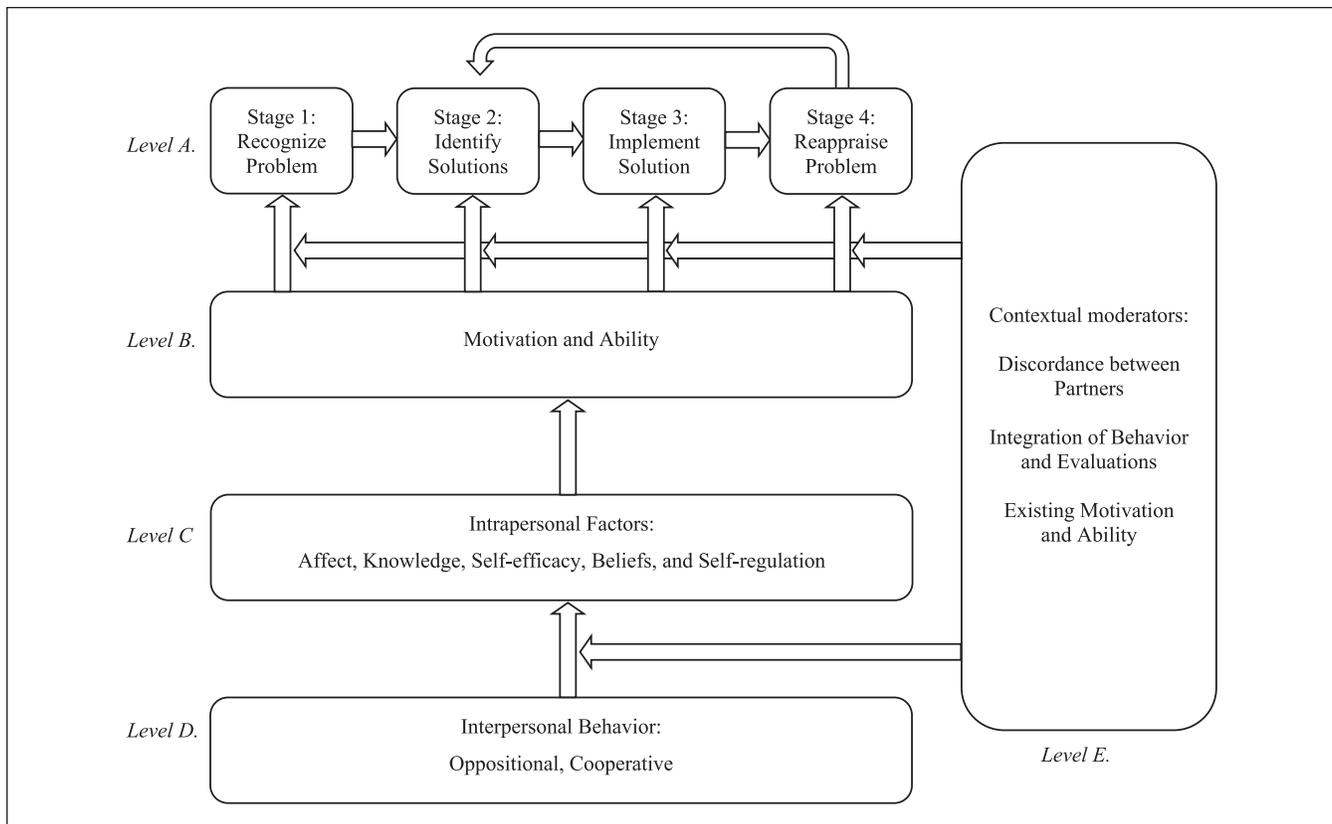


Figure 1. Relationship Problem Solving (RePS) model.

making a deliberative attempt to resolve this problem, at least one spouse must first identify the problem; perhaps he or she recognizes their financial problems after being unable to pay their bills, for example. After identifying the problem, the spouse must then understand the source of the problem; perhaps it is the result of insufficient income, frivolous spending, or a lack of oversight. Whatever the case, he or she will be less likely to resolve the problem without identifying and then understanding it.

Stage 2: Identifying a resolution strategy. Once people recognize that a problem threatens their well-being and understand the potential causes of that problem, they must next identify means to resolve it. We posit that this stage also involves two key processes: (a) generating potential resolution strategies and (b) evaluating each strategy to decide which one(s) to implement. Consider, for example, a couple caring for a terminally ill parent. Once a partner recognizes the problem and understands its sources, he or she needs to generate potential solutions to it. Although the primary problem (i.e., their parent is terminally ill) may be unsolvable, the partner may nevertheless generate strategies to help cope with or reduce the severity of the problem. The solutions that people generate for a particular problem are closely tied to their understanding of the sources of that

problem (e.g., Bransford & Stein, 1993; Hayes, 1989). For example, if one partner believes their parent does not have long to live, she might prioritize identifying and enacting the parent's end-of-life wishes. Alternatively, if the other partner believes their parent will live a while, he might prioritize the care that the parent receives. Once the partner generates these possible solutions, he or she needs to evaluate each one by estimating the costs and benefits of each and then selecting one (or more) to implement.

Stage 3: Implementing the resolution strategy. Once people identify and choose solutions to their problems, they must implement them. We posit this stage also involves two processes: (a) anticipating and preventing obstacles to implementing the resolution strategy and (b) enacting the resolution strategy. Consider, for example, a couple that is dissatisfied with the amount of time they spend together and decides to spend more time together. They first might anticipate that they are unlikely to spend time together unless they choose a day and time when they will not be too tired and have an activity planned; thus, they might dedicate Tuesday evenings to spend together and spend part of their time together planning an activity for the next week. Then, with respect to the second process, each partner may or may not actually follow through with the planned activity. Indeed, it is not

uncommon for people to not act on their intentions (for review, see Godin & Kok, 1996).

Stage 4: Problem reappraisal. The final stage in the problem-resolution process is to reappraise the problem. We posit that this stage also involves two processes: (a) assessing the success of any implemented strategies and (b) deciding how to proceed accordingly. If people believe that their prior strategy to resolve the problem effectively resolved it, they may continue to enact that strategy to ensure that the problem does not arise again, assuming the strategy continues to be relevant. If our couple struggling with money decided to implement a budget, for example, and one spouse concludes the budget was successful, he or she may continue using the budget. If the resolution strategy successfully reduced the severity of the problem but did not fully eliminate the problem, people may continue enacting the beneficial strategy, slightly revise the strategy, and/or implement additional strategies to eliminate the problem. So, our financially strapped spouse may further refine the budget and/or secure a second source of income. Finally, if individuals perceive that a strategy was ineffective at reducing the severity of the problem, they may identify and enact a new resolution strategy, which may involve working through the stages once again. That is, the spouse might simply abandon the budget and suggest moving into more affordable accommodations. Notably, individuals can benefit even from unsuccessful attempts to resolve a problem if such attempts help them better understand the problem (see Bransford & Stein, 1993; Hayes, 1989; Sternberg, 1985).

Interpersonal Behavior: Influencing Partners' Motivation and Ability to Resolve Problems

In the previous section, we synthesized cognitive and clinical models on problem solving to develop a stage model of relationship problem solving. Although extant perspectives provide a useful framework for understanding how people can solve problems they are facing as individuals, they do not address the complexity of problems involving two people. In particular, given that relationship problems affect both partners in some way, people frequently attempt to influence their partners' behavior in an attempt to resolve relationship problems that arise (e.g., Overall, Fletcher, & Simpson, 2006; Overall, Fletcher, Simpson, & Sibley, 2009)—a process referred to as partner regulation (see Overall & McNulty, 2017). Attempts at partner regulation can take numerous forms. At times, people behave cooperatively by encouraging, providing advice to, and validating one another with the goal of influencing the partner in ways that help him or her grow and succeed (Feeney & Collins, 2014). At other times, however, partner regulation is not as cooperative; people may attempt to change a partner's behavior through oppositional

behaviors, such as blaming, making demands, expressing anger or hurt feelings, invalidating, making sarcastic comments, and attempting to make the partner feel guilty (e.g., McNulty & Russell, 2010; Overall et al., 2009).

Although several reviews of these interpersonal behaviors exist (see Feeney & Collins, 2014; Overall & McNulty, 2017), the RePS model is novel by (a) applying these processes to relationship problem solving and the specific stages of the problem-resolution process and (b) identifying the mechanisms through which these behaviors influence relationship outcomes. Regarding the latter point, we propose that attempts to regulate a partner influence the problem-solving process by shaping various intrapersonal factors (e.g., affect, self-efficacy) that ultimately affect partners' *ability* and *motivation* to resolve their problems (see Levels B, C, and D of Figure 1). In what follows, we describe the cooperative and oppositional regulation behaviors people regularly use, as well as theory suggesting that these behaviors should have unique implications for each stage of the problem-resolution process through their effects on partners' motivation and/or ability to resolve the problem by directly altering several specific intrapersonal factors: affect, knowledge, self-efficacy, relationship beliefs, and self-regulatory capacity. Table 2 provides an overview of each of these interpersonal factors and their implications for the intrapersonal influences of each stage of the problem-resolution process described in the previous section. To provide clarity, we will use the term *actors* to refer to the person who is enacting a behavior and *targets* to refer to the recipient of such behavior.

Oppositional Behaviors

One way people attempt to influence one another is by engaging in *oppositional behaviors*—behaviors aimed at confronting or challenging the partner to alter the partner's behavior, thoughts, or emotions. Although such oppositional behaviors may sometimes harm targets' emotional well-being or relationship security, the primary goal of such behaviors is frequently to influence targets' thoughts, feelings, and behavior in ways aimed at resolving relationship problems (e.g., Overall et al., 2006). For example, Maeve might express anger to her boyfriend who forgot to pay their electric bill so that he pays the bills in the future, Delores might criticize her wife for flirting with her friend so that she stops flirting, and Bernard might point out how little his wife has cleaned lately to motivate her to share their household responsibilities. Such opposition may be expressed either directly or indirectly (see Overall & McNulty, 2017). Direct oppositional behaviors are statements that explicitly address the problem, such as blaming the target partner for a problem, persuading or commanding the target to change his or her behavior, expressing anger or irritation about the problem to the target, and even rejecting or insulting the target. Indirect oppositional behaviors, in contrast, are statements

Table 2. Interpersonal Influences on the Stages of Problem Resolution.

Interpersonal influence	Intrapersonal influence	Stage
Oppositional → (direct and indirect)	Negative affect (+) →	Recognize the problem (+) Identify potential solutions (- ability, + motivation) Implement solutions (- ability, + motivation) Reappraise the problem (+)
	Self-efficacy (-) →	Identify potential solutions (-) Implement solutions (-)
Direct oppositional →	Knowledge (+) →	Recognize the problem (+) Identify potential solutions (+) Implement solutions (+) Reappraise the problem (+)
Cooperative → (direct and indirect)	Relationship beliefs (+) →	Recognize the problem (-) Identify potential solutions (+) Implement solutions (+) Reappraise the problem (-)
Emotional support →	Negative affect (-) →	Recognize the problem (-) Identify potential solutions (+ ability, - motivation) Implement solutions (+ ability, - motivation) Reappraise the problem (-)
Esteem support →	Self-efficacy (+) →	Identify potential solutions (+) Implement solutions (+)
Informational support →	Knowledge (+) →	Recognize the problem (+) Identify potential solutions (+) Implement solutions (+) Reappraise the problem (+)
Instrumental support →	Self-regulatory capacity (+) →	Recognize the problem (+) Identify potential solutions (+) Implement solutions (+) Reappraise the problem (+)

Note. (+) indicates a predicted positive association and (-) indicates a predicted negative association.

that oppose the target in some way but do not explicitly address the problem, such as avoidance, sulking or pouting, making sarcastic comments, attempting to make the partner feel guilty, or conveying dependence or powerlessness. We propose that oppositional behaviors can operate by influencing three specific intrapersonal variables—*affect*, *self-efficacy*, and *knowledge* about the problem—that ultimately shape targets' motivation and ability to move through the stages of problem resolution. Critically, however, we also suggest that the manner in which such behaviors shape problem-solving depends on whether opposition is expressed in a direct or indirect manner and the stage of the problem-solving process in which it is enacted.

Affect. Both direct and indirect oppositional behaviors tend to decrease targets' positive affect and increase their negative affect (e.g., Bolger, DeLongis, Kessler, & Schilling, 1989; Gottman, Markman, & Notarius, 1977; Pasch, Bradbury, & Davila, 1997); such changes in affect should influence target's motivation and ability to progress through the stages of problem resolution in several ways. First, the potential benefit of these behaviors is that

decreases in positive affect and increases in negative affect can at times increase targets' motivation to solve their relationship problems. In particular, several theories of emotions (e.g., Hull, 1943; Nesse & Ellsworth, 2009; Tooby & Cosmides, 2008) suggest that the primary function of negative emotions is to make people more aware of, and motivate them to resolve, potential threats. Indeed, people who experience greater distress tend to be better at recognizing problems in their lives (e.g., Farmer & Ferraro, 1997; Wu et al., 2001; Yokopenic, Clark, & Aneshensel, 1983) and have greater intentions and make greater efforts to resolve such problems (Frijda, Kuipers, & Schure, 1989; Hiller et al., 2009; McCaul, Branstetter, O'Donnell, Jacobson, & Quinlan, 1998; see Baker, McNulty, & Overall, 2014) than do people who experience less distress. Accordingly, oppositional behaviors *may* increase targets' motivation to recognize problems (Stage 1) and identify and implement solutions to their problems (Stages 2 and 3).

At the same time, however, a potential cost of these behaviors, and perhaps part of why they sometimes fail to benefit the relationship, is that these changes can impair people's ability to identify and implement solutions to their

problems. Indeed, negative affect impairs the ability to generate and evaluate (Stage 2; Dugas, Letarte, Rhéaume, Freeston, & Ladouceur, 1995; Gasper, 2003; for review, see Abele-Brehm, 1992) and implement (Stage 3; Leith & Baumeister, 1996; Tice, Bratslavsky, & Baumeister, 2001) creative and effective solutions to problems. Accordingly, whether oppositional behaviors are ultimately beneficial or harmful to the resolution process will depend in part on whether any resultant increases in motivation outweigh any resultant decreases in ability, which, as described in the next section, should depend on other contextual factors, such as targets' existing motivation and ability and the stimulus with which the affect is associated.

Self-efficacy. One potential drawback of such oppositional behavior, however, is that it may increase targets' doubts about their ability to resolve their problems (i.e., decrease their self-efficacy). Indeed, receiving negative feedback, such as criticism, tends to decrease targets' self-evaluations (Harter, 1993; Leary, Haupt, Strausser, & Chokel, 1998), and such decreased self-evaluations may decrease their motivation to resolve their relationship problems. In particular, given ample evidence suggests that people low in self-efficacy tend to be less motivated to identify solutions to their problems (e.g., Bandura & Wood, 1989; Locke, Frederick, Lee, & Bobko, 1984; Zimmerman, Bandura, & Martinez-Pons, 1992) and implement those solutions (Bandura, 1977, 1986; Bandura & Wood, 1989; Schunk, 1991; Wood & Bandura, 1989), oppositional behaviors (e.g., criticism, blame) that decrease targets' self-efficacy should also decrease their motivation to identify and implement solutions to their problems (Stages 2 and 3). Consistent with these ideas, research on close relationships has demonstrated that people who doubt their ability to resolve their relationship problems work less to maintain those relationships than do people who believe they have the ability (Baker, Cobb, McNulty, Lambert, & Fincham, 2017; Baker & McNulty, 2010, 2015).

Knowledge. A second potential benefit of oppositional behaviors may apply only to direct oppositional behaviors—they can provide targets with knowledge that can help them view the problem differently or consider different solutions to the problem. For this reason, direct oppositional behaviors may increase targets' ability to move through each stage of the problem-resolution process. In particular, direct oppositional behaviors should signal to the target what the problem is (e.g., "you never take out the garbage!") and what they can do to fix it (e.g., "you need to take out the garbage!") and thereby increase targets' ability to recognize the problem (Stage 1), identify solutions to the problems (Stage 2), and implement those solutions (Stage 3). Indeed, people with greater knowledge about their problems tend to better recognize and understand those problems (Gobet & Simon, 1996), identify effective solutions to those problems (Gobet & Simon, 1996; McNamara, Kintsch, Songer, & Kintsch,

1996), and develop more effective plans to implement such solutions (Royse & Badger, 2015; Sweeney, McNulty, Reeve, & Cann, 2015). Indirect oppositional behaviors, in contrast, such as sulking, slamming doors, and behaving in a passive aggressive manner merely signal to the target that he or she is facing a problem; they offer few specific insights into the nature of the problem or steps that can be taken and thus offer no real benefits to the target's ability to resolve it. A growing body of research is consistent with these ideas as well (McNulty & Russell, 2010; Overall et al., 2009). For example, Overall and colleagues (2009) demonstrated that although direct oppositional behaviors reduced partners' problematic behavior over time, indirect oppositional behaviors did not.

Cooperative Behavior

Although relationship problems frequently involve contrasting goals and motives, partners can also share common goals and motivations, even while solving problems. When they do, they often engage in cooperative behaviors that reflect those shared interests (Overall & McNulty, 2017). One of the most common forms of a cooperative behavior that has notable implications for the problem-resolution process is support. Indeed, people regularly provide advice to their partners, console them during times of difficulty, celebrate their accomplishments, encourage them to become more like their desired self, and validate their goals and desires (for review, see Feeney & Collins, 2014). Although people engage in supportive behaviors to help partners with personal problems and goals, such personal problems and goals often affect the relationship and thus such supportive behaviors can help resolve relationship problems. For example, providing a spouse with career advice may lead to a promotion that resolves the couple's mutual financial difficulties, consoling a child may reduce the child's and thus the parents' distress, and encouraging a romantic partner to exercise may increase that partner's confidence in his appearance and thus resolve sexual difficulties. As was the case with oppositional behaviors, there are different types of supportive behaviors (e.g., Cutrona, 1990; Cutrona & Suhr, 1992; Overall, Fletcher, & Simpson, 2010; Pasch & Bradbury, 1998), including emotional, esteem, instrumental, and informational support, and the type of support that is provided can also have different implications for motivation and ability. We propose that such cooperative behaviors should also indirectly influence targets' ability and motivation to progress through the problem-solving process by affecting several intrapersonal factors: relationship beliefs, affect, self-efficacy, knowledge, and self-regulatory capacity.

Relationship beliefs. One way supportive behaviors operate on the problem-solving process is by increasing targets' positive beliefs about the actor and relationship (Brunstein,

Dangelmayer, & Schultheiss, 1996; Cutrona & Suhr, 1992; Overall et al., 2010; Pasch & Bradbury, 1998) and thus altering their motivation to resolve problems. Critically, however, whether such behaviors increase or decrease motivation depends on the stage of the problem-solving process. For example, cognitive consistency perspectives (Festinger, 1961; Gawronski & Bodenhausen, 2006) suggest that people are motivated to form and maintain beliefs that are consistent with one another; accordingly, cooperative behaviors that increase the positivity of people's global relationship beliefs may decrease their motivation to recognize specific problems with their relationships (Stage 1) because such problems would create feelings of dissonance (see Weiss, 1980). Nevertheless, given that people tend to be more motivated to solve problems in domains they like versus do not like (Lim & Chapman, 2013; Shin, Jonassen, & McGee, 2003), cooperative behaviors that increase the positivity of people's relationship beliefs should motivate them to identify and implement solutions for the relationship problems that they do recognize (Stages 2 and 3).

Affect. The other ways cooperative behaviors may affect the problem-solving processes are likely unique to specific types of cooperative behavior. For example, emotional support may influence targets' motivation and ability to progress through the stages of the problem-solving process by shaping targets' affect. Emotional support refers to behaviors that express understanding, concern, and sympathy for the target when the target is experiencing distress and reassure them of their affection, love, and support (Cutrona & Russell, 1990; Overall et al., 2010). Although the goal of such emotional support is not to resolve the problem itself, it does reduce a partner's negative affect (e.g., Bolger, Zuckerman, & Kessler, 2000; Cutrona, 1996; Lepore, 1992; Thompson et al., 2000), and as previously mentioned, such changes in affect should influence problem resolution. In particular, given that negative affect can decrease one's ability to identify and implement solutions to a problem, expressing emotional support and thus decreasing targets' negative affect may lead those targets to be better able to identify and implement effective solutions (Stages 2 and 3). Nevertheless, as noted earlier, negative affect can increase people's motivation to recognize problems and identify and implement solutions to those problems; thus, expressing support and thereby decreasing negative affect may leave people less motivated to recognize problems (Stage 1) and identify and implement solutions to those problems (Stages 2 and 3).

Self-efficacy. Esteem support may influence targets' motivation to progress through the stages of the problem-solving process by shaping their self-efficacy. Esteem support refers to behaviors that remind targets of their skills and abilities, how much change they have already brought about, and previous success in resolving similar problems (Cutrona & Russell, 1990; Overall et al., 2010). As with

emotional support, the goal of esteem support is not to directly resolve the problem; instead, esteem support tends to increase partners' self-efficacy (e.g., Cutrona & Troutman, 1986; Feeney, 2004). Given people high in self-efficacy tend to be more motivated to identify and implement solutions to their relationship problems (as previously noted), expressing esteem support should increase targets' motivation to identify and implement solutions to their problems (Stages 2 and 3).

Knowledge. Informational support may influence targets' ability to progress through the stages of the problem-solving process by shaping targets' knowledge about and/or solutions to the problem. In particular, people often provide ideas and suggestions to their partners regarding how to identify and implement solutions to their problems (Cutrona & Russell, 1990; Overall et al., 2010), and, as previously discussed, people with greater knowledge about their problems are more effective at navigating all stages of problem resolution. Thus, providing informational support should increase partners' knowledge about the problems and/or solutions and thereby ability to recognize relationship problems (Stage 1), identify and implement solutions to their problems (Stages 2 and 3), and evaluate the success of their solutions (Stage 4).

Self-regulatory capacity. Instrumental support may influence targets' ability to progress through the stages of the problem-solving process by shaping targets' self-regulatory capacity. Instrumental support refers to behaviors that provide tangible assistance to help resolve the problem or take over some of their targets' other responsibilities so that targets can focus more on the problem (Cutrona & Russell, 1990; Overall et al., 2010). By providing direct assistance to targets, targets should be able to devote more attention and regulatory resources to the problem. Indeed, ample evidence suggests that people with greater self-regulatory capacity are more likely to recognize and understand problems (Darley & Batson, 1973; Nye, Agostinelli, & Smith, 1999; Tesser & Beach, 1998), identify and effectively evaluate solutions to those problems (DeWall, Baumeister, & Masicampo, 2008; Wheeler, Briñol, & Hermann, 2007), and plan and implement those solutions (Baumeister, Stillwell, & Heatherton, 1994; Heatherton, Striepe, & Wittenberg, 1998; Muraven & Baumeister, 2000; see Muraven & Baumeister, 2000). Accordingly, providing instrumental support should increase targets' ability to recognize problems (Stage 1) and identify and implement solutions to their problems (Stages 2 and 3). Consistent with these ideas, research on close relationships has demonstrated that people who receive instrumental support from their partners are better able to successfully implement resolution behaviors than are people who do not receive such support (Overall et al., 2010; Rusbult, Finkel, & Kumashiro, 2009).

Section Summary

Given that romantic relationships are marked by high levels of interdependence, partners often attempt to influence one another. At times, their behavior can be cooperative. For example, they might provide emotional support to reduce their partners' distress, esteem support to instill confidence in their partners, informational support to increase partners' understanding of the problem and/or solution, or instrumental support to provide partners with the resources needed to tackle their problems. Nevertheless, dyad members also often behave in a more oppositional manner while resolving their problems. For example, they might blame their partners for the problems they are facing, demand their partners change their behavior, or insult their partners. The research and arguments reviewed in this section suggest that both types of behavior should influence the problem-resolution process by influencing specific intrapersonal factors that shape targets' motivation and ability, as summarized in Table 2. Given that these intrapersonal variables should have unique implications for each of the stages in the problem-resolution process, the most effective way to behave during problem-solving discussions should, in part, depend on the stage of the resolution process.

First, all types of supportive behavior should cause targets to view their relationship with actors more favorably and thus decrease their motivation to recognize relationship problems, but increase their motivation to identify and implement solutions to their problems. Second, oppositional behaviors should increase targets' negative affect and thus increase their motivation to recognize problems and identify and implement solutions to their problems, yet decrease their self-efficacy and thus their ability to do so; in contrast, emotional support should reduce negative affect and thus have the opposite effects. Third, behaviors that provide insight about the problem and/or solutions, such as direct oppositional behavior and informational support, should increase targets' ability to recognize relationship problems and identify and implement solutions to their problems to the extent that the knowledge conveyed is accurate. Fourth, esteem support should increase targets' self-efficacy and thus increase their motivation to identify and implement solutions to their problems. Finally, instrumental support should increase targets' self-regulatory capacity and thus increase their ability to recognize problems and identify and implement solutions to their problems. Research may benefit greatly from paying careful attention to whether the stage at which the various regulation behaviors are enacted have different implications for problem solving and ultimately relationship maintenance. Of course, it is also important to consider the fact that these associations should also depend on various contextual variables, such as qualities of the actor, target, problem, and solutions. Such issues are the focus of the next section.

Predictions Derived From the RePS Model: A Contextual Approach to the Costs and Benefits of Partner Regulation

In the previous section, we introduced three levels of the RePS model, all of which suggest that the costs and benefits of oppositional and cooperative partner-regulation behaviors emerge by shaping various intrapersonal factors that determine targets' ability and motivation to progress through the problem-solving stages. Nevertheless, empirical research examining the ultimate implications of these behaviors for relationship outcomes has been somewhat inconsistent. For example, although numerous studies have demonstrated that people who tend to engage in oppositional behaviors tend to experience worse relational outcomes (e.g., Gottman, 1998; Gottman & Levenson, 1999; Pasch & Bradbury, 1998; Rusbult, Verette, Whitney, Slovik, & Lipkus, 1991; Weiss & Heyman, 1997), numerous other studies have revealed that people can benefit from oppositional behaviors (e.g., Baker & McNulty, 2015; Cohan & Bradbury, 1997; Heavey, Christensen, & Malamuth, 1995; Heavey, Layne, & Christensen, 1993; Karney & Bradbury, 1997; McNulty & Russell, 2010; Overall et al., 2009). Similarly, although studies have demonstrated interpersonal benefits of social support (e.g., Abraído-Lanza, 2004; Collins, Dunkel-Schetter, Lobel, & Scrimshaw, 1993), other studies have failed to find evidence for such benefits (e.g., Bolger, Foster, Vinokur, & Ng, 1996; Lieberman, 1982; Wethington & Kessler, 1986), and still other studies have even revealed that social support can even harm close relationships (e.g., Barrera, 1986; Bolger & Amarel, 2006; Bolger et al., 2000; Lindorff, 2000).

The RePS model suggests two reasons why these and other studies may have yielded inconsistent results. First, many of these studies failed to consider the stages of the resolution process. In particular, as noted throughout the previous section, whether oppositional and cooperative partner-regulation behaviors facilitate or impair problem resolution should depend on the specific stage of the problem-resolution process at which they occur; behaviors that facilitate progress through one stage may be ineffective, or may even impair progress, during other stages. Given these theoretical reasons for considering these stages separately, future theoretical and empirical work will likely benefit by examining how the implications of problem-solving processes vary across different stages of problem resolution.

Second, previous research may have revealed inconsistent results because most previous research has failed to consider how various other contextual factors may interact with intrapersonal and interpersonal predictors to determine the cost-benefit ratio of those predictors under various conditions. Indeed, several existing contextual perspectives (Bradbury & Fincham, 1991; Karney & Bradbury, 1995; McNulty, 2016) emphasize how the interaction of qualities of the partners and

Table 3. Predictions Generated by the Relationship Problem Solving (RePS) Model Regarding Contexts That Determine the Effectiveness of Partner-Regulation Behaviors.

Context	Behaviors that are more effective	Behaviors that are less effective
Targets are already able	Oppositional behavior	Supportive behavior
Targets are already motivated		Oppositional behavior
Disagreement about the problem	Behaviors that increase recognition and understanding	Behaviors that motivate behavioral change
Motivation disparity		Oppositional behavior
		Supportive behavior provided for self-focused reasons
Disagreement about solutions	Behaviors that increase recognition and understanding	Behaviors that motivate behavioral changes
Targets have greater power than actors	Invisible behavior	Visible behavior
Awareness of regulation attempts		Supportive behavior
Attention to the problem and/or self	Oppositional behavior	Supportive behavior
Attention to the partner and/or solution	Supportive behavior	Oppositional behavior
Targets lack cognitive resources	Supportive behavior	Oppositional behavior
Targets doubt change is possible		Oppositional behavior
Actors' behaving in an atypical manner	Oppositional behavior	
	Supportive behavior	
Problem perceived as unsolvable	Emotional support	Instrumental support
		Oppositional behavior
Problem perceived as severe	Oppositional behavior	

relationship determine various relationship outcomes. Nevertheless, such perspectives have not yet addressed how these contextual factors determine the implications of partner-regulation behaviors in light of the specific stages of the problem-solving process described in the RePS.

In this section, we illustrate how the RePS model can be used to generate novel predictions regarding contextual factors that should determine the ultimate implications of partner-regulation behaviors for successful problem resolution (see Level E of Figure 1). Specifically, we describe how the potential benefits and costs of various partner-regulation behaviors for problem-solving effectiveness may depend on (a) targets' existing levels of motivation and ability, (b) discordance between partners regarding the problem, and (c) factors that determine how the behaviors are integrated into targets' existing evaluations of the problem, partner, self, and solutions. Table 3 provides a summary of these ideas.

Existing Levels of Ability and Motivation

Perhaps the most obvious factor that may determine the ultimate cost to benefit ratio of regulation behaviors is a target's existing levels of ability and motivation. As noted throughout, the RePS model suggests that although oppositional and cooperative behaviors offer potential benefits by increasing targets' motivation and ability to progress through the various stages of the problem-solving process, such behaviors also have important costs. Accordingly, understanding whether oppositional or cooperative behaviors will ultimately be beneficial for problem-solving

requires also knowing whether they are necessary, which requires knowing any existing sources of motivation and ability that alter the balance between the potential benefits and costs of those behaviors. If existing dispositional and situational factors already provide targets with the motivation and/or ability necessary to solve their problems, the benefits of partner-regulation behaviors that typically emerge by increasing motivation and/or ability may be inconsequential and the costs of such behaviors should outweigh their minor benefits. In this way, the intrapersonal variables (e.g., knowledge, self-regulatory capacity) reviewed earlier may not only directly affect progress through the stages of the problem-solving process, their existing levels may determine the cost-to-benefit ratio of various partner-regulation behaviors and thus the ultimate implications of partner-regulation behaviors.

Existing abilities. Numerous dispositional and situational factors may determine targets' existing ability to resolve their problems and thus the cost-to-benefit ratio of both oppositional and cooperative behaviors. First, *dispositional* factors, such as stable differences in targets' attention (e.g., Sweller, 1988), working memory (Baker, Kane, & Russell, 2019), creativity and task flexibility (Sternberg & Lubart, 1991), verbal processing (Gilhooly & Fioratou, 2009), reasoning (see DeLoache, Miller, & Pierroutsakos, 1998), and inhibitory control (Brady, Baker, & Miller, 2019; Finkel et al., 2012), predict greater problem-solving ability and thus may determine the need for or benefits of various partner-regulation behaviors. Although the majority of this research has examined the implications of these

abilities for problem solving as individuals, recent research (e.g., Baker et al., 2019; Finkel et al., 2012) has demonstrated that these abilities also predict greater relationship problem solving. Behaviors aimed at increasing targets' ability to resolve problems may have few benefits among people who (a) already possess that ability or (b) cannot possess that ability. Future research may benefit from testing these ideas.

Second, *situational* factors such as the levels of (a) stress and (b) support in targets' environment should also determine their existing ability to resolve relationship problems and thus moderate the implications of behaviors aimed at increasing the partner's ability to resolve a problem. Regarding stress, the implications of partner-regulation behaviors may depend on the extent that targets are experiencing stress due to difficulties with work or school, other relationships, finances, living conditions, their health, or the law (see Neff & Karney, 2017). Stress depletes cognitive capacity required for self-regulation (see Muraven & Baumeister, 2000) and thus may determine whether targets are able to effectively process and tolerate oppositional behaviors. In particular, oppositional behaviors can be threatening, and targets may respond to oppositional behaviors with their own oppositional behavior if they lack the regulatory ability to inhibit this reciprocation (Finkel et al., 2012). Such negative reciprocity is unlikely to be productive (see Gottman, 1979). Consistent with this idea, stress is associated with behaving in a more oppositional manner (Bodenmann & Shantinath, 2004; Buck & Neff, 2012; Finkel et al., 2012; Neff & Karney, 2004, 2009). For example, Buck and Neff (2012) demonstrated that intimates experienced greater depletion of their regulatory resources and thus engaged in less constructive problem-solving behavior on days when they experienced greater external stress compared to days in which they did not. Accordingly, oppositional behaviors may be more effective when targets are experiencing less stress.

In contrast, supportive behaviors may be particularly beneficial during times of stress. It is during such times that people are likely to require the most assistance. Several studies are consistent with this idea (Meuwly et al., 2012; Repetti, 1993). For example, Meuwly and colleagues (2012) examined intimates' cortisol stress responses to induced stress from a public speaking task and found that intimates with partners who provided greater support recovered from the stressful event more rapidly than did those whose partners provided less support.

For the same reasons, the implications of partner-regulation behaviors may also depend on the extent that targets receive support from other members of their broader social support networks, such as family members, friends, coworkers, neighbors, and other acquaintances (Wellman & Wortley, 1990). For example, oppositional behaviors may be more beneficial when targets have the support of others. Indeed, external providers of support help reduce

people's distress by consoling them and helping them to resolve their problems (Frone, Russell, & Cooper, 1995; Holahan & Moos, 1981; Serovich, Kimberly, Mosack, & Lewis, 2001) and, as just noted, people are likely to respond to opposition more constructively when their regulatory resources are not depleted. This idea is consistent with Finkel and colleagues' (2014) suffocation model of marriage that posits that neglecting nonromantic relationships can harm romantic relationships because nonromantic relationships buffer intimates against stresses associated with the romantic relationship and thus can facilitate constructive responses to relationship problems (see also Jackson, Kennedy, Bradbury, & Karney, 2014; Keneski, Neff, & Loving, 2018). In contrast, couples may benefit most from exchanging cooperative behaviors when they lack other sources of support because the numerous benefits of supportive behaviors may be more necessary.

Existing motivation. The ultimate cost-to-benefit ratio and thus implications of oppositional and cooperative behaviors for problem solving may also depend on both partners' existing motivation to resolve the problem. In particular, oppositional behaviors may be more costly than beneficial when targets are already sufficiently motivated to resolve their relationship problems and thus increases in motivation are unnecessary.

From this perspective, any factor that determines targets' existing motivation to notice and resolve relationship problems may moderate the ultimate implications of oppositional behavior for the problem-solving process, including the variables reviewed earlier (e.g., self-efficacy, affect), as well as other variables associated with motivation. For example, people high in conscientiousness tend to be dispositionally motivated to resolve problems in their lives (Costa & McCrae, 1992) and thus may already be motivated to resolve problems in their close relationships. Similarly, people high in agreeableness value social harmony (Graziano, Habashi, Sheese, & Tobin, 2007) and thus may also be motivated to resolve problems that disrupt their relationships. Finally, women tend to be more motivated to maintain their close relationships than are men (Cross, Bacon, & Morris, 2000) and thus may be motivated to resolve problems to preserve the quality of their relationships. Existing research is consistent with the possibility that existing sources of motivation can determine whether oppositional behaviors are beneficial versus harmful (Baker & McNulty, 2011, 2015; McNulty & Russell, 2016; Meltzer, McNulty, & Karney, 2012). For example, Meltzer and colleagues (2012) demonstrated that although wives' oppositional behaviors motivated their husbands to meet weight-loss goals, husbands' opposition reduced wives' motivation to meet their weight-loss goals, presumably because women already tend to be more motivated to lose weight than men due to societal pressures.

Dyadic Discordance

As noted in the first section, relationship problems vary in the extent to which they equally affect, and require responses from, both partners. That is, some problems, such as spouses being unable to pay the mortgage, harm both partners equally, whereas other problems, such as a stressful work presentation, might harm one partner more than the other. Similarly, some problems might require both partners to change their behavior equally, such as the need for two parents to implement a new discipline strategy, whereas other problems might require greater behavioral changes from one partner than the other, such as learning that a boyfriend has been flirting with other women. Finally, some partners hold relatively similar amounts of power over one another, whereas other relationships are less equitable. At times, such discordance can directly affect partners' progress through the stages of problem-solving. For example, a partner who is unaffected by a problem may be less motivated, and thus less likely, to address the problem.

Beyond these direct effects on the stages of problem solving, the RePS model suggests discordance between partners' (a) perceptions of the problem, (b) identified solutions to the problem, (c) motivation to resolve the problem, and (d) power within the relationship may determine the benefits and costs of various partner-regulation behaviors and thus whether such behaviors ultimately facilitate or hinder successful problem resolution. Although these ideas are broadly consistent with theories of transactive goal dynamics (e.g., Fitzsimons et al., 2015) that highlight how partners' goals interact to affect relationship outcomes, such perspectives have not yet addressed how these dyadic concerns affect relationship problem solving at the various stages of the problem-solving process or determine the implications of partner-regulation behaviors. Thus, we elaborate on these issues in the following subsections.

Disagreement about the nature of the problem. At times, partners might disagree with one another about the scope and causes of the problem because one partner may be more exposed to, have greater knowledge of, or be more affected by the problem than the other partner. In such cases, the RePS model suggests certain behaviors may be more beneficial than others. For example, esteem support may be beneficial when one partner overestimates the severity of the problem and thus doubts his or her ability to resolve it. Such support may also make targets less resistant toward recognizing their own contributions to the problem. Indeed, people who generally view themselves as capable tend to be more receptive to negative feedback from partners than are those who doubt their abilities (Brennan & Bosson, 1998). Behaviors that persuade targets to recognize and understand the problem, such as direct oppositional behavior and informational support, may also be beneficial when partners disagree about the severity of a problem by increasing partners'

knowledge and understanding of the problem, potentially allowing both partners to understand one another's perspectives (even if they do not agree). Indeed, a shared understanding of relationship problems tends to increase dyads' chance of resolving those problems (Cannon-Bowers, Salas, & Converse, 1990; Mathieu, Heffner, Goodwin, Salas, & Cannon-Bowers, 2000; for review, see Fitzsimons et al., 2015). Furthermore, these behaviors intended to persuade the target about the nature of the problem should have little benefit when partners already agree about the nature of the problem because such behaviors should not change the target's knowledge of the problem while at the same time yield other costs associated with opposition.

In contrast, the RePS model suggests that other behaviors may be less beneficial when partners disagree with one another about the nature of the problem. For example, behaviors aimed at motivating the partner to behave differently may be less effective when partners disagree about the scope of the problem. As described in the previous section, certain forms of oppositional (e.g., direct) and cooperative (e.g., instrumental) behavior tends to motivate partners to implement solutions to their problems. But given that people are particularly unlikely to change their behavior when they do not believe it is actually problematic (Fisher, Benson, & Tessler, 1990; Rusbult et al., 1991; Wilson, Lizzio, Whicker, Gallois, & Price, 2003), these behaviors may be less likely to increase motivation when the target does not believe his or her behavior is causing a problem. For example, nagging a partner to eat healthier should not motivate a spouse who believes his weight is not a problem. Instead, such behaviors are likely more beneficial when partners agree about the problem. In sum, when partners disagree about the nature of the problem, people may benefit most by attempting to change partners' understanding of the problem, and when partners agree about the nature of the problem, people may benefit most by attempting to change partners' behavior.

Discordant problem-solving motivation. The RePS model also suggests that the effectiveness of various behaviors may depend on the extent to which partners differ in their motivation to resolve the problem. However, before addressing how the implications of partner regulation should depend on the shared goal of resolving the problem, it is first important to acknowledge that people may be motivated to resolve problems for either *relationship-focused* or *self-focused* reasons. Self-focused goals reflect a desire to maximize individual well-being (Skinner, 1969). When relationship problems directly affect an individual, that individual is usually motivated to resolve the problem for self-focused reasons. Nevertheless, because people often have relationship-focused goals that reflect a general need to bond with, take care of, and maintain relationships with valuable others (Baumeister & Leary, 1995), they may want to resolve relationship problems that do not directly affect them to maintain a valuable relationship. At times, relationship-focused goals can

conflict with self-focused goals. For example, a husband may not want to spend the day doing yardwork, but knows that it will appease his wife, who is concerned about the appearance of the yard. The RePS model suggests that any factor that determines how much targets value the relationship should determine whether people prioritize their self-focused goals or their relationship-focused goals. For example, people high in narcissism (Campbell, Brunell, & Finkel, 2006), independent self-construal (Cross et al., 2000), and relational insecurities (e.g., insecure attachment, neuroticism, low self-esteem; Baker & McNulty, 2013; McNulty, 2008; Murray et al., 2006), often prioritize their own interests over their relationship. In contrast, people high in relationship commitment (Rusbult et al., 2001) or who believe their relationship is equitable (J. S. Adams, 1963; Floyd & Wasner, 1994) tend to be more willing to prioritize their relationships over their self-interests. Accordingly, one way such individual differences may help determine the implications of various problem-solving processes is through their influence on discordant problem-solving motivation.

The RePS model suggests that there are several ways in which the implications of partner regulation may depend on the shared goal of resolving the problem. First, given that actors tend to engage in oppositional behaviors when they believe targets' behavior is creating a relationship problem that directly harms them (McNulty & Russell, 2010; Overall et al., 2009), the RePS model suggests targets may be more receptive to such opposition when targets similarly desire to change their behavior when they believe it is harmful for either self-focused or relationship-focused reasons. Regarding self-focused reasons, targets may recognize that their behavior not only harms their partners but also themselves, and thus, opposition may motivate such targets to change their problematic behavior. For example, Rachel may nag her husband, Sol, to drink less because Sol is particularly nasty after he has been drinking. After a particularly painful hangover, Sol might agree that he should reduce his drinking, not to appease Rachel, but to prevent future hangovers. Indeed, encouragement and persuasion tend to motivate greater behavioral changes when targets also want to make those changes (for review, see Godin & Kok, 1996). Regarding relationship-focused reasons, opposition may make targets aware that their behavior threatens a valued relationship and thus motivates them to change their problematic behavior. For example, Rachel's nagging might make Sol aware that his drinking bothers her and motivate him to stop drinking, not because it bothers him, but because it bothers Rachel, who he loves. Indeed, people who value their relationships enough to prioritize those relationships over their own self-interests tend to be more motivated to change their behavior than are people who value their relationships less (Frye, McNulty, & Karney, 2008; Gaertner & Foshee, 1999; Rusbult et al., 1991). In contrast, people who believe that their behavior is not harming themselves or a valued relationship should be particularly resilient to

opposition. For example, if Sol is not concerned about his drinking directly or his relationship with Rachel, Rachel's nagging should be ineffective. Indeed, people tend to be resistant to persuasion from others who are not highly valued (Brehm, 1966; Rusbult et al., 1991; Silvia, 2005).

In addition, given that actors tend to engage in *support* when their partners are directly affected by a problem with which they believe they can help (Brock & Lawrence, 2010; Thoits, 1986), the RePS model suggests such support may be more beneficial when *actors* want to resolve the problem for relationship-focused, but not self-focused, reasons. Support offered for self-focused reasons may be less effective for several reasons. First, such support may appear to be self-serving (Batson, Coke, Jasnosi, & Hanson, 1978), and targets tend to appreciate and benefit more from support when they perceive it was provided altruistically (Gergen, Ellsworth, Maslach, & Seipel, 1975; Williamson & Clark, 1989; for review, see Hatfield & Sprecher, 1983). Second, support offered for self-focused reasons may be of poorer quality because actors may have fewer resources available and thus provide poorer quality support if they too are affected by the problem (Renjilian, Baum, & Landry, 1998). Finally, targets may feel guilty receiving support from actors who are themselves suffering from the problem (Crossley & Rockett, 2005), and, as discussed later, support tends to be less beneficial when undesired. Support offered for relationship-focused reasons, in contrast, may prove more beneficial. In particular, people request more, are more receptive toward, and benefit more from support when it is provided for relationship-focused reasons than self-focused reasons (Gergen et al., 1975; Williamson & Clark, 1989; for review, see Hatfield & Sprecher, 1983).

Disagreement about solutions. Partners can also disagree about the potential solutions to their problems, either because they may disagree about the nature of the problem or because the proposed solutions may be more difficult or beneficial for one partner compared to the other. The RePS model suggests that partner-regulation behaviors may be more successful when partners have agreed upon the same solution(s). In such cases, partner-regulation behaviors essentially encourage the target to engage in behaviors that the target also desires to enact. Indeed, research is consistent with this idea by suggesting that (a) people are more likely to achieve their goals when they are shared by their partners (for review, see Fitzsimons et al., 2015) and (b) encouragement from close others tends to lead to greater goal attainment (Overall et al., 2006).

But problem resolution is more complicated when partners do not agree on the solutions to their problems. In such cases, the function of partner-regulation behaviors is to persuade the target that the actors' solutions are correct and should be enacted. To this end, any factor associated with greater persuasion, such as similarity (Mackie, Worth, & Asuncion, 1990), intelligence (Hovland & Weiss, 1951),

trustworthiness (Priester & Petty, 1995), attractiveness (Mills & Aronson, 1965), liking (Sinclair, Moore, Mark, Soldat, & Lavis, 2010), and feelings of closeness (Davis & Rusbult, 2001) may increase the effectiveness of such attempts. In such cases, partner regulation may be particularly effective when actors directly address the reasons the target disagrees with the proposed solutions. For example, given that people select solutions based on the perceived costs and benefits of the solution (Feather, 1982), actors might highlight the benefits and downplay the costs. Providing esteem and instrumental support might also persuade targets who doubt their ability and/or resources to enact the proposed solutions.

Of course, there are also notable risks to partner regulation when targets disagree about the solutions they need to enact. If actors do not sufficiently persuade targets to enact effective solutions, any opposition will likely yield the costs of opposition already described (e.g., depleting targets' resources, decreasing positive relationship beliefs) while at the same time offer no benefits. Furthermore, people tend to become more committed to their beliefs when they are not sufficiently persuaded (Brehm, 1966; McGuire, 1961), and thus, targets might be less likely to engage in the behaviors necessary to resolve their problems if actors are not persuasive.

Discordant dyadic power. Finally, the RePS model suggests novel predictions regarding the implications of partner regulation behaviors for relationships that are characterized by one partner having greater influence than the other partner. Specifically, given that power increases the ability to persuade and motivate change in others (for review, see Raven, 1992), the RePS model suggests partner regulation behaviors may be less effective for actors who have less power than targets, at least on average. Even direct cooperative behaviors, which tend to be aligned with targets' interests, may be met with resistance from targets with greater power, given that people with greater power tend to value autonomy and self-reliance (Lammers, Stoker, Rink, & Galinsky, 2016) and thus may not desire support.

That said, the RePS model can also be used to speculate that actors with less power may benefit from one particular type of indirect partner regulation—behaviors that influence targets outside of those targets' awareness, which we term invisible partner regulation. In general, people tend to be resistant to persuasion attempts from targets who have less power than themselves (Mourali & Yang, 2013). Nevertheless, such resistance emerges most when people are aware they are the target of persuasion (Carver, 1977). Accordingly, higher power targets may be more susceptible to regulation behaviors that occur outside of their awareness. For example, a wife may engage in opposition over travel planning that is indirect enough to leave her husband believing that vacationing in Thailand was his idea when it was in fact hers. Although we are aware of numerous studies demonstrating various benefits to invisible social support (e.g., Bolger &

Amarel, 2007; Bolger et al., 2000; Girme et al., 2018; Girme, Overall, & Simpson, 2013), we are not aware of any research that has examined (a) whether such behaviors are equally effective for actors low in power or (b) the implications of invisible oppositional behaviors at all. Future research may benefit by addressing these ideas.

How Partner-Regulation Behaviors Shape Evaluations

A final set of factors that may determine the ultimate success of various problem-solving processes are those that determine how the affect experienced during the problem-solving process ultimately shapes people's evaluations of the actor, the target, the problem, and/or any potential solutions identified. As noted, the RePS model suggests that one way oppositional and cooperative interpersonal behaviors influence the problem-solving process is by shaping targets' affect and thus their ability and motivation to resolve their problems. According to several theoretical perspectives (Forgas, 1995; Gawronski & Bodenhausen, 2006; C. R. Jones, Olson, & Fazio, 2010; Payne, Hall, Cameron, & Bishara, 2010), people associate these affective experiences with the stimuli in their environment, which can include the partner (McNulty, Olson, Jones, & Acosta, 2017). Nevertheless, these perspectives have not yet addressed how these affective associations are shaped by and ultimately determine the problem-resolution process. The RePS model suggests that the implications of various partner-regulation behaviors may ultimately depend on the source with which affect from those behaviors becomes associated and thereby shapes attitudes toward that target.

In particular, the RePS model suggests that whether people associate negative affect stemming from partner-regulation behaviors with the (a) actor, (b) target, (c) problem, or (d) solution should have drastically different implications for the problem-solving process. For example, negative affect that becomes associated with the problem (i.e., *problem-associated affect*) should lead to more negative evaluations of the problem and thereby increase recognition of that problem and motivation to identify and implement solutions to that problem. Indeed, as previously noted, a critical function of negative emotions is to make people more aware of, and motivate them to resolve, potential threats (Frijda et al., 1989; Hiller et al., 2009; McCaul et al., 1998; Wu et al., 2001; Yokopenic et al., 1983). Negative affect that becomes associated with the partner (i.e., *partner-associated affect*) should lead to more negative evaluations of the partner and relationship with that partner and thereby increase recognition of relationship problems, yet decrease motivation to identify and implement solutions. Indeed, McNulty, Olson, Meltzer, and Shaffer (2013) demonstrated that more negative implicit associations between a partner and negative affect were associated with the tendency to evaluate problems as more severe, and several studies demonstrate that

more negative automatic partner attitudes lead to worse relationship outcomes over time (LeBel & Campbell, 2009; Lee, Rogge, & Reis, 2010; McNulty et al., 2017; McNulty et al., 2013; Murray et al., 2009; Scinta & Gable, 2007). Negative affect that becomes associated with the self (i.e., *self-associated affect*) should increase motivation to identify and implement solutions to their relationship problems. Indeed, theoretical perspectives on self-evaluations suggest that negative self-evaluations function to motivate people to improve their relational standing by addressing their relationship problems (e.g., Leary & Baumeister, 2000; Leary, Tambor, Terdal, & Downs, 1995). Finally, negative affect that becomes associated with potential solutions (i.e., *solution-associated affect*) may decrease motivation to implement such behaviors. Indeed, people are less likely to engage in problem-resolution behaviors to the extent that they expect such behaviors to be unpleasant or difficult (Codd & Cohen, 2003; Godin & Kok, 1996).

A critical question, then, is what determines the extent to which affect becomes associated with the actor, target, problem, or potential solutions? According to several dual-process perspectives of social cognition (e.g., Gawronski & Bodenhausen, 2006, 2011; C. R. Jones et al., 2010), there are two ways experiences with a stimulus (e.g., a partner, the problem) can influence evaluations of that stimulus. First, people can form or revise *automatic evaluations* as they passively and spontaneously associate experiences with that stimulus (Forgas, Levinger, & Moylan, 1994; McNulty, Baker, & Olson, 2014; McNulty et al., 2017; Neff & Karney, 2004). For example, McNulty and colleagues (2017) recently demonstrated that simply viewing images of a spouse paired with pleasant (vs. neutral) words and images increased automatic associations between that partner and positive affect. Attributional perspectives (Taylor & Fiske, 1975) and supporting research (Duval & Wicklund, 1972; Storms, 1973) suggest that people tend to automatically attribute their interpersonal experiences to the focus of their attention. Accordingly, whether targets' focus their attention on the problem, proposed solutions, the partner, or themselves should also prove critical to determining how they integrate affect into their existing evaluations and thus their motivation to resolve the problem. For example, a husband whose wife blames him for their sexual difficulties may be more likely to associate resulting negative affect with (a) his wife if he is focusing his attention on her, (b) the problem if he is focusing on it, (c) any solutions if he is focusing on those, and (d) himself if he is focusing on himself.

Second, people can form and revise *propositional evaluations* by deliberately processing their experiences, including their activated automatic evaluations, against their other beliefs, and logically inferring a subjective truth. For example, in the context of problem-resolution discussions, although targets might automatically associate negative affect resulting from actors' oppositional behavior to the immediate source of that affect (i.e., the actor), they might

conclude after deliberate reflection that the actors' behavior was the result of the themselves or the problem, leading to very different overall evaluations of these stimuli (see Bradbury & Fincham, 1990; McNulty & Karney, 2001). People's awareness of the source of their affect is critical to this process (see C. R. Jones et al., 2010). Specifically, making people aware of purely coincidental associations between stimuli and affect can lead them to dismiss such affect when evaluating such stimuli, whereas making people aware of meaningful connections between stimuli and affect can lead them to integrate such affect into their existing evaluations, even when evaluating them automatically (see Gast, Gawronski, & De Houwer, 2012).

With respect to problem-solving discussions, the RePS model suggests that awareness of a partner's regulation attempts should play a role in determining how targets integrate affect associated with such behaviors into their existing evaluations. For example, as previously mentioned, targets benefit most from provisions of support that is outside of their awareness (Bolger & Amarel, 2007; Bolger et al., 2000; Girme et al., 2018; Girme et al., 2013). In line with the processes we outline above, targets who notice support should automatically associate that support with the resulting reductions in negative affect, thus reducing their self-efficacy and thus motivation to identify and implement solutions (see Howland & Simpson, 2010). However, visible support may still increase awareness of the problem given that visible support increases the salience of the problem (Bolger et al., 2000). In contrast, when targets do not notice support, they may automatically associate reductions in negative affect with their own competence, thus maintaining their self-efficacy and motivation to resolve, but also not necessarily increasing their awareness of the problem. The following sections review several qualities of the partners and the problem that should also determine how partner-regulation behaviors should shape evaluations of the problem, partner, self, or solutions and thus guide the problem-solving process.

Qualities of the target. The RePS model suggests that various qualities of the targets may determine how affective experiences affect targets' evaluations. First, targets' *cognitive capacity* may determine how they interpret actors' behavior. As noted, although people automatically generate associations between their affective experiences and stimuli that they notice, such automatic associations can be modified by deliberately evaluating their experiences, considering their other beliefs, and drawing conclusions about the stimuli. Several studies have demonstrated that the ability to engage in such deliberate reasoning depends on cognitive capacity (Fazio & Olson, 2014; Gawronski & Bodenhausen, 2006; Gilbert, Pelham, & Krull, 1988). Accordingly, the extent to which partner-regulation behaviors and any resultant automatic evaluations lead to propositional evaluations can depend on whether or not people have the cognitive capacity

required to deliberately override their automatic evaluations. Consistent with this idea, deficits in sleep, which appear to reduce cognitive resources necessary for self-control (Barnes, Schaubroeck, Huth, & Ghumman, 2011), also partially determine how people integrate beliefs regarding specific domains of the relationship, such as problem solving, into their existing global evaluations of the relationship (Maranges & McNulty, 2017).

Second, targets' *dispositional tendencies* to attribute positive or negative affect with certain stimuli may also determine the implications of partner-regulation behaviors. For example, because targets experiencing depression (Siegel & Alloy, 1990), low self-esteem (Murray et al., 2006), or low self-efficacy (Schunk, 1991) tend to doubt their ability to change their problematic behavior, oppositional behavior should not increase their motivation and may even weaken it. Consistent with this idea, Baker and McNulty (2015) demonstrated that although oppositional behaviors tended to increase the motivation to resolve problems of targets low in depressive symptoms, such behaviors actually decreased the motivation of targets high in depressive symptoms by decreasing self-efficacy. In terms of the current perspective, targets higher in depressive symptoms may associate negative affect resulting from their partners' oppositional behaviors to unchangeable qualities of themselves rather than the problem, further undermining their motivation (see also Weckbacher & Baker, 2018). In contrast, and consistent with the idea that esteem support may be particularly beneficial for such targets, actors' supportive behavior uniquely increased the motivation of targets high in depressive symptoms (Baker & McNulty, 2015). Similarly, Kammrath and Dweck (2006) provided evidence that implicit theories about relationships determine how targets responded to actors' hostility; whereas targets who believed that relationship distress signals a resolvable relationship problem (i.e., growth theorists) responded by actively attempting to resolve their relationship problems, targets who believed that relationship distress was diagnostic of a poor-quality relationship (i.e., destiny theorists) responded by avoiding their problems.

Qualities of the actor. The RePS model also suggests that qualities of the actor should play a role in determining how affect from problem-solving discussions is integrated into existing evaluations. In particular, targets tend to interpret actors' behaviors in light of actors' prior behaviors (E. E. Jones & Davis, 1965; Kelley, 1973). For example, given that people notice (e.g., Strayer & Johnson, 2000) and remember (e.g., Tulving & Kroll, 1995) novel events more than familiar events, targets should notice and remember actors' behavior more to the extent that such behavior is atypical from those actors. Furthermore, targets may doubt the importance and even authenticity of actors' typical behaviors because they may attribute those behaviors to dispositional qualities of the actor and not the specific problem they are facing (E. E. Jones & Davis, 1965; Kelley, 1973). With respect to the

current focus on affective associations, targets may be more likely to attribute affect resulting from actors' typical partner-regulation behaviors to those actors and more likely to attribute it to something else (e.g., the problem, self) when it is atypical of those actors, and such emerging associations should have important implications for motivation. Research is consistent with these ideas (e.g., Forest, Kille, Wood, & Holmes, 2014; Jayamaha & Overall, 2015). In one study, Jayamaha and Overall (2015) demonstrated that oppositional behaviors motivated less change in targets when enacted by actors with low self-esteem, who tend to overact to problems (e.g., Lemay & Dudley, 2011), than when enacted by actors with high self-esteem. Similarly, Forest and colleagues (2014) demonstrated that targets are more responsive to the demands of actors who are infrequently negative compared to actors who are chronically negative.

Qualities of the problem. Finally, the RePS model suggests that several qualities of the problem should determine how partner-regulation behaviors are integrated into existing evaluations. For example, the *perceived solvability* of a problem likely plays an important role. Experiencing negative affect due to an unsolvable problem may be threatening and thus activate defensive strategies, such as dissonance reduction (Gawronski, 2012) and reaction formation (H. E. Adams, Wright, & Lohr, 1996), that affect how people evaluate their experiences. Such defensive reactions, in turn, may lead people to associate negative affect from oppositional behaviors with actors rather than problems, leading to decreases in motivation to address problems. Indeed, people respond more favorably to criticism when they are able to correct their interpersonal mistakes compared to when they believe there is nothing they can do to fix the problem (Baker & McNulty, 2015; DeWall & Richman, 2011; Molden, Lucas, Gardner, Dean, & Knowles, 2009; see Baker & Baumeister, 2017).

Likewise, the *severity* of a problem likely plays an important role in the integration of actors' behavior. In particular, targets of oppositional behaviors enacted during discussions of severe problems may more readily attribute negative affect to the problems and experience increased motivation, whereas targets of oppositional behaviors enacted during discussions of minor problems may believe actors are overreacting and thus attribute negative affect to the actor and experience decreased motivation. Indeed, several studies have provided evidence that people are less responsive to opposition that they believe is unjustified (Fisher et al., 1990; Rusbult et al., 1991; Wilson et al., 2003). For example, Wilson and colleagues (2003) revealed that employees rarely accommodate criticism from colleagues when they perceive that criticism is unfair.

Finally, with respect to supportive behaviors, whether *support matches the needs of the problem* should affect how the support is perceived and integrated into existing evaluations. Whereas instrumental support should be most

beneficial to targets facing solvable problems, emotional support should be most beneficial to targets facing unsolvable problems. In particular, instrumental support, which provides targets with direct assistance, has little value when problems are not solvable. Moreover, targets may doubt whether actors truly understand their problems if those actors attempt to help with unsolvable problems (e.g., Ickes, 2006), and negative affect resulting from that discovery should be associated with those actors. The goal of emotional support, in contrast, is to console targets who are experiencing distress. Although distress should benefit targets when it makes them more aware of, and motivates them to resolve, solvable problems, distress should not benefit targets who are facing unsolvable problems. Thus, provisions of emotional support might lead targets to associate reductions in distress with those actors, yet not experience motivational declines, when facing unsolvable problems. Existing research highlights the benefits of support matching. For example, Cutrona and Russell (1990) conducted a meta-analysis of 39 studies and found that instrumental forms of support tended to be the most beneficial type of support when facing controllable events and emotional forms of support tended to be the most beneficial type of support when facing uncontrollable events.

Section Summary

Interpersonal behavior does not exist in a vacuum, and thus, its implications depend on factors surrounding it. More specifically, whereas certain behaviors may benefit certain targets who are facing certain problems, those same behaviors may be ineffective, or even harmful, for other people facing other problems. One reason that research examining the implications of partner-regulation behaviors has yielded such inconsistent results may be because it has failed to consider the broader social context in which such behaviors occur. In this section, we have drawn from the RePS model to generate novel predictions regarding the various contextual factors that not only directly affect the problem-resolution process but may also determine the ultimate implications of partner-regulation behaviors for successful problem resolution. In particular, we posit that the implications of partner-regulation behaviors depend on (a) partners' existing levels of motivation and ability, (b) discordance between partners regarding the problem, and (c) factors that determine how the behaviors are integrated into partners' existing evaluations of the problem, themselves, one another, and solutions.

Discussion

Although romantic relationships are crucial to accomplishing many life goals, all relationships encounter problems that threaten the well-being of the members of those relationships and thus ultimately those relationships themselves. In this article, we reviewed and synthesized available research into

a comprehensive model—the RePS model—that can guide future research on the process through which people influence their partners' behavior to resolve relationship problems. First, the RePS model accounts for four specific stages of problem resolution: (a) recognizing the problem, (b) identifying a resolution strategy, (c) implementing the resolution strategy, and (d) reappraising the problem. Second, the RePS model describes how interpersonal behaviors (e.g., opposition, cooperation) influence the problem-resolution process by shaping *intrapersonal* factors (e.g., affect, self-efficacy) that influence targets' motivation and ability to progress through these stages. Finally, we used the RePS model to generate several novel predictions regarding how various contextual factors may determine the extent to which such interpersonal behaviors will successfully resolve relationship problems. In particular, the RePS model suggests that effectiveness of these behaviors may depend on targets' existing levels of motivation and ability, discordance between partners about the problem, and how the behaviors are integrated into existing evaluations of the self, partner, problem, and solutions.

Theoretical and Practical Implications

The RePS model has several important theoretical and practical implications. First, the model highlights the need to examine problem solving from both an intra- and interpersonal perspective. Unlike many problems that people face as individuals, relationship problems affect, and are often addressed by, more than one person. As such, understanding how people resolve relationship problems requires considering not only the intrapersonal factors that are typically associated with problem solving (e.g., knowledge, affect) but also how partners influence one another to better solve their problems. Although the ultimate determinants of even relationship problems are intrapersonal factors, the RePS model describes how those intrapersonal factors are shaped by how individuals behave toward their partners, and the way those behaviors ultimately shape such intrapersonal processes depends critically on the broader social context.

Second, by integrating these diverse bodies of literature, the RePS model extends numerous theoretical perspectives. As noted throughout this article, several extant theoretical perspectives are relevant to understanding how partners influence one another to solve their relationship problems (for review, see Table 1). Nevertheless, each of these perspectives are limited in key ways, and the RePS model suggests exciting ways in which extant theoretical perspectives can be extended. For example, although several basic and clinical theories of problem solving address how motivation and ability facilitate progress through the stages of problem solving, the RePS model suggests that these perspectives need to consider how interpersonal behaviors can influence those intrapersonal factors. Similarly, although theories of partner regulation address how partners influence one

another, the RePS model suggests that these perspectives need to consider the stages of the problem-solving processes as well as the manner in which affect from these behaviors is integrated into existing evaluations to determine how targets are likely to respond.

Third, although the RePS model is not intended to serve as a framework for treating distressed couples, it does have practical implications for practitioners helping couples deal with relationship problems. In particular, clinicians and counselors have long recognized that romantic partners are a powerful source of support for people looking to change their problematic behavior (e.g., reducing alcohol, dieting; for review, see O'Farrell & Clements, 2012). The RePS model suggests ways in which practitioners can understand and even educate clients to be more mindful about how stages and contextual factors may determine the effectiveness of their regulatory efforts. For example, intimates could be instructed to avoid confrontational behavior when partners lack the cognitive resources (e.g., are stressed, tired, intoxicated) to associate negative emotional reactions to the problem rather than partner, or when the partner's external network is providing more stress than support. Similarly, intimates could be taught to engage in persuasive (e.g., informational support, direct confrontation), rather than motivational (e.g., criticism, emotional support), forms of regulation when partners do not recognize the problem or disagree about its solution. Finally, intimates should recognize that support is most effective when it matches the recipients' needs and goes unnoticed.

Finally, the RePS model also highlights the benefits of integrating relationship and nonrelationship research. Specifically, to further understanding about how people can resolve their relationship problems, the RePS model integrates diverse bodies of psychological research that are often ignored in relationship science. For example, understanding how people effectively solve problems has been one of the primary goals of cognitive science (for review, see Dominowski & Bourne, 1994). Similarly, one of the most fundamental goals of clinical and counseling research (e.g., Kazdin, 1978) is to better identify ways in which people can change their problematic behaviors. Unfortunately, this work has often been ignored by close relationship researchers. We hope that the RePS model, which bridges numerous independent lines of research, spurs greater integration of these bodies of research from relationship researchers in the future.

Future Extensions of the RePS Model

Throughout the last section, we laid out numerous novel predictions that can be derived from the RePS model. We limited that section to topics with enough extant research to make informed predictions. Nevertheless, it is also important for future research to consider several important issues related to problem solving and the RePS model that have been largely ignored by previous research. We raise these

issues now to (a) spur future research on these topics and (b) consider how the RePS model could potentially be extended by such research. First, future research may benefit from examining whether the processes described by the current model also apply to close, non-romantic relationships, such as friends, family members, neighbors, and coworkers. Given similarities between romantic relationships and other close, non-romantic relationships (e.g., interdependence), we expect many of the stages, processes, and behaviors discussed in the current article to also extend to close, non-romantic relationships. Nevertheless, different types of relationships provide different contexts that may alter the implications of these psychological processes and interpersonal behaviors (see Russell, Baker, & McNulty, 2013). For example, people often expect that their relationships with some people (e.g., friends, romantic partners) will be more equitable than their relationships with others (e.g., children, employers; Laursen & Williams, 1997; Vogl-Bauer, Kalbfleisch, & Beatty, 1999). Furthermore, people often consider their relationships with some people (e.g., romantic partners, family) to be more important than their relationships with other people (e.g., neighbors, coworkers). Finally, people tend to spend more time with and have greater knowledge about some people (e.g., romantic partners, family) compared to others (e.g., employers/employees, neighbors). Given that power, relationship-focused motivation, and familiarity may determine the implications of interpersonal behaviors, future research may benefit by identifying whether these, or other, differences between types of relationships determine the implications of problem-solving processes described throughout this article.

Second, although we used the RePS model to generate several novel predictions regarding how several interpersonal, intrapersonal, and contextual factors may interact to predict problem-solving, we did not provide an exhaustive list. Nevertheless, we anticipate that the RePS model can be utilized to investigate how other interpersonal, intrapersonal, and contextual factors affect the problem-resolution process. For example, relatively little research has examined the implications of indirect cooperative partner-regulation behaviors, such as using humor, minimizing perceived problem-severity, conveying optimism, or expressing affection to distract from the problem (Overall & McNulty, 2017), for problem solving. Despite the lack of research on this topic, the RePS model provides a useful framework for investigating how these behaviors affect problem solving by suggesting that their effectiveness may be determined by contextual factors. Specifically, given that these behaviors do not directly address the problem, yet still influence targets' intrapersonal qualities (e.g., reducing negative affect, increasing relationship-focused motivation; Overall et al., 2009), such behaviors might be particularly beneficial when couples are facing unsolvable problems, yet harmful when facing solvable problems. Similarly, although the RePS model identified several

potential mechanisms (e.g., affect, self-efficacy) that account for the effects of partner-regulation behaviors, future research might consider additional mechanisms; direct partner-regulation behaviors, for instance, might lead targets to acknowledge their contributions to the problem, which may motivate them to change their behavior. Finally, future research might benefit by utilizing the current model to identify other contextual moderators of interpersonal behavior. For example, Baker and colleagues (Baker et al., 2019) recently revealed that dispositional working memory capacity determines how much people remember from problem-resolution discussions and thus their ability to resolve those problems over the following year. The authors speculate that working memory might also determine the implications of partner-regulation behaviors, such that people with greater working memory might benefit more from their partners' constructive statements, yet be harmed more by their partners' ineffective statements, because they are better able to remember both types of statements compared to people with worse working memory. Other basic cognitive processes (e.g., attention, verbal fluency) might similarly determine the implications of interpersonal behavior.

Ethical Approval

This manuscript is an integrative review of previously published research. The authors did not collect new data, nor analyzed raw data, for this manuscript. Consequently, the authors did not seek approval from an ethical committee to write this manuscript.

Acknowledgments

The authors would like to thank V. Michelle Russell for her helpful feedback on this paper.

Author Contributions

The authors Levi R. Baker and James K. McNulty contributed equally.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

References

- Abele-Brehm, A. (1992). Positive and negative mood influences on creativity: Evidence for asymmetrical effects. *Polish Psychological Bulletin*, 23, 203-221.
- Abraído-Lanza, A. F. (2004). Social support and psychological adjustment among Latinas with arthritis: A test of a theoretical model. *Annals of Behavioral Medicine*, 27, 162-171.
- Adams, H. E., Wright, L. W., & Lohr, B. A. (1996). Is homophobia associated with homosexual arousal? *Journal of Abnormal Psychology*, 105, 440-445.
- Adams, J. S. (1963). Toward an understanding of inequity. *Journal of Abnormal and Social Psychology*, 67, 422-436.
- Aron, A., & Aron, E. N. (1997). Self-expansion motivation and including other in the self. In W. Ickes (Section Ed.) & S. Duck (Ed.), *Handbook of personal relationships*, 2nd edition (Vol. 1, pp. 251-270). London, England: John Wiley.
- Baker, L. R., & Baumeister, R. F. (2017). Alone and impulsive: Self-regulatory capacity mediates and moderates the implications of exclusion. In K. W. Williams & S. A. Nida (Eds.), *Frontiers handbook of ostracism, social exclusion, & rejection* (pp. 29-45). New York, NY: Psychology Press.
- Baker, L. R., Cobb, R. A., McNulty, J. K., Lambert, N. M., & Fincham, F. D. (2017). Remaining in a situationally aggressive relationship: The role of relationship self-efficacy. *Personal Relationships*, 23, 591-604.
- Baker, L. R., Kane, M. J., & Russell, V. M. (2019). Romantic partners' working memory capacity facilitates relationship problem resolution through recollection of problem-relevant information. *Journal of Experimental Psychology: General*.
- Baker, L. R., & McNulty, J. K. (2010). Shyness and marriage: Does shyness shape even established relationships? *Personality & Social Psychology Bulletin*, 36, 665-676.
- Baker, L. R., & McNulty, J. K. (2011). Self-compassion and relationship maintenance: The moderating roles of conscientiousness and gender. *Journal of Personality and Social Psychology*, 100, 853-873.
- Baker, L. R., & McNulty, J. K. (2013). When low self-esteem encourages behaviors that risk rejection to increase interdependence: The role of relational self-construal. *Journal of Personality and Social Psychology*, 104, 995-1018.
- Baker, L. R., & McNulty, J. K. (2015). Adding insult to injury: Partner depression moderates the association between partner-regulation attempts and partners' motivation to resolve interpersonal problems. *Personality & Social Psychology Bulletin*, 41, 839-852.
- Baker, L. R., McNulty, J. K., & Overall, N. C. (2014). When negative emotions benefit close relationships. In W. G. Parrott (Ed.), *The positive side of negative emotions* (pp. 101-125). New York, NY: Guilford Press.
- Baker, L. R., McNulty, J. K., Overall, N. C., Lambert, N. M., & Fincham, F. D. (2013). How do relationship maintenance behaviors affect individual well-being? A contextual perspective. *Social Psychological & Personality Science*, 4, 282-289.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191-215.
- Bandura, A. (1986). The explanatory and predictive scope of self-efficacy theory. *Journal of Social and Clinical Psychology*, 4, 359-373.
- Bandura, A., & Wood, R. (1989). Effect of perceived controllability and performance standards on self-regulation of complex decision making. *Journal of Personality and Social Psychology*, 56, 805-814.
- Barnes, C. M., Schaubroeck, J., Huth, M., & Ghumman, S. (2011). Lack of sleep and unethical conduct. *Organizational Behavior and Human Decision Processes*, 115, 169-180.
- Barrera, M. (1986). Distinctions between social support concepts, measures, and models. *American Journal of Community Psychology*, 14, 413-445.
- Batson, C. D., Coke, J. S., Jasnoski, M. L., & Hanson, M. (1978). Buying kindness: Effect of an extrinsic incentive for helping

- on perceived altruism. *Personality and Social Psychology Bulletin*, 4, 86-91.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117, 497-529.
- Baumeister, R. F., Stillwell, A. M., & Heatherton, T. F. (1994). Guilt: An interpersonal approach. *Psychological Bulletin*, 115, 243-267.
- Bodenmann, G., & Shantinath, S. D. (2004). The couples coping enhancement training (CCET): A new approach to prevention of marital distress based upon stress and coping. *Family Relations*, 53, 477-484.
- Bolger, N., & Amarel, D. (2006). Effects of social support visibility on adjustment to stress: Experimental evidence. *Journal of Personality and Social Psychology*, 92, 458-475.
- Bolger, N., & Amarel, D. (2007). Effects of social support visibility on adjustment to stress: Experimental evidence. *Journal of Personality and Social Psychology*, 92, 458-475.
- Bolger, N., DeLongis, A., Kessler, R. C., & Schilling, E. A. (1989). Effects of daily stress on negative mood. *Journal of Personality and Social Psychology*, 57, 808-818.
- Bolger, N., Foster, M., Vinokur, A. D., & Ng, R. (1996). Close relationships and adjustment to a life crisis: The case of breast cancer. *Journal of Personality and Social Psychology*, 70, 283-294.
- Bolger, N., Zuckerman, A., & Kessler, R. C. (2000). Invisible support and adjustment to stress. *Journal of Personality and Social Psychology*, 79, 953-961.
- Bradbury, T. N., & Fincham, F. D. (1990). Attributions in marriage: Review and critique. *Psychological Bulletin*, 107, 3-33.
- Bradbury, T. N., & Fincham, F. D. (1991). A contextual model for advancing the study of marital interaction. In G. O. Fletcher, F. D. Fincham, G. O. Fletcher, & F. D. Fincham (Eds.), *Cognition in close relationships* (pp. 127-147). Hillsdale, NJ: Lawrence Erlbaum.
- Brady, A., Baker, L. R., & Miller, R. S. (2019). Look but don't touch? Self-regulation determines whether noticing attractive alternatives increases infidelity. *Journal of Family Psychology*. Advance online publication. doi:10.1037/fam0000578
- Bransford, J., & Stein, B. S. (1993). *The ideal problem solver: A guide for improving thinking, learning, and creativity*. New York, NY: W.H. Freeman.
- Brehm, J. W. (1966). *A theory of psychological reactance*. Oxford, UK: Academic Press.
- Brennan, K. A., & Bosson, J. K. (1998). Attachment-style differences in attitudes toward and reactions to feedback from romantic partners: An exploration of the relational bases of self-esteem. *Personality and Social Psychology Bulletin*, 24, 699-714.
- Brock, R. L., & Lawrence, E. (2010). Support adequacy in marriage: Observing the platinum rule. In K. T. Sullivan & J. Davilla (Eds.), *Support processes in intimate relationships* (pp. 3-25). New York, NY: Oxford University Press.
- Brunstein, J. C., Dangelmayer, G., & Schultheiss, O. C. (1996). Personal goals and social support in close relationships: Effects on relationship mood and marital satisfaction. *Journal of Personality and Social Psychology*, 71, 1006-1019.
- Buck, A. A., & Neff, L. A. (2012). Stress spillover in early marriage: The role of self-regulatory depletion. *Journal of Family Psychology*, 26, 698-708.
- Campbell, W. K., Brunell, A. B., & Finkel, E. J. (2006). Narcissism, interpersonal self-regulation, and romantic relationships: An agency model approach. In K. D. Vohs, E. J. Finkel, K. D. Vohs, & E. J. Finkel (Eds.), *Self and relationships: Connecting intrapersonal and interpersonal processes* (pp. 57-83). New York, NY: Guilford Press.
- Cannon-Bowers, J. A., Salas, E., & Converse, S. A. (1990). Cognitive psychology and team training: Training shared mental models of complex systems. *Human Factors Society Bulletin*, 33, 1-4.
- Carver, C. S. (1977). Self-awareness, perception of threat, and the expression of reactance through attitude change. *Journal of Personality*, 45, 501-512.
- Codd, R. I., & Cohen, B. N. (2003). Predicting college student intention to seek help for alcohol abuse. *Journal of Social and Clinical Psychology*, 22, 168-191.
- Cohan, C. L., & Bradbury, T. N. (1997). Negative life events, marital interaction, and the longitudinal course of newlywed marriage. *Journal of Personality and Social Psychology*, 73, 114-128.
- Collins, N. L., Dunkel-Schetter, C., Lobel, M., & Scrimshaw, S. C. (1993). Social support in pregnancy: Psychosocial correlates of birth outcomes and postpartum depression. *Journal of Personality and Social Psychology*, 65, 1243-1258.
- Costa, P. T., & McCrae, R. R. (1992). Four ways five factors are basic. *Personality and Individual Differences*, 13, 653-665.
- Cross, S. E., Bacon, P. L., & Morris, M. L. (2000). The relational-interdependent self-construal and relationships. *Journal of Personality and Social Psychology*, 78, 791-808.
- Crossley, D., & Rockett, K. (2005). The experience of shame in older psychiatric patients: A preliminary enquiry. *Aging & Mental Health*, 9, 368-373.
- Cutrona, C. E. (1990). Stress and social support-in search of optimal matching. *Journal of Social and Clinical Psychology*, 9, 3-14.
- Cutrona, C. E. (1996). *Social support in couples: Marriage as a resource in times of stress*. Thousand Oaks, CA: SAGE.
- Cutrona, C. E., & Russell, D. W. (1990). Type of social support and specific stress: Toward a theory of optimal matching. In B. R. Sarason, I. G. Sarason, & G. R. Pierce (Eds.), *Social support: An interactional view* (pp. 319-366). New York, NY: John Wiley.
- Cutrona, C. E., & Suhr, J. A. (1992). Controllability of stressful events and satisfaction with spouse support behaviors. *Communication Research*, 19, 154-174.
- Cutrona, C. E., & Troutman, B. R. (1986). Social support, infant temperament, and parenting self-efficacy: A mediational model of postpartum depression. *Child Development*, 57, 1507-1518.
- Darley, J. M., & Batson, C. D. (1973). "From Jerusalem to Jericho": A study of situational and dispositional variables in helping behavior. *Journal of Personality and Social Psychology*, 27, 100-108.
- Davis, J. L., & Rusbult, C. E. (2001). Attitude alignment in close relationships. *Journal of Personality and Social Psychology*, 81, 65-84.
- DeLoache, J. S., Miller, K. F., & Pierroutsakos, S. L. (1998). Reasoning and problem solving. In W. Damon (Ed.), *Handbook of child psychology, Vol. 2: Cognition, perception, and language* (pp. 801-850). Hoboken, NJ: John Wiley.

- DeWall, C. N., Baumeister, R. F., & Masicampo, E. J. (2008). Evidence that logical reasoning depends on conscious processing. *Consciousness and Cognition, 17*, 628-645.
- DeWall, C. N., & Richman, S. B. (2011). Social exclusion and the desire to reconnect. *Social & Personality Psychology Compass, 5*, 919-932.
- Dominowski, R., & Bourne, L. (1994). History of research on thinking and problem solving. In R. Sternberg (Ed.), *Thinking and problem solving* (pp. 1-35). San Diego, CA: Academic Press.
- Dugas, M. J., Letarte, H., Rhéaume, J., Freeston, M. H., & Ladouceur, R. (1995). Worry and problem solving: Evidence of a specific relationship. *Cognitive Therapy and Research, 19*, 109-120.
- Duval, S., & Wicklund, R. A. (1972). *A theory of objective self-awareness*. New York, NY: Academic Press.
- D'Zurilla, T. J., & Goldfried, M. R. (1971). Problem solving and behavior modification. *Journal of Abnormal Psychology, 78*, 107-126.
- Epstein, N. B., & Baucom, D. H. (2002). *Enhanced cognitive-behavioral therapy for couples: A contextual approach*. Washington, DC: American Psychological Association.
- Farmer, M. M., & Ferraro, K. F. (1997). Distress and perceived health: Mechanisms of health decline. *Journal of Health and Social Behavior, 38*, 298-311.
- Fazio, R. H., & Olson, M. A. (2014). The MODE model: Attitude-behavior processes as a function of motivation and opportunity. In J. W. Sherman, B. Gawronski, Y. Trope, J. W. Sherman, B. Gawronski, & Y. Trope (Eds.), *Dual-process theories of the social mind* (pp. 155-171). New York, NY: Guilford Press.
- Feather, N. T. (1982). *Expectations and actions: Expectancy-value models in psychology*. Hillsdale, NJ: Lawrence Erlbaum.
- Feeney, B. C. (2004). A secure base: Responsive support of goal strivings and exploration in adult intimate relationships. *Journal of Personality and Social Psychology, 87*, 631-648.
- Feeney, B. C., & Collins, N. L. (2014). A new look at social support: A theoretical perspective on thriving through relationships. *Personality and Social Psychology Review, 19*, 113-147.
- Festinger, L. (1961). The psychological effects of insufficient rewards. *American Psychologist, 16*, 1-11.
- Finkel, E. J., DeWall, C. N., Slotter, E. B., McNulty, J. K., Pond, R. S., & Atkins, D. C. (2012). Using I³ theory to clarify when dispositional aggressiveness predicts intimate partner violence perpetration. *Journal of Personality and Social Psychology, 102*, 533-549.
- Finkel, E. J., Hui, C. M., Carswell, K. L., & Larson, G. M. (2014). The suffocation of marriage: Climbing Mount Maslow without enough oxygen. *Psychological Inquiry, 25*, 1-41.
- Fisher, G. A., Benson, P. R., & Tessler, R. C. (1990). Family responses to mental illness: Developments since deinstitutionalization. *Research in Community and Mental Health, 6*, 203-236.
- Fitzsimons, G. M., Finkel, E. J., & vanDellen, M. R. (2015). Transactive goal dynamics. *Psychological Review, 122*, 648-673.
- Floyd, F. J., & Wasner, G. H. (1994). Social exchange, equity and commitment: Structural equation modeling of dating relationships. *Journal of Family Psychology, 8*, 55-73.
- Forest, A. L., Kille, D. R., Wood, J. V., & Holmes, J. G. (2014). Discount and disengage: How chronic negative expressivity undermines partner responsiveness to negative disclosures. *Journal of Personality and Social Psychology, 107*, 1013-1032.
- Forgas, J. P. (1995). Mood and judgment: The affect infusion model (AIM). *Psychological Bulletin, 117*, 39-66.
- Forgas, J. P., Levinger, G., & Moylan, S. J. (1994). Feeling good and feeling close: Affective influences on the perception of intimate relationships. *Personal Relationships, 1*, 165-184.
- Frijda, N. H., Kuipers, P., & Schure, E. (1989). Relations among emotion, appraisal, and emotional action readiness. *Journal of Personality and Social Psychology, 57*, 212-228.
- Frone, M. R., Russell, M., & Cooper, M. L. (1995). Job stressors, job involvement and employee health: A test of identity theory. *Journal of Occupational and Organizational Psychology, 68*, 1-11.
- Frye, N. E., McNulty, J. K., & Karney, B. R. (2008). How do constraints on leaving a marriage affect behavior within the marriage? *Journal of Family Psychology, 22*, 153-161.
- Gaertner, I., & Foshee, V. (1999). Commitment and the perpetration of relationship violence. *Personal Relationships, 6*, 227-239.
- Gasper, K. (2003). When necessity is the mother of invention: Mood and problem solving. *Journal of Experimental Social Psychology, 39*, 248-262.
- Gast, A., Gawronski, B., & De Houwer, J. (2012). Evaluative conditioning: Recent developments and future directions. *Learning and Motivation, 43*, 79-88.
- Gawronski, B. (2012). Back to the future of dissonance theory: Cognitive consistency as a core motive. *Social Cognition, 30*, 652-668.
- Gawronski, B., & Bodenhausen, G. V. (2006). Associative and propositional processes in evaluation: An integrative review of implicit and explicit attitude change. *Psychological Bulletin, 132*, 692-731.
- Gawronski, B., & Bodenhausen, G. V. (2011). The associative-propositional evaluation model: Theory, evidence, and open questions. *Advances in Experimental Social Psychology, 44*, 59-107.
- Gergen, K. J., Ellsworth, P., Maslach, C., & Seipel, M. (1975). Obligation, donor resources, and reactions to aid in three cultures. *Journal of Personality and Social Psychology, 31*, 390-400.
- Gerstel, N., & Sarkisian, N. (2006). Marriage: The good, the bad, and the greedy. *Contexts, 5*, 16-21.
- Gilbert, D. T., Pelham, B. W., & Krull, D. S. (1988). On cognitive busyness: When person perceivers meet persons perceived. *Journal of Personality and Social Psychology, 54*, 733-740.
- Gilhooly, K. J., & Fioratou, E. (2009). Executive functions in insight versus non-insight problem solving: An individual differences approach. *Thinking & Reasoning, 15*, 355-376.
- Girme, Y. U., Maniaci, M. R., Reis, H. T., McNulty, J. K., Carmichael, C. L., Gable, S. L., . . . Overall, N. C. (2018). Does support need to be seen? Daily invisible support promotes next day relationship well-being. *Journal of Family Psychology, 32*, 882-893.
- Girme, Y. U., Overall, N. C., & Simpson, J. A. (2013). When visibility matters: Short-term versus long-term costs and benefits of visible and invisible support. *Personality and Social Psychology Bulletin, 39*, 1441-1454.

- Gobet, F., & Simon, H. A. (1996). The roles of recognition processes and look-ahead search in time-constrained expert problem solving: Evidence from grand-master-level chess. *Psychological Science, 7*, 52-55.
- Godin, G., & Kok, G. (1996). The theory of planned behavior: A review of its applications to health-related behaviors. *American Journal of Health Promotion, 11*, 87-98.
- Gottman, J. M. (1979). *Marital interaction: Experimental investigations*. New York, NY: Academic Press.
- Gottman, J. M. (1998). Psychology and the study of marital processes. *Annual Review of Psychology, 49*, 169-197.
- Gottman, J. M., & Levenson, R. W. (1999). What predicts change in marital interaction over time? A study of alternative models. *Family Process, 38*, 143-158.
- Gottman, J. M., Markman, H., & Notarius, C. (1977). The topography of marital conflict: A sequential analysis of verbal and nonverbal behavior. *Journal of Marriage and Family, 39*, 3461-3477.
- Graziano, W. G., Habashi, M. M., Sheese, B. E., & Tobin, R. M. (2007). Agreeableness, empathy, and helping: A person \times situation perspective. *Journal of Personality and Social Psychology, 93*, 583-599.
- Harter, S. (1993). Causes and consequences of low self-esteem in children and adolescents. In R. F. Baumeister (Ed.), *Self-esteem: The puzzle of low self-regard* (pp. 87-116). New York, NY: Plenum Press.
- Hatfield, E., & Sprecher, S. (1983). Equity theory and recipient reactions to aid. In J. D. Fisher, A. Nadler, & B. M. DePalulo (Eds.), *New directions in helping: Recipient reactions to aid, volume 1* (pp. 113-141). New York, NY: Academic Press.
- Hayes, J. R. (1989). *The complete problem solver*. Hillsdale, NJ: Lawrence Erlbaum.
- Heatherton, T. F., Striepe, M., & Wittenberg, L. (1998). Emotional distress and disinhibited eating: The role of self. *Personality and Social Psychology Bulletin, 24*, 301-313.
- Heavey, C. L., Christensen, A., & Malamuth, N. M. (1995). The longitudinal impact of demand and withdrawal during marital conflict. *Journal of Consulting and Clinical Psychology, 63*, 797-801.
- Heavey, C. L., Layne, C., & Christensen, A. (1993). Gender and conflict structure in marital interaction: A replication and extension. *Journal of Consulting and Clinical Psychology, 61*, 16-27.
- Hiller, M. L., Narevic, E., Webster, J. M., Rosen, P., Staton, M., Leukefeld, C., . . . Kayo, R. (2009). Problem severity and motivation for treatment in incarcerated substance abusers. *Substance Use & Misuse, 44*, 28-41.
- Holahan, C. J., & Moos, R. H. (1981). Social support and psychological distress: A longitudinal analysis. *Journal of Abnormal Psychology, 90*, 365-370.
- Hovland, C. I., & Weiss, W. (1951). The influence of source credibility on communication effectiveness. *Public Opinion Quarterly, 15*, 635-650.
- Howland, M., & Simpson, J. A. (2010). Getting in under the radar: A dyadic view of invisible support. *Psychological Science, 21*, 1878-1885.
- Hull, C. L. (1943). *Principles of behavior*. New York, NY: Appleton-Century-Crofts.
- Ickes, W. (2006). Gender differences in empathic accuracy: Differential ability or differential motivation? *Methodology Meta Analysis, Social Perception & Cognition, 7*, 95-109.
- Jackson, G. L., Kennedy, D., Bradbury, T. N., & Karney, B. R. (2014). A social network comparison of low-income Black and White newlywed couples. *Journal of Marriage and Family, 76*, 967-982.
- Jacobson, N. S., & Margolin, G. (1979). *Marital therapy: Strategies based on social learning and behavior exchange principles*. New York, NY: Brunner/Mazel.
- Jayamaha, S. D., & Overall, N. C. (2015). Agents' self-esteem moderates the effectiveness of negative-direct partner regulation strategies. *Personal Relationships, 22*, 738-761.
- Jones, C. R., Olson, M. A., & Fazio, R. H. (2010). Evaluative conditioning: The "how" question. In M. P. Zanna, J. M. Olson, M. P. Zanna, & J. M. Olson (Eds.), *Advances in experimental social psychology* (Vol. 43, pp. 205-255). San Diego, CA: Academic Press.
- Jones, E. E., & Davis, K. E. (1965). From acts to dispositions the attribution process in social psychology. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 2, pp. 219-266). New York, NY: Academic Press.
- Kammrath, L. K., & Dweck, C. (2006). Voicing conflict: Preferred conflict strategies among incremental and entity theorists. *Personality and Social Psychology Bulletin, 32*, 1497-1508.
- Karney, B. R., & Bradbury, T. N. (1995). The longitudinal course of marital quality and stability: A review of theory, method, and research. *Psychological Bulletin, 118*, 3-34.
- Karney, B. R., & Bradbury, T. N. (1997). Neuroticism, marital interaction, and the trajectory of marital satisfaction. *Journal of Personality and Social Psychology, 72*, 1075-1092.
- Kazdin, A. E. (1978). *History of behavior modification: Experimental foundations of contemporary research*. Baltimore, MD: University Park Press.
- Kelley, H. H. (1973). The process of causal attribution. *American Psychologist, 28*, 107-128.
- Kelley, H. H., & Thibaut, J. W. (1978). *Interpersonal relations: A theory of interdependence*. New York, NY: John Wiley.
- Keneski, E., Neff, L. A., & Loving, T. J. (2018). The importance of a few good friends: Perceived network support moderates the association between daily marital conflict and diurnal cortisol. *Social Psychological and Personality Science, 9*, 962-971.
- Lammers, J., Stoker, J. I., Rink, F., & Galinsky, A. D. (2016). To have control over or to be free from others? The desire for power reflects a need for autonomy. *Personality and Social Psychology Bulletin, 42*, 498-512.
- Laursen, B., & Williams, V. A. (1997). Perceptions of interdependence and closeness in family and peer relationships among adolescents with and without romantic partners. *New Directions for Child and Adolescent Development, 78*, 3-20.
- Leary, M. R., & Baumeister, R. F. (2000). The nature and function of self-esteem: Sociometer theory. *Advances in Experimental Social Psychology, 32*, 1-62.
- Leary, M. R., Haupt, A. L., Strausser, K. S., & Chokel, J. T. (1998). Calibrating the sociometer: The relationship between interpersonal appraisals and the state self-esteem. *Journal of Personality and Social Psychology, 74*, 1290-1299.
- Leary, M. R., Tambor, E. S., Terdal, S. K., & Downs, D. L. (1995). Self-esteem as an interpersonal monitor: The sociometer hypothesis. *Journal of Personality and Social Psychology, 68*, 518-530.
- LeBel, E. P., & Campbell, L. (2009). Implicit partner affect, relationship satisfaction, and the prediction of romantic

- breakup. *Journal of Experimental Social Psychology*, *45*, 1291-1294.
- Lee, S., Rogge, R. D., & Reis, H. T. (2010). Assessing the seeds of relationship decay: Using implicit evaluations to detect the early stages of disillusionment. *Psychological Science*, *21*, 857-864.
- Leith, K. P., & Baumeister, R. F. (1996). Why do bad moods increase self-defeating behavior? Emotion, risk taking, and self-regulation. *Journal of Personality and Social Psychology*, *71*, 1250-1267.
- Lemay, E. P. J., & Dudley, K. L. (2011). Caution: Fragile! Regulating the interpersonal security of chronically insecure partners. *Journal of Personality and Social Psychology*, *100*, 681-702.
- Lepore, S. J. (1992). Social conflict, social support, and psychological distress: Evidence of cross-domain buffering effects. *Journal of Personality and Social Psychology*, *63*, 857-867.
- Lieberman, M. A. (1982). The effects of social supports on responses to stress. In L. Goldberger & L. Breznitz (Eds.), *Handbook of stress* (pp. 764-783). New York, NY: Free Press.
- Lim, S. Y., & Chapman, E. (2013). Identifying affective domains that correlate and predict mathematics performance in high-performing students in Singapore. *Educational Psychology*, *35*, 747-764.
- Lindorff, M. (2000). Is it better to perceive than receive? Social support, stress and strain for managers. *Psychology, Health and Medicine*, *5*, 271-286.
- Locke, E. A., Frederick, E., Lee, C., & Bobko, P. (1984). Effect of self-efficacy, goals, and task strategies on task performance. *Journal of Applied Psychology*, *69*, 241-251.
- Mackie, D. M., Worth, L. T., & Asuncion, A. G. (1990). Processing of persuasive in-group messages. *Journal of Personality and Social Psychology*, *58*, 812-822.
- Maranges, H., & McNulty, J. K. (2017). The rested relationship: Sleep benefits marital evaluations. *Journal of Family Psychology*, *31*, 117-122.
- Mathieu, J. E., Heffner, T. S., Goodwin, G. F., Salas, E., & Cannon-Bowers, J. A. (2000). The influence of shared mental models on team process and performance. *Journal of Applied Psychology*, *85*, 273-283.
- McCaul, K. D., Branstetter, A. D., O'Donnell, S. M., Jacobson, K., & Quinlan, K. B. (1998). A descriptive study of breast cancer worry. *Journal of Behavioral Medicine*, *21*, 565-579.
- McGuire, W. J. (1961). Resistance to persuasion conferred by active and passive prior refutation of the same and alternative counterarguments. *Journal of Abnormal and Social Psychology*, *63*, 326-332.
- McNamara, D. S., Kintsch, E., Songer, N. B., & Kintsch, W. (1996). Are good texts always better? Interactions of text coherence, background knowledge, and levels of understanding in learning from text. *Cognition and Instruction*, *14*, 1-43.
- McNulty, J. K. (2008). Forgiveness in marriage: Putting the benefits into context. *Journal of Family Psychology*, *22*, 171-175.
- McNulty, J. K. (2016). Highlighting the contextual nature of interpersonal relationships. *Advances in Experimental Social Psychology*, *54*, 247-315.
- McNulty, J. K., Baker, L. R., & Olson, M. A. (2014). Implicit self-evaluations predict changes in implicit partner evaluations. *Psychological Science*, *25*, 1649-1647.
- McNulty, J. K., & Karney, B. R. (2001). Attributions in marriage: Integrating specific and global evaluations of a relationship. *Personality and Social Psychology Bulletin*, *27*, 943-955.
- McNulty, J. K., Olson, M. A., Jones, R. E., & Acosta, L. (2017). Automatic associations between one's partner and one's affect as the proximal mechanism of change in relationship satisfaction: Evidence from evaluative conditioning. *Psychological Science*, *28*, 1031-1040.
- McNulty, J. K., Olson, M. A., Meltzer, A. L., & Shaffer, M. J. (2013). Though they may be unaware, newlyweds implicitly know whether their marriage will be satisfying. *Science*, *342*, 1119-1120.
- McNulty, J. K., O'Mara, E. M., & Karney, B. R. (2008). Benevolent cognitions as a strategy of relationship maintenance: "Don't sweat the small stuff" . . . But it is not all small stuff. *Journal of Personality and Social Psychology*, *94*, 631-646.
- McNulty, J. K., & Russell, V. M. (2010). When "negative" behaviors are positive: A contextual analysis of the long-term effects of problem-solving behaviors on changes in relationship satisfaction. *Journal of Personality and Social Psychology*, *98*, 587-604.
- McNulty, J. K., & Russell, V. M. (2016). Forgive and forget, or forgive and regret? Whether forgiveness leads to more or less offending depends on offender agreeableness. *Personality and Social Psychology Bulletin*, *42*, 616-631.
- Meltzer, A. L., McNulty, J. K., & Karney, B. R. (2012). Social support and weight maintenance in marriage: The interactive effects of support seeking, support provision, and gender. *Journal of Family Psychology*, *26*, 678-687.
- Meuwly, N., Bodenmann, G., Germann, J., Bradbury, T. N., Ditzen, B., & Heinrichs, M. (2012). Dyadic coping, insecure attachment, and cortisol stress recovery following experimentally induced stress. *Journal of Family Psychology*, *26*, 937-947.
- Miller, W. R. (1983). Motivational interviewing with problem drinkers. *Behavioural Psychotherapy*, *11*, 147-172.
- Mills, J., & Aronson, E. (1965). Opinion change as a function of the communicator's attractiveness and desire to influence. *Journal of Personality and Social Psychology*, *1*, 173-177.
- Molden, D. C., Lucas, G. M., Gardner, W. L., Dean, K., & Knowles, M. L. (2009). Motivations for prevention or promotion following social exclusion: Being rejected versus being ignored. *Journal of Personality and Social Psychology*, *96*, 415-431.
- Mourali, M., & Yang, Z. (2013). The dual role of power in resisting social influence. *Journal of Consumer Research*, *40*, 539-554.
- Muraven, M., & Baumeister, R. F. (2000). Self-regulation and depletion of limited resources: Does self-control resemble a muscle? *Psychological Bulletin*, *126*, 247-259.
- Murray, S. L., Holmes, J. G., Aloni, M., Pinkus, R. T., Derrick, J. L., & Leder, S. (2009). Commitment insurance: Compensating for the autonomy costs of interdependence in close relationships. *Journal of Personality and Social Psychology*, *97*, 256-278.
- Murray, S. L., Holmes, J. G., & Collins, N. L. (2006). Optimizing assurance: The risk regulation system in relationships. *Psychological Bulletin*, *132*, 641-666.
- Murray, S. L., Holmes, J. G., Dolderman, D., & Griffin, D. W. (2000). What the motivated mind sees: Comparing friends'

- perspectives to married partners' views of each other. *Journal of Experimental Social Psychology*, 36, 600-620.
- Neff, L. A., & Karney, B. R. (2004). How does context affect intimate relationships? Linking external stress and cognitive processes within marriage. *Personality and Social Psychology Bulletin*, 30, 134-148.
- Neff, L. A., & Karney, B. R. (2009). Stress and reactivity to daily relationship experiences: How stress hinders adaptive processes in marriage. *Journal of Personality and Social Psychology*, 97, 435-450.
- Neff, L. A., & Karney, B. R. (2017). Acknowledging the elephant in the room: How stressful environmental contexts shape relationship dynamics. *Current Opinion in Psychology*, 13, 107-110.
- Nesse, R. M., & Ellsworth, P. C. (2009). Evolution, emotions, and emotional disorders. *American Psychologist*, 64, 129-139.
- Nye, E. C., Agostinelli, G., & Smith, J. E. (1999). Enhancing alcohol problem recognition: A self-regulation model for the effects of self-focusing and normative information. *Journal of Studies on Alcohol*, 60, 685-693.
- O'Farrell, T. J., & Clements, K. (2012). Review of outcome research on marital and family therapy in treatment for alcoholism. *Journal of Marital & Family Therapy*, 38, 122-144.
- Overall, N. C., Fletcher, G. J. O., & Simpson, J. A. (2006). Regulation processes in intimate relationships: The role of ideal standards. *Journal of Personality and Social Psychology*, 91, 662-685.
- Overall, N. C., Fletcher, G. J. O., & Simpson, J. A. (2010). Helping each other grow: Romantic partner support, self-improvement, and relationship quality. *Personality and Social Psychology Bulletin*, 36, 1496-1513.
- Overall, N. C., Fletcher, G. J. O., Simpson, J. A., & Sibley, C. G. (2009). Regulating partners in intimate relationships: The costs and benefits of different communication strategies. *Journal of Personality and Social Psychology*, 96, 620-639.
- Overall, N. C., & McNulty, J. K. (2017). What type of communication during conflict is beneficial for intimate relationships? *Current Opinion in Psychology*, 13, 1-5.
- Pasch, L. A., & Bradbury, T. N. (1998). Social support, conflict, and the development of marital dysfunction. *Journal of Consulting and Clinical Psychology*, 66, 219-230.
- Pasch, L. A., Bradbury, T. N., & Davila, J. (1997). Gender, negative affectivity, and observed social support behavior in marital interaction. *Personal Relationships*, 4, 361-378.
- Payne, B. K., Hall, D. L., Cameron, C. D., & Bishara, A. J. (2010). A process model of affect misattribution. *Personality and Social Psychology Bulletin*, 36, 1397-1408.
- Philippe, F. L., Koestner, R., & Leke, N. (2013). On the directive function of episodic memories in people's lives: A look at romantic relationships. *Journal of Personality and Social Psychology*, 104, 164-179.
- Pretz, J. E., Naples, A. J., & Sternberg, R. J. (2003). Recognizing, defining, and representing problems. In J. E. Davidson & R. J. Sternberg (Eds.), *The psychology of problem solving* (pp. 3-30). Cambridge, UK: Cambridge University Press.
- Priester, J. R., & Petty, R. E. (1995). Source attributions and persuasion: Perceived honesty as a determinant of message scrutiny. *Personality and Social Psychology Bulletin*, 21, 637-654.
- Prochaska, J. O., DiClemente, C. C., & Norcross, J. C. (1992). In search of how people change: Applications to addictive behaviors. *American Psychologist*, 47, 1102-1114.
- Proulx, C. M., Helms, H. M., & Buehler, C. (2007). Marital quality and personal well-being: A meta-analysis. *Journal of Marriage and Family*, 69, 576-593.
- Raven, B. H. (1992). A power/interaction model of interpersonal influence: French and Raven thirty years later. *Journal of Social Behavior & Personality*, 7, 217-244.
- Renjilian, D. A., Baum, R. E., & Landry, S. L. (1998). Psychotherapist burnout: Can college students see the signs? *Journal of College Student Psychotherapy*, 13, 39-48.
- Repetti, R. L. (1993). Short-term effects of occupational stressors on daily mood and health complaints. *Health Psychology*, 12, 125-131.
- Robles, T. F., Slatcher, R. B., Trombello, J. M., & McGinn, M. M. (2014). Marital quality and health: A meta-analytic review. *Psychological Bulletin*, 140, 140-187.
- Royse, D., & Badger, K. (2015). Needs assessment planning: Starting where you are. *Australian Social Work*, 68, 364-374.
- Rusbult, C. E., Finkel, E. J., & Kumashiro, M. (2009). The Michelangelo phenomenon. *Current Directions in Psychological Science*, 18, 305-309.
- Rusbult, C. E., Olsen, N., Davis, J. L., & Hannon, P. (2001). Commitment and relationship maintenance mechanisms. In J. H. Harvey & A. Wenzel (Eds.), *Close romantic relationships: Maintenance and enhancement* (pp. 87-113). Mahwah, NJ: Lawrence Erlbaum.
- Rusbult, C. E., Verette, J., Whitney, G. A., Slovik, L. F., & Lipkus, I. (1991). Accommodation processes in close relationships: Theory and preliminary empirical evidence. *Journal of Personality and Social Psychology*, 60, 53-78.
- Russell, V. M., Baker, L. R., & McNulty, J. K. (2013). Attachment insecurity and infidelity in marriage. *Journal of Family Psychology*, 27, 242-251.
- Schunk, D. (1991). Self-efficacy and academic motivation. *Educational Psychologist*, 26, 207-231.
- Scinta, A., & Gable, S. L. (2007). Automatic and self-reported attitudes in romantic relationships. *Personality and Social Psychology Bulletin*, 33, 1008-1022.
- Serovich, J. M., Kimberly, J. A., Mosack, K. E., & Lewis, T. L. (2001). The role of family and friend social support in reducing emotional distress among HIV-positive women. *Aids Care*, 13, 335-341.
- Shin, N., Jonassen, D. H., & McGee, S. (2003). Predictors of well-structured and ill-structured problem solving in an astronomy simulation. *Journal of Research in Science Teaching*, 40, 6-33.
- Siegel, S. J., & Alloy, L. B. (1990). Interpersonal perceptions and consequences of depressive-significant other relationships: A naturalistic study of college roommates. *Journal of Abnormal Psychology*, 99, 361-373.
- Silvia, P. J. (2005). Deflecting reactance: The role of similarity in increasing compliance and reducing resistance. *Basic and Applied Social Psychology*, 27, 277-284.
- Sinclair, R. C., Moore, S. E., Mark, M. M., Soldat, A. S., & Lavis, C. A. (2010). Incidental moods, source likeability, and persuasion: Liking motivates message elaboration in happy people. *Cognition and Emotion*, 24, 940-961.

- Skinner, B. F. (1969). *Contingencies of reinforcement: A theoretical analysis*. New York, NY: Appleton-Century-Crofts.
- Sternberg, R. J. (1985). Human intelligence: The model is the message. *Science*, *230*, 1111-1118.
- Sternberg, R. J., & Lubart, T. I. (1991). An investment theory of creativity and its development. *Human Development*, *34*, 1-31.
- Storms, M. D. (1973). Videotape and the attribution process: Reversing actors' and observers' points of view. *Journal of Personality and Social Psychology*, *27*, 165-175.
- Strayer, D. L., & Johnson, W. A. (2000). Novel popout is an attention-based phenomenon: An ERP analysis. *Perception & Psychophysics*, *62*, 459-470.
- Sweeney, J. B., McNulty, R. D., Reeve, C., & Cann, A. (2015). An intervention for HPV risk reduction based on the Theory of Planned Behavior: An exploratory study with college-aged women. *American Journal of Sexuality Education*, *10*, 199-217.
- Sweller, J. (1988). Cognitive load during problem solving: Effects on learning. *Cognitive Science*, *12*, 257-285.
- Taylor, S. E., & Fiske, S. T. (1975). Point of view and perception so causality. *Journal of Personality and Social Psychology*, *32*, 439-445.
- Tesser, A., & Beach, S. H. (1998). Life events, relationship quality, and depression: An investigation of judgment discontinuity in vivo. *Journal of Personality and Social Psychology*, *74*, 36-52.
- Thoits, P. A. (1986). Social support as coping assistance. *Journal of Consulting and Clinical Psychology*, *54*, 416-423.
- Thompson, M. P., Kaslow, N. J., Kingree, J. B., Rashid, A., Puett, R., Jacobs, D., & Matthews, A. (2000). Partner violence, social support, and distress among inner-city African American women. *American Journal of Community Psychology*, *28*, 127-143.
- Tice, D. M., Bratslavsky, E., & Baumeister, R. F. (2001). Emotional distress regulation takes precedence over impulse control: If you feel bad, do it! *Journal of Personality and Social Psychology*, *80*, 53-67.
- Tooby, J., & Cosmides, L. (2008). The evolutionary psychology of the emotions and their relationship to internal regulatory variables. In M. Lewis, J. M. Haviland-Jones, & L. F. Barrett (Eds.), *Handbook of emotions* (3rd ed., pp. 114-137). New York, NY: Guilford Press.
- Tulving, E., & Kroll, N. (1995). Novelty assessment in the brain and long-term memory encoding. *Psychonomic Bulletin & Review*, *2*, 387-390.
- Vogl-Bauer, S., Kalbfleisch, P. J., & Beatty, M. (1999). Perceived equity, satisfaction, and relational maintenance strategies in parent-adolescent dyads. *Journal of Youth and Adolescence*, *28*, 27-49.
- Weckbacher, L. E., & Baker, L. R. (2018). Partners' depressive symptoms moderate the effects of expressive suppression. *Journal of Family Psychology*, *32*, 1120-1129.
- Weiss, R. L. (1980). Strategic behavioral marital therapy: Toward a model for assessment and intervention. In J. P. Vincent (Ed.), *Advances in family intervention, assessment, and theory* (pp. 229-271). Greenwich, CT: JAI Press.
- Weiss, R. L., & Heyman, R. E. (1997). A clinical-research overview of couples interactions. In W. K. Halford & H. J. Markman (Eds.), *Clinical handbook of marriage and couples intervention* (pp. 13-41). New York, NY: John Wiley.
- Wellman, B., & Wortley, S. (1990). Different strokes from different folks: Community ties and social support. *American Journal of Sociology*, *96*, 558-588.
- Wethington, E., & Kessler, R. C. (1986). Perceived support, received support, and adjustment to stressful life events. *Journal of Health and Social Behavior*, *27*, 78-89.
- Wheeler, S. C., Briñol, P., & Hermann, A. D. (2007). Resistance to persuasion as self-regulation: Ego-depletion and its effects on attitude change processes. *Journal of Experimental Social Psychology*, *43*, 150-156.
- Williamson, G. M., & Clark, M. S. (1989). Providing help and desired relationship type as determinants of changes in moods and self-evaluations. *Journal of Personality and Social Psychology*, *56*, 722-734.
- Wilson, K. L., Lizzio, A. J., Whicker, L., Gallois, C., & Price, J. (2003). Effective assertive behavior in the workplace: Responding to unfair criticism. *Journal of Applied Social Psychology*, *33*, 362-395.
- Wood, R., & Bandura, A. (1989). Impact of conceptions of ability on self-regulatory mechanisms and complex decision making. *Journal of Personality and Social Psychology*, *56*, 407-415.
- Wu, P., Hoven, C. W., Cohen, P., Liu, X., Moore, R. E., Tiet, Q., . . . Bird, H. R. (2001). Factors associated with use of mental health services for depression by children and adolescents. *Psychiatric Services*, *52*, 189-195.
- Yokopenic, P. A., Clark, V. A., & Aneshensel, C. S. (1983). Depression, problem recognition, and professional consultation. *The Journal of Nervous and Mental Disease*, *171*, 15-23.
- Zimmerman, B. J., Bandura, A., & Martinez-Pons, M. (1992). Self-motivation for academic attainment: The role of self-efficacy beliefs and personal goal setting. *American Educational Research Journal*, *29*, 663-676.
- Zimmerman, B. J., & Campillo, M. (2003). Motivating self-regulated problem solvers. In J. E. Davidson & R. J. Sternberg (Eds.), *The nature of problem solving* (p. 239). New York, NY: Cambridge University Press.