

## The Social-Safety System: Fortifying Relationships in the Face of the Unforeseeable

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**AUTHOR'S ACCEPTED VERSION**

### Abstract

A model of the social-safety system is proposed to explain how people sustain a sense of safety in the relational world when they are *not* able to foresee the behavior of others. In this model, people can escape the acute anxiety posed by agents in their *personal* relational world behaving unexpectedly (e.g., spouse, child) by defensively imposing well-intentioned motivations on the agents controlling their *sociopolitical* relational world (e.g., President, Congress). Conversely, people can escape the acute anxiety posed by *sociopolitical* agents behaving unexpectedly by defensively imposing well-intentioned motivations on the agents controlling their *personal* relational world. Two daily diary studies, a longitudinal study of the 2018 midterm election, and a 3-year longitudinal study of newlyweds supported the hypotheses. On a daily basis, people who were less certain they could trust their romantic partner defended against acutely unforeseeable behavior in one relational world by affirming faith in the well-intentioned motivations of agents in the alternate world. Moreover, when people were more in the personal daily habit of finding safety in the alternate relational world in the face of the unexpected, those who were initially uncertain they could trust their romantic partner later evidenced greater comfort depending on their personal relationship partners.

Trust, Safety Regulation, Unexpected, Threat, Relationships

*Lighter is the wound foreseen.* Cato the Elder (234 BC – 149BC)

*A danger foreseen is half-avoided.* Cheyenne Proverb

Mutual interdependence is fundamental to human existence (Baumeister & Leary, 1995). People are simultaneously spouses, parents, children, coworkers, church members, employees, neighbors, and/or residents of a city, state, and country (Holt-Lundstadt, 2018). Indeed, people cannot thrive physically or emotionally without depending on others to provide care (Holt-Lundstadt, Smith, & Layton, 2010; House, Landis, & Umberson, 1988). However, mutual interdependence poses significant risks, including the spread of illness (Miller & Maner, 2012; Mortensen, Becker, Ackerman, Neuberg & Kenrick, 2010; Sacco, Young, & Hugenberg, 2014), the sting of being rejected (Murray, Holmes, & Collins, 2006), and the potential to be let down by the authorities or institutions in place to protect the populace (Williams & Medlock, 2017).

To feel safe depending on others, people need to be able to rely on social interactions unfolding *as they expect* (Harmon-Jones & Harmon-Jones, 2012; Heine, Proulx, & Vohs, 2006; Hardin & Higgins, 1996; Hogg & Belavadi, 2017; Jonas, McGregor, Klackl, Agroskin, Fritsche, Holbrook, Nash, Proulx, & Quirin, 2014; Kay, Lauren, Fitzsimons, & Landau, 2015; Murray, Lamarche, Gomillion, Seery, & Kondrak, 2017). For instance, expecting dessert to sweeten a spouse's mood might motivate seeking support after dinner, not before; anticipating jealousy over a friend's promotion can preempt half-hearted congratulations; and predicting employer health care cuts can motivate tighter budgeting sooner rather than later (Murray, Holmes, & Collins, 2006). However, people routinely err in forecasting their own feelings and thoughts (Wilson & Gilbert, 2003), let alone the behavior of relative strangers (Griffin & Ross, 1991) or even close others (Swann & Gill, 1997; Murray, Holmes, Bellavia, Griffin, & Dolderman, 2002). Such limited powers of prognostication make *not* being able to foresee specific behaviors inevitable, as can happen when a spouse goes on an atypical tirade about the #MeToo movement,

a President Tweets trade war threats, a divided Congress passes bipartisan health care reform, or a mother is taken aback by her own outburst at normal teenage melodrama.

### **The Proposed Model of the Social-Safety System**

The proposed model of the Social-Safety System presented in Figure 1 manages the resulting tension between the inevitability of unexpected behavior and the need to feel safe living simultaneously immersed in multiple caregiving relationships (Murray, Lamarche, & Seery, 2018). It is rooted in the assumption that people are motivated to restore feelings of safety in the face of unexpected behavior because feeling safe provides the psychological insurance needed to risk depending on others and having others depend on them (Koranyi & Meissner, 2015). In fact, priming the risks of depending on others motivates people to perceive safe opportunities for connection (DeWall, Maner, & Rouby, 2009; Gardner, Pickett & Brewer, 2000). For instance, people primed with being physically hurt by others better detect trustworthy over untrustworthy faces and genuine over fake smiles than controls, biases in attention that facilitate safely seeking connection (Young, Slepian, & Sacco, 2015). People primed with being emotionally hurt by others also see new acquaintances as physically closer in space (Pitts, Wilson, & Hugenberg, 2014) and healthier (Sacco et al., 2014) than they are in actuality, again facilitating connection.

Building on models of attachment, interdependence, and intergroup relations, the proposed model assumes that people are immersed in caregiving relationships across two primary relational worlds – one *personal* (Feeney & Collins, 2015; Mikulincer & Shaver, 2003; Simpson, 2007) and the other *sociopolitical* (Anderson, 2010; Fiske et al., 2006; Hudson, 2006; Irwin, 2009). Caregiving relationships within *personal* relational worlds are *chosen* – they involve the kind of *voluntary* dependence on *close* others, such as a spouse, sibling, parent, child, in-law, friend, or valued coworker, that living interdependently allows people to forge for themselves (Feeney & Collins, 2017; Simpson, 2007). However, caregiving relationships within

*sociopolitical* relational worlds are *imposed* – they involve the kind of *involuntary* dependence on *relative strangers*, such as employer, teacher, fellow citizen, Congress, or President, that living as part of an organized society essentially foists on people (Anderson, 2010; Hudson, 2006; Irwin, 2009).

Because people rely on each of these relational worlds for aid and support, each relational world can also afford the potential to be hurt (Hamm, Smidt, & Mayer, 2019; Miller & Maner, 2012; Mortensen, Becker, Ackerman, Neuberg & Kenrick, 2010; Sacco, Young, & Hugenberg, 2014; Ward & Meyer, 2009; Williams & Medlock, 2017). For instance, depending on a spouse's advice and comfort can result in hurtful criticisms, cultivating a teen's excitement for a family trip can court sullen indifference, and disclosing a secret to a friend can result in betrayed confidences. Similarly, depending on an employer for a fair and equitable family leave can result in requiring vacation days to take children to doctors, trusting local governments to provide clean water can result in tainted water supplies, and relying on Presidents to appoint expert advisors can compromise environmental protections and access to health care. Indeed, people are so attuned to the impact that government officials and policy have on their well-being that they experience acute physiological stress reactions, as evidenced in heightened salivary cortisol, when preferred candidates lose Presidential elections (Blanton, Strauts, & Perez, 2012; Stanton, LaBar, Saini, Kuhn, & Beehner, 2009; Trawalter, Chung, DeSantis, Simon, & Adam, 2011).

Given such risks, living interdependently, while still feeling safe from harm, is predicated on people and groups accurately forecasting one another's behavior (Fiske et al., 2006; Hogg & Belavadi, 2017; Murray et al., 2006). Correctly anticipating the behavior of a family member, employer, or President essentially provides the illusion of insight into their motivations, which makes depending on them feel safer (Holmes & Rempel, 1989; Murray & Holmes, 2011). However, interpersonal perception is riddled with error because people naively assume that

reality is uniformly perceived (Griffin & Ross, 1990). Consequently, individuals, entities, or institutions inevitably end up behaving in ways that violate personal (e.g., “My spouse is a feminist”), historic (e.g., “My child does not eat vegetables”) and/or normative (“Presidents should be prudent”, “I should know better”) expectations, regardless of whether the behavior is itself negative, neutral or even positive. For instance, people overestimate how positively and negatively others are likely to feel (Pollmann & Finkenauer, 2009), leaving them vulnerable to being bewildered by a spouse’s ennui after a promotion or unsettled by an employer’s nonchalance in the face of poor earnings. People also misjudge how much gratitude acts of kindness will elicit in others (Kuma & Epley, 2018), leaving them vulnerable to being suspicious of a friend’s glee over a small favor, puzzled when trading partners fail to reciprocate concessions, or flummoxed when Presidents inexplicably veto bipartisan bills.

Unexpected behavior thus alerts people to the anxious, unsettling possibility that they might *not* understand other people, other institutions, or even themselves as well as they thought. Indeed, relationships within personal and sociopolitical relational worlds are interconnected, both experientially and cognitively. Experiences depending on a spouse are inextricably bound up in experiences depending on children, in-laws, and family friends (Holt-Lundstadt, 2018; Mikulincer & Shaver, 2000). Similarly, experiences depending on fellow community members to behave in socially or legally prescribed ways are bound up in experiences depending on local, state, and federal officials and institutions (Anderson, 2010; Hudson, 2006). Given such interconnections, unexpected behavior on the part of one inhabitant of a given relational world likely makes the motivations of *other* inhabitants of that world feel acutely uncertain as well, heightening the perceived risks of depending on others in that relational world *as a whole*.

### ***The In-Situ Threat-Defenses***

Much as pain motivates reflexively withdrawing from its source, unexpected behavior then motivates people to psychologically escape the risks of depending on the inhabitants of the now riskier relational world (Cavallo, Fitzsimons, & Holmes, 2009; MacDonald & Leary, 2005; Murray et al., 2006). People typically escape threatening experiences by adopting the beliefs that can most readily, and compellingly, restore feelings of equanimity (Harmon-Jones & Harmon-Jones, 2012; Heine et al., 2006). When unexpected behavior alerts people to the possibility that they might *not* understand the motivations of the inhabitants of a given relational world as well as they thought, the proposed model of the social-safety system assumes that people can most readily convince themselves that they are still safe depending on others *nonetheless* by imposing caring and well-meaning intentions on the inhabitants of the *alternate*, more perceptually *pliable*, relational world (Zunda, 1990). Consistent with this logic, people escape anxieties about being rejected by known others by seeing greater acceptance in the tabula rasa afforded by *new* acquaintances (Maner, DeWall, Baumeister, & Schaller, 2007; Richman & Leary, 2009; Williams, Cheung, & Choi, 2000). They also escape anxiety about death's undeniable reality by turning to close relationship partners who better afford safety (Plusnin, Pepping, & Kashima, 2018; Young et al., 2015).

Paths **A** and **B** in Figure 1 capture the proposed social-safety system's *in-situ* threat-defenses. Operating in conjunction in daily life, these dual defenses restore perceptions of safety to the relational world. They do so by linking the situational *threat* – anxiety about the inhabitants of one relational world behaving unexpectedly – to its associated *defense* for making the necessity to depend on others feel safe nonetheless – namely, imposing unambiguously benevolent, well-intentioned motivations on the inhabitants of the *alternate* relational world.

Path **A** captures *personal-to-sociopolitical* threat-defense. Through this threat-defense, people can escape the risks posed by inhabitants of their *personal* relational worlds behaving

unexpectedly by imposing unambiguously caring and well-intentioned motivations on the inhabitants of the *sociopolitical* relational world (Carney, Jost, Gosling, & Potter, 2008; Jost, Glaser, Kruglanski, & Sulloway, 2003). Specifically, unexpected behavior in one's *personal* relational world, such as a Liberal spouse bemoaning the #MeToo movement, a college-aspiring teen eschewing finals for online gaming, or a friend gushing gratitude for a small favor, activates the associated inclination to perceive inhabitants of one's *sociopolitical* relational world, such as legislators, employers, church leaders, or Presidents, as affording greater safety – as being unambiguously guided by principles and institutional values aligned with good governance and their charge's best interests. Consistent with this logic, people acutely threatened by the risks of depending on actual relationship partners can escape this anxiety by finding comfort in the beneficence and good judgment of fictional TV characters (Gabriel, Valenti, & Young, 2016).

Path **B** captures *sociopolitical-to-personal* threat-defense. Through this threat-defense, people can escape the risks posed by inhabitants of the *sociopolitical* relational world behaving unexpectedly by imposing unambiguously caring and well-intentioned motivations on the inhabitants of their *personal* relational world (Clark & Grote, 1998; Debrot, Cook, Perrez, & Horn, 2012; Lemay & Clark, 2008; Lemay, Clark, & Feeney, 2007). Specifically, unexpected behavior in one's *sociopolitical* relational world, such as a President Tweeting about the girth of his nuclear button, good job numbers triggering stock sell-offs, or a struggling business going on a hiring spree, activates the associated inclination to perceive the inhabitants of one's *personal* relational world, such family members and friends, as affording greater safety – as being unambiguously guided by communal concern for one another's welfare and shared relationship bond. Consistent with this logic, people acutely threatened by national economic uncertainty report more trust in the good intentions of people they know (Navarro-Carrillo, Valor-Segura,



Lozan, & Moya, 2018). People primed to think their country is doing poorly also report more trust in their partner and in marriage itself (Day, Kay, Holmes, & Napier, 2011).

Path C in Figure 1 captures how *trust* calibrates how often the proposed social safety system's dual threat-defenses are implemented in daily life. Evolutionary theorists contend that people evolved to detect and seek out intimates they can trust – intimates who see them as indispensable or special – because such loyal alliances afford protection against all manner of harms in the outside, collective world (Tooby & Cosmides, 1996). Trust in a romantic partner epitomizes this sense of being safe in a protective relationship (Murray & Holmes, 2011). Romantic partners who are certain of one another's trustworthiness know they can rely on one another for support in the face of personal doubts and external stressors (Arriaga, Kumashiro, Simpson, & Overall, 2018; Feeney & Collins, 2015; Szepeswol & Simpson, 2019). In fact, being completely certain of a romantic partner's trustworthiness affords such an all-purpose inoculation against the threat of harm that it protects people from feeling rejected in the face of obvious transgressions (Murray, Bellavia, Rose, & Griffin, 2003); trust in a romantic partner can even make physical pain and mortality itself less anxiety provoking (Cox & Arndt, 2012; Plusnin et al., 2015).

People who are completely certain of a romantic partner's trustworthiness thus already possess a built-in safety buffer likely to attenuate the threat posed by acutely unexpected behavior. They know they can count on at least one person in the relational world to take care of their needs no matter what (Holmes & Rempel, 1989). However, people who are *less* than completely certain they can trust in their romantic partner lack such assurance. They still need to find *greater* reason to feel safe in the relational world (Holmes & Rempel, 1989; Rempel, Ross, & Holmes, 2001). Threatening the personally pressing goal to feel safe should intensify its pursuit (Fishbach & Shah, 2006; Fishbach & Trope, 2007; Fishbach, Zhang, & Trope, 2010;

Fitzsimons, Finkel, & VanDellen, 2015). Therefore, unexpected behavior should more strongly motivate people who are *less* certain of their romantic partner's trustworthiness to defensively impose safety on the *alternate* relational world than people who are completely certain of it.

Specifically, people who are less than certain they can trust their romantic partner should be more likely to embrace the safety of *sociopolitical* worlds when the inhabitants of their personal relational world behave unexpectedly, relative to people who are completely certain (Moderation of Path **A** by **C**). People who are less certain they can trust their romantic partner should also be more likely to embrace the safety of *personal* relational worlds when the inhabitants of their sociopolitical relational world behave unexpectedly, relative to people who are completely certain (Moderation of Path **B** by **C**). Supporting these *trust-calibration* hypotheses, people who still need proof of others' acceptance (i.e., those low in self-esteem) react more strongly to interpersonal rejection than people who are certain of their value to others (Anthony, Holmes, & Wood, 2007; Cameron & Granger, 2019; Cameron, Stinson, Gaetz, & Balchen, 2010; Leary & Baumeister, 2000; Nezlek, Kowalski, Leary & Blevins, 1997).

### ***Threat-Defense Over Time: A Resource for Sustained Connection***

To reap the rewards that the relational world can offer, such as a spouse's sympathetic ear, a teenager's shared confidence, or a new employer's family-leave policy, people need to set anxieties about being hurt aside (Derrick, Leonard, & Homish, 2012; Hudson, 2006; Murray et al., 2006; Murray & Holmes, 2009, 2011; Ward & Meyer, 2009). Indeed, newlyweds who better sustain satisfaction and commitment over the initial years of marriage behave as though they have essentially discounted the possibility of being hurt. On a daily basis, that is, they inhibit inclinations to retaliate when their partner transgresses and value their partner even more when he/she obstructs their personal goal pursuits (Derrick et al., 2012; Murray, Holmes, Derrick, Harris, Griffin, & Pinkus, 2013; Murray, Holmes, Griffin, & Derrick, 2015).

People need to feel safe to give themselves permission to be vulnerable to others (Murray et al., 2006). Certainty in a romantic partner's trustworthiness can provide this sense of safety when people's personal dispositions, past relationship experiences, or current partner warrant such a sense of faith (Feeney & Collins, 2015; Simpson, 2007; Szepeswol & Simpson, 2019). However, not everyone is so lucky and even people in the most fortuitous of circumstances are likely to eventually question their partner's trustworthiness (Derrick et al., 2012; Wieselquist, Rusbult, Foster, & Agnew, 1999). Path **D** in Figure 1 captures the hypothesis that the proposed social-safety system steps in to afford supplemental insurance against risk when trust is in short supply – giving those currently in need of greater proof of their personal or sociopolitical relational world's safety the psychological reserves to comfortably depend on others.

Threat and defense are bound together as procedural associations in memory (Murray & Holmes, 2011). Because the perception of unexpected behavior in one relational world is mentally linked to the inclination to find safety in the alternate relational world, people are more likely to develop stronger *personal* habits to engage threat-defense in daily life precisely when they need greater assurance of a specific relational world's safety. For instance, Arya might develop a stronger habit to embrace her children's acceptance as a symbolic safe haven from unexpectedly un-Presidential Tweets if she obsessively follows social-media news feeds than if she is oblivious to such feeds. She might also develop a stronger habit to symbolically embrace the White House occupants as wise and beneficent as a safe haven from Aaron's unexpected behavior if she is uncertain of his trustworthiness than if she is certain.

Path **D** in Figure 1 posits that people who are more in the personal habit of engaging in either *personal* or *sociopolitical threat-defense* on a daily basis are essentially self-administering *more frequent* inoculations against dependence-anxiety – small booster shots of safety with the potential to transfer from one person, entity, or institution, to another. For instance, if Arya often

escapes anxiety about her children's acutely unexpected behavior by bolstering her faith in the White House's power to keep the country safe, her resulting sense of safety in the *sociopolitical* world is implicitly and repeatedly paired with thoughts of her children and Aaron. Alternately, if Arya often escapes anxiety about a President's unforeseen behavior by embracing her family's unconditional love and support, her resulting sense of safety in her *personal* relational world is also implicitly and repeatedly paired with thoughts about the powers that be in the White House.

Through basic processes of associative learning (Gawronski & Bodenhausen, 2006), *stronger* daily threat-defense habits should thus condition people in greater need of proof of the relational world's safety to feel more secure within it. Consequently, people who are initially *less* than certain they can trust their romantic partner should be more comfortable depending on intimate partners when they are *more*, rather than less, likely to engage in daily *personal-to-sociopolitical* or *sociopolitical-to-personal* threat-defense (Path **D**) on a daily basis. Consistent with this inoculation logic, people misattribute even physical feelings of safety and security to the relational world. For instance, people expect others to be more accepting when they themselves feel physically warmer than colder because physical warmth connotes safety (Chen, Poon, & DeWall, 2015; Fay & Maner, 2012; Williams & Bargh, 2008). People also express less affection toward romantic partners when they themselves are standing on physically shaky than stable ground because physically shaking makes their partner's caring feel shaky as well, motivating people to keep a safer distance (Forest, Killie, Stehouwer, & Wood, 2015).

***Is it really social safety?*** The proposed model of the social-safety system integrates basic tenets of uncertainty reduction models to explain how people defend against unforeseen behavior while living simultaneously immersed in multiple relational worlds, heeding calls to examine threat-defense in ongoing life circumstances (Moser & Schroder, 2012; Proulx & Heine, 2010; Proulx & Inzlicht, 2012; Routledge & Vess, 2012). It also advances prior uncertainty reduction

models by suggesting (1) specificity to the form and (2) long-term reach to the effects threat-defense has on people's actual experience of romantic relationships as more or less safe.

First, the proposed social-safety system assigns added threat value to unexpected experiences people have when interacting with *animate* actors (e.g., a newly sexist spouse) as opposed to *inanimate* objects (e.g., an unconventional narrative, surrealist art). Both experiences threaten meaning – that is, the associations that people expect to see in the world (Heine et al., 2006). However, the unexpected behavior of *animate* actors also makes it harder to be certain of other people's motivations, heightening the perceived risks of dependence. The proposed social-safety system thus uniquely assumes that people should *not* be able to defend against the unexpected behavior of *animate* actors without finding some reason to feel safe depending on others. However, people can and do defend against unexpected experiences involving *inanimate* objects without giving themselves reason to feel safe (Murray et al., 2017). Second, prior research conceptualizes threat-defense as an acute situational response to unexpected events. The proposed social-safety system instead conceptualizes threat-defense as a property of the *situation* (i.e., an acute response to unforeseeable behavior in the personal or sociopolitical relational world) and *person* (i.e., a chronic defensive habit to respond to unforeseeable behavior in more or less safety-restorative ways). Because the proposed model of the social-safety system is the first to explicitly make this distinction, it is also the first to hypothesize long-term relational consequences of threat-defense.

### Overview

This first empirical test of the proposed model of the social-safety system draws on two daily diary studies (Studies 1 and 2), an 8-week longitudinal study of the 2018 U.S. midterm election (Study 3), and a 3-year longitudinal study of newlywed couples (Study 4). Given the breadth of both personal and sociopolitical relational worlds, we limited initial tests of the model

to *specific inhabitants* of each relational world – romantic partners and children in the *personal* world and agents and institutions responsible for fair and judicious governance in the *sociopolitical* world. We also confined the initial tests of the long-term effects of threat-defense to dependence-anxiety in *personal* relationships. The present studies thus leave the door amply open for future research.

Rather than presenting the studies sequentially, we describe each applicable study's tests of the *personal-to-sociopolitical threat-defense* hypotheses before describing each applicable study's tests of the *sociopolitical-to-personal threat-defense* hypotheses. We first describe the sample characteristics and general procedures for each study. We next turn to *personal-to-sociopolitical threat-defense*, introducing its conceptualization and measurement, daily occurrence (Moderation of Path **A** by **C**), and long-term effects (Path **D**). We conclude with *sociopolitical-to-personal* threat-defense, introducing its conceptualization and measurement, daily occurrence (Moderation of Path **B** by **C**) and long-term effects (Path **D**).

### Sample Characteristics and Study Procedures

Because the proposed social-safety system examines how people regulate a sense of safety in the face of acutely unexpected or unforeseeable behavior in either personal or sociopolitical relational worlds, each study modeled such dynamism using over-time assessments. We describe the basic design of each study next. The SOM describe the procedures and measures in detail.

#### *Studies 1 and 2: The Daily Diary Studies*

**Samples.** We contracted Qualtrics to recruit participants. In Study 1, eligible participants had to be in a monogamous, committed heterosexual romantic relationship, U.S. citizens, native English speakers, and pass a research integrity check. In Study 2, eligible participants also had at

least one child under 18 living at home. Of 330 eligible Study 1 participants, we dropped 102 who completed fewer than 3 days (the majority dropped after one day), leaving 228 who completed an average of 7-8 of the 10 days (with 147 completing all 10). Of 556 eligible Study 2 participants, we dropped 251 who completed fewer than 3 days (the majority dropped after one day), leaving 305 who completed an average of 6-7 of the 9 diary days (with 256 completing all 9 diaries). Study 1 participants (79 men) averaged 51.4 years in age ( $SD = 12.1$ ); relationships averaged 22.5 ( $SD = 12.5$ ) years in length (12 dating, 3 engaged, 213 married). Study 2 participants (75 men) averaged 39.5 years in age ( $SD = 7.6$ ); relationships averaged 14.3 ( $SD = 7.2$ ) years in length (10 exclusively dating, 6 engaged, 289 married), and they had 2.5 children ( $SD = 1.3$ ) who were 9.9 years old on average ( $SD = 5.5$ ). Study 1 participants were recruited as one cohort, beginning April 26 and ending May 5, 2017. Study 2 participants were recruited as one of two cohorts, the first May 29 to June 7, 2018, and the second, June 11 to June 20, 2018.<sup>1</sup>

**Procedure.** Qualtrics issued the daily survey link to participants at 6 PM (EST) each night. Participants were asked to complete the survey before going to bed, but the link remained accessible until 6 AM (EST) the next morning to allow for shift work and time zones. Study 1's first survey contained demographic questions (e.g., gender, age, race, relationship length, state of residence), background measures, and daily items that were repeated for the next 9 days, yielding 10 diary days. Study 2's first survey contained *only* demographic and background measures. The daily items were administered each of the next 9 days, yielding 9 diary days.

### **Study 3: Midterm Election Study**

**Sample.** We contracted Qualtrics to recruit participants. Eligible participants had to be in a monogamous, committed heterosexual romantic relationship, U.S. citizens, speak English as a first language, have at least one child under 18 living at home, and pass a research integrity check. Of 373 eligible participants, we dropped 76 who completed fewer than 3 weeks

participation (51 dropped after 1 week), leaving 297 who completed an average of 5 of the 7 repeated weekly assessments (with 208 completing all 8 weeks). Participants (81 men) averaged 40.6 years in age ( $SD = 7.7$ ) and relationships averaged 15.8 ( $SD = 7.3$ ) years in length (3 dating, 1 engaged, 293 married). Participants had 2.5 children on average ( $SD = 1.4$ ) who were 10.5 years old on average ( $SD = 4.8$ ). Participants were recruited into one cohort wave, with 8 once-weekly consecutive assessments straddling the November 6, 2018 midterm election in the U.S., beginning 6 weeks before and concluding 1 week after the election.

**Procedure.** Qualtrics issued the first weekly survey link to participants at 6 PM (EST) on Thursday, September 27, 2018, 6 weeks before the 2018 midterm election, with subsequent surveys issued on Wednesday, October 3, 10, 17, 24, 31, November 7<sup>th</sup> (the day after the midterm), and November, 13<sup>th</sup>, 2018. Participants were asked to complete the survey before going to bed on the day they received it, but the link remained accessible for 3 more days to maximize participant retention given the fixed timing of the midterm election. (The majority of participants completed the weekly survey on the same day they received it.) The first weekly survey contained demographic and background measures assessed once, whereas the subsequent surveys contained items assessed weekly over the next 7 weeks.

#### **Study 4: The Newlywed Study**

**Sample.** Two hundred twenty-two childless couples in first marriages 2-6 months in length participated in a 7-wave longitudinal study. Two hundred fifteen couples met the inclusion criteria for a 14-day diary study at Time 1. Participants were 27.2 years old ( $SD = 4.0$ ); median family income ranged from \$40,000 to \$70,000 per year. Of the original sample, 193 couples met the criteria for 6 further assessments that occurred every 6 months for 36 months.

**Procedure.** At Time 1, participants visited the laboratory and completed self-perception and relationship quality measures. A graduate assistant introduced the procedures for completing



the 14-day diary study, administered on a Dell Axim PDA, instructing participants to complete the PDA diary as close to going to bed as possible and refrain from discussing their responses. Participants completed follow-up measures at 7 biannual assessments over the next 3 years.

### **Personal-to-Sociopolitical Threat-Defense in Situ and Over Time**

As operationalized in the current studies, *personal-to-sociopolitical* threat-defense linked the *situational threat* posed by immediate family members behaving unexpectedly to the associated *defensive* inclination to perceive agents and institutions of governance as being guided by principles and values more aligned with the populace or nation's welfare and best interests. The two daily diary studies (Studies 1 and 2) tested the *in-situ* hypotheses (Moderation of Path A by C) and the 2018 midterm study (Study 3) tested its *in-situ* (Moderation of Path A by C) and *over-time* hypotheses (Path D).<sup>2</sup> We next explain how we operationalized the variables in each study using exemplar scale items. Table 1 summarizes this information, linking each hypothesis test to its operational definition in each of the 3 studies. The SOM detail the measures.

#### ***Indexing the Situational Threat***

People are uniquely privy to their own idiosyncratic expectations for themselves and family members, expectations that could make either negative (e.g., a spouse's petulance) or positive behavior (e.g., a child's gratitude) difficult to foresee. This makes participants the most reliable informants on whether something they did *not* personally expect had just happened with their immediate family members. Therefore, on each assessment day, we asked participants to report (1) whether their *romantic partner* had said or done anything "out-of-the-ordinary", anything "they did not expect", or anything that "did not make sense" in Studies 1-3, (2) whether their *children* had said or done anything "out-of-the-ordinary", anything "they did not expect", or anything that "did not make sense" in Studies 2 and 3, and/or (3) whether *they themselves* had any thoughts or feelings about their romantic partner "they did not expect to have" or any

thoughts or feelings about their children “they did *not* expect to have” in Study 3. In answering these questions, participants were asked to reflect on the current day’s events. Given the a-priori hypothesis that unforeseen behavior would elicit the proposed safety-system dynamics regardless of its source, we indexed the daily *situational threat* posed by unexpected behavior in the *personal* relational world through progressively inclusive composites; namely, (1) unexpected romantic partner behavior in Study 1, (2) unexpected romantic partner and child behavior in Study 2, and (3) unexpected thoughts, romantic partner behavior, and child behavior in Study 3.

### ***Indexing the Defensive Response***

For people to believe that principles and values aligned with the populace’s and nation’s welfare and best interests are guiding agents and institutions of governance, they need to convince themselves that (1) the agents and institutions of the sociopolitical world are in fact keeping its inhabitants safe, and that (2) the words and deeds of the agents of national governance, such as the President, are themselves sympathetic and commendable. The daily diary and midterm election studies were conducted during the first term of the Trump administration. Given this ever-chaotic context, we made a-priori decisions to assess defensive perceptions of the sociopolitical world through measures capturing: (1) *faith* that the sociopolitical world and its agents of governance were keeping the populace safe from harm, (2) *sympathy* for the policies and ideologies President Trump and the Republican-led Congress espoused, and (3) preferentially *voting* for Republican over Democratic candidates in the 2018 midterm election. However, because the studies were collected over a 2-year period, we could adapt the measures we utilized in each study to the specifics of the U.S. sociopolitical climate.

In Studies 1, 2, and 3, we operationalized *faith* that well-intentioned agents and institutions of governance were keeping the populace safe using up to 3 scales on each assessment day. Participants were asked to respond based on their perceptions on the day of the

assessment, whether that assessment happened daily or weekly. Participants in Studies 1, 2, and 3 reported the strength of their (1) personal belief that principles of merit, fairness, and justice motivated the agents and institutions governing the sociopolitical world, making it safer (e.g., “cheaters never prosper”, “good things come to those who wait”, “hard work pays off”, Jost et al., 2003). In Study 3, participants also reported (2) personal beliefs in a just and controllable sociopolitical world (e.g., “people’s misfortunes result from the mistakes they have made”, “if people took preventative action, most misfortune could be avoided”) and (3) the number of threats the U.S. currently faced as a nation (e.g., “I saw/heard/read about threats to the country’s...border security”, “economic security”, and “stature in the world”), with fewer threats corresponding to greater perceptions of safety in the sociopolitical world.

In Studies 2 and 3, we operationalized *sympathy* for President Trump and the policies and ideologies of his Republican Congress using up to 3 scales on each assessment day. In responding, participants were again asked to reflect on the current day. Study 2 participants made daily reports on how much they personally (1) thought people should prioritize political conservatism as a guiding aim in life and (2) believed the federal government’s actions secured the nation’s welfare (e.g., “The federal government is doing a good job... ensuring our economic security”; “...ensuring our physical security”). We then refined our approach in Study 3 to more directly tap sympathy for the personal philosophies and non-traditional brand of Republicanism President Trump publically Tweeted and touted over his first two years in office. Namely, we asked participants to make once-weekly reports on how much they personally (1) distrusted the media (e.g., “The mainstream media cannot be trusted”), (2) distrusted progressivism (e.g., “American society needs to be radically restructured”, reversed, “The structure of American society needs to change”, reversed), and (3) favored economic (e.g., “fiscal responsibility”, “business”) over social conservatism (e.g., “the family”, “religion”). We targeted the relative

priority of economic over social conservatism rather than conservatism itself as a metric of sympathy for President Trump in the midterm election study because perceiving such an economic bias in Trump's policies and ideologies made him a more sympathetic, and ultimately endorsable, candidate for swing voters in the 2016 federal election (Silver, 2019).

In Studies 2 and 3, we made the a-priori decision to analyze composite indices capturing (1) *faith* in the sociopolitical world's capacity to keep people safe from harm and (2) *sympathy* for Trump-branded Republicanism. We did so expecting that the specific scales capturing faith and sympathy might *not* be strongly inter-correlated. People can satisfy desired goals, such as anxiety-alleviation, through multiple means (Harmon-Jones & Harmon-Jones, 2012; Heine et al., 2006; Jonas et al., 2014; Kunda, 1990). Given this fluidity, we reasoned Arya might satisfy activated goals to see White House actions as more sympathetic by expressing acutely more personal distrust of the media, without also needing to express acutely more distrust of progressivism. This logic – that people could idiosyncratically pick and choose among the available means for affirming faith and/or sympathy – echoes the logic of a formative rather than reflective measurement model (Diamantopoulos, Riefler & Roth, 2008; Diamantopoulos & Winklhofer, 2001; Edwards & Bagozzi, 2000). In a reflective measurement model, the construct (e.g., self-esteem) causes the indicators (e.g., responses to self-esteem items). Therefore, indicators are expected to inter-correlate (i.e., people who score relatively highly on one indicator should also score highly on all the other indicators). In a formative measurement model, the indicators (e.g., means for affirming sympathy) instead define the construct (e.g., sympathy for the Trump White House). Therefore, people who score relatively highly on one indicator are *not* necessarily expected to score highly on the others because any one indicator is sufficient to index the construct (e.g., as is the case for indicators of socioeconomic status).<sup>3</sup>

Accordingly, in Studies 1 and 2, we indexed daily *faith in the sociopolitical world's*

*power to keep the populace safe from harm* through the singular scale included (i.e., beliefs that principles of merit, fairness, and justice motivate the sociopolitical world). In Study 3, we indexed such faith through a composite of the three scales, which we z-scored (i.e., beliefs that principles of merit, fairness, and justice motivate the sociopolitical world; beliefs in the sociopolitical world's controllability; and the number of daily perceived threats the U.S. faced, which we reverse-scored). We indexed daily *sympathy for Trump-branded Republican policies and ideologies* through a composite of two z-scored scales in Study 2 (i.e., personally prioritizing political conservatism and personal beliefs that the Republican federal government's actions secured the nation's welfare), and three z-scored scales in Study 3 (i.e., distrusting the media, distrusting progressivism, and favoring economic over social conservatism).<sup>4</sup>

We indexed *midterm voting behavior* in the November 7<sup>th</sup>, 2018 weekly assessment by asking the participants who voted in the midterm to indicate whether they voted for Republican, Democratic, or Independent candidates, indicating (1) yes, (2) mostly, or (3) no, for each party.

### ***Indexing Comfort Depending on Others Over Time***

The midterm election study's 8-week longitudinal design allowed us to test whether stronger *personal-to-sociopolitical* threat-defense habits made personal relational worlds feel safer. We captured threat-defense's capacity to increase comfort with dependence through heightened weekly (1) perceptions of the romantic partner's closeness and availability (e.g., "My romantic partner feels extremely attached to me") and (2) the ease and comfort of family relationship interactions. We indexed such ease through a composite of (1) closeness to one's romantic partner (e.g., "I feel extremely attached to my romantic partner") and children (i.e., "How close do you feel to your children now?"), (2) the perceived quality of one's relationship with one's romantic partner ("terrible" to "terrific") and children ("terrible" to "terrific"), and (3) conflict and tension in one's relationship with one's romantic partner and child, respectively,

in the past week. (We did not assess perceptions of children's closeness and availability.)

### *Indexing More or Less Certainty in a Romantic Partner's Trustworthiness*

We utilized the same 3 items to assess trust in a romantic partner in all 3 studies (i.e., "I can trust my romantic partner completely"; "I can always count on my romantic partner to be responsive to my needs and feelings"; "My romantic partner is always there for me"). In ongoing relationships, more people fall on the extremely trusting than extremely distrusting side of any trust scale (because extremely distrusting relationships are not likely to last).

Therefore, we made the a-priori decision to statistically index the experiential divide between people who were completely certain they could trust their romantic partner and those who were less certain by modeling the *quadratic* effects of trust (which required simultaneously modeling the linear effects of trust). We expected the hypothesized effects of being less than completely certain of a romantic partner's trustworthiness to be evident in *quadratic* moderating effects of trust that mirrored the right-hand side of a  $\cap$ -shaped function. Namely, if being less than *completely* certain of a partner's trustworthiness intensifies threat-defense, the behavior of people at the mean on trust should diverge more sharply from people at the highest scale point on trust than it does from people 1 *SD* below the mean on trust. In decomposing the interactions, we conceptualized people who chose the highest scale point of agreement for all 3 trust items as those who were *completely* certain of their partner's trustworthiness; we conceptualized those who scored at the mean or 1 *SD* below the mean as those who were *less* than completely certain. Thirty to 40% of participants in Studies 1-3 scored at the highest scale point on trust on all 3 items, suggesting that a narrow majority of participants in each study fell into the conceptual category of being *less* than completely certain they could trust their romantic partner.<sup>5</sup>

### *Hypotheses for Personal-to-Sociopolitical Threat-Defense*

*In situ.* People who are less than completely certain they can trust their romantic partner

should report (1) greater faith the agents and institutions of the sociopolitical world are keeping the populace safe and/or (2) greater sympathy for the policies and ideologies of President Trump and his Republican Congress, when immediate family members, themselves included, behaved more unexpectedly, as compared to when they behaved more expectedly (Moderation of Path A by C). When people who are less than completely certain they can trust their romantic partner experienced more unexpected behavior in their immediate families in the 5 weeks just prior to the midterm, they should also be more likely to vote in alignment with acutely heightened desires to believe in the safety afforded by the Trump-led White House. That is, they should be more likely to vote for Republican over Democratic midterm candidates when their romantic partner and/or children behaved more unexpectedly in the 5 weeks immediately preceding the 2018 midterm than less certain people whose family members behaved more as they expected.

**Over time.** Being more in the habit of engaging in *personal-to-sociopolitical* threat-defense should afford repeated, small doses of safety with the potential to transfer across relational worlds. If that is the case, people who are less than completely certain they can trust their romantic partner should later see their partner as more available to them and experience relatively more rewarding and comfortable family interactions (Path D) when they are more, rather than less, likely to engage in *personal-to-sociopolitical* threat-defense on a daily basis.<sup>6</sup>

**Intensifying acute motivations to impose safety on the sociopolitical world.** The proposed social safety system motivates people to escape acutely unexpected *personal* relational worlds by embracing the safety of the *sociopolitical* relational world. But, the *sociopolitical* world itself varies in how much safety it objectively affords. We designed Study 3 to span the 2018 midterm election expecting it to highlight the risks of depending on the sociopolitical world to stay safe. The unique context of the 2018 midterm election thus qualified the *in situ* hypotheses.

In the November 2, 2018 midterm, the Democrats won *future* control of the House of Representatives. However, President Trump held the White House and the Republicans, the Senate. The uncertainty introduced by the impending transition to Democratic control of the House thus threatened the stability of Trump-led Republican governance U.S. residents *still* had to count on to take care of the country for the foreseeable future. Indeed, Google search activity for “impeachment” spiked after the election.<sup>7</sup> Therefore, when family members behaved unexpectedly *post-election*, the experiential coupling of continued dependence on the Trump-led White House with newly heightened uncertainty about its fate should *further* intensify the motivation to find a sense of safety in the sociopolitical world (Harmon-Jones & Harmon-Jones, 2012; Heine et al., 2006). That is, when daily spikes in the unexpected behavior of immediate family members happened *after* the election, we expected people who were less than completely certain they could trust their partner to be more likely to impose well-intentioned motivations on the Trump-led government than they were when such spikes happened *before* the election.

## Results

Tables 2 and 3 contain the descriptive statistics for the daily studies and the midterm election study, respectively. Supplementary Tables 1-3 contain the inter-correlations among the primary daily or weekly variables. We first describe the results of the multilevel analyses examining the day-to-day trust-calibration of *personal-to-sociopolitical* threat-defense – the *in-situ* hypotheses (Moderation of Path **A** by **C** in Figure 1). Then we describe the simultaneous regression analysis predicting voting behavior (Moderation of Path **A** by **C** in Figure 1). And finally, we describe the simultaneous regression analyses examining whether individual differences in *personal-to-sociopolitical* threat-defense habits predict later comfort depending on the inhabitants of one’s personal relational world – the *over-time* hypotheses (Path **D** in Figure 1). We limit our assessment of the *personal-to-sociopolitical* threat-defense hypotheses to *only*



the predicted *quadratic* moderating effects of trust, highlighted in bold in the tables.

***Personal-to-Sociopolitical Threat-Defense in Situ (Moderation of Path A by C)***

In testing the trust-calibration of *personal-to-sociopolitical* threat-defense, we modeled the data in each study as a two-level nested structure using the multilevel modeling program MLwiN (Goldstein et al., 1998) with day (Studies 1 and 2) or week (Study 3) at Level 1 and participant at Level 2. We centered the *within-person* predictors (e.g., unexpected or unforeseen romantic partner behavior) around the participant's own mean and *between-person* predictors (e.g., trust) around the sample mean. We expected the motivated perceptions generated by Monday's unexpected behavior to still be evident Tuesday because threat-defense typically emerges with distraction and delay in experimental studies (Heine et al., 2006; Jonas et al., 2014). Therefore, in the daily studies, we made the a-priori decision to examine lagged effects (e.g., yesterday's unexpected behavior predicting today's faith in the sociopolitical world's safety) to afford stronger causal inferences. However, in the weekly midterm study, we made the a-priori decision to examine same-day effects because we did not have measures of next-day perceptions. We modeled focal within-person main effects as random in estimating the models.<sup>8</sup> We also included the *between-person means* (e.g., the partner's average unexpected behavior across days) in estimating the models, as is recommended to ensure that within- and between-person effects were not confounded (Bolger & Laurenceau, 2013).<sup>9</sup>

***The daily studies.*** In the two daily studies, we indexed the occurrence/nonoccurrence of *personal-to-sociopolitical* threat-defense through a *within-person* effect – whether participants expressed greater (1) *faith* that agents and institutions in the sociopolitical world afforded safety and/or greater (2) *sympathy* for Trump-branded Republican policy on days after immediate family members behaved *more* unexpectedly than usual as compared to days they behaved *less* unexpectedly than usual. We indexed the *trust-calibration* of this threat-defense effect through

its cross-level interaction with the quadratic effects of trust. We expected people to report significantly greater faith and/or sympathy on days after immediately family members behaved more unexpectedly than usual compared to days they behaved more expectedly (indicating threat-defense had happened) when people were *less* than certain they could trust their romantic partner (i.e., people at the mean or 1 *SD* below the mean on trust), but not when they are *completely* certain (i.e., people at the highest scale point on trust).

The left-most columns in Tables 4 and 5 list the terms included in the estimation of the models predicting faith and sympathy, respectively. The predicted cross-level interaction between yesterday's unexpected family behavior and quadratic trust predicting today's faith in the sociopolitical world's capacity to keep people safe from harm was not significant in Study 1 or 2. However, the predicted cross-level interaction between yesterday's unexpected family behavior and quadratic trust predicting today's sympathy in Trump-branded Republican policy and ideology was significant in Study 2. (Sympathy was not measured in Study 1.)

Figure 2 presents the predicted scores for the composite index of sympathy in Trump-branded Republican policy and ideology as a function of yesterday's unexpected family behavior and trust. The occurrence/nonoccurrence of *personal-to-sociopolitical* threat-defense is captured through the comparison between predicted levels of sympathy for Republican governance on days after family members behaved *more* unexpectedly (marked by triangles) versus *less* unexpectedly than usual (marked by circles) at each level of trust.

As expected, people who were less than completely certain they could trust their romantic partner engaged in *personal-to-sociopolitical* threat-defense. They reported significantly greater faith that Republican government's actions secured the country's welfare on the days after family members behaved more unexpectedly than usual as compared to days they behaved more expectedly. This threat-defense simple effect was significant at the mean,  $b = .040$ ,  $SE = .011$ ,  $z$

= 3.64,  $p < .001$ , and 1 *SD* below the mean on trust,  $b = .050$ ,  $SE = .014$ ,  $z = 3.57$ ,  $p < .001$ , but not at its highest scale point,  $b = -.003$ ,  $SE = .013$ ,  $z = -0.23$ . (These conditional values fell within the sample range). Parallel significant interactions emerged predicting the components of the sympathy composite, daily priority on conservatism,  $b = -.010$ ,  $SE = .005$ ,  $z = -2.00$ ,  $p = .046$ , and trust in the federal government's efficacy,  $b = -.009$ ,  $SE = .003$ ,  $z = -3.00$ ,  $p = .003$ .<sup>10</sup>

***The midterm election study.*** In the midterm study, we again indexed the occurrence/nonoccurrence of *personal-to-sociopolitical* threat-defense through a *within-person* effect – whether participants expressed greater (1) *faith* in the sociopolitical world's safety and/or (2) *sympathy* for Trump-branded Republican policy on days after immediate family members behaved *more* versus less unexpectedly. We expected the magnitude of this threat-defense to be contingent on trust and the timing of the election cycle itself. Therefore, we indexed threat-defense's calibration through its joint interaction with the quadratic effects of trust and election timing. (We centered time around the week of the midterm election, such that 0 captured the week of the election, -5 captured 5 weeks before the election, and 1 captured the week after the election.) When people were *less* than certain they could trust their romantic partner and Democrats had just won future control of the House, putting the country's current governance in question, we expected to find stronger positive effects of unexpected family behavior on today's greater faith and/or sympathy (indicating threat-defense had happened).

The left-most columns in Table 6 list the terms included in the models predicting the composite indices of faith and sympathy, respectively. The analyses yielded the predicted cross-level interaction between yesterday's unexpected family behavior, time, and quadratic trust predicting both the *faith* and the *sympathy* composite. Re-conducting the analyses for the components of each composite revealed marginal or significant interactions for all 3 components of the faith composite – namely, perceptions that principles of merit, fairness, and justice

motivate the sociopolitical world,  $b = -.0065$ ,  $SE = .0036$ ,  $z = -1.81$ ,  $p = .07$ , perceptions of the sociopolitical world's controllability,  $b = -.0066$ ,  $SE = .0034$ ,  $z = 1.94$ ,  $p = .052$ , and perceptions of the daily threats the U.S. faced as a nation,  $b = .0395$ ,  $SE = .010$ ,  $z = 3.95$ ,  $p < .0001$  – and significant interactions for 2 components of the sympathy composite – namely, distrust of the media,  $b = -.0088$ ,  $SE = .0044$ ,  $z = -2.00$ ,  $p = .046$  and distrust of progressivism,  $b = -.0077$ ,  $SE = .0026$ ,  $z = -2.99$ ,  $p = .0028$ . The interaction predicting favoring economic over social conservatism was not significant,  $b = -.047$ ,  $SE = .033$ ,  $z = -1.41$ ,  $p = .16$ .

Figure 3 presents the predicted scores for the composite of index of *faith* that the agents and institutions of the sociopolitical world were keeping people safe. Figure 4 presents the predicted scores for the composite index of sympathy for Republican governance. We decomposed each of these interaction into its components unexpected behavior by election cycle interactions for people 1 *SD* below the mean on trust (on the left), at the mean (in the center), and at the highest scale point on trust (on the right). For the composite index of *faith* sociopolitical agents and institutions afforded safety (Figure 3), the unexpected behavior by time interaction was positive and significant at the mean on trust, as anticipated,  $b = .049$ ,  $SE = .015$ ,  $z = 3.27$ ,  $p = .001$ , positive, but not significant, 1 *SD* below the mean on trust,  $b = .031$ ,  $SE = .019$ ,  $z = 1.63$ ,  $p = .10$ , and not significant at its highest scale point,  $b = .006$ ,  $SE = .021$ ,  $z = 0.29$ ,  $p = .77$ . For the composite index of *sympathy* for Trump-led Republican governance (Figure 4), the 2-way unexpected behavior by time interaction was significant and positive at the mean,  $b = .033$ ,  $SE = .015$ ,  $z = 2.20$ ,  $p = .014$ , and 1 *SD* below the mean on trust,  $b = .046$ ,  $SE = .019$ ,  $z = 2.42$ ,  $p = .016$ , but marginal and negative at its highest scale point,  $b = -.036$ ,  $SE = .021$ ,  $z = -1.71$ ,  $p = .09$ .

We reasoned that the combined power acutely unexpected behavior power and the election itself had to motivate less certain people to impose well-intentioned motivations on agents and institutions of governance in the sociopolitical world could be evident in two ways.

One: Immediate family members behaving unexpectedly could be more likely to motivate imposing safety on the sociopolitical world when it happened *after* Democrats won future control of the House – the simple effect of *unexpected behavior* in one’s immediate family at pre- and post Democratic-win points in the election cycle. Two: The election itself could be *less* likely to threaten the perceived safety of the sociopolitical world when people were especially motivated to see this world as safe – the simple effect of the *election timing* for people whose immediate family members, themselves included, were behaving more versus less unexpectedly.

The simple effects of *unexpected* or *unforeseen* behavior revealed that people who were *not* completely certain they could trust their romantic partner evidenced *personal-to-sociopolitical* threat-defense. They perceived agents and institutions of the sociopolitical world to be significantly more guided by the populace’s best interest when immediate family members, including themselves, behaved more *unexpectedly* than usual on *post-election* days, as compared to *post-election* days they behaved more *expectedly*. For *faith*, these threat-defense effects for people at the mean on trust were significant after the Democratic win in both Week 7,  $b = .070$ ,  $SE = .034$ ,  $z = 2.06$ ,  $p = .039$ , and Week 8,  $b = .119$ ,  $SE = .046$ ,  $z = 2.59$ ,  $p = .01$ , but not before it, in Week 6,  $b = .021$ ,  $SE = .026$ ,  $z = 0.81$ ,  $p = .42$  (the interaction at 1 *SD* below the mean was not decomposed because it did not reach significance). For *sympathy*, the simple effects of unexpected behavior were positive and significant for people at the mean on trust after the Democratic win in Week 7,  $b = .078$ ,  $SE = .035$ ,  $z = 2.23$ ,  $p = .026$ , and Week 8,  $b = .111$ ,  $SE = .046$ ,  $z = 2.41$ ,  $p = .016$ , but marginal in Week 6,  $b = .045$ ,  $SE = .026$ ,  $z = 1.73$ ,  $p = .084$ . For people 1 *SD* below the mean on trust, the simple effects of unexpected behavior were also significant in Week 7,  $b = .100$ ,  $SE = .045$ ,  $z = 2.22$ ,  $p = .026$ , and Week 8,  $b = .146$ ,  $SE = .060$ ,  $z = 2.43$ ,  $p = .015$ , but not significant in Week 6,  $b = .054$ ,  $SE = .034$ ,  $z = 1.59$ ,  $p = .11$ . (We isolated the conditional effects for Weeks 6 and 8 by re-centering time.)

The simple effects of *election timing* revealed that Democrats winning future control of the House was *less* likely to threaten the perceived safety of the sociopolitical world when unexpected behavior in people's personal relational worlds motivated them to see the agents and institutions of this world as protecting the populace's best interests. When family members behaved *as expected* on the assessment day, and the proposed social-safety system was *not* activated, less certain people perceived the sociopolitical world to afford less protection *after* the Democrats won future control of the House than they did before it. This simple effect was significant for the *faith* composite for people at the mean on trust,  $b = -.060$ ,  $SE = .014$ ,  $z = -4.29$ ,  $p < .0001$ , and for the *sympathy* composite for people at the mean on trust,  $b = -.026$ ,  $SE = .013$ ,  $z = -2.00$ ,  $p = .046$ . But, when immediate family members behaving more *unexpectedly* than usual on the assessment day instead motivated people who were less certain to embrace the sociopolitical world's safety, they were instead inoculated against the impending Congressional shift. Less certain people whose family members behaved more unforeseeably than usual perceived the sociopolitical relational world to be just as safe after the election as before it,  $b = .012$ ,  $SE = .014$ ,  $z = 0.86$ ,  $p = .39$ . They also reported *greater* sympathy for Trump policies and ideologies after Democrats won future control of the House than they did before the midterm election. This conditional effect of time was positive and marginal, at the mean on trust,  $b = .023$ ,  $SE = .013$ ,  $z = 1.77$ ,  $p = .077$ , and significant 1 *SD* below the mean on trust,  $b = .045$ ,  $SE = .017$ ,  $z = 2.65$ ,  $p = .008$ .<sup>11</sup>

**Midterm voting.** We created a composite index of the tendency to vote for Republican over Democratic candidates in the 2018 midterm by averaging the voting rating for Republican candidates (i.e., 1 = *yes*, 2 = *mostly*, 3 = *no*) with the reverse-scored rating for Democratic candidates (i.e., 1 = *no*, 2 = *mostly*, 3 = *yes*). Lower scores thus captured a preference for Republican over Democrat candidates. We then conducted a simultaneous regression predicting

voting for Republican over Democratic candidates from the average level of unexpected immediate family behavior people experienced in the 5 weeks prior to the election, the linear and quadratic effects of trust (centered), and all possible interactions. Table 7 presents the results.

The average unexpected behavior by quadratic trust interaction predicting voting for Republican over Democrat candidates was significant. Figure 5 presents the strength of the threat-defense effect at each level of trust. In this case, *personal-to-sociopolitical* threat-defense is indicated by people being more likely to vote for Republican over Democratic candidates when their immediate family members, themselves included, behaved more unexpectedly (marked by triangles) than expected (marked by circles) before the midterm.

As expected, people who were less completely certain they could trust their partner were more likely to vote for Republican over Democratic candidates when immediate family members, themselves included, behaved more unexpectedly in the 5 weeks prior to the election, as compared to less certain people whose family members behaved more expectedly. However, this predicted simple effect of unexpected behavior on voting for Republican over Democratic candidates was only significant at the mean on trust,  $\beta = -.184$ ,  $t(175) = -1.99$ ,  $p = .049$ , and not 1 *SD* below the mean on trust,  $\beta = -.11$ ,  $t(175) = -0.91$ ,  $p = .36$ . It was not significant at its highest scale point,  $\beta = .048$ ,  $t(175) = 0.40$ ,  $p = .69$ . When analyzed separately, significant interactions between average unexpected behavior and quadratic trust also emerged predicting voting for Republican,  $\beta = .308$ ,  $t(175) = 2.08$ ,  $p = .039$ , and Democratic candidates,  $\beta = -.43d8$ ,  $t(175) = -3.01$ ,  $p = .003$ . The average unexpected behavior by quadratic trust interaction predicting voting for Independent candidates was not significant,  $\beta = -.015$ ,  $t(175) = -0.10$ ,  $p = .92$ .<sup>12</sup>

#### *Personal-to-Sociopolitical Threat Defense Over Time (Path D in Figure 1)*

In testing the over-time hypothesis (Path **D**), we first computed indices that captured *individual differences in personal-to-collective threat-defense habits*. To do this, we estimated

two multi-level models. The first predicted today's faith in the sociopolitical world's power to keep people safe using a random intercept, the fixed effect of yesterday's faith (person-centered), the random effect of today's unexpected or unforeseen immediate family behavior (person-centered), and error terms; the second predicted today's sympathy for Trump-branded Republican policies and ideologies using the same terms. We then saved the residual component of the slope for unexpected behavior in each model to index individual differences in the strength of *personal-to-sociopolitical* threat-defense habits. In each case, more positive slope residuals for unexpected behavior capture stronger individual habits to affirm the safety of the *sociopolitical* world on occasions when immediate family members behaved more (vs. less) unexpectedly than usual. Because people could defensively embrace the safety of the sociopolitical world by affirming its benevolence and/or sympathizing with Trump-branded policies, we calculated a composite index of such threat-defense habits by averaging the two residual slopes. (We utilized only the first 6 weekly assessments in the multilevel models that calculated the residual slopes to ensure that our index of threat-defense habits had causal priority over the intended dependent measure, relationship outcomes the week after the election (i.e., at the 7<sup>th</sup> weekly assessment).)

We expected stronger *personal-to-sociopolitical* threat-defense habits to predict increased comfort depending on others over time when people needed greater proof of the relational world's safety – that is, when they were less than completely certain they could trust their romantic partner. Thus, we conducted simultaneous regression analyses separately predicting (1) perceptions of romantic partner availability and (2) the ease and comfort of family interactions at the last weekly assessment from this outcome in the first weekly assessment, the individual difference measure of *personal-to-sociopolitical* threat-defense habits, the linear and quadratic effects of trust, and the interactions among the primary variables. We created a composite index of ease and comfort in family interactions ( $\alpha = .79$ ) by averaging its 6 component scales, each z-



scored (i.e., feelings of closeness to one's romantic partner/children, quality of interactions in the romantic/parent-child relationship, and tension and conflict with one's romantic partner/child).

Table 8 reveals the anticipated significant interactions between *personal-to-sociopolitical* threat-defense habits and the quadratic effects of trust predicting *both* indices of comfort depending on others. Figure 6a presents the threat-defense habits by quadratic trust interaction predicting later perceptions of the romantic partner's availability. Figure 6b presents the parallel interaction for ease and comfort in family interactions. Not surprisingly, people who were initially less certain they could trust their romantic partner were less likely to (1) perceive their partner as available to them and less likely to (2) experience close, comfortable family interactions at both time points, as indicated by the significant and strong main effects of trust in each case. Nevertheless, possessing stronger *personal-to-sociopolitical* threat-defense habits still helped inoculate less certain people against compounding anxiety and discomfort over time.

In decomposing the predicted interactions for each index of comfort in dependence, we reasoned that the inoculating effect of *personal-to-sociopolitical* threat-defense habits could potentially reveal itself in two ways. One: People who *better* inoculated themselves could evidence greater comfort depending on others than people who inoculated themselves less well – the simple effect comparing *strong* threat-defense habits (marked by triangles in Figures 6a and 6b) to *weak* threat-defense habits (marked by circles) for people who were less certain (i.e., mean and 1 *SD* below the mean) versus completely certain (i.e., highest scale point) of their partner's trustworthiness. Two: The greater relationship vulnerability of people who were less than completely certain they could trust their romantic partner could diminish over time compared to people who were completely certain – the simple effect comparing the curvilinear association between initial trust and later comfort in dependence for people with *stronger* versus *weaker* threat-defense habits (1 *SD* above and below the mean, respectively).

**Simple effects of threat-defense.** The simple effects of threat-defense habits revealed that people who were initially *less* certain they could trust their partner later evidenced relatively greater comfort in dependence at Time 8 when they had *stronger* threat-defense habits over the election cycle than when they had *weaker* habits. For *perceived partner availability*, the threat-defense simple effect was significant at the mean,  $\beta = .074$ ,  $t(201) = 2.03$ ,  $p = .044$ , but not 1 *SD* below the mean on trust,  $\beta = .067$ ,  $t(201) = 1.37$ ,  $p = .17$ . For *ease and comfort in family interactions*, this simple effect was significant at the mean,  $\beta = .153$ ,  $t(201) = 2.96$ ,  $p = .003$ , and 1 *SD* below the mean on trust,  $\beta = .158$ ,  $t(201) = 2.31$ ,  $p = .022$ . This simple effect was not significant for people at the highest scale point on trust for perceived partner availability,  $\beta = -.020$ ,  $t(201) = -0.45$ ,  $p = .66$ , or comfort in family interactions,  $\beta = .015$ ,  $t(201) = 0.24$ ,  $p = .81$ .

**Quadratic simple effects of trust.** The simple quadratic effects of trust also revealed the predicted inoculating effect of *personal-to-sociopolitical* threat-defense habits. When people were better inoculated (i.e., *stronger* threat-defense habits), the greater discomfort people who were less than completely certain of their partner's trustworthiness had with dependence diminished over time relative to people who were initially certain. But, when people were *not* well inoculated (i.e., *weaker* threat-defense habits), the greater discomfort of less certain people compounded over time relative to more certain people. However, the relative nature of the curves differed across the outcome measures. For *perceived partner availability*, the simple quadratic effect of trust was significant and negative for people with *stronger* threat-defense habits,  $\beta = -.158$ ,  $t(201) = -2.22$ ,  $p = .028$ , indicating that less certain people perceived their partner as relatively *more* available relative to more certain people (i.e., they differed *less* from more certain people). It was positive, but not significant, for people with *weaker* threat-defense habits,  $\beta = .038$ ,  $t(201) = 0.74$ ,  $p = .46$ . For *ease and comfort in family interactions*, the simple quadratic

effect of trust was not significant for people with *stronger* threat-defense habits,  $\beta = -.068$ ,  $t(201) = -0.67$ ,  $p = .51$ . It was significant and positive for people with weaker threat-defense habits,  $\beta = .201$ ,  $t(201) = 2.79$ ,  $p = .006$ , indicating that less certain perceived their partner as even *less* available relative to more certain people (i.e., they differed *more* from more certain people).

### ***Discussion and Alternate Explanations***

Studies 2 and 3, but not Study 1, supported the *in-situ personal-to-sociopolitical* threat-defense hypotheses (Moderation of Path A by C), although the effects were decidedly more robust for sympathy in Trump-branded Republican governance than faith in the sociopolitical world's capacity to keep people safe from harm. Specifically, 3 out of 3 expected interactions were significant for sympathy in Trump-branded Republican governance, but only 1 out of 3 expected interactions were significant for faith in the sociopolitical world's capacity to keep people safe from harm. In Study 2, people who were less than completely certain they could trust their romantic partner reported significantly greater faith in the Trump-led Republican government on days after romantic partners and/or children behaved more unexpectedly than usual, as compared to days they behaved more expectedly. When immediate family members behaved more unexpectedly on post-election days in Study 3, the uncertainty introduced by the Democrats taking *future* control of the House *further* intensified the need to find safe haven in the Trump-led sociopolitical world people still needed to depend on. Less certain people reported significantly greater (1) faith that existing *sociopolitical* powers were already keeping them safe from harm and (2) sympathy for Trump-branded Republican policies and ideologies on post-election days when immediate family members, themselves included, behaved more unexpectedly than usual, as compared to post-election days they behaved more expectedly. People who were less than completely certain they could trust their romantic partner were also more likely to vote for Republican over Democratic candidates in the 2018 midterm when family

members had behaved more unexpectedly in the 5 weeks immediately preceding the midterm.

Study 3, the only of these three studies with an extended longitudinal component, suggested that the sense of safety *personal-to-sociopolitical* threat-defense potentially affords can transfer across relational worlds (Path **D** in Figure 1). When people who were less than completely certain they could trust their romantic partner evidenced stronger *personal-to-sociopolitical* threat-defense habits, they later evidenced greater comfort depending on others. They perceived their partner as relatively more available and experienced closer, more comfortable, family interactions over time as compared to people with weaker *personal-to-sociopolitical* threat-defense habits.

These data are not without limitations and alternate explanations. The most glaring is that the predicted effects for heightened faith in the sociopolitical world's capacity to afford safety emerged in Study 3, but not in Study 1 or 2. In these latter studies, faith was only indexed through the perception that principles of fairness, justice, and merit motivated the forces governing the sociopolitical world (e.g., "Cheaters never prosper"). Future research might better index faith in the sociopolitical world's capacity to keep people safe from harm more directly and broadly, as we did successfully in Study 3, perhaps through questionnaire items that concretely attribute fair, caring, and communal motivations to real agents in the sociopolitical world (e.g., "The judicial system works to protect everyone's interests"; "Employees are paid commensurate with their effort and skill"; "The Center for Disease Control takes good care of the nation's health") and/or through items that specifically capture anxiety about real world risks (e.g., "I worry about the country's economic security"; "U.S. borders could be tightened").

There are also alternate explanations for the observed interaction effects. The proposed model of the social-safety system assumes that trust calibrates threat-defense because people who are less than completely certain they can trust their romantic partner generally feel less safe

in the relational world. However, people who are less certain might simply have difficulty with any kind of uncertainty. To examine this possibility, we redid the *in-situ* and *over-time personal-to-sociopolitical* threat-defense analyses using personal need for structure (measured in Studies 2 and 3), which captures individual differences in the capacity to tolerate uncertainty (Neuberg & Newsom, 1993), as a moderator instead of trust. As reported in the SOM, no significant interactions between personal need for structure and unexpected familial behavior emerged.

Because the proposed social-safety system model presumes that personal relational worlds encompass agents other than romantic partners, we indexed unexpected behavior through iteratively more inclusive indices across studies (i.e., unexpected romantic partner behavior in Study 1, unexpected romantic partner and child behavior in Study 2, unexpected self, romantic partner, and child behavior in Study 3). While these composite indices captures the breadth of the *personal* relational world, aggregating across agents raises the possibility that the effects actually are limited to one class of social agents within this world. To examine this possibility, we redid the *in-situ* analyses in Study 2 and 3, indexing unexpected behavior through each potential index. As reported in the SOM, the moderating effects of trust were generally robust across unexpected romantic partner behavior, child behavior, and unexpected partner and child thoughts.

The proposed social-safety system model assumes that family members' unexpected behavior motivates *personal-to-sociopolitical* threat-defense because it makes others' motivations harder to discern, not because it is negative and hurtful. However, less certain people might have embraced the safety of the sociopolitical world when immediate family members behaved unexpectedly because family members behaving badly might have made the sociopolitical world seem more appealing by contrast. Participants in all 3 studies rated (1) how positively and how negatively their partner and/or children behaved on each assessment day (1 =

*not at all*, 7 = *extremely*) and (2) the overall quality of each of these relationships each assessment day (-3 = *terrible*, 3 = *terrific*). To see if the effects of unexpected behavior actually captured the effects of bad behavior or distressing family interactions, we redid the *in-situ* and voting analyses twice. We redid the *in-situ* analyses separately controlling for (1) the daily valence of familial (i.e., romantic partner/child) behavior and its interactions with trust and (2) the daily quality of familial relationships (i.e., romantic/child) and its interactions with trust. We redid the voting analyses controlling for the (1) average valence of romantic partner/child behavior in the 5 weeks before the midterm and its interactions with trust and (2) average quality of romantic partner/child relationships in the 5 weeks before the midterm and its interactions with trust. As reported in the SOM, all of the reported interactions proved robust with these controls, suggesting that unexpected behavior did *not* have its effects because it was hurtful or distressing.

People who are less than completely certain they can trust their romantic partner might embrace the safety of the sociopolitical world when immediate family members behave unexpectedly because threat motivates less certain people to see something, anything, positively. If that is the case, less certain people might also see immediate family members as affording greater safety as a direct defense against the acute threat posed by them behaving unexpectedly. To examine this possibility, we redid the *in-situ* threat-defense analyses for Studies 1 and 2, but this time, utilized perceptions of the well-intentioned motivations of immediate family members as the daily outcome (described in the next section on *sociopolitical-to-personal* threat-defense). No significant interactions involving unforeseeable behavior and the quadratic effects of trust emerged in either study.<sup>13</sup> Thus, unexpected behavior in the familial relational world specifically motivates less certain people to impose well-intentioned motivations on *sociopolitical* powers.

Less certain people might also embrace the safety of the sociopolitical world when family members behave unexpectedly because perceiving unexpected behavior is symptomatic of some “third” state that is the true psychological motivator. Being acutely emotionally distressed might have simultaneously sensitized people to unexpected behavior and heightened the appeal of conservative thinking. If so, daily distressed mood should mimic the effects of unexpected behavior for people who were less than completely certain they could trust their romantic partner. To test this possibility, we re-conducted the in-situ threat-defense analyses in Studies 1, 2, and 3, but this time we utilized participants’ self-ratings of distress mood (e.g., “happy”, “sad”, “angry”, “guilty”, “anxious”) to index daily situational threat instead of unexpected familial behavior. As the SOM detail, only 1 of 5 possible interactions involving quadratic trust proved to be significant, suggesting that being in a distressed mood state is generally *not* sufficient to motivate less certain people to embrace the safety of the sociopolitical world.

Finally, the proposed model of the social-safety system assumes that it is the *contingency* inherent in *personal-to-sociopolitical* threat-defense habits – finding safety in the sociopolitical world in *reaction* to immediate family members behaving unexpectedly – that fortifies relationships over time. However, threat-defense habits might have had their observed effects because less certain people with stronger such habits feel safer in the sociopolitical world in general, not because defensively imposing such perceptions in response to threat allows the resulting feeling of safety to be misattributed across relational worlds. The residuals for the intercepts from the multilevel equations we used to estimate *personal-to-sociopolitical* threat-defense habits capture individual differences in (1) average daily perceptions that the sociopolitical world affords safety from harm and (2) average daily sympathy for Trump-branded Republicanism. To separate the contingent tendency to impose safety on the sociopolitical world from absolute levels of faith in this world, we redid the analyses controlling for the average of

these intercept residuals and their interactions with trust and time. The observed interactions between threat-defense habits, time, and quadratic trust remained significant predicting perceptions of the partner's availability,  $\beta = -.163$ ,  $t(198) = -2.43$ ,  $p = .016$ , and ease and comfort in family interactions,  $\beta = -.212$ ,  $t(198) = -2.23$ ,  $p = .027$ , suggesting that the contingency implicit to threat-defense underlies its effects.

### **Sociopolitical-to-Personal Threat-Defense**

As operationalized, *sociopolitical-to-personal* threat-defense linked the *situational threat* posed by agents and institutions of governance in the sociopolitical world behaving unexpectedly to the associated *defensive* inclination to perceive immediate family members as unambiguously guided by communal concern for one another's welfare. The daily diary studies (Studies 1 and 2) tested the *in-situ* hypotheses (Moderation of Path **B** by **C** in Figure 1) and the newlywed study (Study 4) tested its *over-time* hypotheses (Path **D** in Figure 1).<sup>14</sup> We next explain how we operationalized the variables using exemplar scale items for each study. Table 1 summarizes this information, linking each hypothesis to its operational definition in each study. The SOM detail the measures.<sup>15</sup>

#### ***Indexing the Situational Threat***

We reasoned that the ubiquity of social media, news, radio banter, and Twitter feeds automatically tunes people to unexpected or unforeseen behavior on the part of agents and institutions of governance in the *sociopolitical* relational world (von Scheve & Salmala, 2014). Indeed, people (or leaders or nations) behaving unforeseeably can be detected through its ripple effects on the Internet searches of the local populace (Beall, Hofer, & Schaller, 2016) and the stock market activities of financial traders, which are sensitive to unexpectedly negative or positive economic or political news (Bloom, 2009, 2014; Nikkinen & Sahlstrom, 2004).



In Studies 1, 2, and 4, we indexed unexpected or unforeseen behavior on the part of such *sociopolitical* powers using the VIX (Chicago Board Options Exchange Volatility Index), aka the “fear index.” Derived from the behavior of financial traders, the VIX is a daily economic indicator that tracks uncertainty in national and international events by forecasting greater volatility in the stock market over the next 30 days. Historically, the VIX spikes when the behavior of national and international agents and institutions of governance is harder to anticipate or foresee and abates when it is easier to foresee (Bloom, 2014).<sup>16</sup>

In Studies 1 and 2, we reasoned that unexpected behavior of national and international sociopolitical powers would also spark collective Internet interest. Therefore, we monitored the *daily* content of the Google searches conducted by people living in the same zip code as the participant to capture acutely salient exemplars of unexpected behavior on the part of sociopolitical powers. Google Trends data indexes how frequently a particular term is searched on a given day relative to the total search volume, providing results at city, state, and national levels. In Study 1, we tracked how often people living in the same zip code as the participant searched for the terms “uncertainty”, “North Korea”, “Trump lies”, “Comey”, and “terrorism” each day, assuming that the national and international agents implicated in these current events were *not* behaving as people might expect well-intentioned sociopolitical powers to behave (e.g., Trump and Kim Jung-un tweeting threats of nuclear war, Trump impugning the FBI director). In Study 2, we tracked how often people living in the same zip code as the participant searched for the terms “border wall”, “recession”, “Trump/Mueller”, “trade war”, “global warming”, “terrorism”, “racism”, and “protest,” again assuming that the national and international agents implicated in these current events were *not* behaving as people might expect well-intentioned sociopolitical powers to behave (e.g., ratcheting up the family separation policy at the border,

denying climate change, collusion with Russia). (These were the *only* searched terms in each study and they were tailored to the news cycle occurring during each diary period.)

### *Indexing the Defensive Response*

To embrace the safety of personal relational worlds, people need to believe that the inhabitants of these worlds, themselves included, are unambiguously and communally motivated to care for one another's needs (Clark & Grote, 1998). We made the a-priori decision to assess the imposition of such motivations on immediate family members through *daily* (1) perceptions of romantic partners' acceptance and love in Studies 1 and 2 (e.g., "my partner made me feel especially loved") and children's acceptance and love in Study 2 (e.g., "my child expressed love and affection toward me"), (2) one's own willingness to sacrifice for one's romantic partner in Studies 1 and 2 (e.g., "I gave up something I wanted for my partner's sake", "I did a chore that was normally my partner's responsibility") and children in Study 2 (e.g., "I did something I didn't want to do because of my children"), and (3) one's own conviction in the overall quality of the romantic relationship in Studies 1, 2, and 4 and parent-child relationship in Study 2.

We also made the a-priori decision to analyze *composite* indices capturing the imposition of caring and communal motivations across one's personal relational world. We did so expecting that the specific scales capturing such perceptions might *not* be strongly inter-correlated. For instance, Arya might satisfy activated goals to see her personal relational world as more accepting by seeing her child as more affectionate, without also needing to sacrifice more her for spouse. Utilizing a composite index of *faith in communal motivations of the inhabitants of one's personal relational world* thus allowed participants to express increases in faith from one day to the next in their own idiosyncratic ways. Namely, we computed composites of (1) the romantic partner's daily perceived acceptance, daily willingness to sacrifice in the romantic relationship, and daily conviction in the quality of the romantic relationship in Study 1 and (2) the romantic

partner and child's daily acceptance, daily willingness to sacrifice for the romantic partner and child, and daily conviction in the romantic and parent-child relationship's quality in Study 2.

### *Indexing Comfort Depending on Others Over Time*

The newlywed study's longitudinal design allowed us to test whether stronger *sociopolitical-to-personal* threat-defense increased comfort depending on one's spouse over time (Path **D**). Completed before this research was conceived, the newlywed study nonetheless contained measures that captured such comfort. In deciding which specific measures to examine, we made the a-priori decision to limit hypothesis tests to outcomes that we had *not* examined before in any prior study. This left 7 candidate measures and we decided to focus on 6 of the 7 because they most directly captured (1) the experiential state of being comfortable actively depending on a romantic partner and (2) the relationship consequences of discomfort.

When people feel more comfortable depending on specific intimates, they perceive them as being more available to meet their needs (Murray & Holmes, 2009; Simpson, 2007; Overall & Sibley, 2009a, 2009b). We broadly indexed perceptions of *partner availability* through a composite of 3 measures that variously captured whether romantic partners could be depended on: (1) attachment anxiety (e.g., "I often worry that romantic partners don't really love me"), (2) perceptions of the spouse's supportiveness (e.g., "To what extent can you count on your partner for advice about problems"), and (3) perceptions of the spouse's communal motivation (e.g., "How large a cost would your partner incur to meet a need of yours"), administered annually for 3 years (i.e., 4 assessments). When people are *not* comfortable depending on specific intimates, they typically think and behave in ways that keep intimates at greater psychological distance (Murray & Holmes, 2009). We broadly indexed the imposition of such *psychological distance* through a composite of 3 measures that captured wanting to push or trying to push a partner away: (1) ambivalence (e.g., "I sometimes feel my partner demands or requires too much of my

attention”), (2) conflict (e.g., “How often do you and your partner get on each other’s nerves”), and (3) intentions to separate (e.g., “I think about breaking up with my partner”), administered biannually for 3 years (i.e., 7 assessments). (We did not necessarily expect the components of each composite to be strongly inter-correlated because we were trying to capture at least partially non-overlapping components of each psychological domain, Epstein, 1984.)

### ***Hypotheses for Sociopolitical-to-Personal Threat-Defense***

People who are less than completely certain they can trust their romantic partner should report greater faith that their immediate family is in fact accepting, caring, and communally motivated on days after the sociopolitical powers that be behaved more unexpectedly, as compared to days they behaved more expectedly (Moderation of Path **B** by **C** in Figure 1). Over time, people who married less than certain they can trust their new spouse should perceive their spouse to be relatively more available to them over the first 3 years of marriage and be less likely to distance themselves from their spouse when they were *more*, rather than *less*, likely to engage in *sociopolitical-to-personal* threat-defense on a daily basis (Path **D** in Figure 1).<sup>17</sup>

### ***Analysis Overview***

Table 2 contains the daily study descriptive statistics; Table 9 contains the newlywed study descriptive statistics. Supplementary Tables 4 to 6 contain the inter-correlations among the primary daily variables. We first describe the multilevel analyses examining the day-to-day trust-calibration of *sociopolitical-to-personal* threat-defense – the *in-situ* hypotheses. Then we describe the multilevel analyses examining whether individual differences in *sociopolitical-to-personal* threat-defense habits predict long-term changes in comfort depending on others – the *over-time* hypotheses. We again expected the hypothesized effects of being less than completely certain of a romantic partner’s trustworthiness to be best indexed through *quadratic* moderating effects of trust. We thus limit assessments of the *sociopolitical-to-personal* threat-defense

hypotheses to *only* the *quadratic* moderating effects of trust, highlighted in bold in the tables.

***Sociopolitical-to-Personal Threat-Defense in Situ (Moderation of Path B by C in Figure 1)***

In testing the trust-calibration of *sociopolitical-to-personal* threat-defense, we modeled the daily diary data as a two-level nested structure using the multilevel modeling program MLwiN (Goldstein et al., 1998) with day (Studies 1 and 2) at Level 1 and participant at Level 2. The *trust-calibration* hypothesis predicts cross-level interactions, such that the effect of situational threat (e.g., the VIX index of unexpected or unforeseeable sociopolitical behavior) on today's defensive response (e.g., faith in a romantic partner's well-intentioned communal motivations) depends on trust. In estimating the models, we again centered the *within-person* predictors around the participant's own mean and *between-person* predictors around the sample mean, examined lagged effects (e.g., yesterday's VIX predicting today's faith in the romantic partner's well-intentioned motivations), modeled focal within-person main effects as random, and included the *between-person means*. Tables 10-11 contain the results for each study utilizing yesterday's VIX and Google searches, respectively, as separate indices of situational threat.

***The daily studies.*** In the two daily studies, we indexed the occurrence/nonoccurrence of *sociopolitical-to-personal* threat-defense through a *within-person* effect – whether participants expressed greater faith in the communal motivations of immediate family members on days after agents and institutions of governance in the sociopolitical world behaved *more* unexpectedly than usual as compared to days they behaved *less* unexpectedly than usual (as indexed by either VIX or Google search activity). We indexed the *trust-calibration* of this threat-defense effect through its cross-level interaction with the quadratic effects of trust. We expected people to report significantly greater faith in the communal motivations of immediate family members on days after the sociopolitical world behaved more unexpectedly than usual compared to days it behaved more expectedly (indicating threat-defense had happened) when people were *less* than

certain they could trust their romantic partner (i.e., mean or 1 *SD* below the mean on trust), but not when they are *completely* certain (i.e., highest scale point on trust).

The left-most columns in Tables 10 and 11 list the terms included in the estimation of the models utilizing the VIX and Google searches, respectively, as the indicators of unexpected sociopolitical behavior. In Study 1, the predicted cross-level interactions between (1) yesterday's VIX (*z*-scored) and quadratic trust (Table 10) and (2) yesterday's Google search activity (*z*-scored) and quadratic trust (Table 11) predicting the composite index of today's faith in the romantic relationship's communal quality were both significant. In Study 2, the cross-level interaction between yesterday's VIX (*z*-scored) and quadratic trust predicting the composite index of faith in the family's communal relationship quality was not significant. However, the cross-level interaction between yesterday's Google search activity and quadratic trust predicting the composite index of faith in the family's communal quality was significant. Parallel interactions generally emerged predicting the components of the composites in each study.<sup>18</sup>

Figures 7 and 8, respectively, capture the predicted scores for the composite indices of faith in the communal motivations of the romantic partner (Study 1) and immediate family (Study 2) as a function of unexpected behavior in the sociopolitical world and trust. The occurrence/nonoccurrence of *sociopolitical-to-personal* threat-defense at each level of trust is captured through the comparison between faith in the communal motivations of immediate family members on days after the sociopolitical world behaved *more* unexpectedly (marked by triangles) versus *less* unexpectedly than usual (marked by circles).

Not surprisingly, people who were less than completely certain they could trust their romantic partner reported significantly less faith in the communal motivations of their immediate family members *across days* in both studies (as indicated by the significant linear and quadratic main effects of trust). However, the sociopolitical world behaving unexpectedly muted these

differences because the experience of the acutely unexpected in the sociopolitical world motivated less certain people to perceive their immediate family members as being more communally motivated than usual. That is, people who were less than completely certain they could trust their romantic partner engaged in *sociopolitical-to-personal* threat-defense.

They reported significantly greater faith in the communal motivations of immediate family members on days after the sociopolitical world behaved unforeseeably, as captured by spikes in the VIX or Google-search activity, as compared to days the sociopolitical powers that be behaved more expectedly. In Study 1, the threat-defense effect – that is, the simple effect of yesterday’s VIX – was significant at the mean,  $b = .030$ ,  $SE = .011$ ,  $z = 2.73$ ,  $p = .006$ , and 1 *SD* below the mean on trust,  $b = .044$ ,  $SE = .018$ ,  $z = 2.44$ ,  $p = .015$ , but not at its highest scale point,  $b = .004$ ,  $SE = .013$ ,  $z = 0.31$ ,  $p = .76$ . In Study 1, the threat-defense effect – that is, the simple effect of yesterday’s Google search activity – was significant at the mean,  $b = .051$ ,  $SE = .014$ ,  $z = 3.64$ ,  $p = .0003$ , and 1 *SD* below the mean on trust,  $b = .062$ ,  $SE = .022$ ,  $z = 2.82$ ,  $p = .005$ , but not at its highest scale point,  $b = .021$ ,  $SE = .016$ ,  $z = 1.31$ ,  $p = .19$ . In Study 2, the simple effect of yesterday’s Google search activity was also significant at the mean,  $b = .037$ ,  $SE = .014$ ,  $z = 2.64$ ,  $p = .008$ , and 1 *SD* below the mean on trust,  $b = .057$ ,  $SE = .020$ ,  $z = 2.85$ ,  $p = .004$ , but not at its highest scale point,  $b = -.009$ ,  $SE = .015$ ,  $z = -0.60$ ,  $p = .55$ .

### ***Sociopolitical-to-Personal Threat-Defense Over Time (Path D in Figure 1)***

We next examined whether *sociopolitical-to-personal* threat-defense predicts greater comfort in dependence over time. Because both members of the newlywed couples in Study 4 provided reports across multiple time points, we modeled the data as a two-level nested structure using the multilevel modeling program MLwiN (Goldstein et al., 1998) with time of assessment (e.g., day, biannual, or annual) at level 1, couple at level 2, and gender within couple modeled as a multivariate outcome. This approach simultaneously estimated one regression equation for

women and one for men, controlling for the dependence between dyad members.

We first indexed individual differences in *sociopolitical-to-personal* threat-defense habits. To do so, we estimated a multi-level model predicting today's conviction in the relationship's quality using a random intercept, the fixed effect of yesterday's conviction (person-centered), the random effect of yesterday's VIX (person-centered), and the error terms. We then saved the residual component of the slope for yesterday's VIX predicting today's conviction in the quality of one's marriage to index individual differences in *sociopolitical-to-personal* threat-defense habits. More positive slope residuals capture stronger habits to affirm conviction in the quality of one's marriage on days after sociopolitical powers behaved more (vs. less) unexpectedly than usual, as captured by relative increases in the VIX.<sup>19, 20</sup>

We then used this individual difference measure of threat-defense habits and trust as assessed at Time 1 (e.g., "When we are dealing with an issue that is important to me, I feel confident that my partner will put my feelings first"; "I feel that I can trust my partner completely") to predict changes in each of the two composite indices of comfort in dependence over the first 3 years of marriage. Specifically, we estimated multilevel models separately predicting the trajectory of change (i.e., increasing, decreasing, stable) in (1) *perceived partner availability* (a composite of reversed-scored attachment anxiety, perceived supportiveness, and perceived communal motivations, and (2) *psychological distancing* (a composite of ambivalence, conflict, and separation intentions) from *sociopolitical-to-personal* threat-defense habits and the linear and quadratic main and interactive effects of trust at the point of marriage.

Table 12 lists the effects included in the models predicting each composite index of comfort and their corresponding coefficients. In estimating the models, we specified time (centered such that 0 captured the first assessment) to be random and centered between-person predictors (i.e., threat-defense habits and trust at Time 1) on the sample mean. We also



constrained corresponding coefficients to be equal for men and women because we had no theoretical reason to expect gender differences. Because romantic partners reciprocate one another's behavior (Downey, Freitas, Michaelis, & Khouri, 1998; Murray, Bellavia, Rose, & Griffin 2003), we also modeled *actor* (e.g., the effect of Arya's threat-defense on her own outcomes) and *partner* (e.g., the effect of Aaron's threat-defense on Arya's outcomes).

The proposed social-safety system predicts cross-level interactions between threat-defense habits, time, and quadratic trust. Namely, people who marry less than completely certain they can trust their new spouse should better sustain comfort depending on them over time when they are *more* likely to engage in *sociopolitical-to-personal* threat-defense on a daily basis early in marriage than when they were *less* likely to do so. The predicted expected cross-level interaction between time, threat-defense habits, and quadratic trust was significant for actors for the composite index of *perceived partner availability* and the composite index of *psychological distancing*. Parallel interactions generally emerged predicting the composites of each composite.<sup>21</sup>

Figure 9 presents the average trajectories of change in perceptions of partner availability. The left side of Figure 9 illustrates the differing trajectories as a function of trust for people who had *weaker* sociopolitical-to-personal threat-defense habits. The right side illustrates the parallel trajectories for people who had *stronger* sociopolitical-to-personal threat-defense habits. Figure 10 presents the interaction for psychological distancing. Two aspects of these figures are not surprising given prior research on newlyweds (Karney & Bradbury, 1995). First, people generally evidenced declines in perceptions of partner availability and increases in psychological distancing over the first 3 years of marriage. Second, people who were initially completely certain they could trust their new spouse were (1) more likely to perceive their partner as relatively available to them, and (2) less likely to engage in psychological distancing on average

across years, as indicated by the significant and strong main effects of actor trust in each case. Nevertheless, decomposing these interactions revealed that stronger *sociopolitical-to-personal* threat-defense habits still inoculated people who married less than completely certain that they could trust their new spouse against the compounding of these hesitations over time.

We reasoned that the inoculating effect of *sociopolitical-to-personal* threat-defense habits could potentially reveal itself in two ways. One: People with *stronger* threat-defense habits (i.e., those who *better* inoculated themselves) could evidence significantly less steep *declines* in perceived partner availability and less steep *increases* in psychological distancing compared to people with *weaker* threat-defense habits – the time by threat-defense habits interactions for people who were less certain of their partner’s trustworthiness (i.e., at the mean and 1 *SD* below the mean) versus completely certain (i.e., highest scale point on trust). Two: The greater relationship vulnerability of people who married less than completely certain they could trust their partner could diminish over time compared to people who married completely certain – the conditional time by quadratic trust interactions for people who better inoculated themselves (i.e., those with *stronger* threat-defense habits, 1 *SD* above the mean) versus people who inoculated themselves less well (i.e., those with *weaker* threat-defense habits, 1 *SD* below the mean).

***Conditional time by threat-defense habits.*** These conditional interactions revealed that less certain people who *better* inoculated themselves (i.e., those with *stronger* threat-defense habits) better resisted the temptation to distance – that is, they evidenced significantly *less* steep increases in *psychological distancing* over time than less certain people with *weaker* threat-defense habits. This conditional time by threat-defense interaction was in the expected direction and marginal at the mean,  $b = -.382$ ,  $SE = .220$ ,  $z = -1.74$ ,  $p = .082$  and significant 1 *SD* below the mean on trust,  $b = -.617$ ,  $SE = .309$ ,  $z = -2.00$ ,  $p = .046$ . However, for perceived *partner availability*, the conditional time by threat-defense habits interactions were not significant, either

at the mean,  $b = .298$ ,  $SE = .340$ ,  $z = 0.88$ ,  $p = .38$ , or 1 *SD* below the mean on trust,  $b = .345$ ,  $SE = .475$ ,  $z = 0.73$ ,  $p = .47$ . The conditional time by threat-defense habits interaction was not significant at the highest scale point on trust for either perceived partner availability,  $b = -.482$ ,  $SE = .616$ ,  $z = -0.78$ ,  $p = .44$ , or psychological distancing,  $b = .418$ ,  $SE = .396$ ,  $z = 1.06$ ,  $p = .29$ .

***Conditional time by quadratic trust.*** When people were less well inoculated (i.e., *weaker* threat-defense habits), the conditional time by quadratic trust interactions revealed that the greater discomfort less certain people had with dependence compounded over time relative to certain people. This interaction was significant predicting *perceived partner availability*,  $b = .019$ ,  $SE = .008$ ,  $z = 2.00$ ,  $p = .046$ , and *psychological distancing*,  $b = -.014$ ,  $SE = .005$ ,  $z = -2.80$ ,  $p = .005$ . When people had *weaker* threat-defense habits, the simple effects of time revealed that those who married uncertain of their partner's trustworthiness (1 *SD* below the mean) evidenced significantly *steeper* declines in perceptions of partner availability,  $b = -.185$ ,  $SE = .044$ ,  $z = -4.20$ ,  $p < .0001$ , than those who married completely certain of their partner's trustworthiness,  $b = -.064$ ,  $SE = .062$ ,  $z = -1.03$ ,  $p = .30$ . Similarly, when people had *weaker* threat-defense habits, those who were also initially less *certain* evidenced significantly *sharper* increases in psychological distancing over time,  $b = .132$ ,  $SE = .030$ ,  $z = 4.40$ ,  $p < .0001$ , than those who married completely *certain* they could trust their partner,  $b = .0004$ ,  $SE = .042$ ,  $z = 0.01$ ,  $p = .99$ .

But, when people were better inoculated (i.e., *stronger* threat-defense habits), the greater vulnerability of less certain people did not compound itself over time. For people with *stronger* threat-defense habits, the conditional time by quadratic trust interaction was not significant predicting *perceived partner availability*,  $b = .001$ ,  $SE = .008$ ,  $z = 0.13$ ,  $p = .90$ , or *psychological distancing*,  $b = -.004$ ,  $SE = .005$ ,  $z = -0.80$ ,  $p = .42$ . That is, when people had *stronger* threat-defense habits (1 *SD* above the mean), those who married less than completely certain they could trust their new spouse (1 *SD* below the mean) were not significantly more susceptible to

doubting partner availability over time,  $b = -.147$ ,  $SE = .044$ ,  $z = -3.34$ ,  $p = .001$ , than those who married completely certain,  $b = -.111$ ,  $SE = .050$ ,  $z = -2.22$ ,  $p < .026$ . They were also not significantly more likely to distance themselves more from their new spouse over time,  $b = .064$ ,  $SE = .030$ ,  $z = 2.13$ ,  $p = .033$ , than certain people,  $b = .045$ ,  $SE = .034$ ,  $z = 1.32$ ,  $p = .19$ .

### ***Discussion and Alternative Explanations***

Studies 1 and 2 generally supported the *in-situ sociopolitical-to-personal* threat-defense hypotheses (Moderation of Path **B** by **C** in Figure 1). Three of the 4 predicted interaction effects were significant. People who were less than completely certain they could trust their romantic partner reported significantly greater faith in the communal motivations of immediate family members on days after the sociopolitical world behaved *more* unexpectedly than usual, as compared to days it behaved more expectedly. This threat-defense dynamic emerged in Studies 1 and 2, utilizing spikes in Google searches to index acutely salient exemplars of unexpected behavior. It also emerged in Study 1, but not Study 2, utilizing spikes in the VIX to index unexpected sociopolitical behavior.

The newlywed study also suggested that *sociopolitical-to-personal* threat-defense can also inoculate against anxiety depending on others (Path **D** in Figure 1). The predicted 3-way interactions were significant for both perceived partner availability and psychological distancing. The predicted *conditional* time by quadratic trust interactions were also robust for both composite indices. When people inoculated themselves *less well* against the unexpected in the sociopolitical world (i.e., *weaker* threat-defense habits), those who married less than completely certain they could trust their new spouse evidenced compounded vulnerability over time. That is, less certain people with *weaker* threat-defense habits more seriously questioned partner availability and held their partner at greater psychological distance over time relative to people who married completely certain they could trust their new spouse. However, when people *better*

inoculated themselves against the sociopolitical world (i.e., *stronger* threat-defense habits), those who married less than completely certain they could trust their new spouse evidenced greater resilience. That is, less certain people with *stronger sociopolitical-to-personal* threat-defense habits better sustained perceptions of romantic partner availability and resisted psychologically distancing themselves from their partner relative to people who married completely certain they could trust their partner. However, the predicted *conditional* time by threat-defense habits interactions emerged for *psychological distancing*, but not *perceived partner availability*, indicating that people who married less than certain they could trust their new spouse were less likely to distance themselves psychologically from their partner over time when they had stronger (as compared to weaker) daily *sociopolitical-to-personal* threat-defense habits.

These data are not without limitations and alternate explanations. In terms of limitations, quadratic trust significantly moderated the effect of yesterday's VIX on today's faith in benevolence of immediate family members in Study 1, but not in Study 2. While not detailed in the results, the predicted, albeit not significant, interaction between yesterday's VIX and the quadratic effects of trust predicting today's faith in the marriage's quality emerged in the newlywed study as well,  $b = -.0162$ ,  $SE = .0099$ ,  $z = -1.64$ ,  $p = .10$ . Meta-analyzing the yesterday's VIX by quadratic trust interactions across the 3 studies yielded only a marginal meta-analytic interaction,  $z = -1.84$ ,  $p = .066$ .<sup>22</sup> The less than perfect consistency of the VIX effects is not surprising given the subtlety of this index and the fact that measurement error is sufficient to produce null and reverse effects in the presence of a true effect (Stanley & Spence, 2014).

Nonetheless, the comparatively weaker effects for the VIX suggest that the VIX used in isolation might not be the strongest measure of unexpected behavior in the sociopolitical world. Indeed, participants were not likely to be assiduously tracking either the VIX itself (or the Google search activities of their neighbors). Consequently, the potency the VIX has to capture

unexpected behavior in the sociopolitical world might vary according to the nature of the real world events that precipitated its daily volatility in the first place (which undoubtedly differed in each of the 3 studies). Fortunately, in Studies 1 and 2, the VIX did tend to spike on the same days as Google searches for exemplars of unexpected sociopolitical behavior tended to spike (see SOM Tables 4 and 5) and utilizing Google search activity as a convergent index of unexpected *sociopolitical* behavior yielded the expected significant interaction effect with quadratic trust. Moreover, in the newlywed sample, individual differences in *sociopolitical-to-personal* threat-defense habits (indexed through daily reactivity to the VIX) predicted relative declines in dependence-anxiety over 3 years, which suggests that individual differences in *daily* reactivity to the VIX are psychologically meaningful even if daily reactivity to the VIX is hard to reliably establish in situ. And finally, 3 of 4 tests for *sociopolitical-to-personal threat-defense* yielded the predicted effects; this suggests that the real world sociopolitical behavior the VIX and Google searches captured somehow managed to infiltrate people's consciousness.

In terms of alternative explanations, it might again be possible that threat-defense is potentiated for less certain people because they have difficulty with any kind of uncertainty. To examine this possibility, we redid the *in-situ sociopolitical-to-personal* threat-defense analyses in Study 2 using personal need for structure as a moderator instead of trust. (Personal need for structure was not measured in Study 1 or 4). No significant moderating effects of personal need for structure emerged again suggesting that trust captures the need for safety in particular.<sup>23</sup>

However, people who are less than completely certain they can trust their partner might embrace the safety of their immediate families when the *sociopolitical* world behaves unforeseeably because threat motivates them to see something, anything, positively. If that is the case, less certain people might also see the sociopolitical world as affording greater safety as a direct defense against days its powers that be behave more unexpectedly or unforeseeably. To

examine this possibility, we redid the *in-situ* threat-defense analyses, but this time, we utilized (1) perceptions that the sociopolitical world operates according to principles of merit, fairness and justice and (2) sympathy for Trump branded policies and ideologies as the outcomes instead of faith in the well-intentioned motivations of immediate family.

In Study 2, significant interactions emerged between yesterday's VIX and quadratic trust predicting both today's faith in the sociopolitical world's merit, fairness, and justice,  $b = .008$ ,  $SE = .003$ ,  $z = 2.67$ ,  $p = .008$ , and today's sympathy for Trump-branded Republican policies and ideologies,  $b = .005$ ,  $SE = .002$ ,  $z = 2.50$ ,  $p = .012$ . A significant interaction between yesterday's Google search activity and quadratic trust also emerged predicting today's faith in the sociopolitical world's merit, fairness, and justice,  $b = .006$ ,  $SE = .003$ ,  $z = 2.00$ ,  $p = .046$ .<sup>24</sup> However, the Study 2 interactions were opposite to the effects observed for faith in the communal motivations of immediate family members and only one of 9 potential simple effects of unexpected behavior was significant. People who were *completely* certain they could trust their romantic partner reported greater faith in Trump-branded Republican policy on days after the VIX spiked, as compared to days the sociopolitical world behaved more expectedly. Thus, unexpected sociopolitical behavior specifically motivated people who were less than completely certain they could trust their romantic partner to impose well-intentioned motivations on immediate family members, *not* sociopolitical powers.

Finally, the proposed social-safety system model assumes that it is the *contingency* inherent in *sociopolitical-to-personal* threat-defense habits – finding safety in one's marriage in *reaction* to sociopolitical powers behaving unexpectedly – that fortifies relationships over time. However, threat-defense habits might have had their observed effects because less certain people with stronger such habits simply feel better in their marriage in general. In the multilevel equations we used to estimate individual differences in *sociopolitical-to-personal* threat-defense

habits, the residuals for the intercept capture individual differences in average daily relationship quality across the daily diary period. Therefore, we redid the analyses controlling for this index of individual differences in daily relationship quality and its interactions with trust and time. The observed interactions between *sociopolitical-to-personal* threat-defense habits, time, and quadratic trust remained significant predicting perceived partner availability,  $b = -.292$ ,  $SE = .127$ ,  $z = -2.30$ ,  $p = .021$ , and psychological distancing,  $b = .198$ ,  $SE = .083$ ,  $z = 2.39$ ,  $p = .017$ , suggesting that the contingency implicit to threat-defense underlies its effects.

### General Discussion

The proposed model of the social-safety system functions to afford the sustained sense of safety needed to connect to others by motivating vulnerable people to escape acutely unexpected or unforeseen behavior in one relational world by imposing safety on an alternate relational world. In so doing, it affords a resource for increasing comfort with dependence over time. Overall, for the *personal-to-sociopolitical* threat-defense hypotheses, 1 out of 3 predicted unexpected immediate family events by quadratic trust interactions predicting faith in the sociopolitical world's capacity to keep people safe from harm was significant; 3 out of 3 predicted interactions predicting sympathy for Trump-branded Republican governance were significant. For the *sociopolitical-to-personal* threat-defense hypotheses, 3 out of 4 predicted unexpected sociopolitical events by quadratic trust interactions predicting faith in the communal motivations of immediate family were significant. For the *over time* hypotheses, 4 out of 4 predicted interactions were significant. Thus, while the findings do not offer unqualified support for the model, they do not seem to condemn it either. We summarize the strength of the evidence for *personal-to-sociopolitical* and *sociopolitical-to-personal* threat-defense in turn.

#### ***The Proposed Model of the Social-Safety System: Integrating the Evidence***

While Study 1 yielded no support for the model propositions, Studies 2 and 3 did yield



promising initial support for the model. When *immediate family members* behaved more unexpectedly, people who were less than completely certain they could trust their romantic partner perceived the nation's governance as being *more* guided by principles and values aligned with the populace's best interests (Moderation of Path **A** by **C**). In Study 2, less certain people expressed greater belief in the merit of political conservatism as a life aim and sympathy for Republican governance on days after their immediate family members behaved more, rather than less, unexpectedly. In Study 3, less certain people expressed greater faith that sociopolitical powers could keep them safe and greater sympathy for Trump-branded Republican policies and ideologies on *post-election* days when immediate family members, including themselves, behaved *more*, rather than less, unexpectedly. People who were less than completely certain they could trust their romantic partner were even more likely to vote for Republican over Democrat candidates in the 2018 midterm when immediate family behaved more, rather than less, unexpectedly in the weeks leading up to the election. The sense of safety that *personal-to-sociopolitical* threat-defense also seemed to inoculate people against the risks of being hurt by others. People who were less than completely certain they could trust their romantic partner reported greater later confidence in their partner's availability and closer, more comfortable family interactions when they had *stronger* versus weaker personal habits to impose safety on the sociopolitical world when family members behaved unexpectedly (Path **D**).

When *sociopolitical powers* behaved more unexpectedly, people who were less than completely certain they could trust their romantic partner perceived immediate family members as more clearly guided by communal concern for one another's welfare (Moderation of Path **B** by **C**). Less certain people expressed greater faith in the caring motivations of immediate family members on days after agents in the sociopolitical world behaved more unexpectedly, as captured by spikes in Google searches for exemplars of such behavior (Studies 1 and 2) and

spikes in the VIX (Study 1, but not Study 2). For people who married *less* than completely certain they could trust their new spouse, being in the habit of professing greater conviction in their marriage on days after the VIX spiked (relative to its daily average) also inoculated against their hesitations. When people were more in the habit of engaging in *sociopolitical-to-personal* threat-defense on a daily basis, the greater relationship vulnerabilities of less certain people dissipated over time relative to people who were completely certain they could trust their spouse.

### ***Limitations, Strengths, and Future Directions***

Admittedly, the effects are generally small. The model variables accounted for between 6.7 and 24.9% of the *within-person* variance in the daily outcome measures in each study (Rights & Cole, 2018). The *sociopolitical-to-personal* threat-defense simple effects are also small relative to individual differences in trust. But, small effects can still be theoretically substantive (Prentice & Miller, 1992). Daily confidence in a nation's governance is likely to be affected by a myriad of factors other than the expected/unexpected behavior of immediate family members. Similarly, daily confidence in the communal motivations of immediate family is likely to be affected by a myriad of factors other than the expected/ unexpected behavior of agents in the sociopolitical world. Given such a multiplicity of influences, it would be surprising to detect anything other than small effects of unexpected behavior. Furthermore, these objectively small daily level effects still had a measureable effect on later relationship experience. Even though unexpected events in one's personal or sociopolitical relational worlds only motivated small daily changes in one's perceptions of the safety of the *alternate* relational world, individual differences in the personal capacity to evidence this small measure of resilience to the unexpected predicted significant differences in *later* comfort depending on others, over a period of weeks (Study 3) and years (Study 4).

Finally, the data are correlational. Nevertheless, we were able to argue against personal

need for structure as a third variable accounting for the moderating effects of trust. We also utilized time to separate cause and effect, employing lagged analyses to test the *in-situ* hypotheses in Studies 1 and 2 and examining longitudinal change in Studies 3 and 4. Indeed, utilizing the VIX and neighbors' Google searches to index unexpected sociopolitical behavior provides persuasive evidence of its causal primacy because personal relationship circumstances cannot cause the VIX to vacillate or motivate neighbors to do Google searches.

In terms of strengths, the present findings are the first to tie personal defensive machinations to the contents of *other people's* consciousness. These findings thus add new depth to uncertainty reduction models by recognizing that threats can be experienced as part of a collective, yet still exert effects on individual psychologies nonetheless. The present findings are also the first to link stronger personal habits to defensively impose safety on the relational world to strengthened romantic relationship bonds. Existing research suggests that personally holding more system-justifying beliefs protects people against the perception of harm in the short-term, but heightens psychological vulnerability over time (Harding & Sibley, 2013). This prior research assessed individual differences in the defensive beliefs themselves, a kind of amorphous or free-floating defensiveness. We instead examined individual differences in the *contingent* tendency to think defensively *as needed* – in response to encountering a real and specific threat in daily life. The present research thus suggests that conceptualizing defensiveness as such a contingent, restorative habit of mind instead may reveal long-term benefits of such thinking.

Subsequent research on the dynamics of *in-situ* threat-defense might broaden the collective relational world to include symbolic dependencies on in-group or out-group members. For instance, on days when children or romantic partners behave acutely unexpectedly, people might impose greater safety on the *sociopolitical* world by believing more in stereotypes that depict in-group members as warm and disbelieving stereotypes that depict out-group members as

hostile. They might also profess greater than usual faith in the importance of religion in their lives. Further research on the over-time consequences of threat-defense might also broaden relationship outcomes beyond personal ones. For instance, for people who belong to stereotyped or marginalized groups, being more in the habit of finding safety in their immediate family when the sociopolitical relational world behaves expectedly might inoculate against such behavior in ways that fosters feeling more accepted by out-group members and more connected.

The daily diary and election studies were conducted during the first term of the Trump administration, which implicitly confounds the motivation to believe in the prevailing sociopolitical powers with conservative thinking. In this sociopolitical context, people had to believe in right-wing ideology and policy (no matter how personally foreign they normally found it) to impose safety on the sociopolitical world. But, in a Democratic-led administration, people should instead need to believe in more left-wing ideology and policy (no matter how personally foreign they normally find it) to impose safety on the sociopolitical world. Future research might examine *personal-to-sociopolitical* threat-defense dynamics in different political contexts to establish that unexpected or unforeseen behavior in the personal relational world motivates vulnerable people to believe in the well-intentioned motivations of the currently governing party.

Despite the contextual limitation inherent in this research, the present evidence for *personal-to-sociopolitical* threat-defense cannot be easily attributed to any general tendency for uncertainty to make people more conservative in their beliefs (Jost et al., 2003; Van de Vyver, Houston, Abrams, & Vasiljevic, 2016). If a general bias to respond to uncertainty or threat with conservative thinking could account for the effects of unexpected family behavior on sympathy for Republican governance, any kind of uncertainty or threat should motivate people to be more sympathetic. However, less certain people did *not* express more sympathy for the Trump-led government on occasions when they were in an especially bad mood. As reported in the SOM,

they also did *not* express more sympathy for the Trump-led government when they were experiencing acute feelings of dissonance (i.e., “uncomfortable”, “uneasy”, “bothered”) or when they witnessed more acutely threatening, uncertainty-inducing, national events in the news on the assessment day. Moreover, the approach of the election itself did *not* motivate people who were less completely certain of their partner’s trustworthiness to be more sympathetic toward Republican governance even though its approach sensitized people to threatening events in the news. Finally, when inhabitants of sociopolitical rather than personal relational worlds behaved more unexpectedly, people who were less certain they could trust their partner did *not* express more sympathy for Trump-Republican governance. They instead expressed more faith in the communal motivations of immediate family members, which is not a marker of conservatism.

Future research might also quantify the threat posed by unexpected behavior by considering the context in which it occurs (McNulty, 2016). The present tests of the social-safety system’s operation assumed that unexpected behavior occurs episodically, and consequently, activates an *undifferentiated* need to feel safe, which can be most readily satisfied in an alternate, more perceptually amenable, relational world. In the present studies, vulnerable people facing the occasional day when romantic partners, children, or sociopolitical powers behaved unforeseeably could, and seemingly did, quench needs for safety *indirectly*. They embraced the safety of the *alternate*, more readily re-construed, relational world. However, unforeseen behavior might not always occur episodically. In adjusting to life with a new baby, for instance, romantic partners might confound one another’s expectations for their behavior multiple times a day. In the last days of an election, national and international powers that be might similarly confound their populace’s expectations with nearly every transition in the news cycle.

Further research thus might examine whether concentrated bursts of unexpected behavior activate *differentiated* needs for safety that can be better quenched *directly* – by embracing the

safety of the threatened relational world. Exploratory analyses from the midterm election study points to this possibility. Because the Democrats winning future control of the House threatened the stability of the Trump-led White house, the election result itself might have made even episodic unforeseeable behavior in the sociopolitical relational world feel like a concentrated burst, changing threat-defense dynamics. Indeed, five weeks prior to the election, people who were less than completely certain they could trust their partner again defended against acutely unexpected sociopolitical behavior *indirectly*. They reported greater confidence in their romantic partner's acceptance on assessment days when national and international sociopolitical agents behaved more expectedly, as captured by spikes in the VIX. Once the Democrats won future control of the House, these dynamics shifted. Less certain people no longer embraced the safety of their personal relational worlds on days when the VIX spiked. They instead prioritized *directly* imposing safety on the sociopolitical relational world by reporting greater confidence in its capacity to keep them safe on assessment days when the VIX spiked.

The proposed model of the social-safety system itself could also be enriched through further research. Future research and theory might consider how the broader constellation of personal and sociopolitical relationships people inhabit affects the social-safety system's hypothesized operation. For instance, people without significant romantic or parental attachments might rely on a relationship with a best friend as a source of safety and being more or less trusting in that friendship might similarly regulate threat-defense. The sociopolitical powers that be are not always distal. The unforeseeable behaviors of influential teachers, supervisors, or professional colleagues in the proximal sociopolitical relational world might also heighten the perceived risks of depending on others and might similarly motivate affirming faith in familial relational worlds.

### **Conclusion**

To feel safe, people need to believe that they can foresee the behavior of the people they need to depend upon. The proposed model of the social-safety system affords such a sense of safety, motivating vulnerable people to defend against unforeseeable behavior in the offending relational world by imposing sympathetic, well-intentioned motivations on the inhabitants of the alternate world.

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### Endnotes

<sup>1</sup> We set a recruitment minimum of 175 participants with usable data in Studies 1 through 3 given that prior research in our laboratory has yielded meaningful effects with similar sample sizes and our available budget set an upper limit on the number of participants we could recruit.

<sup>2</sup> We could not test the *personal-to-sociopolitical* threat-defense hypotheses in the newlywed sample because these data were collected *before* we conceived the current research and we did not include any items tapping unexpected behavior on the part of one's spouse in the diary.

<sup>3</sup> Wherever possible, we utilize composite dependent measures across the studies to capture the breadth and generality of the effects. However, parallel effects generally emerged for the component scales comprising each composite (as we report in the Results).

<sup>4</sup> Participants also rated the personal value they placed on conservatism, as they did in Study 2, but we did not include the value placed on conservatism in the sympathy composite because it did not specifically capture belief in Trump-specific ideologies. The reported interaction effect was still significant in further analyses that included personal value placed on conservatism in the sympathy composite,  $b = -.0037$ ,  $SE = .0015$ ,  $z = -2.46$ ,  $p = .014$ .

<sup>5</sup> Our focus on curvilinear effects was predated and anticipated in Murray, Lamarche, Gomillion, Seery & Kondrak (2107), although that paper focused on the curvilinear effects of satisfaction. Our first submission on this line of work also focused on the quadratic moderating effects of satisfaction. After receiving the reviews on that paper, we decided to shift our conceptual focus to trust and the regulation of safety in any new data collections. We then utilized the one already collected diary study (Study 1) and three new data sets (Studies 2-4) to test a-priori hypotheses about trust and its effects on safety regulation.

<sup>6</sup> The hypothesis that *personal-to-sociopolitical* threat-defense should reduce dependence-anxiety and fortify the relationships of vulnerable people, such as people who are unsure whether

they can trust their romantic partner, was advanced prior to the collection and analysis of these data in a grant submitted to the National Science Foundation in July 2018.

<sup>7</sup> Google Trends data indexes how frequently a particular term is searched on a given day relative to the total search volume, providing results at city, state, and national levels. Nationwide searches for the term “impeachment” significantly increased during the time of the midterm election study (which started 6 weeks before and ended one week after the election),  $b = 8.09$ ,  $SE = .350$ ,  $z = 23.1$   $p < .00001$ , peaking once the Democrats won future control of the House.

<sup>8</sup> In estimating the hierarchical models, we fit random coefficient models to both intercepts and focal independent variables (e.g., yesterday’s unexpected romantic partner behavior in the daily models, time in the longitudinal models), following recent recommendations supporting the use of maximally random models (Barr, Levy, Scheepers, Tily, 2013). However, in complex models with multiple predictors, specifying multiple random effects can result in models failing to converge, making fixed specification appropriate on a case-by-case basis (Bates, Kliegl, Vasishth, Baayen, unpublished on-line manuscript). The tables demarcate random effects through italics and fixed effects through non-italics.

<sup>9</sup> The *between-person* effects ignore days when examining the association between variables and, consequently, they can reveal whether people who *generally* perceive their partner as behaving especially unexpectedly also profess more faith in the federal government’s efficacy on average. The *within-person* effects look within days in examining the association between variables, and consequently, they can reveal whether people who perceive their partner as behaving especially unexpectedly *on a given day* profess more faith in the government *the next day*. The proposed social-safety system’s acute defensive dynamics are best understood by modeling changes within a person over time, which is why we do not discuss the daily-level between-person effects.

<sup>10</sup> We focus on the simple effects of yesterday's unexpected or unforeseen behavior rather than the simple effects of trust in the in-situ analyses for conceptual clarity. The simple effects of trust capture the association between trust and the dependent measure (whether linear or quadratic) on days after partners in a given relational world behaved more (vs. less) unforeseeably. The simple effects of unexpected or unforeseen behavior capture how perceptions and behavior change between days with harder versus easier to foresee behavior as a function of trust. The simple effects of unexpected or unforeseen behavior thus better capture the proposed social-safety system's hypothesized dynamic focus on responses to situational threat.

<sup>11</sup> In contrast, people who were completely certain they could trust their romantic partner tended to report less sympathy for Trump policies and ideologies when immediate family members behaved more *unforeseeably* or *unexpectedly* than usual on post-election days, as compared to post-election days they behaved more expectedly. For certain people, the simple effect of unexpected behavior was marginal in Week 7,  $b = -.074$ ,  $SE = .045$ ,  $z = 1.64$ ,  $p = .10$ , and Week 8,  $b = -.365$ ,  $SE = .202$ ,  $z = -1.81$ ,  $p = .07$ . We do not interpret these effects because they were marginal and the only effects to emerge for people who were completely certain they could trust their romantic partner in the primary analyses in all four studies.

<sup>12</sup> Political affiliation did not significantly moderate the observed interaction effect. The quadratic trust by average unexpected behavior by Republican affiliation (1 = self-identified Republican, 0 = non-Republican) interaction predicting voting for Republican over Democratic midterm candidates was not significant,  $\beta = -.032$ ,  $t(169) = -0.29$ ,  $p = .77$ ; the quadratic trust by average unexpected behavior by Democratic affiliation (1 = self-identified Democrat, 0 = non-Democrat) interaction was not significant,  $\beta = -.098$ ,  $t(169) = -0.42$ ,  $p = .67$ ; and the quadratic trust by average unexpected behavior by prior Trump support (1 = voted for Trump in 2016, 0 = did not vote for Trump) interaction was not significant,  $\beta = -.022$ ,  $t(169) = -.23$ ,  $p = .82$ .



<sup>13</sup> The interaction between yesterday's unexpected familial behavior and quadratic trust predicting today's faith in the well-intentioned motivations of immediate family members was not significant in Study 1,  $b = .0025$ ,  $SE = .0054$ ,  $z = 0.46$ ,  $p = .65$ , or Study 2,  $b = -.002$ ,  $SE = .002$ ,  $z = -1.00$ ,  $p = .32$ .

<sup>14</sup> Data from the newlywed sample are reported in Murray, Aloni, Holmes, Derrick, Stinson, & Leder, 2009, Murray, Holmes, Aloni, Pinkus, Derrick and Leder, 2009, Murray, Griffin, Derrick, Harris, Aloni, and Leder, 2011, Murray, Holmes, Derrick, Harris, Griffin, & Pinkus, 2013, Murray, Holmes, Griffin & Derrick, 2015, and Murray, Holmes & Pinkus, 2010. Murray et al. (2013) and Murray et al. (2015) utilized the Time 1 measure of trust, conflict, and attachment anxiety also utilized here. Murray et al. (2011) utilized the Time 1 measure of attachment anxiety. However, this paper is the first to utilize the daily VIX and daily ratings of relationship quality. It is also the first to examine longitudinal change in attachment anxiety, perceived support, perceived communal motivations, ambivalence, conflict, and separation intentions over the first 3 years of marriage.

<sup>15</sup> Unlike the newlywed study, Study 3, the midterm election study, was not well-suited to test the over-time effects of *sociopolitical-to-personal* threat-defense because the dynamics of the election itself changed how people responded to further indicators of unexpected behavior in the sociopolitical world. For this reason, we did not test the over-time effects of sociopolitical-to-personal threat-defense in Study 3. We return to this issue in the General Discussion.

<sup>16</sup> The VIX is implied by the current prices of S&P 500 index options and is computed on a real-time basis throughout the day. The VIX is known to be responsive to both political and financial uncertainty (Nikkinen & Sahlstrom, 2004). Indeed, more frequent references to economic uncertainty in newspapers predict significant increases in the VIX (Baker, Bloom, & Davis, 2016). For instance, U.S. Presidential elections induce higher stock market volatility

(Bialkowski, Gottschalk, & Wisniewski, 2008) and unexpected employment and inflation rates significantly impact VIX values (Bloom, 2009).

<sup>17</sup> The hypothesis that *sociopolitical-to-personal* threat-defense should reduce dependence-anxiety and fortify the relationships of vulnerable people, such as those who are uncertain they can trust their partner, was advanced prior to conducting these analyses in a grant submitted to the National Science Foundation in July 2018.

<sup>18</sup> In Study 1, the cross-level interaction between yesterday's VIX and quadratic trust was marginal predicting perceptions of the romantic partner's acceptance,  $b = -.0043$ ,  $SE = .0023$ ,  $z = -1.87$ ,  $p = .06$ , and significant predicting daily conviction in the romantic relationship's quality,  $b = -.009$ ,  $SE = .004$ ,  $z = -2.25$ ,  $p = .024$ , but not willingness to sacrifice,  $b = .0003$ ,  $SE = .004$ ,  $z = 0.08$ ,  $p = .94$ . In Study 1, the cross level interaction between yesterday's Google search activity and quadratic trust was significant predicting perceptions of the romantic partner's acceptance,  $b = -.006$ ,  $SE = .003$ ,  $z = -2.00$ ,  $p = .046$ , and daily conviction in the romantic relationship's quality,  $b = -.013$ ,  $SE = .005$ ,  $z = -2.60$ ,  $p = .009$ , but not willingness to sacrifice,  $b = .0019$ ,  $SE = .0065$ ,  $z = 0.29$ ,  $p = .77$ . In Study 2, a significant interaction also emerged predicting one component of familial faith, willingness to sacrifice for the romantic partner/child,  $b = -.0097$ ,  $SE = .0037$ ,  $z = -2.62$ ,  $p = .009$ , but the interactions for perceptions of the partner/child's acceptance,  $b = -.004$ ,  $SE = .003$ ,  $z = -1.33$ ,  $p = .18$ , and daily conviction in the quality of these relationships,  $b = .0009$ ,  $SE = .003$ ,  $z = 0.30$ ,  $p = .76$ , were not significant.

<sup>19</sup> The newlywed data were collected before we conceived the current research. Because daily VIX data is archived online (<https://www.cboe.com/vix>) and we had electronic timestamps on the daily diary data collected at Time 1 in the newlywed study, we were able to find the VIX value for each day of diary recording for each participant to use as a daily index of unexpected sociopolitical behavior for the purposes of the present research. However, the newlywed data

were collected over long time frames (in excess of 18 months), with participants completing diaries on different days across different months and years, making it infeasible to use Google-search indices to further index unexpected sociopolitical behavior (given wide variation in the types of unexpected sociopolitical events that likely happened during the extended time frame of this study and the difficulty of identifying those events 10 years later).

<sup>20</sup> Calculating an individual difference measure of *sociopolitical-to-personal* threat-defense habits is contingent on MLwin being able to reliably estimate slope residuals. We utilized the daily assessment of relationship quality in conjunction with the daily VIX to index individual differences in threat-defense because daily assessments of relationship quality met this modeling requirement and afforded a good summary measure of faith in the relationship's communal nature (i.e., "How would you describe your marriage today, -3 = *terrible*, 3 = *terrific*?").

<sup>21</sup> The reported interaction for the composite index of *perceived partner availability* was also significant for 1 of its 3 components – that is, for attachment anxiety,  $b = .559$ ,  $SE = .236$ ,  $z = 2.37$ ,  $p = .0178$ , but not for perceptions of the partner's communal motivations,  $b = -.316$ ,  $SE = .197$ ,  $z = -1.60$ ,  $p = .11$ , or perceptions of the partner's support availability,  $b = -.153$ ,  $SE = .136$ ,  $z = -1.13$ ,  $p = .26$ . The reported interaction for the composite index of *psychological distancing* was also significant for 3 of its 3 components – that is, ambivalence,  $b = .221$ ,  $SE = .113$ ,  $z = 1.96$ ,  $p < .05$ , conflict,  $b = .201$ ,  $SE = .078$ ,  $z = 2.56$ ,  $p = .01$ , and intentions to separate,  $b = .351$ ,  $SE = .132$ ,  $z = 2.66$ ,  $p = .0078$ .

<sup>22</sup> We estimated the meta-analytic  $z$  using the formula developed by Hedges and Vevea (1998), using the number of participants/couples as  $N$  in calculating the meta-analytic  $z$ .

<sup>23</sup> The interaction between personal need for structure and yesterday's VIX was not significant predicting today's faith in immediate family members communal motivations,  $b = -.017$ ,  $SE = .015$ ,  $z = -1.13$ ,  $p = .26$ , nor was the interaction between personal need for structure and

yesterday's Google search activity,  $b = .003$ ,  $SE = .015$ ,  $z = 0.20$ ,  $p = .84$ .

<sup>24</sup> In Study 1, the interaction between yesterday's VIX and quadratic trust predicting today's perceptions of the sociopolitical world's fairness, justice, and merit was not significant,  $b = -.000006$ ,  $SE = .016$ ,  $z = .0004$ ,  $p = .99$ , nor was the interaction between yesterday's Google search activity and quadratic trust,  $b = -.001$ ,  $SE = .002$ ,  $z = -.50$ ,  $p = .62$ . In Study 2, the interaction between yesterday's Google search activity and quadratic trust predicting today's sympathy for Republican policy was not significant,  $b = -.0003$ ,  $SE = .002$ ,  $z = -0.15$ ,  $p = .88$ .

**Authors' Note**

Table 1. Conceptual to Operational Variable Mapping Across Studies

<b>Conceptual Independent Variable: Unexpected Behavior in Personal Relational World</b>			
<i>Daily Study 1</i>	<i>Daily Study 2</i>	<i>Midterm Study</i>	<i>Newlywed Study</i>
Romantic partner behavior	Composite of romantic partner and child behavior.	Composite of romantic partner behavior, child behavior, and unexpected thoughts.	N/A
<b>Conceptual Dependent Variable 1: Faith Agents and Institutions of Governance Afford Safety</b>			
<i>Daily Study 1</i>	<i>Daily Study 2</i>	<i>Midterm Study</i>	<i>Newlywed Study</i>
Belief that principles of merit and justice motivate sociopolitical world	Belief that principles of merit and justice motivate sociopolitical world	Composite of belief that principles of merit and justice motivate sociopolitical, belief in a controllable sociopolitical world, threats facing U.S.	N/A
<b>Conceptual Dependent Variable 2: Sympathy for Policies and Ideologies of Trump Republican Governance</b>			
<i>Daily Study 1</i>	<i>Daily Study 2</i>	<i>Midterm Study</i>	<i>Newlywed Study</i>
N/A	Composite of personal value on conservatism and belief in the federal government’s effectiveness in affording safety	(1) Composite of distrust of media, distrust of progressivism, and priority on economic over social conservatism.  (2) Voting for Republican over Democratic candidates.	N/A

Table 1 continued.

<b>Conceptual Independent Variable: Unexpected Behavior in Sociopolitical Relational World</b>			
<i>Daily Study 1</i>	<i>Daily Study 2</i>	<i>Midterm Study</i>	<i>Newlywed Study</i>
(1) VIX	(1) VIX	N/A	VIX
(2) Google search frequencies for terms (“uncertainty”, “North Korea”, “Trump lies”, “Comey”, and “terrorism”) in same zip code as participant.	(2) Google search frequencies for specified terms (“border wall”, “recession”, “Trump/Mueller”, “trade war”, “global warming”, “terrorism”, “racism”, and “protest”) in same zip code as participant.		
<b>Conceptual Dependent Variable: Communal Motivations of Immediate Family Members</b>			
<i>Daily Study 1</i>	<i>Daily Study 2</i>	<i>Midterm Study</i>	<i>Newlywed Study</i>
Composite of romantic partner acceptance, willingness to sacrifice for romantic partner, Romantic relationship quality.	Composite of romantic partner and child acceptance, willingness to sacrifice for romantic partner and child, Romantic and parent-child relationship quality.	N/A	Romantic relationship quality.

Table 2. Descriptive Information for Primary Study 1 and 2 Variables

	<i>Study 1</i>		<i>Study 2</i>	
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
Trust	7.75	1.75	6.23	2.10
Daily unexpected romantic partner behavior	0.24	0.43	0.41	0.59
Daily unexpected child behavior	--	--	0.31	0.45
Daily partner accepting behavior	0.98	0.86	0.63	0.56
Daily perceptions of partner acceptance	5.86	1.23	4.50	1.33
Daily perceptions of child acceptance	--	--	0.69	0.46
Daily communal behavior toward romantic partner	1.03	1.06	0.64	0.54
Daily communal behavior toward children	--	--	0.17	0.30
Daily perceptions of romantic relationship quality	5.93	1.08	5.64	1.22



Daily perceptions of parent-child relationship quality	--	--	6.14	0.82
Daily belief in fair, meritorious, and just sociopolitical world motivations	5.63	1.12	4.59	1.02
Daily priority on conservatism	--	--	4.55	1.80
Daily trust in Republican governance	--	--	2.24	1.51
Daily VIX	10.61	0.00	13.19	0.74
Daily Google search frequency	66.99	10.60	48.79	18.24

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NB: The daily value of the VIX was the same for all participants in Study 1 because all participants completed each daily survey on the same day, and hence, the *SD* was zero.

Table 3. Descriptive Information for Primary Study 3 Variables

	<i>Mean</i>	<i>SD</i>
Trust	6.21	2.03
Perceptions of partner closeness and availability	7.33	1.99
Closeness to romantic partner	7.41	1.99
Closeness to child(ren)	6.25	1.08
Conflict and tension in romantic relationship	2.86	1.76
Conflict and tension in parent-child relationship	3.09	1.77
Conviction in romantic relationship quality	5.65	1.47
Conviction in parent-child relationship quality	6.07	1.08
Daily unexpected romantic partner behavior <sup>a</sup>	0.43	0.85
Daily unexpected child behavior	0.45	0.88
Daily unexpected thoughts about romantic partner	0.11	0.31
Daily unexpected thoughts about children	0.07	0.26

Daily belief in fair, meritorious and just sociopolitical world motivations	4.57	1.03
Daily controllable sociopolitical world	3.44	0.99
Daily perception of threats facing the US	2.41	2.69
Daily distrust of the media	3.84	1.20
Daily distrust of progressivism	4.75	2.46
Daily priority on economic over social conservatism	-3.54	7.74

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<sup>a</sup> We use the term “daily” to describe the measures that repeated every week because participants responded to those items according to the assessment day’s events.

Table 4. In Situ *Personal-to-Sociopolitical* Threat-Defense in Study 1

<i>Predictor</i>	<i>Faith Sociopolitical World Affords Safety from Harm Today</i>	
	b (SE)	z
<i>Intercept</i>	<i>5.469</i>	--
Yesterday's faith sociopolitical world affords safety from harm	.109 (.023)	4.74***
<i>Yesterday's unexpected partner behavior</i>	<i>-.023 (.018)</i>	<i>-1.28</i>
Average unforeseeable partner behavior	-.019 (.226)	0.08
Linear trust	.427 (.070)	6.10***
Linear trust by yesterday's unexpected partner behavior	.027 (.014)	1.93 <sup>+</sup>
Linear trust by average unexpected partner behavior	.245 (.172)	1.42
Quadratic trust (Trust squared)	.059 (.017)	3.47***
<b>Quadratic trust by yesterday's unexpected partner behavior</b>	<b>.006 (.004)</b>	<b>1.50</b>
Quadratic trust by average unexpected partner behavior	.042 (.042)	1.00

<sup>+</sup>  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ . NB: Coefficients set to be random are italicized.

Table 5. In-Situ *Personal-to-Sociopolitical* Threat-Defense in Study 2

Predictor	<i>Faith Sociopolitical World Affords Safety from Harm Today</i>		<i>Sympathy for Republican Policy and Ideology Today</i>	
	b (SE)	z	b (SE)	z
<i>Intercept</i>	<i>4.49</i>	--	<i>-.012</i>	--
Yesterday's outcome variable	.157 (.023)	6.83***	.035 (.023)	1.52
<i>Yesterday's unexpected familial behavior</i>	.006 (.014)	0.43	<i>.040 (.011)</i>	<i>3.64***</i>
Average unexpected familial behavior	-.136 (.080)	-1.70 <sup>+</sup>	.018 (.061)	0.30
Linear trust	.174 (.046)	3.78***	.020 (.035)	0.57
Linear trust by yesterday's unexpected familial behavior	-.008 (.008)	-1.00	-.016 (.006)	-2.67*
Linear trust by average unexpected familial behavior	-.029 (.050)	-0.58	.009 (.038)	0.24
Quadratic trust (Trust squared)	.018 (.013)	1.38	-.0003 (.010)	0.03
<b>Quadratic trust by yesterday's unexpected familial behavior</b>	<b>.002 (.002)</b>	<b>1.00</b>	<b>-.005 (.0016)</b>	<b>-3.13**</b>
Quadratic trust by average unexpected familial behavior	.013 (.012)	1.08	.0014 (.009)	0.16

<sup>+</sup>  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ . NB: Coefficients set to be random are italicized.

Table 6. In-Situ *Personal-to-Sociopolitical* Threat-Defense in Study 3

Predictor	<i>Faith Sociopolitical World Affords Safety from Harm Today</i>		<i>Sympathy for Trump- Branded Republican Policy and Ideology Today</i>	
	b (SE)	z	b (SE)	z
<i>Intercept</i>	-.073	--	.019	--
Last week's outcome variable	-.101 (.027)	-3.74***	-.141 (.027)	-5.22***
<i>Today's unexpected familial behavior</i>	.070 (.034)	2.06*	.078(.035)	2.23*
Average unexpected familial behavior	-.083 (.088)	-0.94	.091 (.078)	1.17
<i>Time (centered, 0 = week of midterm)</i>	-.024 (.009)	-2.67**	-.001 (.008)	-0.13
Time by today's unexpected familial behavior	.049 (.015)	3.33***	.033 (.015)	2.20*
Time by average unexpected familial behavior	.0001 (.017)	0.006	-.003 (.015)	-0.20
Linear trust	.068 (.028)	2.43*	-.046 (.025)	-1.84 <sup>+</sup>
Linear trust by time	.003 (.005)	0.60	-.009 (.004)	-2.25*
Linear trust by today's unexpected familial behavior	.0001 (.019)	0.005	-.050 (.019)	-2.63*
Linear trust by average unexpected familial behavior	-.060 (.048)	-1.25	-.049 (.042)	-1.17

Linear trust by time by today's unexpected familial behavior	<i>-.009 (.009)</i>	<i>-1.00</i>	<i>-.023 (.009)</i>	<i>-2.56*</i>
Linear trust by time by average unexpected familial behavior	<i>-.008 (.009)</i>	<i>-0.89</i>	<i>-.011 (.008)</i>	<i>-1.38</i>
Quadratic trust (Trust squared)	<i>.013 (.009)</i>	<i>1.44</i>	<i>-.004 (.008)</i>	<i>-0.50</i>
Quadratic trust by time	<i>.002 (.001)</i>	<i>2.00*</i>	<i>-.001 (.001)</i>	<i>-1.00</i>
<b>Quadratic trust by today's unexpected familial behavior</b>	<b><i>-.010 (.005)</i></b>	<b><i>-2.00*</i></b>	<b><i>-.019 (.005)</i></b>	<b><i>-3.80***</i></b>
Quadratic trust by average unexpected familial behavior	<i>-.039 (.014)</i>	<i>-2.79**</i>	<i>-.026 (.012)</i>	<i>-2.17*</i>
<b>Quadratic trust by time by today's unexpected familial behavior</b>	<b><i>-.009 (.002)</i></b>	<b><i>-4.50***</i></b>	<b><i>-.009 (.002)</i></b>	<b><i>-4.50***</i></b>
Quadratic trust by time by average unexpected familial behavior	<i>-.006 (.003)</i>	<i>-2.00*</i>	<i>-.004 (.002)</i>	<i>-2.00*</i>

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<sup>+</sup>  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ . NB: Coefficients set to be random are italicized.

Table 7. Voting for Republican over Democratic Midterm Candidates in Study 3

<i>Predictor</i>	<i>Voting Preference for Republicans over Democrats</i>	
	$\beta$	$t^a$
Average unexpected familial behavior pre-midterm	-.184	-1.99*
Linear trust	.006	0.05
Linear trust by average unexpected familial behavior	.115	1.06
Quadratic trust (Trust squared)	-.175	-1.31
<b>Quadratic trust by average unexpected familial behavior</b>	<b>.407</b>	<b>2.77**</b>

<sup>+</sup>  $p < .10$ , \*  $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ . NB: <sup>a</sup>  $df = 169$



Table 8. Personal-to-Sociopolitical Threat-Defense Habits and Later Comfort Depending on Others in Study 3

Predictor	<i>Time 8 Perceptions of Partner Availability</i>		<i>Time 8 Ease and Comfort in Family Interactions</i>	
	$\beta$	$t$	$\beta$	$t$
Outcome variable at 1 <sup>st</sup> weekly assessment	.559	11.47***	.660	13.21***
<i>Personal-to-sociopolitical</i> threat-defense habits	.074	2.03*	.153	2.96**
Linear trust	.377	6.77***	.290	4.24***
Linear trust by threat-defense habits	-.054	-1.33	-.086	-1.51
Quadratic trust (Trust squared)	-.060	-1.29	.067	1.02
<b>Quadratic trust by threat-defense habits</b>	<b>-.121</b>	<b>-2.36*</b>	<b>-.165</b>	<b>-2.29*</b>

<sup>+</sup>  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

Table 9. Descriptive Information Newlywed Sample

	<i>Women</i>		<i>Men</i>	
	Mean	<i>SD</i>	Mean	<i>SD</i>
Trust	6.73	1.04	6.61	1.04
Attachment anxiety	1.76	1.24	1.83	1.09
Perceived partner availability for support	6.29	0.65	6.13	0.78
Perceived partner communal motivations	6.93	0.97	6.87	1.04
Ambivalence	0.40	0.65	0.80	0.93
Conflict	2.86	1.09	2.85	1.10
Break Up Intentions	0.14	0.38	0.17	0.46
Daily perceptions of romantic relationship quality	5.08	0.66	5.10	0.68
Daily VIX	13.03	1.30	13.03	1.30

Table 10. In-Situ *Sociopolitical-to-Personal* Threat-Defense using Yesterday's VIX to capture unexpected sociopolitical behavior.

Predictor	<i>Study 1</i>		<i>Study 2</i>	
	<i>Romantic Partner</i>		<i>Familial Communal</i>	
	<i>Communal Motivations</i>		<i>Motivations Today</i>	
	b (SE)	<i>z</i>	b (SE)	<i>z</i>
<i>Intercept</i>	<i>-.079</i>	<i>--</i>	<i>-.066</i>	<i>--</i>
Yesterday's outcome variable	.019 (.025)	0.76	-.044 (.024)	-1.83 <sup>+</sup>
<i>Yesterday's VIX</i>	<i>.030 (.011)</i>	<i>2.73**</i>	<i>.0009 (.015)</i>	<i>0.06</i>
Average VIX	--	--	-.063 (.044)	-1.43
Linear trust	.306 (.028)	10.93***	.120 (.016)	7.50***
Linear trust by yesterday's VIX	-.016 (.009)	-1.78 <sup>+</sup>	.0004 (.008)	0.05
Linear trust by average VIX	--	--	.058 (.026)	2.23*
Quadratic trust (Trust squared)	.019 (.007)	2.71**	.009 (.004)	2.25*
<b>Quadratic trust by yesterday's VIX</b>	<b>-.0044 (.0021)</b>	<b>-2.10*</b>	<b>.0006 (.002)</b>	<b>0.30</b>
Quadratic trust by average VIX	--	--	.007 (.007)	1.00

<sup>+</sup>  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

NB: Coefficients set to be random are italicized. Study 1 data was collected in one 10-day wave, making it impossible to include the average VIX as a predictor (because it was a constant).

Table 11. In-Situ *Sociopolitical-to-Personal* Threat-Defense using Yesterday's Google search activity to capture unexpected sociopolitical behavior.

Predictor	<i>Study 1</i>		<i>Study 2</i>	
	<i>Romantic Partner</i>		<i>Familial Communal</i>	
	<i>Communal Motivations</i>		<i>Motivations Today</i>	
	b (SE)	<i>z</i>	b (SE)	<i>z</i>
<i>Intercept</i>	<i>-.089</i>	<i>--</i>	<i>-.073</i>	<i>--</i>
Yesterday's outcome variable	.021 (.025)	0.84	-.024 (.024)	-1.00
<i>Yesterday's Google search activity</i>	<i>.051 (.014)</i>	<i>3.64***</i>	<i>.037 (.014)</i>	<i>2.64*</i>
Average Google search activity	.084 (.081)	1.04	.079 (.052)	1.52
Linear trust	.310 (.028)	11.1***	.124 (.016)	7.75***
Linear trust by yesterday's Google activity	-.017 (.011)	-1.55	-.018 (.008)	-2.25*
Linear trust by average Google search activity	-.085 (.059)	-1.44	-.006 (.028)	-0.21
Quadratic trust (Trust squared)	.022 (.007)	3.14***	.010 (.004)	2.50*
<b>Quadratic trust by yesterday's Google search activity</b>	<b>-.006 (.003)</b>	<b>-2.00*</b>	<b>-.004 (.002)</b>	<b>-2.00*</b>
Quadratic trust by average Google search activity	-.038 (.022)	-1.73 <sup>+</sup>	-.004 (.008)	-0.50

<sup>+</sup>  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ . NB: Coefficients set to be random are italicized.

Table 12. Changes in Comfort Depending on Romantic Partners Over Time as a Function of *Sociopolitical-to-Personal* Threat Defense Habits and Trust

Predictor	<i>Perceptions of Partner Availability</i>		<i>Psychological Distancing</i>	
	b (SE)	<i>z</i>	b (SE)	<i>z</i>
<i>Intercept</i>	.106	--	-.151	--
<i>Time</i>	-.139 (.020)	-6.95***	.080 (.013)	6.15***
Actors' threat-defense habits	.221 (.564)	0.39	-1.29 (.607)	-2.12*
Actors' threat-defense habits by time	.304 (.340)	0.89	-.382 (.220)	-1.74 <sup>+</sup>
Actors' linear trust	.404 (.028)	14.43***	-.323 (.032)	14.04***
Actors' linear trust by time	.004 (.016)	0.25	-.010 (.010)	-1.00
Actors' linear trust by threat-defense habits	.327 (.578)	0.57	-.969 (.394)	-2.46*
Actors' linear trust by threat-defense habits by time	-.258 (.376)	-0.69	.462 (.241)	4.15***
Actors' quadratic trust	.013 (.013)	1.00	.009 (.015)	0.60
Actors' quadratic trust by time	.008 (.007)	1.14	-.010 (.004)	-2.50*
Actors' quadratic trust by threat-defense habits	.089 (.184)	0.48	-.135 (.463)	0.29

<b>Actors' quadratic trust by threat-defense habits by time</b>	<b><i>-.264 (.120)</i></b>	<b><i>-2.20*</i></b>	<b><i>.172 (.077)</i></b>	<b><i>2.23*</i></b>
Partners' threat-defense habits	1.03 (.578)	1.78 <sup>+</sup>	-1.714 (.599)	-2.86**
Partners' threat-defense habits by time	.110 (.321)	0.34	-.209 (.202)	-1.03
Partners' linear trust	.091 (.028)	3.25***	-.090 (.032)	-2.81**
Partners' linear trust by time	.020 (.016)	1.25	-.023 (.010)	-2.30*
Partners' linear trust by threat-defense habits	.171 (.647)	0.26	-.215 (.389)	-0.55
Partners' linear trust by threat-defense habits by time	-.105 (.362)	-0.29	.294 (.224)	1.31
Partners' quadratic trust	.036 (.012)	3.00***	-.017 (.015)	-1.13
Partners' quadratic trust by time	-.002 (.007)	-0.29	-.001 (.005)	-0.20
Partners' quadratic trust by threat-defense habits	-.012 (.205)	-0.06	-.166 (.468)	-0.35
<b>Partners' quadratic trust by threat-defense habits by time</b>	<b><i>-.083 (.115)</i></b>	<b><i>-0.72</i></b>	<b><i>.115 (.071)</i></b>	<b><i>1.62</i></b>

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<sup>+</sup>  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ . Coefficients set to be random are italicized.