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## INVITED ARTICLE

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# Why Seemingly Trivial Events Sometimes Evoke Strong Emotional Reactions: The Role of Social Exchange Rule Violations

MARK R. LEARY  
KATE J. DIEBELS  
KATRINA P. JONGMAN-SERENO  
XUAN DUONG FERNANDEZ

*Duke University*

**ABSTRACT.** People sometimes display strong emotional reactions to events that appear disproportionate to the tangible magnitude of the event. Although previous work has addressed the role that perceived disrespect and unfairness have on such reactions, this study examined the role of perceived social exchange rule violations more broadly. Participants ( $N = 179$ ) rated the effects of another person's behavior on important personal outcomes, the degree to which the other person had violated fundamental rules of social exchange, and their reactions to the event. Results showed that perceptions of social exchange rule violations accounted for more variance in participants' reactions than the tangible consequences of the event. The findings support the hypothesis that responses that appear disproportionate to the seriousness of the eliciting event are often fueled by perceived rule violations that may not be obvious to others.

**Keywords:** anger, emotional intensity, interpersonal interactions, social exchange rules

EMOTION THEORISTS CONCUR THAT EMOTIONS are fundamentally functional, having evolved to facilitate animals' effectiveness in dealing with potential threats and opportunities. Yet, people sometimes display very strong emotional reactions to events that, from an outsider's

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*Address correspondence to Mark R. Leary, Duke University, Department of Psychology and Neuroscience, P.O. Box 90085, Durham, NC 27708, USA. E-mail: [leary@duke.edu](mailto:leary@duke.edu)*

perspective, far exceed the response necessary to deal with the situation, if indeed any response is needed at all. In many instances, seemingly trivial events provoke strong, sometimes explosive reactions that seem disproportionate to the seriousness of the precipitating event.

For example, people become extremely angry during “friendly” discussions in which the outcome of the debate has no tangible consequences, lash out at those who question or criticize them in inconsequential ways, become enraged in response to another person’s mildly inconsiderate behavior, and overreact to other people’s annoying but immaterial eccentricities. People often react strongly to such behaviors in ways that not only create awkward encounters and conflicts (Cunningham, Shamblen, Barbee, & Ault, 2005) but also fuel domestic violence and child abuse (Mann, 1988); righteous indignation and moral outrage (Tannenbaum, Uhlmann, & Diermeier, 2011); culture-of-honor violence (Cohen, Nisbett, Bowdle, & Schwarz, 1996); road rage (Neighbors, Vietor, & Knee, 2002); crimes of passion (Scarpa & Raine, 2000); and extreme collective reactions to seemingly inconsequential slights against one’s national, ethnic, or religious group (Sageman, 2008). The present article examines one set of factors that lead people to experience stronger emotions than seem warranted by the seriousness of the precipitating event.

Of course, the line between proportionate, normative reactions and disproportionate, extreme reactions is not always clear. Indeed, assessing whether a reaction is reasonable and proportionate given the nature of a particular precipitating event is often impossible because people’s emotions are influenced not only by the immediate situation but also by events unknown to the observer, real and imagined implications of the event that are not immediately obvious to others, and the degree to which the event portends future circumstances that are relevant to one’s concerns (Frijda, 1986). At the extremes, disproportionate responses are perhaps easy to spot (e.g., physically attacking a driver who delayed for five seconds after a red light turned green or burning down one’s boss’ house after an unfavorable performance review), but often they are not.

Thus, our interest was in parsing the factors that influence the strength of people’s emotional reactions to examine those that lead people to respond more strongly than their own assessment of the event’s tangible outcomes would suggest. By tangible, we mean outcomes that would be expected to inherently affect a person’s well-being or quality of life. Tangible outcomes include not only physical and material outcomes (such as outcomes involving physical harm, money, or possessions) but also events that inherently affect hedonic states (such as engaging in pleasurable activities, being able to do something that one wants to do, or losing an important relationship).

As we use the term, tangible does not include symbolic or signifying outcomes that, by themselves, do not influence well-being. Of course, even when other people’s actions have no tangible consequences at the moment, they may signal the possibility that undesired tangible outcomes may occur in the future. For example, people may be upset when treated unfairly even when the unfair treatment does not tangibly affect their outcomes (Allen & Leary, 2010) because they are trying to deter future mistreatment that might, in fact, disadvantage them. Others have made this point in the context of reactions to unfairness and disrespect (e.g., Cohen et al., 1996; Lind & Tyler, 1988), but we offer a broader perspective on why people sometimes react strongly to events that have no tangible implications for them.

Two explanations of reactions that exceed the seriousness of the immediate precipitating event—triggered displaced aggression (Marcus-Newhall, Pedersen, Carlson, & Miller, 2000; Pedersen, Gonzales, & Miller, 2000) and cumulative stress (e.g., the straw that broke the camel’s back)—involve general effects of frustration, arousal, or stress that lower the threshold at which people respond to negative events. Although these effects clearly increase the likelihood that

people will respond to minor provocations, our focus is specifically on the features of events that evoke strong emotional reactions. What are the characteristics of situations that “push people’s buttons” even when nothing tangible is at stake?

Four general explanations of such reactions have been offered that involve unfairness, disrespect, loss of self-esteem, and rejection. First, people become angry when they perceive that others have treated them unfairly (Bembenek, Beike, & Schroeder, 2007; Brebels, De Cremer, & Sedikides, 2008). People sometimes react to unfairness even when it does not matter (Allen & Leary, 2010), and perceptions of procedural justice and fairness are enhanced when people have an opportunity to voice their views even when their input cannot affect the outcome (Lind, Kanfer, & Earley, 1990; Tyler, 1987; Tyler, Rasinski, & Spodick, 1985). However, in most studies of reactions to unfairness, participants believed that others’ unfair behaviors had tangible implications for their well-being, either at present or in the future, so previous work has not distinguished the effects of tangible versus intangible outcomes. Furthermore, as we will see, the phenomenon seems to encompass a broader set of undesired behaviors than simply unfairness.

A second explanation asserts that disproportionate reactions are sometimes provoked by signs of disrespect (Cohen et al., 1996; Miller, 2001; Stephenson, Martsof, & Draucker, 2011). People feel entitled to respectful treatment (Bies & Moag, 1986; Miller, 2001) and sometimes interpret violations of interpersonal codes of conduct or “psychological contracts” (Robinson, Kraatz, & Rousseau, 1994; Rousseau, 1995) as disrespect even when the violations are inconsequential (Cropanzano & Byrne, 2000; Folger & Skarlicki, 1998). Cohen et al. (1996, Cohen, 1998) suggested that people who live in a “culture of honor,” such as gang members and men in the American south, are particularly sensitive to signs of disrespect, but the general effect of disrespect on anger and aggression is widespread, if not universal (Bettencourt & Miller, 1996; Miller, 2001; Scher, 1997; Vidmar, 2000). As with unfairness, disrespectful behaviors are sometimes associated with objectively harmful outcomes, but often the person’s reaction is fueled by the disrespectful action itself rather than any associated costs (Lind, Kulik, Ambrose, & de Vera-Park, 1993).

A third explanation considers the role of diminished self-esteem. When people hold favorable views of themselves—and particularly when their views are inflated, unstable, or uncertain—negative interpersonal evaluations can lead to negative emotions and aggression toward people who threaten those views (Baumeister, Smart, & Boden, 1996). The theory suggests that anger and aggression protect people’s self-evaluation (Fast & Chen, 2009; Kernis, Granneman, & Barclay, 1989), although the process by which becoming excessively angry might protect self-esteem has not been adequately explained.

Finally, interpersonal rejection can lead to strong emotional reactions (Buckley, Winkel, & Leary, 2004; Leary, Twenge, & Quinlivan, 2006; Twenge & Campbell, 2003). Many school shootings were perpetrated by students who felt ostracized by their classmates (Leary & Jongman-Sereno, 2015; Leary, Kowalski, Smith, & Phillips, 2003), and rejection is a leading cause of domestic violence and spousal homicide (Barnard, Vera, Vera, & Newman, 1982; Brown, James, & Taylor, 2010). In many cases, the tangible consequences of a particular rejection experience may be trivial, yet people react strongly (Gonsalkorale & Williams, 2007).

Each of these explanations has merit. Yet, even assuming that unfairness, disrespect, threatened egotism, and rejection fuel emotional reactions that appear disproportionate to the precipitating event, an integrative explanation is needed. The hypothesis guiding the present research is that people react disproportionately to the tangible implications of interpersonal events when they

perceive that other people have violated the rules that underlie social exchange. Because these rule violations can evoke strong emotional reactions even when they have no tangible consequences, people's reactions often appear stronger than the seriousness of the tangible outcomes seems to warrant.

Many theories from a variety of perspectives have suggested that interdependent interactions and relationships carry fundamental rules regarding how the individuals are expected to treat one another (Emerson, 1976; Gouldner, 1960; Hall, 2011; Homans, 1961). Interdependent interactions are mutually beneficial and rewarding only when all individuals abide by these rules of social exchange. A number of such rules have been proposed. For example, theorists have suggested the existence of social exchange rules involving reciprocity, dependability, honesty, fairness, cooperation, rationality, and some minimal level of concern for others' needs, among others (Baron, 1993; Bies & Moag, 1986; Blau, 1960; Buss et al., 1990; Cosmides & Tooby, 1992; Cottrell, Neuberg, & Li, 2007; Cropanzano & Mitchell, 2005; Robinson, 1996; Taylor, Tracy, Renard, Harrison, & Carroll, 1995). Reactions to violations of some such rules—such as reciprocity, honesty, and fairness (or justice)—have been studied extensively (e.g., Cropanzano & Byrne, 2000; Eisenberger, Lynch, Aselage, & Rohdieck, 2004; Gouldner, 1960; Miller, 2001; Skitka & Crosby, 2003), whereas others have received only passing mention.

People are highly sensitive to violations of these social exchange rules because such violations signal that the perpetrator is a poor partner for social exchange whose behavior has the potential to disadvantage the individual, either in the present encounter or in the future (Cosmides & Tooby, 1992). According to the social exchange rule violation hypothesis, social exchange rules are so important that violations of these rules can provoke strong emotional reactions even when the other person's actions have few, if any, tangible consequences. Even violations with no tangible consequences whatsoever provide diagnostic information that another person should not be trusted as a social exchange partner. Thus, the social exchange rule violation hypothesis explains why people's reactions often seem disproportionate to the tangible consequences of the eliciting event.

Because trust is a central feature of interdependent group living and necessary for cooperative relationships and collective action, people highly value trustworthiness (Buss et al., 1990; Cottrell et al., 2007) and react strongly when others behave in ways that undermine trust. The enforcement of social exchange rules is the mechanism by which people insist on being treated appropriately and sanction untrustworthy relational partners. In fact, evolutionary psychologists have suggested that social exchange rules are so important to well-being that human beings have evolved cognitive mechanisms to detect, at fairly low thresholds, violations of certain social exchange rules (Cosmides & Tooby, 1992, 2008). The greatest attention has been devoted to a "cheater detection" system that appears to monitor instances in which other people take benefits to which they are not entitled (Cosmides, 1989; Delton, Cosmides, Guemo, Robertson, & Tooby, 2012). Although the existence of an evolved cheater detection system has been controversial (Cosmides & Tooby, 2008; Fodor, 2000), people are certainly quite sensitive to violations of social exchange rules.

One function of strong reactions may be to put those who violate fundamental rules of social exchange on notice to deter future violations. This explanation has been discussed previously with respect to aggressive reactions to unfairness and disrespect (e.g., Cohen et al., 1996; Felson, 1978; Miller, 1993; Toch, 1992), but the reaction seems broader, encompassing violations of social exchange rules more generally. In fact, from the standpoint of the social exchange rule violation hypothesis, some of the other explanations described earlier (unfairness, disrespect, threatened

egotism, and interpersonal rejection) might be interpreted as specific cases of a general tendency to react to violations of social exchange rules. In fact, we suspect that these specific cases evoke reactions that are disproportionate to the event's tangible consequences primarily when they are interpreted as an exchange rule violation. The social exchange rule violation hypothesis provides a parsimonious, overarching perspective that integrates findings across a number of disparate domains and offers insights into the conditions under which people react to seemingly trivial events.

To summarize, people's emotional reactions to undesired events are affected by two sets of factors. The most obvious involves tangible outcomes of the events—outcomes that directly and incontrovertibly influence their well-being or quality of life. The second set of factors involves the perceived violation of social exchange rules, which, as noted, may influence emotion even in the absence of tangible consequences. Such violations may portend negative outcomes in the future but their present impact is often minimal. Although previous theorists have suggested that both sets of factors influence emotional reactions, we are not aware of any research that has systematically examined their separate effects. Nor has previous research that has examined the effects of specific violations—such as unfairness or disrespect—done so in a way that accounts for perceived tangible outcomes.

This study tested the hypothesis that the strength of people's emotional reactions to undesired events can be predicted by both their judgment of the event's tangible outcomes and the degree to which they perceive that others have violated social exchange rules. We predicted that perceived violations of exchange rules are associated with strong reactions, particularly anger, above and beyond the effects of the tangible outcomes or implications of the precipitating event, if any. In addition, we were interested in documenting the relative strength of these two effects. To examine the independent effects of tangible consequences and social exchange rule violations, we solicited reports of situations in which participants experienced negative emotions as a result of other people's behavior and asked them to rate their emotional reactions to the event, the extent to which it had tangible negative consequences, and the degree to which the other person's behavior violated social exchange rules.

## METHOD

### Participants

A total of 179 (79 male, 100 female,  $M_{\text{age}} = 22.3$ ,  $SD = 3.8$ ) were recruited. Of the participants, 91 (45 male, 46 female) were graduate students from across the university, and 88 participants (34 male, 54 female) were undergraduates from the departmental participant pool.

### Procedure

Because we did not want to inadvertently lead participants to focus solely on social exchange rules by specifically asking about them, participants were instructed to “think of a time when someone did or said something that upset you or made you have negative feelings.” We assumed that a high proportion of such situations involve violations of social exchange rules.

After participants took a moment to recall what happened, they reported the nature of their relationship with the person and how long ago the event happened. Then, participants answered three questions on 12-point scales: (a) "After this event happened, how good was your relationship with this person," (b) "After this event happened, how close did you feel to the other person," and (c) "Overall, how bad were the other person's actions?"

Participants described the event and their reactions in writing and then rated the degree to which the other person's behavior had a negative effect on each of 11 tangible outcomes (1 = *not at all*; 5 = *extremely*): "Your money or financial well-being"; "Your safety, health, or physical well-being"; "Your performance or outcomes at work or at school"; "Your property or possessions"; "Your ability to have something you wanted"; "The safety, health, or well-being of people you care about"; "Your relationships with other people"; "How much fun or pleasure you had"; "A friendship or close relationship"; "Your ability to do something that you wanted to do"; and "Your membership in a group". To confirm that these ratings reflected all major categories of tangible outcomes for people's well-being, two raters coded pilot data in which 100 participants described their reactions to undesired events that were caused by other people. No outcomes were identified that did not fall into one or more of these categories.

Participants also rated on 5-point scales (1 = *not at all*; 5 = *extremely*) the degree to which the other person's behavior violated 14 social exchange rules, specifically the degree to which it was unfair, selfish, unethical or immoral, inconsiderate, unreasonable, disrespectful, dishonest, irresponsible, uncooperative, and irrational; they also rated the degree to which the behavior reflected a lack of concern for them, reflected lack of reciprocity, took advantage of them, and showed that the person was undependable. Importantly, ratings of the tangible outcomes and social exchange rule violations were counterbalanced across participants.

Participants rated how the other person's behavior made them feel on several emotions that included three items for anger: angry, irritated, and furious (1 = *not at all*; 5 = *extremely*). And finally, participants answered two questions about their relationship: (a) "How much do you like the person now?" and (b) "How much do you trust this person not to do something like this again?" (1 = *not at all*; 5 = *extremely*). After completing the questionnaire, participants were debriefed.

## RESULTS

The episodes that participants described spanned a variety of relationships, including romantic partners (28.5%), friends (27.4%), authority figures (11.2%), family members (not including spouses; 10.6%), coworkers (6.7%), acquaintances (6.7%), and strangers (2.2%). The events they described occurred between 0 and 12 years ago ( $M = 14.6$  months), and the average rating of the badness of the person's actions was 7.5 ( $SD = 2.9$ ) ("moderately" bad).

Ratings of the tangible consequences were summed to produce an index of tangible outcomes, and the ratings of exchange rule violations reflected in the other person's behavior were summed to create an index of social exchange rule violations. The primary analyses involved hierarchical multiple regression analyses that tested the effects of tangible consequences and perceived social exchange rule violations on the outcome variables. To examine the effects fully, two analyses were conducted for each outcome variable. In the first analysis (labeled Analysis 1 in Table 1), participant gender (dummy coded) was entered on Step 1 of the regression analysis, followed

TABLE 1  
Effects of Tangible Outcomes and Exchange Rule Violations

Step number	Analysis 1				Analysis 2			
	Predictor	$\Delta R^2$	B	95% CI	Predictor	$\Delta R^2$	B	95% CI
Ratings of person's actions								
1.	Gender	.00	-.28	-1.13, .56	Gender	.00	-.28	-1.13, .56
2.	Tangible outcomes	.04	.07	.02, .12	Exchange violations	.27	.11	.08, .14
3.	Tangible outcomes $\times$ Gender	.00	-.03	-.13, .08	Exchange violations $\times$ Gender	.01	.04	-.02, .09
4.	Exchange violations	.23	.11	.08, .14	Tangible outcomes	.00	.01	-.04, .06
5.	Exchange violations $\times$ Gender	.01	.04	-.02, .10	Tangible outcomes $\times$ Gender	.00	-.03	-.13, .07
Anger								
1.	Gender	.00	.20	-.68, 1.07	Gender	.00	.20	-.68, 1.07
2.	Tangible outcomes	.10	.11	.06, .16	Exchange violations	.44	.15	.12, .17
3.	Tangible outcomes $\times$ Gender	.00	.00	-.10, .11	Exchange violations $\times$ Gender	.01	.01	-.04, .06
4.	Exchange violations	.35	.14	.12, .17	Tangible outcomes	.01	.03	-.02, .07
5.	Exchange violations $\times$ Gender	.00	.01	-.05, .06	Tangible outcomes $\times$ Gender	.00	.04	-.05, .13
Current liking								
1.	Gender	.01	.24	-.18, .67	Gender	.01	.24	-.18, .67
2.	Tangible outcomes	.00	.00	-.03, .03	Exchange violations	.11	-.04	-.05, -.02
3.	Tangible outcomes $\times$ Gender	.01	.03	-.02, .08	Exchange violations $\times$ Gender	.01	.02	-.01, .05
4.	Exchange violations	.12	-.04	-.06, -.02	Tangible outcomes	.01	.02	-.01, .05
5.	Exchange violations $\times$ Gender	.00	.02	-.02, .05	Tangible outcomes $\times$ Gender	.00	.01	-.04, .05
Trust								
1.	Gender	.00	-.05	-.40, .30	Gender	.00	-.05	-.40, .30
2.	Tangible outcomes	.00	.01	-.02, .03	Exchange violations	.03	-.01	-.03, -.001
3.	Tangible outcomes $\times$ Gender	.00	-.01	-.05, .04	Exchange violations $\times$ Gender	.03	.03	.01, .05
4.	Exchange violations	.04	-.02	-.03, -.01	Tangible outcomes	.01	.02	-.01, .04
5.	Exchange violations $\times$ Gender	.04	.04	.01, .06	Tangible outcomes $\times$ Gender	.01	-.03	-.08, .02
Relationship quality								
1.	Gender	.00	-.18	-1.15, .79	Gender	.00	-.18	-1.15, .79
2.	Tangible outcomes	.01	-.03	-.09, .03	Exchange violations	.17	-.10	-.13, -.07
3.	Tangible outcomes $\times$ Gender	.00	.02	-.11, .14	Exchange violations $\times$ Gender	.00	.03	-.04, .10

(Continued)

TABLE 1  
(Continued)

Step number	Analysis 1				Analysis 2			
	Predictor	$\Delta R^2$	B	95% CI	Predictor	$\Delta R^2$	B	95% CI
4.	Exchange violations	.17	-.11	-.14, -.07	Tangible outcomes	.01	.04	-.02, .09
5.	Exchange violations $\times$ Gender	.01	.04	-.03, .11	Tangible outcomes $\times$ Gender	.00	-.04	-.16, .08
Ratings of person's actions								
1.	Gender	.00	-.28	-1.13, .56	Gender	.00	-.28	-1.13, .56
2.	Tangible outcomes	.04	.07	.02, .12	Exchange violations	.27	.11	.08, .14
3.	Tangible outcomes $\times$ Gender	.00	-.03	-.13, .08	Exchange violations $\times$ Gender	.01	.04	-.02, .09
4.	Exchange violations	.23	.11	.08, .14	Tangible outcomes	.00	.01	-.04, .06
5.	Exchange violations $\times$ Gender	.01	.04	-.02, .10	Tangible outcomes $\times$ Gender	.00	-.03	-.13, .07
Anger								
1.	Gender	.00	.20	-.68, 1.07	Gender	.00	.20	-.68, 1.07
2.	Tangible outcomes	.10	.11	.06, .16	Exchange violations	.44	.15	.12, .17
3.	Tangible outcomes $\times$ Gender	.00	.00	-.10, .11	Exchange violations $\times$ Gender	.01	.01	-.04, .06
4.	Exchange violations	.35	.14	.12, .17	Tangible outcomes	.01	.03	-.02, .07
5.	Exchange violations $\times$ Gender	.00	.01	-.05, .06	Tangible outcomes $\times$ Gender	.00	.04	-.05, .13
Current liking								
1.	Gender	.01	.24	-.18, .67	Gender	.01	.24	-.18, .67
2.	Tangible outcomes	.00	.00	-.03, .03	Exchange violations	.11	-.04	-.05, -.02
3.	Tangible outcomes $\times$ Gender	.01	.03	-.02, .08	Exchange violations $\times$ Gender	.01	.02	-.01, .05
4.	Exchange violations	.12	-.04	-.06, -.02	Tangible outcomes	.01	.02	-.01, .05
5.	Exchange violations $\times$ Gender	.00	.02	-.02, .05	Tangible outcomes $\times$ Gender	.00	.01	-.04, .05
Trust								
1.	Gender	.00	-.05	-.40, .30	Gender	.00	-.05	-.40, .30
2.	Tangible outcomes	.00	.01	-.02, .03	Exchange violations	.03	-.01	-.03, -.001
3.	Tangible outcomes $\times$ Gender	.00	-.01	-.05, .04	Exchange violations $\times$ Gender	.03	.03	.01, .05
4.	Exchange violations	.04	-.02	-.03, -.01	Tangible outcomes	.01	.02	-.01, .04
5.	Exchange violations $\times$ Gender	.04	.04	.01, .06	Tangible outcomes $\times$ Gender	.01	-.03	-.08, .02
Relationship quality								
1.	Gender	.00	-.18	-1.15, .79	Gender	.00	-.18	-1.15, .79
2.	Tangible outcomes	.01	-.03	-.09, .03	Exchange violations	.17	-.10	-.13, -.07

(Continued)



TABLE 1  
(Continued)

Step number	Analysis 1				Analysis 2			
	Predictor	$\Delta R^2$	B	95% CI	Predictor	$\Delta R^2$	B	95% CI
3.	Tangible outcomes $\times$ Gender	.00	.02	-.11, .14	Exchange violations $\times$ Gender	.00	.03	-.04, .10
4.	Exchange violations	.17	-.11	-.14, -.07	Tangible outcomes	.01	.04	-.02, .09
5.	Exchange violations $\times$ Gender	.01	.04	-.03, .11	Tangible outcomes $\times$ Gender	.00	-.04	-.16, .08

by the sum of the tangible consequences (mean centered; Step 2), the product of tangible consequences and gender (Step 3), the sum of the ratings of social exchange rule violations (mean centered; Step 4), and the product of exchange rule violations and gender (Step 5). This order of entry was chosen to (a) control for possible gender differences in affect intensity (Diener, Sandvik, & Larsen, 1985) and (b) partial out the effects of tangible consequences and any possible interaction of tangible consequences by gender in order to (c) examine the residual contributions of perceived social exchange rule violations (both by itself and in interactions with gender) on the strength of participants' emotional reactions.<sup>1</sup>

A second analysis (Analysis 2 on Table 1) was conducted to test the residual effects of perceived tangible consequences on emotional reactions after controlling for gender, perceived social exchange rule violations, and their interaction. Gender was again entered on Step 1, followed by the sum of social exchange rule violations on Step 2, and the interaction of social exchange rule violations and gender (Step 3). Then, the sum of the tangible consequences was entered on Step 4, and the interaction of tangible consequences by gender was tested on Step 5.

### Ratings of Person's Actions

Table 1 shows the results of these two analyses for each outcome variable. Gender did not predict any of the outcomes in Step 1, so we will not mention it further. In Analysis 1, ratings of the tangible outcomes accounted for 4.4% of the variance in how bad participants rated the other person's actions in Step 2, and in Step 3, the interaction of tangible consequences and gender did not account for an increase in variance (see Table 1 for  $\Delta R^2$ ,  $B$ , and 95% CIs for each effect). In Step 4, social exchange rule violations accounted for 22.5% of the variance in ratings of the action. The interaction with gender did not account for additional variance. Thus, ratings of social exchange rule violations accounted for variance in how bad participants rated the person's actions beyond ratings of the tangible impact of those actions. In Analysis 2 (in which exchange rule violations were entered before tangible consequences), social exchange rule violations accounted for 27.0% of the variance when entered on Step 2, after which tangible consequences no longer accounted for unique variance in the ratings.

### Anger

Participants' ratings of how angry, irritable, and furious they had felt were summed ( $\alpha = .76$ ). The tangible outcomes accounted for 9.6% of the variance in anger on Step 2, but the interaction of

tangible consequences and gender in Step 3 did not account for additional variance. In Step 4, the sum of the social exchange rule violations accounted for 35.3% of the variance in anger, and this effect was not moderated by gender in Step 5. Thus as expected, ratings of social exchange rule violations accounted for the intensity of participants' anger beyond their ratings of the tangible effects of those events on their well-being. Indeed, violations of social exchange rules accounted for more than 3 times as much variance as the tangible consequences. Analysis 2 showed that exchange rule violations accounted for 44.1% of the variance in anger, whereas tangible consequences accounted for no additional variance. These analyses show not only that anger ratings were much more strongly related to perceived violations of social exchange rules than to tangible consequences but also that perceived exchange rule violations were associated with unique variance in anger after tangible consequences were taken into account.

To follow-up on these analyses, we examined the specific social exchange rule violations that most strongly predicted anger after controlling for ratings of tangible consequences. After controlling for gender and ratings of tangible consequences, all 14 social exchange rule violations correlated significantly with anger ratings ( $.19 < r\text{'s} < .51$ ). However, when entered stepwise-fashion into the regression equation, only three rule violations ultimately entered the model: unreasonable,  $B = .72$ , 95% CI [.41, 1.03],  $\Delta R^2 = .23$ ; disrespectful,  $B = .60$ , 95% CI [.31, .90],  $\Delta R^2 = .09$ ; and dishonest,  $B = .37$ , 95% CI [.13, .62],  $\Delta R^2 = .03$ . Although this pattern may be specific to the kinds of undesired behaviors that our participants reported, it shows that, not surprisingly, certain perceived rule violations may exert a predominate influence on people's reactions.

### Relationship Implications

*Liking.* As seen in Table 1, neither gender, ratings of the tangible outcomes, nor the interaction of gender and tangible consequences accounted for participants' ratings of how much they liked the person after the event. However, social exchange rule violations accounted for 11.8% of the variance in liking. When the predictors were entered in the opposite order, social exchange rule violations predicted liking ratings, but tangible outcomes had no effect.

*Trust.* Neither gender, ratings of the tangible outcomes, nor the interaction of gender and tangible consequences predicted the extent to which participants indicated that they would trust the person not to do something similar again. Social exchange rule violations accounted for 3.6% of the variance in trust, and the interaction of exchange rule violations and gender accounted for additional variance. Decomposition of this interaction revealed that men trusted the other person less when perceptions of exchange rule violations were high than low,  $B = -.04$ , 95% CI [-.06, -.02], but this effect was not obtained for women,  $B = .01$ , 95% CI [-.02, .03]. Also, men were more trusting than women when exchange violations were low but less trusting when violations were high.

*Relationship quality.* Participants' ratings of how good their relationship was and how close they felt to the other person correlated .90, so we averaged these items. As seen in Table 1, social exchange rule violations accounted for 17% of the variance in relationship quality. When the predictors were entered in the opposite order, no effect of tangible outcomes was obtained.

## DISCUSSION

The results showed that the strength of people's reactions to negative interpersonal events is a function of both the perceived tangible outcomes of those events and their perceptions that others have violated rules of social exchange. After controlling for the magnitude of perceived tangible consequences, perceptions of social exchange rule violations explained variance in anger, how bad the person's actions were, how much participants liked and trusted the other person, and ratings of the quality of the relationship after the event. And, when social exchange rule violations were entered into the analyses before ratings of tangible consequences, the effects of tangible consequences on participants' reactions were minimal. Importantly, perceived social exchange rule violations accounted for far more unique variance in participants' reactions than did the tangible outcomes that participants experienced.

These patterns support the hypothesis that strong emotional reactions to the behavior of other people are fueled, at least in part, by people's perceptions that the offending behavior involves a violation of fundamental rules that guide interdependent interactions and relationships. Even exceptionally minor transgressions can be viewed as violations of social exchange rules and, thus, spark a stronger response than would be predicted by the tangible consequences.

Although participants' reports of social exchange rule violations involved many kinds of relationships—with friends, romantic partners, family members, authority figures, strangers, and others—we did not have a large enough sample of each relationship type to examine whether perceived social exchange rule violations evoke stronger or different kinds of reactions in some relationships than in others. One might expect that people expect stronger adherence to social exchange rules in relationships in which interdependence is greater because the costs of rule violations are higher over time. Yet, if trust and satisfaction are high, people in highly interdependent relationships may overlook occasional violations (or at least restrain their reactions to them) because they ultimately trust the other's intentions and do not wish to damage the relationship by overreacting. Viewed in this way, we predict that social exchange rule violations evoke the strongest, most disproportionate reactions in highly interdependent relationships in which trust (and/or satisfaction) is low. Research is needed to understand the features of relationships that influence disproportionate reactions.

In many instances, people are motivated, at minimum, to send an unambiguous signal that they are aware of the violations and will not tolerate such actions in the future. Cohen et al. (1996) described this deterrence function of strong reactions to signs of disrespect, but the effect applies to a broad array of situations in which actual or potential exchange partners violate the rules that guide mutually beneficial social exchanges. From this perspective, expressions of anger, including overt aggression, in these instances may be efforts to show that one will not tolerate social exchange rule violations (Felson, 1982; Miller, 2001; Toch, 1992).

In addition, when violations of social exchange rules are particularly egregious, people may be motivated to punish the perpetrator. Most work on retributive justice has focused on how people respond to those who commit immoral actions that harm themselves or other people (Carlsmith & Darley, 2008), but people sometimes engage in retribution for behaviors, that, in themselves, did not hurt anyone (Felson, 1978). The psychological heuristic underlying such reactions seems to be that people who cannot be trusted to be good social exchange partners should be put on notice, if not punished.

Our findings are entirely consistent with other research on reactions to unfairness, selfishness, and disrespect (e.g., Allen & Leary, 2010; Bembenek et al., 2007; Brebels et al., 2008; Cohen et al., 1996; Colquitt, Conlon, Wesson, Porter, & Ng, 2001; Miller, 2001; Stephenson et al., 2011) but extend previous thinking. From our perspective, perceived unfairness and disrespect evoke strong reactions to otherwise trivial events because they are among the most common—and perhaps the most potentially harmful—violations of social exchange rules. The social exchange rule violation hypothesis provides a parsimonious, overarching perspective that not only integrates previous findings but also offers insights into the conditions under which people react more strongly to events than one might expect based on their tangible consequences. Indeed, our analysis suggested that participants reacted most strongly to violations of rules to be not only respectful but also reasonable and honest.

Of course, people sometimes react strongly to events for reasons that have little to do with violations of social exchange rules. Often, the sheer magnitude of tangible consequences can send people over the edge, and, as noted, displaced aggression and cumulative stress can lower the threshold at which people respond to events. Furthermore, people are sometimes angered when events violate their moral convictions, whether or not such events are perceived to be unfair (Mullen & Skitka, 2006). The social exchange violation hypothesis explains one broad category of events that evoke emotional reactions, but we are not suggesting that other factors do not sometimes lead to strong responses to events with no tangible consequences.

When people react strongly to seemingly minor events, the aggrieved party and the perpetrator often disagree about whether the complainant's strong reaction is warranted. When a person becomes angry because a friend picked them up 10 minutes later than promised or a partner leaves dirty socks on the floor, the perpetrator justifiably wonders why such a small infraction elicited such a strong reaction. Yet, the disagreement may arise because, whereas the perpetrator rightly perceives that their behavior had only minor tangible consequences, the aggrieved party is focused on the violation of a social exchange rule—for example, to be dependable or not behave selfishly. Even behaviors with no tangible consequences can provide diagnostic information about another person's viability as a social exchange partner. In fact, from the aggrieved person's perspective, smaller infractions may sometimes be more informative than large ones because less effort is needed to avoid violating the rule.

One question that remains unanswered is whether people's reactions to situations in which they perceive that social exchange rules were violated are focused specifically on the violation or on the violator. That is, are people's reactions fundamentally in response to the violation itself or to the person involved who is viewed as one who breaks important social rules? Psychologically, this is an important distinction that has implications for understanding and dealing with strong emotional reactions. Our hunch is that emotional reactions to exchange rule violations are primarily focused on the person rather than the action. The fact that the precipitating event is often trivial suggests that people are reacting to the perpetrator's intent, lack of consideration, or general unsuitability as an exchange partner rather than to the behavior per se. Furthermore, as Cunningham's work has shown (Cunningham et al., 2005), in many cases, mild transgressions initially elicit a very weak reaction, if any at all. Only with repeated exposures do people begin to react strongly, suggesting that their response is mediated by inferences about the person who repeatedly does such a thing. So, for example, failing to throw one's dirty socks in the laundry may evoke little response initially but fuel increasing upset as violations accumulate over

time so that eventually the person explodes over a dirty sock. In addition, work in evolutionary psychology suggests that cheater detector systems are designed to identify people who take benefits to which they are not entitled rather than isolated acts of cheating per se and that people classify others as “free-riders” based on inferences about their intentions rather than their actual contributions to collective outcomes (Delton et al., 2012).

If we are correct that emotional reactions that go beyond the impact of tangible consequences are based more on violators than on violations, the cognitive inferential processes that lead people to draw conclusions about those who violate social exchange rules mediate these reactions in important ways. Given that the perception of an exchange rule violation underlies the strong reactions, considering attributional processes and biases is informative. Research on attributions about wrongdoing is particularly relevant. For example, inferences of hostile intent fuel strong reactions to ambiguous behaviors, and people who are biased to perceive hostile intent are inclined to react to undesired events with greater anger and aggression (Crick, Grotpeter, & Bigbee, 2002; Dodge, Price, Bachorowski, & Newman, 1990). In the same way, just as some people are inclined to infer hostile intent on the part of other people, some individuals may be predisposed to judge others’ undesired actions as violations of social exchange rules, leading them to respond strongly to trivial events.

For example, people who score high in psychological entitlement (Campbell, Bonacci, Shelton, Exline, & Bushman, 2004) may believe not only that they deserve to receive desired material, financial, and experiential outcomes more than other people but also that they are entitled to be treated particularly well by others. If so, they may be highly sensitive to violations of social exchange rules. Similarly, people who are high in conscientiousness—who, among other things, tend to follow socially prescribed norms and rules (Roberts, Jackson, Fayard, Edmonds, & Meints, 2009)—may be attuned to instances in which other people violate basic norms and rules, including rules of social exchange. Along the same lines, recent work in organizational behavior suggests that dispositional trust is related to people’s judgment of and sensitivity to violations of fairness (Bianchi & Brockner, 2012). Research is needed to examine individual differences that moderate sensitivity to violations of social exchange rules and the intensity of people’s reactions to perceived infractions.

Viewed from a functional, social exchange perspective, reactions that are disproportionate to the tangible implications of an event may or may not be “overreactions.” Not only might some strong reactions to trivial behaviors be reasonable and functional in alerting people to be wary of those who violate social exchange rules, but, as noted, strong reactions may show others that exchange rule violations will not be tolerated (Cohen et al., 1996). However, when the violations themselves are inconsequential and do not signify future problems, disproportionate reactions are neither functional nor reasonable. Much of the time, people react so quickly, and often automatically, to what other people do that they end up making mountains out of molehills.



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## NOTE

1. Although we assumed that any combined effects of tangible outcomes and social exchange rule violations would be additive, we conducted exploratory analyses to test for the possibility of an interaction. In no case was any hint of an interaction between tangible outcomes and exchange rule violations on the outcome variables obtained.

## AUTHOR NOTES

**Mark R. Leary, Kate J. Diebels, Katrina P. Jongman-Sereno, and Xuan Duong Fernandez** are affiliated with the Department of Psychology and Neuroscience, Duke University.

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