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ANGER AND INDIRECT RELATIONAL AGGRESSION IN WOMEN: THE PUZZLING EFFECT OF MODERATE PROVOCATION

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This study sought to investigate the effect of trait-anger on indirect relational aggression in women, under provocation of varying strength. Female undergraduates (N = 174) were assigned to either a moderate provocation, a strong provocation, or a control condition. The results showed that under the moderate provocation condition, trait-anger contributed negatively to relational aggression, whereas the same effect under the strong provocation condition was positive. Also, the effect of trait anger on relational aggression mediated through post-provocation anger was positive and significant only in moderate provocation. The results corresponded with the theoretical assumption that moderate provocation condition, in contrast to strong provocation, reduces the variance in behavior as the effect of the situation and maximizes the role of personality traits in determining behavioral responses. Overall, findings provide evidence on the great complexity of women's anger and aggression suggesting that apart from retaliation, women use non-aggressive strategies to manage and control their anger while facing provocation situation.

Keywords: indirect relational aggression; provocation; dispositional anger; situational anger; women's anger

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Thinking about anger in the context of the provocation-aggression link triggers almost automatically the following sequence. Anger, evoked by provocation, is responsible for aggressive behavior which increases linearly along with the intensity of anger and strength of provocation. This viewpoint was substantially revised by Berkowitz (1990), who pinpointed that at the early stage of the reaction to provocation, the rudimentary emotional state is experienced, while at later stages, higher cognitive processing appraisals and causal attributions are activated, which may intensify or suppress the anger input into aggressive behavior. Thus, the relationship between provocation and anger-driven aggression seems to be much more complex, and still, a few issues must be addressed, in particular with regard to women's anger and aggression.

First, one needs to distinguish post-provocation anger induced by an unpleasant event from dispositional proneness (trait-anger) to experience anger frequently (Spielberger, 1999). While post-provocation anger has predominated in experimental research on aggression evoked by provocation or frustration (e.g., Denson et al., 2011), dispositional anger has been considered primarily in questionnaire-based research (e.g., Champion & Clay, 2007). As a result, the role of trait-anger in regulating aggressive responses to provocation or frustration is to some extent conceptualized on the basis of experimental premises about the meaning of state-anger in triggering aggression. This study aims to decrease this empirical gap by considering the role of both post-provocation anger and trait anger in shaping aggressive responses under provocation. What we currently know is that provocation is the key situational factor increasing aggression (Anderson & Bushman, 2002), and dispositional anger heightens aggression only under provoking conditions, but not in neutral conditions. However, the extent to which anger influences aggressive responses, depending on the intensity of provocation, remains unclear.

Second, reactive aggression, conceptualized as an anger-driven response to provocation, might be operationalized this way as long as information processing is not involved (Crick & Dodge, 1996). In other words, along with the activation of higher cognitive functions, the urge of retaliation transforms into a well-elaborated plan of revenge, and premeditated aggression will start to play its role. Thus, when participants retaliate by acting aggressively, one cannot be sure whether this is due to premeditated or reactive aggression with the latter stronger associated with anger than the former. A study by Book et al. (2019) provided evidence that emotionality positively predicted reactive aggression and negatively predicted a tendency for revenge. Thus, the urge for

revenge after provocation might not be magnified by anger, but quite the opposite; the stronger the negative affect following provocation, the lower the aptitude for vengeance and the stronger the desire for reactive aggression.

Third, paradigms used to measure aggressive response after provocation, such as the Taylor Aggression Paradigm (Taylor, 1967), focus on direct physical aggression prevalent in men but not in women who prefer low-risk aggressive tactics (Archer & Coyne, 2005). Consequently, knowledge about the provocation-driven aggression manifested by women results from the research paradigms more suitable for men despite the long list of gender differences in aggression stemming from previous research (Bettencourt & Kernahan, 1997). One of these is women's proneness to employ low-risk behavioral tactics for fear of revenge, which is accompanied by feelings of anxiety and anticipatory guilt. These factors serve as key inhibitors of aggression in women, leading them to choose relational aggression that carries a lower risk of retaliation or to resign from retaliation when direct aggression is the only option (Bettencourt & Miller, 1996; Eagly & Steffen, 1986). However, to our knowledge, relational aggression has never been considered as a possible aggressive response in research on the provocation-aggression link, particularly when controlling for trait and post-provocation anger. Furthermore, the type of cost women were to bear because of aggression determined their retaliation tendencies differently from men. In women, tangible costs (e.g., resources) encouraged them to use costly retaliation, whereas men were aggressive in a risky way when intangible costs were at stake (e.g., status) (Geniole et al., 2015). Given the fact that, in provocation conditions, men and women are more aggressive towards same-sex instigators (Bettencourt & Miller, 1996; Rajchert et al., 2018), the evolutionary roots of this fixation on same-sex targets must be underlined. While female–female aggression serves to protect and acquire resources, men primarily fight for social reputation, status, and dominance (Archer & Benson, 2008; Geniole et al., 2015). Next, reactivity to violent cues differently moderated aggressive reactions in highly reactive men and women, as opposed to low-reactive female and male counterparts (Bettencourt & Kernahan, 1997). While high-reactive men became aggressive when confronted with violent cues, high-reactive women did not, and this gender difference was magnified under aversive provocation. Whether trait-anger and post-provocation anger operate similarly to reactivity interrelated to emotionality remains the open question. This study may help to clarify it.

Also, cognitive aspects contribute to gender differences in the likelihood of aggressive revenge. Previous research showed that ambiguous scenes

depicting both aggressive and non-aggressive cues were evaluated as less intentional by women compared to men scoring equally high on sensitivity to provocation (Zajenkowska & Rajchert, 2020). Other research demonstrated that even when hostile attributions were made, they led to aggressive behavior to a greater extent in boys than in girls (Cillessen et al., 2014). This suggests that the information processing model may also be gender-specific in terms of how aggressive behaviors of others are interpreted and responded to.

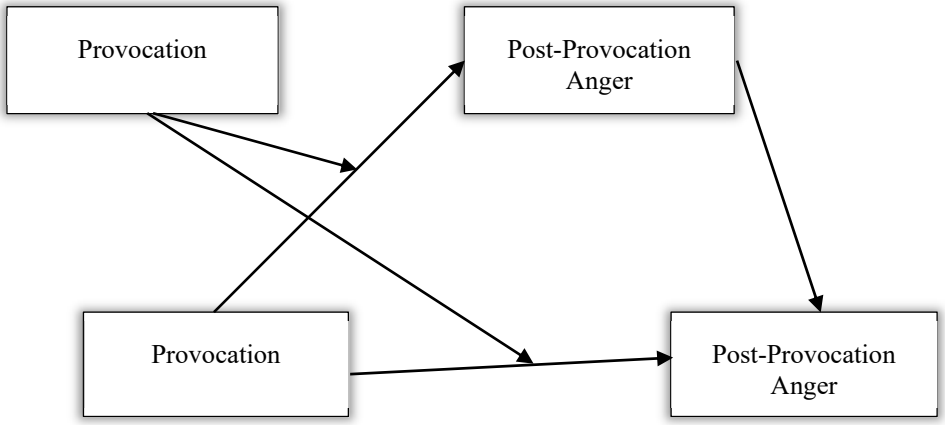
To conclude, numerous gender differences have been identified in the mechanisms underlying retaliatory aggression. The overall reflection arising from these studies is that the aggressive response to provocation is, to a considerable extent, gender specific. This conclusion is supported by several findings mentioned above, i.e., status threat is a weaker factor in driving aggression in women compared to men; ambiguous provocation, which shares some features with moderate provocation, triggers fewer hostile attributions in women than in men; and finally, reactivity—which shapes emotional responses to aversive stimuli—drives men and women toward aggressive behavior in a different way. Overall, previous findings have provided deeper insights into the mechanisms of male aggression and/or were conducted within methodological paradigms that align with male preferences in aggression. This study aims to take a step toward reducing this imbalance.

THIS STUDY

This study sought to investigate the effect of anger proneness and anger experienced after different intensities of provocation (no provocation, moderate, and strong) on relational aggression in women. In H1 we predict that trait-anger is positively related to aggression only under moderate provocation condition, but not under no provocation or strong provocation condition. Our prediction is based on the assumption that the effect of dispositional differences on behavior is attenuated by "strong", unambiguous situations which provide a clear-cut pattern of what behavior is appropriate, regardless of individual dispositions (Mischel, 1977). In contrast, "weak" and psychologically ambiguous situations are not uniformly encoded and do not generate uniform expectances concerning the desired behavior (Mischel, 1977). In H2 we expect that trait-anger contributes positively to post-provocation anger only under moderate provocation condition. Again, moderate provocation condition, in contrast to strong provocation, reduces the variance in behavior as the effect of

the situation and maximizes the role of dispositional inputs in determining emotional responses. Furthermore, in H3 we predict that anger elicited by provocation is positively associated with aggression, consistent with previous findings (Denson et al., 2011) and theoretical premises. These were explicitly outlined in the General Aggression Model, in which frustration and provocation have been indicated as two of the strongest situational factors leading to aggression, in part through emotions such as post-provocation anger (Anderson & Bushman, 2002). In H4 we expect that the effect of trait anger on relational aggression is mediated by the anger elicited by the provocation only in the moderate provocation condition. To conclude, we assume that moderate provocation condition might provide the most interesting insights into the role of dispositional and post-provocation anger. The effects predicted by the hypotheses are shown in Figure 1.

Figure 1
Diagram Presenting Moderated Mediation Model Tested in the Study



METHOD

Participants

All participants were female students (N = 174; M_{age} = 20.57, SD = 1.78) who volunteered to participate without compensation. The a priori statistical power estimation indicated that for an analysis of regression with 8 predictors

(single regression coefficient), a power of 0.80 should be obtained with 156 participants, assuming a small effect size (r = .20) and α = .05. The data were collected as a part of a larger project, including other measures not considered in this paper (Dimensions of Discipline Inventory, Straus & Fauchier, 2007; all scales of State-Trait Anger Expression Inventory-2).

All procedures involving the human participants in this research conformed to the ethical standards of the University Ethics Board, as well as the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Provocation Manipulation

All participants were informed that the research was to investigate the role of socialization experience in cognitive development. After completing the State-Trait Anger inventory, they solved the perceptual task relying on visual scanning of a piece of paper covered with small, meaningless letters to find as many n-letters as possible within two minutes. Once the time for the perceptual task was over, participants were given an interpretation scheme of their results. Participants were randomly assigned to one of three experimental conditions. In the moderate provocation (n = 55) and strong provocation (n = 56) conditions, participants were presented with four thresholds for n-letter detection, which served as a guide for interpreting their results. So the following descriptions were used: 4 n-letters or fewer = “the task not accomplished”; 5 to 9 n-letters detected = “very low capability to detect stimuli properly”; 10 to 15 n-letters detected = “relatively low capability to detecting stimuli properly”; 17 to 22 n-letters detected = “relevant capability to detect stimuli properly”; 23 n-letters or more = “excellent capability”. The pilot test revealed that in two minutes one is able to detect between 7 to 15 n-letters from 40 n-letters, so the threshold of 17 n-letters was unattainable for most of the participants. In the control conditions (no provocation, n = 64), everyone had the opportunity to succeed, as detecting only four or fewer n-letters indicated “poor capability”. In fact, the range of n-letters detected within two minutes fell within the 6 to 18 range, M = 11.47, SD = 2.49 (all participants who scored 17–18 were in the control group).

The perceptual task was not used to provoke participants but to set up the provocation. Such introductory time-limited tasks, which were difficult to finish, were used in previous research in order to use poor performance as the reason to criticize participants (Barlett et al., 2016; Bushmann, 2002). Thus, once the results were presented to the participants, the research assistant

handed out provocation statements differentiated across the experimental groups. In the moderate provocation conditions, participants were told that the perceptual task was reliable enough to properly diagnose their ability to visually scan the perceptual field. However, the diagnosis is usually conducted individually in a laboratory, not in a group, and the diagnosis should be repeated in the case of poor results. In the strong provocation condition, the participants were told that the perceptual task they performed was very reliable and allowed for an excellent diagnosis of the ability to visually scan the perceptual field, which is an indicator of selective attention, and in the case of poor results, it is recommended to conduct a full diagnosis of the ability and consult a specialist. In the control group, the experimenter did not comment on the results.

Next, the participants were informed that for the sake of the quality of the research and the participants' well-being, they might complete an evaluation questionnaire and put it into a box labeled "Information for the Boss". This included a post-provocation measure of anger and an evaluation of the experimenter as the indicator of relational aggression. The procedure was organized to ensure the anonymity of participants, who signed the questionnaire with codes instead of their names. At the end, the participants were fully debriefed.

Materials

State-Trait Anger at Baseline

The State-Trait Anger Expression Inventory-2 (Spielberger, 1999; Polish adaptation by Bąk, 2016) was used to assess trait-anger and state-anger. The trait-anger subscale measures, via 10 items, dispositional characteristics that determine the frequency of angry feelings experienced over time. The state-anger subscale consists of 15 items that assess the intensity of anger experienced at a particular time, which was entered into a model as a covariate. The internal consistency of the trait-anger and state-anger subscales was $\alpha = .84$ and $\alpha = .86$, respectively.

Post-Provocation Measure of Anger

To measure the intensity of anger experienced after the provocation (post-provocation anger), participants were asked to rate on a 5-point Likert scale

how angry, displeased, irritated, and furious they felt, scoring from 1 (*not at all*) to 5 (*very much*). Buffer emotions were also included (e.g., exited, amused, interested). The internal consistency of the anger measure was α = .84. In addition to the post-provocation measure of anger, fear, and sadness were also measured on a 5-point Likert scale. For fear, they indicated how worried, anxious, frightened, and afraid they felt. For sadness, they rated how sad, blue, depressed, and dejected they felt. The internal consistency was respectively for fear α =.69 and for sadness α =.93.

Indirect Relational Aggression

Participants were asked to answer five questions about the research assistant to be delivered to the principal (e.g., whether she deserves further financial support). They rated their opinions on the 6-point Likert scale ranging from 1 (*definitely not*) to 6 (*definitely yes*). The internal consistency of the five items measuring indirect relational aggression was α = .90. Aggression measured by the evaluation form ostensibly prepared at the request of a principal was successfully used in a previous study (Denson et al., 2011).

Plan of Statistical Analysis

First, we conducted a zero-order Pearson correlation for continuous variables. Next, we tested whether there are differences between provocation conditions in study variables using a one-way analysis of variance. Finally, a moderated mediation model performed by Hayes PROCESS macro (model 8) was tested with the bootstrapping method (5,000 bootstrap samples), which allowed the verification of the hypotheses. The moderator was a 3-category variable, included in the model as 2 dichotomous variables. We used sequential coding for provocation (no provocation, NoProv; moderate provocation, ModProv; strong provocation, StrongProv). This type of coding allows for a sequential comparison of NoProv with ModProv and ModProv with StrongProv (Hayes, 2018). On the tested model, centered Trait Anger was a predictor of Aggression, and this relationship was mediated by Anger measured after Provocation. The model also assumed that the Trait Anger and Aggression relationship, as well as the Trait Anger and Post Provocation Anger relationship, would be shaped by conditions. On the model, State Anger that was measured before the provocation (centered) was also controlled to ensure

that the results were not affected by the differences in state-anger before the manipulation. We also controlled for the number of letters detected as better results could affect anger and aggression.

RESULTS

Correlational Analyses

All scales measuring anger were correlated (see Table 1). Aggression was only associated with Post Provocation Anger. The number of detected letters was not related to the Anger scales, Post Provocation Anger, and Aggression. Fear and Sadness measured after the provocation were positively related to Anger measured at the same time but were not associated with Aggression. However, all emotions measured after the manipulation were positively related to State Anger measured before the manipulation.

Table 1

Correlations Between Study Variables With Means and Standard Deviations

	M	*SD*	1	2	3	4	5	6	7
1. Trait Anger	2.26	0.52							
2. State Anger	1.22	0.28	.21**						
3. Post-Provocation Anger	1.50	0.67	.21**	.59**					
4. Fear	1.55	0.58	.11	.49**	.48**				
5. Sadness	1.68	0.88	.11	.58**	.52**	.71**			
6. Aggression	2.25	0.79	.00	.11	.25**	–.08	.03		
7. Number of Letters	11.47	2.49	–.11	.01	–.10	.10	.02	–.11	

Note. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

Effect of Provocation on Anger and Aggression

The means and standard deviations for study variables in conditions and the differences between those means are presented in Table 2.

Table 2

Means of Study Variables in Provocation Conditions With Results of Differences Test

Variables	Provocation groups					
	NoProv	ModProv	StrongProv	*F*	*p*	η
Trait Anger	2.17 (0.53)	2.36 (0.46)	2.27 (0.55)	2.03	.134	.14
State Anger	1.18 (0.24)	1.26 (0.31)	1.23 (0.28)	0.99	.372	.10
Post-Provocation Anger	1.41 (0.57)	1.40 (0.62)	1.69 (0.78)	3.50	.032	.20
Fear	1.56 (0.65)	1.55 (0.56)	1.54 (0.54)	0.12	.988	.01
Sadness	1.59 (0.85)	1.73 (0.95)	1.73 (0.85)	0.491	.613	.07
Aggression	2.01 (0.67)	2.17 (0.75)	2.59 (0.86)	8.91	< .001	.30
Number of Letters	12.13 (3.12)	11.71 (1.60)	10.47 (2.11)	7.33	.001	.28

Note. Standard deviation in parentheses.

Provocation differentiated Post Provocation Anger and Aggression, but not Fear and Sadness. Trait Anger and State Anger measured before manipulation were similar across groups. Simple effects tests indicated that Post Provocation Anger was higher in the StrongProv condition than in the two other conditions, ModProv ($p = .021$; with Bonferroni correction, $p = .064$) and NoProv ($p = .025$; with Bonferroni correction, $p = .074$), but ModProv and NoProv conditions were not different in Anger ($p = .910$). Similarly, Aggression was higher in StrongProv than in NoProv ($p < .001$) and ModProv conditions ($p = .014$), but ModProv and NoProv conditions were not different in Aggression. These results suggest that the effectiveness of the manipulation with respect to Anger and Aggression was limited to the StrongProv condition. Participants detected fewer letters in the StrongProv than in the NoProv group ($p = .001$) and in the ModProv group ($p = .023$). Thus, in a later analysis, this variable was included as a covariate.

Hypotheses Testing

Next, the moderated mediation model was tested to verify the hypotheses. Two regression analyses were conducted for the moderated mediation model corresponding to two predicted variables. The first regression analysis predicted the Post Provocation Anger based on the interaction between the Trait Anger and Conditions, controlling for State Anger and the number of letters

N detected. This model verified H2 predicting that trait anger is associated with the Post Provocation Anger only in the ModProv condition. The second regression analysis tested whether the interaction between Trait Anger and Condition and the Post Provocation Anger and covariates is related to Aggression. This analysis tested H1, that Trait Anger is associated with Aggression only in the ModProv condition, and also H3, that Post Provocation Anger is associated with Aggression. Finally, the moderated mediation index based on both regression results determined whether the indirect effect of Trait Anger on Aggression through Post Provocation Anger varies significantly across conditions, which corresponds to H4. The coefficients in both regression analyses are presented in Table 3.

Table 3
Unstandardized Regression Coefficients Estimating Post Provocation Anger and Aggression

	Post Provocation Anger—Mediator			Aggression		
	B	*p*	95% CI	*B*	*p*	95% CI
Trait Anger (TA)	0.03 (0.12)	.803	–0.21, 0.27	–0.08 (0.18)	.640	–0.43, 0.26
NoProv-ModProv	–0.16 (0.10)	.109	–0.35, 0.04	0.25 (0.14)	.076	–0.02, 0.52
ModProv-StrongProv	0.32 (0.10)	.002	0.12, 0.52	0.23 (0.14)	.121	–0.06, 0.53
TA × NoProv-ModProv	0.39 (0.19)	.046	0.007, 0.77	–0.63 (0.28)	.026	–1.18, –0.08
TA × ModProv-StrongProv	–0.48 (0.19)	.015	–0.86, –0.10	1.03 (0.28)	< .001	0.47, 1.59
Letter detection	–0.02 (0.02)	.348	–0.05, 0.02	–0.01 (0.02)	.739	–0.05, 0.04
State Anger	1.36 (0.14)	< .001	1.08, 1.64	–0.24 (0.25)	.336	–0.75, 0.25
Post Provocation Anger	–	–	–	0.38 (0.11)	.001	0.16, 0.60

Note. Standard errors in parentheses. Trait Anger, State Anger, and Letter Detection are mean centered.

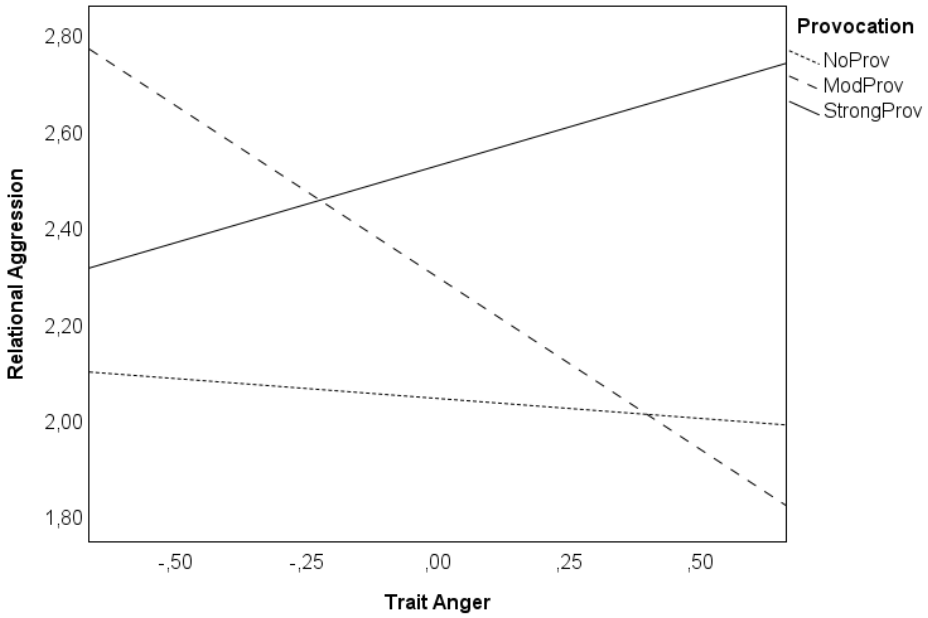
The results showed that the model predicting Post Provocation Anger was significant, $R^2 = .43$, $F(7, 163) = 17.46$, $p < .001$. The interaction of the Trait Anger and Provocation conditions was significant, R^2 change = .02, $F(2, 163) = 3.27$, $p = .040$. A simple slopes analysis indicated that the Trait Anger and Post Provocation Anger relationship was significant and positive only in the ModProv condition, $B = 0.42$, $SE = 0.15$, $t = 2.78$, $p = .006$, 95% CI [0.12; 0.72]. This relationship was not significant in the case of the NoProv ($B = 0.03$, $p > .80$) and StrongProv conditions ($B = –0.06$, $p > .63$). This result supports H2. Post Provocation Anger was also positively associated with State Anger measured before the provocation.

The model predicting Aggression was also significant, $R^2 = .21$, $F(8, 162) = 5.26$, $p < .001$. The Post Provocation Anger was positively related to Aggression, which supported H3. Provocation shaped the association between Trait Anger and Aggression, R^2 change = 0.06, $F(2, 162) = 6.61$, $p = .001$. The relationship between Trait Anger and Aggression was significant only in the ModProv condition, $B = –0.71$, $SE = 0.22$, $t = –3.23$, $p = .002$, 95% CI [–1.15; –0.28], but it was negative contrary to our expectations. Thus, H1 was not supported. The relationship between Trait Anger and Aggression in the StrongProv conditions was positive, but not significant, $B = .32$, $SE = .18$, $t = 1.75$, $p = .081$, 95% CI [–0.04; 0.68]. The association between those variables in the NoProv conditions was insignificant, $B = .01$, $p = .640$. The Trait Anger–Aggression relationship depending on Provocation is presented in Figure 2.

Finally, results indicated that the indirect effect of Trait Anger on Aggression through Post Provocation Anger was significant only in the ModProv condition, $B = .16$, 95% CI [0.008; 0.34], which supported H4.

Figure 2

Relationship Between the Trait Anger and Aggression in the Provocation Condition



Note. NoProv = No Provocation, ModProv = Moderate Provocation, StrongProv = Strong Provocation.

DISCUSSION

In this study, we explored how anger shapes aggressive responses of women facing provocation of different strengths. Based on the assumption that dispositional differences regulate behavior in "weak", moderate, or ambiguous conditions rather than under "strong" and unambiguous situational cues (Mischel, 1977) in Hypothesis 1, we predicted a positive effect of trait-anger on relational aggression under moderate provocation. This hypothesis was not confirmed, as the observed effect was negative and not positive. Hypothesis 2 concerned the positive effect of trait-anger on post-provocation anger under moderate provocation, and the results supported this hypothesis. Further, we predicted in Hypothesis 3 that anger elicited by the provocation would increase relational aggression. In line with previous research showing that situational anger is the strongest trigger of reactive aggression (Bushman,

2002; Denson et al., 2011), this hypothesis was also supported by the results of our study. Finally, Hypothesis 4 proposed that the effect of trait anger on relational aggression be mediated by anger elicited by the provocation only in the moderate provocation condition. The results of our study supported this hypothesis.

As we mentioned above, Hypothesis 1 was not confirmed. As expected, trait-anger was significantly related to aggression only after moderate provocation, but contrary to our expectations, the effect was negative. However, it is important to note that we speculated that the effect of trait anger on aggression under different provocation conditions would plausibly result from retaliatory reasons. This speculation is additionally supported by the manipulative nature of relational aggression, which requires engaging cognitive processes to use it effectively for revenge-oriented purposes (Archer & Coyne, 2005). However, an indirect effect of trait anger on aggression, through post-provocation anger, was also tested in Hypothesis 4. This result is congruent with other findings (Book et al., 2019), showing that the tendency to experience strong emotions increases reactive aggression but decreases urges for aggressive revenge. Similarly, in line with Hypothesis 4, trait-anger increased relational aggression when operating through post-provocation anger, which aligns with the nature of reactive aggression. However, trait anger decreased aggression when influencing it directly, with both effects observed under moderate provocation. As mentioned earlier, the direct effect of trait anger on relational aggression corresponds more closely to revenge-driven aggression, which involves the activation of cognitive functions to elaborate a plan for vengeance, so the aggression was initially decreased. These cognitive processes would likely be disrupted by increased post-provocation anger, which facilitated aggressive response.

Moreover, women respond to provoking situations by exhibiting affiliative behaviors if the provocation remains moderate and is not perceived as a threat or danger (Taylor et al., 2000). This “befriending” effect could occur because women possess adequate internal resources such as better emotion regulation capabilities accompanied by lower arousability (Knight et al., 2002), the tendency to discount an anger-inducing source of arousal in favor of more gender-appropriate source of arousal (Kogut et al., 1992), and finally an expressive representation of aggression (Campbell et al., 1993). Thus, under moderate provocation, women might attribute their negative feelings to the experimental situation rather than to the behavior of the research assistant. Further, holding expressive beliefs about aggression, women perceive aggressive acts

as a breakdown in self-control, resulting in guilt feelings and anxiety (Campbell et al., 1993). If so, the emotional costs of aggression, especially when the situation is weakly provocative, would be too high. It is possible that women behaved less aggressively under moderate provocation driven by fear of anticipated guilt. This explanation corresponds with the conclusions stemming from women's anger narratives which indicated that real anger experiences may embrace guilt, anxiety, and feelings of powerless or helplessness intermingled with happiness (Cox et al., 2004; Eatough et al., 2008; Thomas, 2005). Consequently, women use many ways to deal with anger, such as self-silencing, masking anger, crying, deciding not to be "angry", and expressing it positively. Inflicting harm is barely one of the many possible ways in which women manage feelings of anger (Jack, 2001).

Nevertheless, it is important to emphasize that the relationship between trait anger, post-provocation anger, and aggression occurred exclusively under moderate provocation. This aligns with the assumption that when a situation does not provide clear behavioral cues, the role of individual dispositions becomes more pronounced (Mischel, 1977). Simultaneously, the moderate provocation condition did not differ from the no-provocation condition in the elicited anger or aggression. Only the strong provocation condition resulted in both higher anger and increased aggression. At this point, the effectiveness of the manipulation could be questioned, and the study's results might be contested. In previous research, strong provocation was found to increase both anger and aggression in women, similar to men. In contrast, moderate provocation was still insufficient to trigger aggressive behavior in women, unlike in men (Weidler et al., 2019). This limited likelihood of responding to moderate provocation with anger and aggression does not mean that women are blind to weak or ambiguous situations. Rather, they seem to have a broader range of behavioral responses to moderate provocation, such as "befriending" the aggressor or masking anger while reserving aggression for stronger provocations. These speculations, however, are only partially supported by empirical findings and therefore require further research. To sum up, the phenomenon of anger emerging from this study proved to be so complex that further in-depth research is needed to move beyond the simplistic framework that anger in women could elicit nothing more than a fight-or-flight response.

Limitations, Future Directions, and Conclusions

In this study, we found out that the dispositional tendency to experience angry feelings was differently related to reactive and revenge-driven aggression in women and that this relationship could be observed under moderate provocation. Yet, some limitations of the study must be noted. The experimental procedure enabled participants to take revenge on the research assistant and/or to manifest one's anger elicited by provocation. However, we did not control the motives guiding participants' aggression after provocation. Whereas aggression induced by post-provocation anger is regarded as an indicator of reactive aggression, we can only speculate about the motives guiding the direct effect of dispositional anger on aggression, with the urge for revenge being one of them. Further, higher cognitive processes under provocation, such as hostile attribution or any other kind of cognitive appraisal of provoking situations, should be considered because retaliatory motivation requires that a person perceives the provocateur's behavior as deliberate and believes that the act of retaliation is available in the current situation (Topalli & O'Neal, 2003). Thus, we believe that including measures of cognitive processes in future research would provide further insight into the understanding of anger-driven reactions manifested by women under provocation. Finally, although we aimed to control a broad spectrum of emotions, including anger, fear, and sadness, we did not account for shame. This might be important because research showed that women are less sensitive to provocation stemming from negative feedback about their abilities or intelligence (Bettencourt & Miller, 1996; Stroud et al., 2002). As they take the opinions of authority figures for granted, their emotional reaction to failure could be feelings of uncertainty and shame. Thus, future research should consider shame as an attainable reaction of women to negative feedback.

CRediT Author Statement

MONIKA DOMINIAK-KOCHANEK (45%): conceptualization, methodology, supervision, writing (original draft).

JOANNA RAJCHERT (30%): formal analysis, data curation, writing (results section).

KAROLINA KONOPKA (15%): conceptualization, writing (review and editing).

MARTA RUTKOWSKA (10%): data collection, visualization.

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