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## Posttraumatic Anger in Crime Victims: Directed at the Perpetrator and at the Self

Ulrich Orth<sup>1</sup> and Andreas Maercker<sup>2</sup>

<sup>1</sup> Department of Psychology, University of California, Davis, CA

<sup>2</sup> Department of Psychology, University of Zurich, Switzerland

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*Address.* Ulrich Orth, Department of Psychology, University of California, One Shields Avenue, Davis, CA 95616, Email: [uorth@ucdavis.edu](mailto:uorth@ucdavis.edu), Phone: (530) 752-8846, Fax: (530) 752-2087.

### Abstract

This study investigates the targets of anger that are most strongly involved in posttraumatic anger. Using a sample of 218 crime victims, the authors assessed the levels of anger at potential targets (perpetrator, criminal justice system, third persons, and the self) and their association with severity of posttraumatic stress disorder (PTSD) symptoms. The results revealed that anger was most strongly directed at the perpetrator and at the self, and that anger at other targets was low. Moreover, anger at the perpetrator and at the self showed strong associations with PTSD symptoms, whereas the associations of anger at other targets with PTSD symptoms were low.

*Key Words:* anger, posttraumatic stress disorder, crime victims

Individuals exposed to traumatic events often experience strong anger in the aftermath of the event. Research has shown not only that level of anger increases post-trauma, but also that anger is strongly related to posttraumatic stress disorder (PTSD) symptoms (Chemtob, Hamada, Roitblat, & Muraoka, 1994; Novaco & Chemtob, 2002; Orth, Cahill, Foa, & Maercker, 2008; Schützwohl & Maercker, 2000). A meta-analysis revealed that anger and PTSD are strongly correlated in samples with trauma-exposed adults (Orth & Wieland, 2006). Moreover, some studies have shown that the correlation between anger and PTSD symptoms is not due to content overlap between the measures of anger and PTSD (Novaco & Chemtob, 2002; Orth et al., 2008).

Studies on anger and PTSD have measured anger mostly by using standard measures of anger, such as the State-Trait Anger Expression Inventory (STAXI, Spielberger, 1988) or the Novaco Anger Scale and Provocation Inventory (NAS-PI, Novaco, 2003). Using these measures has significant advantages, such as their established validity, the ability to compare across studies when the same measure has been used, and the availability of normative data. At the same time, using these measures has the disadvantage that anger is unspecifically assessed by them; for example, they do not determine at which targets posttraumatic anger is directed. Up to now, only few studies have assessed different targets of posttraumatic anger. In a study with crime victims, both anger at the self and anger at others was correlated with PTSD at about .30 (Andrews, Brewin, Rose, & Kirk, 2000). In a study with victims of technological disasters, anger was mostly directed at persons held responsible for the event rather than at the media or legal system (Solomon & Thompson, 1995). Overall, the conclusions to be drawn from these studies are limited because the studies used single-item measures and did not simultaneously assess a broad set of anger targets.

Therefore, in this study, we investigated the level of posttraumatic anger for various target categories, as well as their association with PTSD symptoms, using a sample of crime victims. What are the typical targets at which anger experienced by traumatized individuals is directed? According to Horowitz (2001), several targets may be distinguished: anger at the perpetrator or at individuals held responsible for an accident or disaster; anger at third persons or institutions who did not prevent the traumatic event; anger at third persons who had the luck not to experience the traumatic event; and anger at one's own vulnerability or at one's own behavior for allowing the traumatic event to happen. Moreover, some studies suggest that desire for revenge might be an important category of posttraumatic anger (Goenjian et al., 2001; Orth, Montada, & Maercker, 2006).

## Method

### *Participants*

Participants were contacted with the help of the German victim assistance organization *Weisser Ring*. The questionnaire was sent to victims with a request that they take part in the study; the response rate was 38%. The sample consisted of 218 German individuals (67% female) who had been victims of nonsexual assault (76%) or sexual assault (24%). Mean time since the assault was 5.2 months ( $SD = 1.4$ , Range 3-7 months). In 44% of the cases, the perpetrator was a stranger; in 56%, the perpetrator was known to the victim. Mean age of participants was 39.2 years ( $SD = 16.1$ , range 18 to 95 years).

### *Measures*

For the present study, we developed a 20-item scale measuring anger at the perpetrator, desire for revenge, anger at the criminal justice system, anger at third persons, and anger at the self. The scale was developed using a rational approach. Participants were instructed to assess

the frequency at which they had experienced different types of anger over the preceding seven days. Answers were measured on a 6-point scale ranging from 0 (*never*) to 5 (*very often*). Alpha reliabilities were .74 for anger at perpetrator, .88 for desire for revenge, .86 for anger at criminal justice system, .68 for anger at third persons, and .78 for anger at the self.

The state scale of the State-Trait Anger Expression Inventory (STAXI, Spielberger, 1988, for the German version see Schwenkmezger, Hodapp, & Spielberger, 1992) was used for comparison purposes. To parallel the instructions for the other measures, items were assessed with respect to the preceding seven days, and the tense of the items was changed from present to past. We used five of the items selected for the highest item-total correlations. Answers were measured on a 6-point scale ranging from 0 (*never*) to 5 (*very often*). Alpha reliability was .88.

PTSD symptoms were assessed with the 22-item Impact of Event Scale-Revised (IES-R, Weiss & Marmar, 1997, for the German version see Maercker & Schützwohl, 1998). Symptoms were assessed with respect to the preceding seven days. Answers were measured on a 4-point scale using a non-equidistant scoring scheme (0 = *not at all*, 1 = *seldom*, 3 = *sometimes*, 5 = *often*). Alpha reliability was .90. Maercker and Schützwohl (1998) determined a regression equation that can be used to estimate the PTSD sample rate. In this study, the PTSD sample rate was 52%.

## Results

We investigated the factor structure of the items constructed for this study by using common factor analysis with oblique rotation, following the recommendations by Fabrigar, Wegener, MacCallum, and Strahan (1999). We extracted five factors which matched the hypothesized structure well (Table 1). The items loaded on the hypothesized factors with values

above .40, with the exception of two items measuring anger at third persons. The loadings showed a simple structure: only two items had significant cross-loadings with values above .30.

Means and standard deviations of anger variables are reported in Table 2. The results show that anger at the perpetrator was the anger variable most highly reported. Anger at the perpetrator was significantly greater than all other anger variables, e.g., the STAXI,  $t(214) = 7.25, p < .01, d = 0.54$ . The difference between the STAXI and anger at the self was nonsignificant, but both the STAXI and anger at the self were significantly greater than the next highest variable, i.e., desire for revenge ( $t(214) = 5.74, p < .01, d = 0.42$ , and  $t(212) = 4.82, p < .01, d = 0.35$ , respectively). To summarize, the means suggest that the perpetrator was the greatest target of posttraumatic anger, and that the self was the second greatest target at about the same level as the STAXI (i.e., the unspecific anger measure used). The other variables of posttraumatic anger, such as desire for revenge, anger at the criminal justice system, and anger at third persons, were of less importance.

Table 3 reports the results of multiple regression analyses for anger variables predicting PTSD symptoms, allowing assessment of the unique associations between anger variables and PTSD symptoms. In Model 1, the anger scales constructed for this study were included in the regression, controlling for gender and age. The results showed that anger at the perpetrator and anger at the self were significant predictors of PTSD symptoms, in addition to gender and age. In contrast, the other anger variables did not contribute to the explanation of PTSD symptoms. In Model 2, the STAXI was added as a predictor. The regression coefficient of the STAXI was significant; however, the coefficients of anger at perpetrator and anger at self remained significant, indicating that they explain variance in PTSD symptoms over and above the predictive effect of the unspecific anger measure used. Finally, we investigated whether the

results were biased by the fact that the PTSD symptom measure used, the IES-R, includes an item measuring anger (“I felt irritable and angry”). However, when this item was omitted the results were virtually unaltered.

### Discussion

We investigated the different targets of anger that are most strongly involved in posttraumatic anger, using a sample of crime victims. The results suggest that posttraumatic anger consists predominantly of anger directed at the perpetrator and at the self. Specifically, the level of anger at these targets was high and, moreover, anger at these targets was strongly associated with PTSD symptoms. In contrast, other targets, such as the criminal justice system and third persons, were of lower importance, as the corresponding anger levels were low and significantly less associated with PTSD symptoms.

The study has several limitations. First, it only used self-report methodology. Future studies should assess PTSD symptoms by clinical interviews, and posttraumatic anger by informant reports (e.g., reports by family members). Second, we did not collect information on comorbidity (e.g., depressive symptoms) and severity of assault; future studies should control for the effects of these variables. Third, the response rate was only 38%, which restricts the generalizability of the findings. Non-responders might, for example, experience stronger PTSD symptoms and anger (e.g., anger at the criminal justice system). Fourth, the sample consisted exclusively of crime victims. It is unclear whether the findings generalize to individuals who have experienced other types of traumatic events (e.g., combat experience and natural disasters). One question is whether all traumatic events elicit anger at others. At first sight, the concept of anger at responsible others seems to be meaningless following events that occur completely by chance (e.g., natural disasters). However, individuals traumatized by accidental events frequently

experience anger at real individuals or institutions. For example, in a study of hurricane victims, about 50% of the participants from the most exposed area experienced thoughts of revenge toward the government for not warning them, and, relevantly, thoughts of revenge were strongly correlated with PTSD (Goenjian et al., 2001). Nevertheless, the results of the present research need to be cross-validated in future studies using samples that have experienced other types of traumatic events.

Future studies on posttraumatic anger might also explore whether anger at others versus anger at the self have differential consequences for the individual. Interestingly, to date, the concept of anger at the self has been neglected. Ellsworth and Tong (2006) have shown that anger at the self shares some appraisals and action tendencies with anger at others, and some with shame and guilt. For example, anger at the self, shame, and guilt elicit a significantly higher motivation to hide one's feelings than anger at others, but also a higher motivation to accept the situation. Given these motivational differences, persistent anger at others and anger at the self may ultimately result in different psychological outcomes.

In any case, anger at others and anger at the self differ in their direction of potential aggressive motivation. Therefore, in psychological treatment of PTSD it may be important to assess both the strength and main targets of posttraumatic anger in order to take necessary prevention measures. Chronic other-directed anger among traumatized individuals is a severe problem for society, because it might drive the cycle of violence, and traumatized individuals might themselves become perpetrators of aggression and violence. In contrast, chronic self-directed anger might result in severe self-harm. Finally, and irrespective of the targets at which posttraumatic anger is directed, anger treatment in individuals with PTSD may be needed to better improve the individuals' subjective well-being.



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Table 1

*Results of Common Factor Analysis with Oblique Rotation*

Item	Loadings for factors				
	1	2	3	4	5
<b>Anger at perpetrator</b>					
“I was angry at the perpetrator...”					
1. because he caused so much harm in my life.	.53				
2. because my well-being was so unimportant to him.	.64				
3. because he fails to accept his guilt.	.68				
4. because he behaved badly even in the time after the assault.	.51				
<b>Desire for revenge</b>					
“I imagined...”					
5. how the perpetrator would be a victim one day.	.36			.55	
6. how the perpetrator will once really have to suffer.	.38			.61	
7. how I will pay back the perpetrator for what he or she did to me.				.95	
8. how I will get even with the perpetrator.				.83	
<b>Anger at criminal justice system</b>					
“I was angry at the police, courts, or administration...”					
9. because they did not prevent the assault.		.66			
10. because they did not do their work well enough.		.96			
11. because they dealt with me without comprehension.		.85			
12. because they only care about the perpetrators and not the victims.		.65			

## Anger at third persons

“I was angry at other people...”

13. because they did not prevent the assault.	a
14. because they treated me badly in the time since the event.	.76
15. because they did not show understanding for my situation.	.89
16. because they had the good luck not to become a victim of a crime.	.30

## Anger at self

“I was angry at myself...”

17. because I did not prevent the assault.	.76
18. because I should have behaved differently when the assault happened.	.58
19. because I still feel weak and vulnerable because of the assault.	.65
20. because I cannot cope with the event as well as I would expect myself to.	.58

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*Note.* For purposes of clarity, loadings below .30 are not shown.

<sup>a</sup>The exact value of this loading was .16.

Table 2

*Means and Standard Deviations of Measures*

Variable	<i>M</i>	<i>SD</i>
PTSD symptoms	2.91	1.05
Anger at perpetrator	3.79	1.33
Desire for revenge	2.24	1.88
Anger at criminal justice system	1.69	1.67
Anger at third persons	1.52	1.34
Anger at self	2.91	1.56
STAXI	3.03	1.41

*Note.* Response scales ranged from 0 to 5 for all measures. PTSD = posttraumatic stress disorder;

STAXI = State-Trait Anger Expression Inventory.

Table 3

*Multiple Regression Analysis Predicting PTSD Symptoms: Standardized Regression Coefficients*

Predictor	Model 1	Model 2
Gender <sup>a</sup>	.13*	.13*
Age	.17**	.13*
Anger at perpetrator	.29**	.24**
Desire for revenge	.03	.01
Anger at criminal justice system	.01	.00
Anger at third persons	.07	.03
Anger at self	.37**	.34**
STAXI	--	.23**

*Note.* For Model 1,  $R^2 = .44^{**}$ ; for Model 2,  $R^2 = .48^{**}$ . PTSD = posttraumatic stress disorder;

STAXI = State-Trait Anger Expression Inventory.

<sup>a</sup> 0 = male, 1 = female

\*  $p < .05$ . \*\*  $p < .01$ .