

# State – trait anger theory and hypotheses

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# STATE-TRAIT

## ANGER THEORY AND HYPOTHESES

A trait indicates personality characteristics or patterns that are relatively stable across time and situation. That is, a trait refers to a consistent specific style of reacting to situations relevant to those characteristics (e.g., personal or physical threat for a trait of anxiety). A trait reflects the general or usual way in which a person thinks, behaves, and feels. By thinking we refer to how the individual conceives or interprets the situations or experiences around him/her. That is, the ideas, phrases or thoughts that each person uses to make sense of his/her everyday experiences. Behavior refers to the verbal and physical actions that the individual uses to interact with other persons or to modify his/her environment. Feeling indicates the emotions that the individual experiences more frequently. A personality trait thus reflects the usual ways of reacting in terms of thoughts, behaviors, and feelings, across time and situation. Unlike a personality trait which is a general pattern, a state refers to reactions in a specific situation and at a specific time or over a short period of time (e.g., the state of fear when confronting an intruder in one's home).

Trait anger is the person's anger proneness or the general tendency to experience anger across time and situation. Because people differ in their traits, trait anger describes the individual difference in the propensity or tendency to experience anger. Trait anger refers to the usual pattern of feeling; it is the person's tendency to become angry when encountering the frustrations, provocations, conflicts, injustices, and mistreatment in life. Some people are easily angered (high trait anger), whereas others are pretty unflappable and calm (low trait anger) when encountering the same events. High anger individuals are not angry all of the time, however. They may be happy and experience positive feelings and events. What they are is more likely to become angry.

Conversely, it is not that low anger individuals never become angry. In fact, they may become quite angry in some personally provocative circumstances. What they are is less likely to become angry across time and circumstances.

Trait anger reflects this basic human characteristic of how angry people become in general.

## Hypotheses of the State-Trait Anger Theory

If trait anger describes a fundamental human characteristic, then high anger individuals should differ from low anger individuals in systematic ways. The state-trait anger theory (Deffenbacher et al., 1996; Spielberger, 1988, 1999) attempts to capture these differences and make a series of testable hypotheses or predictions about how high and low anger individuals should feel, think, and behave differently.

If, as the state-trait theory of anger suggests, people differ on this fundamental dimension of anger proneness, then high anger and low anger individuals should differ in predictable ways. Specifically, compared to low-anger, high-anger individuals should:

1. Have their anger elicited or triggered by more situations (*elicitation hypothesis*);
2. Become angered more often (*frequency hypothesis*);
3. Become more intensely angered when angered (*intensity hypothesis*);
4. Experience anger for longer periods of time when angry (*duration hypothesis*);
5. Engage in more negative, angry review of or be more cognitively preoccupied with past or potential future mistreatment, injustice, disrespect, frustrations, and provocations (*rumination hypothesis*);
6. Experience greater anger as frustration/stress/provocation increase (*person x situation interaction hypothesis*);
7. Engage in more aggressive expression of anger because of more frequent, intense, and/or prolonged anger arousal and/or rumination (*aggression hypothesis*);
8. Cope with or handle their anger in less adaptive, constructive ways (positive and negative anger expression are not opposite ends of a continuum) (*reduced positive coping hypothesis*); and
9. Experience more frequent and/or more severe anger-related consequences because of their anger (*negative consequence hypothesis*).

## Evaluation of State Trait Theory

In the remainder of the paper, we will provide research examples relevant to the predictions.

*Elicitation hypothesis.* This hypothesis suggests that more situations should trigger significant anger for the high anger individual. Compared to low anger, high anger college students reported that more than three times as many different potential provocations (e.g., being teased, forgetting one's keys, being late, and the like) elicited much or very much anger (Deffenbacher et al., 1996). The same was true in the context of driving. High anger drivers reported approximately three-and-a-half times as many driving events triggered this level of anger (Deffenbacher, 2009).

*Frequency hypothesis.* Because high trait anger reflects a greater propensity to experience anger, then high anger individuals should experience anger more frequently than low anger individuals. In fact, high anger individuals experience anger more often than their low anger counterparts. For instance, 33% of high anger persons reported that they become angry one or more times per day, and an additional 53% experienced anger a few days a week (Tafrate, Kassinove, & Dundin, 2002), whereas only 7% low-anger individuals reported these two frequencies. Additionally, in diary studies high anger individuals reported approximately becoming angry 2.5 to 3.0 times more often generally (Deffenbacher et al., 1996) and while driving (Deffenbacher, 2009).

*Intensity hypothesis.* High trait anger reflects a tendency to respond with more intense anger when provoked. This hypothesis has received some of the strongest empirical support. Whether in survey, diary, or experimental studies, high anger persons report that, when provoked, experience more intense or higher levels of anger than do low anger individuals (Deffenbacher, 2009; Deffenbacher et al., 1996; Hazebroek, Howells, & Day, 2001; Spielberger, 1988, 1999). Even without provocation, high trait anger individuals sometimes report greater anger intensity than the low anger counterparts (Alcázar & Deffenbacher, in press).

*Duration hypothesis.* Because high trait anger individuals keep thinking about provocative situations that produce anger (Wilkowski & Robinson, 2010), high anger individuals are more likely to continue thinking about what made them mad for hours or even days. The result is that they are more likely to maintain their feelings of anger for longer periods of time. Empirical evidence supports this notion. In a community sample Tafrate et al. (2002) found that the majority (54%) of anger episodes lasted less than an hour. However, nearly three times as many high anger participants (45%) reported their anger lasted more than a day compared to only 17% of low anger individuals.

*Rumination hypothesis.* High trait anger usually involves permanent negative appraisals (Wilkowski & Robinson, 2010), suggesting that high anger is related to angry rumination (Borders, Earleywine, & Jajodia, 2010) and that high anger individuals engage in more negative, angry review of past or potential future mistreatment, injustice, disrespect, frustrations, and provocations. Again research findings support this supposition. Compared to low trait anger individuals, those with high trait anger keep in their mind what angered them and maintain their anger for hours (Alcázar, 2012). Moreover, when the high anger person is angry, he/she will try to maintain the anger even if others try to distract him/her.

*Person x situation interaction hypothesis.* Traits are triggered by relevant situations in the environment. This hypothesis suggests that as frustration, provocation, and stress increase, so do anger and related responses. However,

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the degree of increase is not the same for high and low anger individuals. That is, as provocation increases, the high anger individual responds with more anger than does the low anger individual at the same level of provocation. For example, high and low anger individuals did not differ when driving unimpeded on an open country road, but as stress/provocation increased through ordinary traffic and heavy rush hour traffic, high anger drivers experienced greater anger than the low anger drivers (Deffenbacher et al., 2000; Deffenbacher, 2009). In summary, when there is no provocation, low and high anger individuals do not differ, but under provocation, high anger individuals experience higher levels of anger than low anger individuals.

*Aggression hypothesis.* Because of more frequent, intense, and/or prolonged anger arousal and because aggression is often prompted by anger, high anger individuals engage in more aggression. Research strongly supports the hypothesis. Compared to low trait anger individuals, those with high trait anger express their anger through verbal and physical antagonism towards others, through loud noisy arguing and verbal denigration, through pushing, hitting or throwing things at other people, through damaging property, through things such as using a vehicle as a weapon, and the like (Alcázar, Deffenbacher, Hernández-Guzmán, & Wilson, 2011; Deffenbacher, 2009; Deffenbacher et al., 1996; Spielberger, 1998, 1999). Aggression toward others, often people the person knows, is more frequent, probably because other persons are seen as responsible of the anger.

*Reduced positive coping hypothesis.* It is easy to think that positive, adaptive handling of one's anger is the opposite of aggressive or otherwise dysfunctional anger expression. In fact, the correlation between the two is far from perfect. For example, high anger individuals report greater tendencies to both suppress anger, a concept known as anger-in (e.g., harboring grudges) and negatively express anger, a concept known as anger-out (e.g., arguing) (Alcázar, Deffenbacher, Hernández-Guzmán, & Wilson, 2011; Deffenbacher et al., 1996; Spielberger, 1988, 1999). Anger-in and anger-out, however, are unrelated or minimally correlated (Alcázar, Deffenbacher, & Byrne, 2011; Deffenbacher et al., 1996; Spielberger, 1988, 1999). Moreover, while anger-out and anger-control are negatively correlated, they too are somewhat orthogonal, such that lower anger-out does not guarantee high anger-control. Parallel to suppress or express anger, high anger individuals find difficult to control their an-

ger, which is reflected in not managing the own behavior when angry (e.g., being patient with others) or not being able to relax or breathe deeply to reduce anger. The lack of control when angry is associated with low cognitive control. Unlike low anger individuals who have developed a habitual tendency to recruit effortful control resources following the activation of hostile thoughts, high-anger individuals fail to recruit effortful control resources in hostility-related contexts (Wilkowski & Robinson, 2010; Wilkowski, Robinson, & Troop-Gordon, 2010). Additionally, low anger individuals have a clear preference for high anger-control and low anger-out and anger-in, whereas high anger individuals are moderately high on all dimensions, sometimes employing one strategy and sometimes another.

*Negative consequences hypothesis.* Because of the conditions outlined previously, high anger individuals are at risk for more frequent and/or more severe anger consequences. For example, high anger individuals reported that their anger lead to from two to 14 times more consequences such as negative feelings, relationship and friendship difficulties, property damage, problems at work and school, legal and other official sanctions and the like (Deffenbacher et al., 1996; Deffenbacher & Kellaway, 2010). Tafrate et al. (2002) reported similar findings for relationships. High anger individuals reported weakened relationships and lessened time with others following anger episodes, whereas low anger individuals reported equal time with and improved relationships. High anger individuals also reported more severe or negative consequences (e.g., relationship damage, injury to self and others, and lowered self-esteem) in their worst anger-involved incidences as well (Deffenbacher et al., 1996; Deffenbacher & Kellaway, 2011). Moreover, they experienced more different types of consequences as well.

*Gender and trait anger.* Gender stereotypes that men are angrier and more aggressive would lead one to think that there would be a gender hypothesis as well. Contrary to expectations, gender is rarely associated with anger (Archer, 2004). Women are more likely to cry than men when angry (Averill, 1983), and, in some studies, men are slightly more physically aggressive than women. However, gender, when differences are found at all, explains a small percentage of the differences between men and women on anger, between 1.2 and 1.4% (Alcázar, Deffenbacher, & Byrne, 2011), suggesting that men and women are more alike on their experience and expression of anger.

# When

conflict, frustration, and provocation are low, no differences between high and low anger individuals are apparent



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## Summary

Trait anger appears to describe the general tendency of individuals to anger across time and situation. Predictions from the state-trait model of anger have been generally confirmed. High trait anger individuals have their anger triggered by more events and experience that anger more frequently and intensely and over longer durations (elicitation, frequency, intensity, and duration hypotheses). High anger individuals tend to dwell on and ruminate about their anger (rumination hypothesis). Their anger is more likely to be expressed in aggressive and less adaptive ways (aggression and reduced positive coping hypotheses) and to eventuate in more frequent and, in some cases, more severe negative consequences (consequence hypothesis). High trait anger individuals, however, are not angry all the time. When conflict, frustration, and provocation are low, no differences between high and low anger individuals are apparent; both are low in experienced anger. However, as stress increases, the groups differentiate with high anger individuals experiencing greater anger in the higher stress situations (person x situation hypothesis).

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Mancha de tinta

En 1921 el psiquiatra y psicoanalista suizo Hermann Rorschach publicó su famoso test proyectivo de personalidad usando 10 láminas con manchas de tinta simétricas similar a la de la imagen