

Running head: PERSONALITY AND EMOTION

Personality and Emotion

Rainer Reisenzein and Hannelore Weber

University of Greifswald, Germany

Date: Dec 28, 2007

Contribution to P. J. Corr, & G. Matthews (Eds.), *Cambridge University Press Handbook of Personality*.

WORD COUNT (TEXT ONLY): 5277 words

Address:

Prof. Dr. Rainer Reisenzein, Prof. Dr. Hannelore Weber

Institute of Psychology

University of Greifswald, Germany

Franz-Mehring-Str. 47

17497 Greifswald, Germany

e-mail: rainer.reisenzein@uni-greifswald.de

Since its beginnings as a subdiscipline of psychology (e.g., Allport, 1937; Shand, 1914), personality psychology has aimed at two different though related goals (see e.g., Cervone, 2005; Mischel & Shoda, 1998). The first goal is to construct a *general theory of the person*, understood as the integrated whole of the several subsystems of the mind. The second goal is to describe and explain the interesting *psychological differences between individuals*, that is, the relatively stable psychological attributes that allow to uniquely characterize individuals and to distinguish them from each other. If one accepts that the emotion system is an important subsystem of personality and that interindividual differences traceable to this system are important for describing individuals, it follows immediately that, to attain its goals, personality psychology must consider the emotions.

In accord with this conclusion, most classical personality theorists proposed an affective (or affective-motivational) system as a core system of the mind; and most taxonomic systems of personality descriptors include a subset that refer directly or indirectly to emotions. Nonetheless, the in-depth investigation of emotions from a personality perspective has only begun fairly recently, in the wake of an upsurge of interest in the emotions that set in the 1980s and continues to this day. Since this time, the two historically largely separate fields of personality psychology and emotion psychology (the latter being the subdiscipline of psychology that deals with the emotions) are becoming increasingly integrated, to the benefit of both fields.

In keeping with the two tasks of personality psychology, we will in this chapter first outline a model of the emotion system as a subsystem of personality (see also, Reisenzein & Horstmann, 2006). On the background of this model, we will then address emotion-related personality differences.

The Emotion System as a Subsystem of Personality

On the Definition of Emotion

Although there is as yet no generally accepted, theoretical definition of emotion, there is widespread agreement among emotion researchers that the objects of their inquiry are, centrally, the transitory states of persons denoted by ordinary language words such as “happiness”, “sadness”, “fear”, “anger”, “pity”, “pride”, “guilt”, and so forth. There is also agreement that emotion episodes normally occur as reactions to the perception or imagination of “objects” (typically events or states of affairs), and that they have both subjective and objective (intersubjectively observable) manifestations. Subjectively, emotions manifest themselves as pleasant or unpleasant feelings that seem to be directed at the eliciting objects (e.g., one feels happy about the arrival of a friend, see Reisenzein, 1994; Russell, 2003). Objectively, emotions manifest themselves, at least at times, in particular actions (e.g., flight or avoidance in the case of fear), expressive reactions (e.g., smiling in the case of joy), and physiological changes (e.g., a blood pressure increase in anger). Most classical and many contemporary emotion theorists, following common-sense psychology, *identify* emotions with the mentioned subjective experiences. However, some theorists (e.g., Lazarus, 1991; Scherer, 1984) define emotions more broadly as *response syndromes* that include not only mental but also bodily components, such as facial expression and physiological arousal. This definition of emotions is problematic, however, because the correlations between the mental and bodily components of emotion syndromes are typically low (Reisenzein, 2007). For this reason, and to keep in touch with common-sense, we will use the general term “emotion”, as well as terms for specific emotions (e.g., “fear”, “anger”), to refer to subjective experiences.

How Emotions are Generated

Today, the dominant theory of emotion generation is the *cognitive* or *appraisal theory* of emotion (e.g., Lazarus, 1991; Ortony, Clore & Collins, 1988; Scherer, 2001; see Scherer,

Schorr & Johnstone, 2001, for an overview). Appraisal theory assumes that emotions arise if an event is *appraised in a motive-relevant manner*, that is, as representing an actual or potential fulfillment or frustration of a motive (= desire, wish). For example, Liz feels happy that Schmidt was elected chancellor if she (a) comes to believe that Schmidt was, indeed, elected and (b) evaluates this event positively, meaning that she takes it to be congruent with her motives. Analogously, Oscar is unhappy that Schmidt was elected chancellor if he comes to believe that this event happened and evaluates it negatively (as motive-incongruent). Hence, apart from cognitions in the narrow sense (i.e., beliefs), emotions also presuppose motives (Lazarus, 1991; Roseman, 1979; see Reisenzein, 2006a, for further discussion).

The appraisal of an event determines not only *whether or not* this event elicits an emotion, but also *which* emotion it elicits. Hedonically positive (i.e., experientially pleasant) emotions occur if an event is evaluated as motive-congruent, whereas hedonically negative (experientially unpleasant) emotions occur if an event is evaluated as motive-incongruent. The further distinctions between emotions depend, first, on the *kind of evaluation* made, for example on whether an event is evaluated as just personally undesirable or as morally wrong (Ortony et al., 1988). Second, they depend on particular *factual (nonevaluative) appraisals*, including the appraisal of the event's probability, unexpectedness, controllability, and the appraisal of one's own or other people's responsibility for bringing it about (see Ellsworth & Scherer, 2003). The relations between appraisals and specific emotions have been spelled out in several structural appraisal models (e. g., Lazarus, 1991; Ortony et al., 1988; Roseman, Antoniou, & Jose, 1996; Scherer, 2001). In addition, attempts have been made to develop information-processing models of appraisal and emotion (for overviews, see e. g., Power & Dalgleish, 1997; Scherer et al., 2001; Teasdale, 1999). An important assumption shared by most of these information processing models is that appraisal processes can occur in different *modes*. Of particular importance is the distinction between *nonautomatic* and *automatic*

modes of appraisal and hence, of emotion generation. Whereas nonautomatic appraisal processes are conscious inference strategies, automatic appraisals are unconscious and are “triggered” fairly directly by the perception of eliciting events. Like other mental processes, initially nonautomatic, conscious appraisals can become automatized as a result of their repeated execution (e.g., Reisenzein, 2001; Siemer & Reisenzein, 2007). Automatic appraisals can explain why emotions frequently follow eliciting events rapidly. They may also explain *moods*, that is, emotional experiences which seem to lack concrete objects (for further discussion of moods, see Schwarz & Clore, 2007; Siemer, 2005).

Functional Effects of Emotions

Both common-sense and scientific psychology assume that emotions can have strong effects on thought and action. Indeed, this is a main reason why emotions interest both lay people and psychologists. Traditionally, psychologists have tended to emphasize the negative, maladaptive effects of emotions. However, during the past 25 years, the view has increasingly gained acceptance that, notwithstanding their occasional negative consequences, emotions are *overall* adaptive. The adaptive effects of emotions are their (evolutionary) *functions*—the reasons why the emotion system came into existence in the first place. The two main, overarching functions of emotions are widely thought to be the motivational and the informational function of emotions (e.g., Frijda, 1994).

The *motivational function* of emotions consists in their adaptive effects on motivation (the action goals of the person) and thereby, on action itself. Two main routes from emotion to motivation have been proposed (Reisenzein, 1996). According to the first route, emotions influence motivation by becoming goals of action—states one seeks to regulate by one’s actions. This path from emotion to motivation is central in hedonistic theories of emotion (e.g., Bentham, 1789/1970; Cox & Klinger, 2004). These theories assume that one ultimate goal or basic motive of humans, if not their only basic motive, is the desire to maximize pleasure and to minimize pain

(displeasure). The hedonistic desire can be activated both by actual and anticipated emotions: Negative feelings generate a desire to reduce them (if present) or to avoid them (if anticipated); positive feelings generate a desire to maintain them (if present) or to bring them about (if an opportunity arises). Note that these hedonistic desires can also influence cognitive processes including appraisals. For example, the unpleasant feeling of fear elicited by a threatening event may motivate the person to avoid thinking about the event, or to try to actively reappraise it in more benign terms (Lazarus, 1991; Gross, 1998).

There can be little doubt that emotions influence motivation partly through the hedonistic route (see e.g., Baumeister, Vohs, DeWall, & Zhang, 2007). However, many emotion theorists believe that this is neither the only nor even the most important route from emotion to action (e.g., McDougall, 1928; Frijda, 1986; Lazarus, 1991; Weiner, 1995). Rather, according to these theorists, at least some emotions (e.g., fear) evoke adaptive action tendencies (e.g., to flee or avoid) *directly*, that is, without the mediation of hedonistic desires (see Reisenzein, 1996). This nonhedonistic theory of the emotion-action link seems better able than the hedonistic theory to account for the motivational effects of some emotions, such as the effect of pity on helping and of anger on aggression (Rudolph, Roesch, Greitemeyer, & Weiner, 2004).

The *informational function* of emotions consists in their making adaptively useful information available and/or salient to other subsystems of personality (e.g., Forgas, 2003; Schwarz & Clore, 2007; Slovic, Peters, Finucane, & MacGregor, 2005). To illustrate, nervousness experienced when meeting a stranger can inform the decision-making system about the subconscious appraisal of the encounter as threatening. Similarly, a pleasant feeling experienced when reflecting on a possible course of action may signal the subconscious approval of the action. In addition, emotions can increase the salience or apparent plausibility of “emotion-congruent” interpretations of ambiguous events. For example, when angry, people are more ready to interpret ambiguous negative events in an anger-typical way (e.g.,

to blame them on others; Siemer, 2001; Lerner & Tiedens, 2006). Although the resulting “emotion-tinged” event interpretations may appear biased and even irrational, it can be argued that this biasing effect of emotions on cognitions is adaptive in many evolutionarily significant situations. Both the information provided by feelings and their effect on event interpretations can, indirectly, again influence action.

The Emotion System as a Component of Personality

To sum up the preceding discussion, the emotion system seems to consist at its core of a mechanism that (1) *monitors* the relevance of cognized events for the person’s desires or motives and (2) *communicates* detected motive-relevant changes to other personality subsystems and simultaneously proposes particular action goals (Frijda, 1994; Reisenzein, 2006b).

It needs to be emphasized, however, that the described effects of emotion on thought and action are by no means inevitable. Rather, the person can to a considerable degree decide to heed versus ignore the “suggestions” made by her emotions, as well as control or regulate the emotions themselves. As Frijda (1986, p. 401) put it, “people not only *have* emotions, they also *handle* them” (emphasis added). Even radical hedonist theorists usually do not claim that humans are slaves to their *momentary* emotions but instead emphasize, for example, that people can decide to tolerate a current unpleasant feeling if they believe that this will spare them greater pain in the future (e.g., Bentham, 1789/1970). And if, as most contemporary motivation theorists believe, people are also motivated by other than hedonistic concerns (e.g., Reiss, 2000), possible reasons for emotion regulation multiply (see also, Parrott, 1993; Tamir, Chiu, & Gross, 2007). To understand emotions and the role they play in personality, it is therefore also important to consider how people “handle” their emotions (e.g., Gross, 1998).

Emotion and Personality: Interindividual Differences

Having sketched the emotion system as a subsystem of personality, we turn to the second traditional task of personality psychology: to describe and explain the interesting, psychological differences between individuals. In the present context, interest is of course on interindividual differences related to emotions. We consider this topic from two perspectives, a descriptive and an explanatory one (see also, Krohne, 2003; Pekrun, 2000): (a) emotional dispositions as descriptive dimensions of personality and (b) personality determinants of emotions, with a focus on general motives and beliefs and on habitual styles of emotion regulation.

Emotional Dispositions as Descriptive Dimensions of Personality

So far, the bulk of the research on emotion-related individual differences has had a descriptive focus. That is, the main aim has been to identify the relatively stable *emotional dispositions* (i. e., propensities to experience emotions) on which people differ from each other, and to clarify their relations to each other and to established personality traits such as neuroticism or extraversion. One reason why research has concentrated on these questions is probably that they can be addressed without making many assumptions about the structure of the emotion system (as described earlier), or that of personality in general. About all that needs to be done is to measure emotional dispositions reliably, and to analyze the patterns of statistical covariation among them and to other personality traits.

The ideal method of measuring emotional dispositions would be to confront people with a wide variety of carefully crafted emotion-evoking events and to record their emotional reactions. However, this is in general unfeasible for ethical or practical reasons. As an alternative, emotional dispositions have been estimated from repeated self-reports of emotional experiences in daily life (e.g., Diener, Smith, & Fujita, 1995; Schimmack, 2003), from reports of emotional reactions to hypothetical scenarios (e.g., Schimmack, 1997), from retrospective self-ratings of habitually experienced emotions (e.g., Watson & Clark, 1992;

Izard, Libero, Putnam, & Haynes, 1993), and from direct self-ratings of perceived emotional propensities (e.g., Spielberger, 1999; Wolpe & Lang, 1964). Although each of these methods has its drawbacks, their results were broadly consistent, and can be summarized as follows.

Structure of emotional dispositions. Regarding the structure of emotional dispositions, three main conclusions can be made. First, at least moderately stable, reliable interindividual differences in the propensities to experience emotions seem to exist for all commonly distinguished emotions (anger, fear etc.) as well as for subtypes of these emotions directed at particular classes of objects (e. g., fear of dogs; fear of exams). Second, dispositions for hedonically positive emotions correlate with each other, and dispositions for hedonically negative emotions do so as well. For example, people who are prone to sadness also tend to be prone to fear, anger, and guilt (note that this does not necessarily mean that the corresponding emotional states are experienced *at the same time*). Third, the two superordinate dispositions to experience pleasant and unpleasant emotions seem to be largely independent (e.g., Diener et al. 1995; Schimmack, Oishi, & Diener, 2002). Hence, for example, people who get easily angry are as about as likely as people who do not get easily angry to get quickly euphoric. In sum, emotional propensities seem to be structured in the form of two, largely independent (or slightly negatively correlated) hierarchies of correlated dispositions, one for pleasant and the other for unpleasant emotions. This structure is compatible with appraisal theory.

Emotional dispositions and the five-factor model of personality. Emotional dispositions, at least those that are stable and general, are a species of personality traits. How are they related to the personality dispositions typically featured in trait theories of personality? As already noted in the introduction, nearly all proposed taxonomies of personality descriptors contain terms that refer directly or indirectly to emotions. In fact, closer inspection suggests that emotional dispositions lie at the core of these taxonomies. To

document this claim, let us look at the currently most popular trait model of personality, the five-factor model. The *five-factor model of personality* posits five main, relatively independent, broad personality dimensions: neuroticism, extraversion, agreeableness, conscientiousness, and openness to experience (see e.g., John & Srivastava, 1999; McCrae & Costa, 1999). Of these traits, four (neuroticism, extraversion, agreeableness and openness) are related to emotional dispositions. This is suggested by an examination of the theoretical definitions of these factors, by content analyses of the questionnaires used to measure them (Pytlik Zillig, Hemenover, & Dienstbier, 2002), and by their correlations to explicit measures of emotional dispositions, such as the trait form of the *Positive and Negative Affect Schedule (PANAS)* (a frequently used instrument for the assessment of pleasant and unpleasant affect; Watson, Clark, & Tellegen, 1988).

The strongest and most obvious link between the Big Five and emotional dispositions exists for *neuroticism*. As a matter of fact, neuroticism *is* primarily an emotional disposition—the propensity to experience negative emotions, in particular fear, anger, and depression. No wonder, then, that strong correlations have been obtained between standard measures of neuroticism and measures of dispositional negative affect such as the trait form of the *Negative Affect* subscale of the *PANAS*. The robustness of this finding led Tellegen (1985) to argue that neuroticism be renamed “negative emotionality”, which is indeed offered as an alternative label for neuroticism in a more recent handbook article on the five-factor model (John & Srivastava, 1999).

Tellegen (1985) also proposed to rename *extraversion* “positive emotionality” because of its conceptual and empirical relations to the propensity to experience positive affect (measured, e.g., with the *Positive Affect* subscale of the *PANAS*), which he considered to be the core of extraversion. However, although positive emotionality may be its core, extraversion also subsumes other dispositions, in particular sociability (the tendency to be

outgoing and sociable versus withdrawn and reserved) (see Costa and McCrae, 1992; John & Srivastava, 1999). Empirically, too, the correlations between extraversion and positive emotionality are not strong enough to warrant the identification of these dispositions (Lucas & Fujita, 2000).

Agreeableness is usually defined as a behavioral disposition that contrasts a prosocial, communal orientation towards others with an antagonistic attitude. However, some of the best markers of agreeableness refer to emotional dispositions towards other people (e.g., “affectionate”, “soft-hearted” versus “cold”; John & Srivastava, 1999); and empirically, agreeableness has been found to correlate negatively with trait anger (agreeable people are less anger-prone; e.g., Kuppens, 2005) and positively with the tendency to experience empathic emotions (i.e., emotional reactions to the fate of others; Del Barrio, Aluja, & García, 2004). In addition, agreeable persons seem to try harder than nonagreeable persons to control the expression of negative emotions (Kubiak, Wiedig-Allison, Zgoriecki, & Weber, 2007; Tobin, Graziano, Vanman, & Tassinari, 2000).

Finally, individuals who score high on *openness to experience* seem to be more emotionally sensitive to art and beauty, and to experience a wider range of feelings and emotions than people low on this trait (McCrae, 2007; Terracciano, McCrae, Hagemann, & Costa, 2003).

In sum, of the five major dimensions of personality postulated by the five-factor model, neuroticism is essentially a broad emotional disposition (to experience negative emotions); extraversion and agreeableness comprise emotional dispositions (toward positive affect and interpersonally relevant emotions, respectively) as central subcomponents; and openness to experience is related to a specific emotional disposition (the capacity to experience aesthetic feelings) as well as to emotional differentiation.

As mentioned before, it is widely accepted today that emotions have adaptive effects, which were the reason why the emotion system (at least its core) emerged in evolution. This raises the question of whether *individual differences in emotionality* (e.g., fearfulness or irascibility) are likewise, at least in part, the product of natural selection. Although there is now strong evidence for the partial heritability of the Big Five (e.g., Bouchard, 2004), and hence for the heritability of basic interindividual differences in emotionality, this does not imply that these heritable interindividual differences are adaptive. On the contrary, it has been argued that the very existence of heritable variation in a trait signals a *lack* of adaptive significance (Tooby & Cosmides, 1990). Applied to emotional dispositions, Tooby and Cosmides' argument is that, if differences in emotionality (e.g., low versus high fearfulness) had been subject to selection pressure, they would not have prevailed over evolutionary times but would have converged to an optimal level of emotionality (e.g., medium fearfulness). However, as noted by Penke, Denissen and Miller (2007), interindividual differences in emotionality could have evolved if, as seems plausible, a generally optimal level of fearfulness, irascibility etc. did not exist in our evolutionary past, but different levels of emotionality were most adaptive in different environments or social niches.

Personality Determinants of Emotions

One strength of the appraisal theory of emotion is that it can readily explain how interindividual differences in emotional reactions to the same event arise at the psychological level (Roseman & Smith, 2001). For example, in answer to the question why Liz is happy that Schmidt was elected chancellor whereas Oscar is unhappy about this event, appraisal theory proposes the following two-step explanation: (a) Liz appraised Schmidt's election as desirable, whereas Oscar appraised it as undesirable; (b) these differences in appraisal, in turn, are due to interindividual differences in the cognitive and motivational structures (e.g., memory schemas) that underlie appraisal processes. At least some of these structures are

sufficiently stable to be regarded as components of personality. These are, in particular, relatively stable and general *desires*, and relatively stable and general *beliefs* about the world and the self (Lazarus, 1991; Pekrun, 1988; Smith & Kirby, 2001). For example, Oscar's and Liz' opposing appraisals of Schmidt's election as chancellor may be traceable to their different, longstanding political preferences: Oscar is a conservative, whereas Liz is left-winged. Viewed from an information-processing perspective, these personality determinants of appraisal concern the *content* of the cognitive and motivational structures that underlie the appraisal of concrete events (Reisenzein, 2001). The information-processing perspective suggests that the personality determinants of appraisal may comprise, in addition, interindividual differences in the *chronic accessibility* of appraisal-relevant cognitive and motivational structures (e.g., memory schemas; for support, see e.g. Higgins, Bond, Klein, & Strauman, 1986) as well as differences in the *procedures* habitually used for processing appraisal-relevant information (e.g., Cacioppo, Petty, & Feinstein, 1996).

Although clarifying the personality determinants of appraisals, and thereby those of emotions, was already declared a main task of emotion psychology by Lazarus, Averill and Opton (1970), so far only limited systematic research has been devoted to this issue. Nearly all of this research has been concerned with the effects of stable, general desires and beliefs on emotional states.

General desires as personality determinants of emotions. Appraisal theory postulates that emotions arise if an event is appraised as motive-congruent or motive-incongruent, and that the intensity of the resulting emotions depends on the strength of the motive, or the subjective importance of the goal (the content of the desire) at stake. Motive and goal theorists commonly assume that the goals that a person has in a specific situation (e.g., a student's goal to pass a particular examination) are derived from more fundamental goals for which the specific goals are viewed as means to ends (e.g., Brunstein, Schultheiss, &

Grässmann, 1998; Reiss, 2000). At the top of the motive hierarchy are presumably a set of basic desires which constitute the ultimate sources of human motivation (e.g., Reiss, 2000). These assumptions entail that the emotional reaction to a concrete event should be influenced by the degree to which superordinate desires are affected by this event, as well as the strength of these desires.

A number of tests of this assumption have been made. For example, Sheldon, Elliot, Kim, and Kasser (2001) asked participants to recall the single most satisfying event experienced during the last month and to rate the extent to which this event satisfied each of ten candidate basic desires (e.g., the desire for competence, security, relatedness, popularity, and personal autonomy). For nine of the ten desires, the satisfaction scores correlated significantly positively with ratings of positive affect experienced during the event. Other research has focused on an intermediate level of the motive hierarchy, where the top-level desires (e.g., the achievement motive) are concretized to more specific desires that represent what the person wants to attain in her current life situation (e.g., getting good grades; see Brunstein et al., 1998). For example, Emmons (1986) related these intermediate-level desires, called *personal strivings*, to emotions using an experiencing-sampling method. He obtained evidence that successful versus unsuccessful pursuit of personal strivings constitutes a major source of positive versus negative affect in everyday life (for additional information, see Emmons, 1996; Brunstein, Schultheiss, & Maier, 1999).

Beyond relating positive and negative emotions to desire fulfillment and desire frustration, respectively, appraisal theorists have linked particular emotions to particular *kinds* of desires (e. g., Lazarus, 1991; Ortony et al., 1988; Roseman, 1979). An important distinction in this context is that between *wanting* versus *diswanting* a state of affairs (Roseman, 1979), or between having an *approach goal* versus an *avoidance goal*. It has been proposed that qualitatively different positive and negative emotions are experienced if an

approach versus an avoidance goal, respectively, is attained or nonattained. To illustrate, assume Oscar has informed Liz that he intends to visit her. If Liz *wants* Oscar to visit (approach goal) she will be enjoyed if he comes and disappointed if he does not; whereas if Liz *diswants* Oscar to visit (avoidance goal), she will be dismayed if he comes and relieved if he does not (e.g., Ortony et al., 1988; Roseman, 1979). Several theorists (e.g., Gray, 1994; see Carver, 2006, for a review) proposed (a) that the pursuit of approach versus avoidance goals activates one of two different, basic motivational systems, a behavioral approach system (*BAS*) or a behavioral inhibition (*BIS*) system; and (b) that people differ in central parameters of these systems, specifically in the relative strength of their general approach and avoidance motivation. If so, these interindividual differences should be related to the intensity of the emotions connected to the attainment or nonattainment of approach and avoidance goals. Supporting this assumption, Carver (2004) found that a measure of interindividual differences in general approach motivation (*BAS* sensitivity) predicted the intensity of sadness and anger in response to frustration (the nonoccurrence of an expected positive event).

General beliefs as personality determinants of emotions. There is also evidence that appraisal-related, general beliefs influence emotional reactions to events. The two general beliefs that have been most extensively researched in this regard are (a) optimism (versus pessimism), defined as a generalized expectancy for positive (versus negative) outcomes (Scheier, Carver, & Bridges, 2001); and (b) general self-efficacy, defined as a person's generalized belief in her ability to reach her goals and to master difficult or stressful situations (Bandura, 1997; Schwarzer & Jerusalem, 1995).

Optimism has been found, for example, to correlate negatively with depressive symptoms and negative habitual mood, but positively with positive habitual mood (e.g., Scheier et al., 2001; Symister & Friend 2003). *General self-efficacy* has been found, for

example, to be associated with lower state anxiety during a stressful cognitive task (Endler, Speer, Johnson, & Flett, 2001) and lower levels of depression and anxiety in medical patients (e.g., Luszczynska, Gutiérrez-Doña, & Schwarzer, 2005). These findings are consistent with the hypothesis that optimism and general self-efficacy affect emotional states at least partly by influencing the appraisals of events; it should be noted, however, that direct evidence for this mediating path is so far scarce (e.g., Kaiser, Major, and McCoy, 2004; Schwarzer & Jerusalem, 1999). Furthermore, this is most likely not the only causal path through which optimism and general self-efficacy influence emotions. For example, compared to pessimists, optimists also use more active coping strategies aimed at eliminating or reducing problems and negative emotions (Solberg Nes & Segerstrom, 2006).

Other general beliefs that have been found to predict the emotional reactions to events include interpersonal trust, hostility, and sensitivity to injustice. *General interpersonal trust* was found to moderate the effects of a violation of the social norm of equality on negative emotions (Stouten, de Cremer and van Dijk, 2006). *Hostility*, defined as a disposition whose core is the general belief that other people are unworthy and likely to be sources of frustration and aggression, was found to predict state anger caused by negative interpersonal events (see Aquino, Douglas & Martinko, 2004; Smith, 1992). *Sensitivity to injustice*, a disposition characterized among others by the belief that one is frequently the victim of unfairness, was found to predict state anger caused by a concrete unfair treatment (Mohiyeddini & Schmitt, 1997; Schmitt, 1996).

Personality Determinants of Emotion Regulation and Coping

As mentioned, people are not slaves to their emotions and in fact often try to control their emotions and their effects on thought and action. This consideration suggests that the personality determinants of emotions may also comprise habitual strategies, or “styles” of regulating emotions and of coping with emotional events, a suggestion that has been explored

in numerous studies (e.g., Carver, Scheier, & Weintraub, 1989; Lazarus & Folkman, 1984). Emotion regulation and coping styles have been investigated for emotion in general, for groups of emotions (in particular stress-related emotions), and for specific emotions, notably anger, anxiety and depression.

Research on habitual tendencies of “handling” anger initially distinguished two coping styles: *anger-out* (showing overt, aggressive reactions) and *anger-in* (suppressing the overt expression of anger; Spielberger, 1999). Neither of these strategies is very effective in reducing anger, however (Deffenbacher et al., 1996). More recent research has taken a broader range of anger regulation strategies into view (Linden et al., 2003), including effective anger-reduction strategies such as nonhostile feedback and humour (e. g., Kubiak et al., 2007; Weber & Wiedig-Allison, 2007). Theory and research on *anxiety regulation* focused traditionally on the dichotomy of avoiding versus approaching anxiety-related information (e.g., Byrne, 1964; Krohne, 2003). For example, Krohne (2003) distinguished between *cognitive avoidance* and *vigilance* as the two fundamental forms of anxiety regulation and proposed that avoidance is motivated by the short-term hedonistic desire to reduce the feeling of fear, whereas vigilance is motivated by the epistemic desire to gain information about the threatening event. According to Krohne, these two coping strategies are uncorrelated at the dispositional level, that is, individuals may score either low or high on both dimension. Finally, in research on *depression*, a ruminative coping style, defined as thoughts and actions that focus attention on symptoms and their possible causes and consequences, has been extensively studied (Nolen-Hoeksema, 1991). Rumination has been found to increase negative feelings and to impair cognitive and social functioning, in particular when compared with distraction (Lyubomirski & Tkach, 2003; Thomsen, 2006).

A general taxonomy of emotion regulation methods that subsumes the described strategies was proposed by Gross (1998; John & Gross, 2007). This taxonomy distinguishes

five classes of emotion regulation strategies: situation selection, situation modification, attentional deployment (e.g., vigilance versus avoidance), reappraisal, and response modulation.

In 1990, Salovey and Meyer proposed that the capacity to regulate one's emotions in situationally appropriate ways should be viewed as but one facet of a broader capacity termed *emotional intelligence*, which they defined as: the ability to recognize one's own and other's emotions, to use the information contained in emotional experience to guide judgment and action, and to manage the experience and expression of emotions (Salovey & Meyer, 1990; see also, Mayer, Salovey, & Caruso, 2004). Since then, the concept of emotional intelligence has become enormously popular, and numerous studies have been conducted that related individual differences in emotional intelligence, measured through various tests (some of which are, however, based on competing concepts of emotional intelligence, e.g., Bar-On, 1997) to a variety of outcome measures. These studies found that emotional intelligence has a small to moderate positive correlation to performance (Van Rooy & Viswesvaran, 2004) and to mental and physical health (Schutte, Malouff, Thorsteinsson, Bhullar, & Rooke, 2007). Although measures of emotional intelligence also correlate substantially with measures of more traditional personality dispositions, including coping style (e.g., Day, Therrien, & Carroll, 2005; Van Rooy & Viswesvaran, 2004), they appear to retain some predictive validity even when these correlations to traditional measures are taken to account.

Author Note

We thank Lars Penke and Uli Schimmack for their helpful comments on a previous version of the manuscript.

References

- Allport, G. W. (1937). *Personality: A psychological interpretation*. New York: Holt.
- Aquino, K., Douglas, S., & Martinko, M. J. (2004). Overt anger in response to victimization: Attributional style and organizational norms as moderators. *Journal of Occupational Health Psychology, 9*, 152-164.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Bar-On, R. (1997). Emotional Quotient Inventory: Technical manual. Toronto: Multi-Health Systems.
- Baumeister, R. F., Vohs, K. D., DeWall, C. N., & Zhang, L. (2007). How emotion shapes behavior: Feedback, anticipation, and reflection, rather than direct causation. *Personality and Social Psychology Review, 11*, 167-203.
- Bentham, J. (1789/1970). *An introduction to the principles of morals and legislation*. London: Athlone Press.
- Bouchard, T. J. Jr. (2004). Genetic influence on human psychological traits. *Current Directions in Psychological Science, 13*, 148-151.
- Brunstein, J. C., Schultheiss, O. C. & Grässmann, R. (1998). Personal goals and emotional well-being: The moderating role of motive dispositions. *Journal of Personality and Social Psychology, 75*, 494-508.
- Brunstein, J. C., Schultheiss, O. C. & Maier, G. W. (1999). The pursuit of personal goals: A motivational approach to well-being and life adjustment. In J. Brandtstädter & R. M. Lerner (Eds.), *Action and self-development: Theory and research through the life span* (pp. 169-196). New York: Sage.
- Byrne, D. (1964). Repression-sensitization as a dimension of personality. In B. A. Maher (Ed.), *Progress in experimental personality research* (Vol. 1, pp. 169-220). New York: Academic Press.

- Cacioppo, J. T., Petty, R. E. & Feinstein, J. (1996). Dispositional differences in cognitive motivation: The life and times of individuals varying in need for cognition. *Psychological Bulletin, 119*, 197-253.
- Carver, C. S. (2004). Negative affects deriving from the behavioral approach system. *Emotion, 4*, 3-22.
- Carver, C. S. (2006). Approach, avoidance, and the self-regulation of affect and action. *Motivation and Emotion, 30*, 105-110.
- Carver, C. S., Scheier, M. F., & Weintraub, J. G. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology, 56*, 267-283.
- Cervone, D. (2005). Personality architecture: Within-person structures and processes. *Annual Review of Psychology, 56*, 423-452.
- Costa, P. T., & McCrae, R. R. (1992). *NEO PI-T Professional manual*. Odessa, FL: Psychological Assessment Resources.
- Cox, W. M. & Klinger, E. (2004). *Handbook of motivational counseling*. Chichester: Wiley.
- Day, A. L., Therrien, D. L., & Carroll, S. A. (2005). Predicting psychological health: Assessing the incremental validity of emotional intelligence beyond personality, type A behaviour, and daily hassles. *European Journal of Personality, 19*, 519-536.
- Deffenbacher, J. L., Oetting, E. R., Thwaites, G. A., Lynch, R. S., Baker, D. A., Stark, R. S., Thacker, S., & Eiswerth-Cox, L. (1996). State-trait anger theory and the utility of the trait anger scale. *Journal of Counseling Psychology, 43*, 131-148.
- Del Barrio, V., Aluja, A., & García, L. F. (2004). Relationship between empathy and the Big Five of personality traits in a sample of Spanish adolescents. *Social Behavior and Personality, 32*, 677-682.

- Diener, E., Smith, H., & Fujita, F. (1995). The personality structure of affect. *Journal of Personality and Social Psychology*, *69*, 130-141.
- Ellsworth, P. C., & Scherer, K. R. (2003). Appraisal processes in emotion. In R. J. Davidson, K. R. Scherer, & H. H. Goldsmith (Eds.), *Handbook of Affective Sciences* (pp. 572-595). Oxford: Oxford University Press.
- Emmons, R. A. (1986). Personal strivings: An approach to personality and subjective well-being. *Journal of Personality and Social Psychology*, *51*, 1058-1068.
- Emmons, R. A. (1996). Striving and feeling: Personal goals and subjective well-being. In P. M. Gollwitzer & J. A. Bargh (Eds.), *The psychology of action: Linking cognition and motivation to behavior* (pp. 313-337). New York: Guilford Press.
- Endler, N. S., Speer, R. L., Johnson, J. M., & Flett, G. L. (2001). General self-efficacy and control in relation to anxiety and cognitive performance. *Current Psychology: Developmental, Learning, Personality, Social*, *20*, 36-52.
- Forgas, J. P. (2003). Affective influences on attitudes and judgments. In R. J. Davidson, K. R. Scherer, & H. H. Goldsmith (Eds.), *Handbook of Affective Sciences* (pp. 596-618). Oxford: Oxford University Press.
- Frijda, N. H. (1986). *The emotions*. Cambridge, England: Cambridge University Press.
- Frijda, N. H. (1994). Emotions are functional, most of the time. In P. Ekman., & R. J. Davidson (Eds.), *The nature of emotion* (pp. 112-136). Oxford: Oxford University Press.
- Gray, J. A. (1994). Three fundamental emotion systems. In P. Ekman and R. J. Davidson (Ed.), *The nature of emotion* (pp. 243-248). Oxford: Oxford University Press.
- Gross, J. J. (1998). The emerging field of emotion regulation: An integrative review. *Review of General Psychology*, *2*, 271-299.

- Higgins, E. T., Bond, R. N., Klein, R., & Strauman, T. (1986). Self-discrepancies and emotional vulnerability: How magnitude, accessibility, and type of discrepancy influence affect. *Journal of Personality and Social Psychology*, *51*, 5-15.
- Izard, C. E., Libero, D. Z., Putnam, P., & Haynes, O. M. (1993). Stability of emotional experiences and their relations to traits of personality. *Journal of Personality and Social Psychology*, *64*, 847-860.
- John, O. P., & Gross, J. J. (2007). Individual differences in emotion regulation. In J. J. Gross (Ed.), *Handbook of emotion regulation* (pp. 351-372). New York: Guilford Press.
- John, O. P., & Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp. 102-138). New York: Guilford Press.
- Kaiser, C. R., Major, B., & McCoy, S. K. (2004). Expectations about the future and the emotional consequences of perceiving prejudice. *Personality and Social Psychology Bulletin*, *30*, 173-184.
- Krohne, H. W. (2003). Individual differences in emotional reactions and coping. In R. J. Davidson, K. R. Scherer, & H. H. Goldsmith (Eds.), *Handbook of affective science* (pp. 698-725). New York: Oxford University Press.
- Kubiak, T., Wiedig-Allison, M., Zgorecki, S. & Weber, H. (2007). Goals meet strategies- Habitual goals and reactions in anger regulation. Submitted for publication.
- Kuppens, P. (2005). Interpersonal determinants of trait anger: low agreeableness, perceived low social esteem, and the amplifying role of the importance attached to social relationships. *Personality and Individual Differences*, *38*, 13-23.
- Lazarus, R. S. (1991). *Emotion and adaptation*. New York: Oxford University Press.

- Lazarus, R. S., Averill, J. R., & Opton, E. M. jr. (1970). Toward a cognitive theory of emotion. In M. B. Arnold (Ed.), *Feelings and emotions* (pp. 207-232). New York: Academic Press.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.
- Lerner, J. S., & Tiedens, L. Z. (2006). Portrait of the angry decision maker: How appraisal tendencies shape anger's influence on cognition. *Journal of Behavioral Decision Making, 19*, 115-137.
- Linden, W., Hogan, B. E., Rutledge, T., Chawla, A., Lenz, J. W., & Leung, D. (2003). There is more to anger coping than “in” or “out”. *Emotion, 3*, 12-29.
- Lucas, R. E., & Fujita, F. (2000). Factors influencing the relation between extraversion and pleasant affect. *Journal of Personality and Social Psychology, 79*, 1039-1056.
- Luszczynska, A., Gutiérrez-Doña, B., & Schwarzer, R. (2005). General self-efficacy in various domains of human functioning: Evidence from five countries. *International Journal of Psychology, 40*, 80-89.
- Lyubomirsky, S. & Tkach, C. (2004). The consequences of dysphoric rumination. In C. Papageorgiou & A. Wells (Eds.), *Depressive rumination: Nature, theory and treatment* (pp. 21-42). Chichester: Wiley.
- Mayer, J. D., & Salovey, P. (1995). Emotional intelligence and the construction and regulation of feelings. *Applied and Preventive Psychology, 4*, 197-208.
- Mayer, J. D., Salovey, P., & Caruso, D. R. (2004). Emotional intelligence: Theory, findings, and implications. *Psychological Inquiry, 15*, 197-215.
- McCrae, R. R. (2007). Aesthetic chills as a universal marker of openness to experience. *Motivation and Emotion, 31*, 5-11.
- McDougall, W. (1928). *An outline of psychology* (4th ed.) London: Methuen.

- Mischel, W., & Shoda, Y. (1998). Reconciling processing dynamics and personality dispositions. *Annual Review of Psychology, 49*, 229-258.
- Mohiyeddini, C., & Schmitt, M. J. (1997). Sensitivity to befallen injustice and reactions to unfair treatment in a laboratory situation. *Social Justice Research, 10*, 333-353.
- Nolen-Hoeksema, S. (1991). Responses to depression and their effects on the duration of depressive episodes. *Journal of Abnormal Psychology, 100*, 569-582.
- Ortony, A., Clore, G. L., & Collins, A. (1988). *The cognitive structure of emotions*. New York: Cambridge University Press.
- Parrott, W. G. (1993). Beyond hedonism: Motives for inhibiting good moods and for maintaining bad moods. In D. M. Wegner, & J. W. Pennebaker (Eds.), *Handbook of mental control* (pp. 278-305). Englewood Cliffs, NJ: Prentice-Hall.
- Pekrun, R. (1988). *Emotion, Motivation und Persönlichkeit* [Emotion, motivation and personality]. München: Psychologie Verlags Union.
- Pekrun, R. (2000). Persönlichkeit und Emotion [Personality and Emotion]. In J. H. Otto, & H. A. Euler (Eds.), *Emotionspsychologie: Ein Handbuch* (pp. 334-348). München: Psychologie Verlags Union.
- Penke, L., Denissen, J. J. A., & Miller, G. F. (2007). The evolutionary genetics of personality. *European Journal of Personality, 21*, 549-587.
- Power, M., & Dalgleish, T. (1997). *Cognition and emotion: from order to disorder*. Hove: Psychology Press.
- Pytlik Zillig, L. M., Hemenover, S. H., & Dienstbier, R. A. (2002). What do we assess when we assess a ‘‘Big Five’’ trait?: A content analysis of the affective, behavioral, and cognitive (ABC) processes represented in big five personality inventories. *Personality and Social Psychology Bulletin, 28*, 847 – 858.

- Reisenzein, R. (1994). Pleasure-arousal theory and the intensity of emotions. *Journal of Personality and Social Psychology*, *67*, 525-539.
- Reisenzein, R. (1996). Emotional action generation. In W. Battmann & S. Dutke (Eds.), *Processes of the molar regulation of behavior* (pp. 151-165). Lengerich: Pabst Science Publishers.
- Reisenzein, R. (2001). Appraisal processes conceptualized from a schema-theoretic perspective: Contributions to a process analysis of emotions. In K. R. Scherer, A. Schorr, & T. Johnstone (Eds.), *Appraisal processes in emotion: Theory, methods, research* (pp. 187-201). Oxford: Oxford University Press.
- Reisenzein, R. (2006a). Arnold's theory of emotion in historical perspective. *Cognition and Emotion*, *20*, 920-951.
- Reisenzein, R. (2006b). Emotions as metarepresentational states of mind. In R. Trappl (Ed.), *Cybernetics and Systems 2006* (Vol. 2, pp. 649-653). *Proceedings of the 18th European Meeting on Cybernetics and Systems Research*. Vienna: Austrian Society for Cybernetic Studies.
- Reisenzein, R. (2007). What is a definition of emotion? And are emotions mental-behavioral processes? *Social Science Information*, *46*, 424-428.
- Reisenzein, R., & Horstmann, G. (2006). Emotion. In Spada, H. (Ed.), *Lehrbuch Allgemeine Psychologie* (3. Auflage, pp. 435-500). Bern: Huber.
- Reiss, S. (2000). *Who am I: The 16 basic desires that motivate our actions and define our personality*. NY: Tarcher Putnam.
- Roseman, I. J. (1979, September). *Cognitive aspects of emotions and emotional behavior*. Paper presented at the 87th Annual Convention of the APA, New York City.

- Roseman, I. J., Antoniou, A. A., & Jose, P. E. (1996). Appraisal determinants of emotions: Constructing a more accurate and comprehensive theory. *Cognition and Emotion, 10*, 241-277.
- Roseman, I. R., & Smith, C. A. (2001). Appraisal theory: Overview, assumptions, varieties, controversies. In K. R. Scherer, A. Schorr, & T. Johnstone (Eds.), *Appraisal processes in emotion: Theory, Methods, Research* (pp. 3-19). Oxford: Oxford University Press.
- Rudolph, U., Roesch, S., Greitemeyer, T., & Weiner, B. (2004). A meta-analytic review of help giving and aggression from an attributional perspective: Contributions to a general theory of motivation. *Cognition and Emotion, 18*, 815-848.
- Russell, J. A. (2003). Core affect and the psychological construction of emotion. *Psychological Review, 110*, 145-172.
- Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition and Personality, 9*, 185-211.
- Scheier, M. F., & Carver, C. S., & Bridges, M. W. (2001). Optimism, pessimism, and psychological well-being. In E. C. Chang (Ed.), *Optimism and pessimism: Implications for theory, research, and practice* (pp. 189-216). Washington: American Psychological Association.
- Scherer, K. R. (1984). On the nature and function of emotion: A component process approach. In K. R. Scherer & P. Ekman (Eds.), *Approaches to emotion* (pp. 293-317). Hillsdale, NJ: Erlbaum.
- Scherer, K. R. (2001). Appraisal considered as a process of multilevel sequential checking. In K. R. Scherer, A. Schorr, & T. Johnstone (Eds.), *Appraisal processes in emotion: Theory, Methods, Research* (pp. 92-120). Oxford: Oxford University Press.

- Scherer, K. R., Schorr, A., & Johnstone, T. (2001). *Appraisal processes in emotion: Theory, Methods, Research*. Oxford: Oxford University Press.
- Schimmack, U. (1997). Affect intensity: Separating intensity and frequency in repeatedly measured affect. *Journal of Personality and Social Psychology*, *73*, 1313-1329.
- Schimmack, U. (2003). Affect measurement in experience sampling research. *Journal of Happiness Studies*, *4*, 79-106.
- Schimmack, U, Oishi, S., & Diener, E. (2002). Cultural influences on the relation between pleasant emotions and unpleasant emotions: Asian dialectic philosophies or individualism-collectivism? *Cognition and Emotion*, *16*, 705-719.
- Schmitt, M. (1996). Individual differences in sensitivity to befallen injustice. *Personality and Individual Differences*, *21*, 3-20.
- Schutte, N., Malouff, J., Thorsteinsson, E., Bhullar, N., & Rooke, S. (2007). A meta-analytic investigation of the relationship between emotional intelligence and health. *Personality and Individual Differences*, *42*, 921-933.
- Schwarz, N., & Clore, G. L. (2007). Feelings and phenomenal experiences. In A. W. Kruglanski & E. T. Higgins (Eds.), *Social psychology: Handbook of basic principles* (2nd ed., pp. 385-407). New York, NY: Guilford Press.
- Schwarzer, R., & Jerusalem, M. (1995). Generalized Self-Efficacy scale. In J. Weinman, S. Wright, & M. Johnston (Eds.), *Measures in health psychology: A user's portfolio. Causal and control beliefs* (pp. 35-37). Windsor, UK: NFER-NELSON.
- Schwarzer, R., & Jerusalem, M. (1999). *Skalen zur Erfassung von Lehrer- und Schülermerkmalen* [Scales for the assessment of teacher and student characteristics]. Berlin, Germany: Freie Universität Berlin.
- Shand, A. F. (1914). *The foundations of character*. London: Macmillan.

- Sheldon, K. M., Elliot, A. J., Kim, Y., & Kasser, T. (2001). What is satisfying about satisfying events? Testing 10 candidate psychological needs. *Journal of Personality and Social Psychology, 80*, 325-339.
- Siemer, M. (2001). Mood-specific effects on appraisal and emotion judgments. *Cognition & Emotion, 15*, 453-485.
- Siemer, M. (2005). Moods as multiple-object directed and as objectless affective states: An examination of the dispositional theory of moods. *Cognition & Emotion, 19*, 815-845.
- Siemer, M., & Reisenzein, R. (2007). The process of emotion inference. *Emotion, 7*, 1-20.
- Slovic, P., Peters, E., Finucane, M. L., & MacGregor, D. G. (2005). Affect, risk, and decision making. *Health Psychology, 24*, 35-40.
- Smith, T. W. (1992). Hostility and health: status of a psychosomatic hypothesis. *Health Psychology, 11*, 139-150.
- Smith, C. A., Kirby, L. D. (2001). Toward delivering on the promise of appraisal theory. In K. R. Scherer, A. Schorr, & T. Johnstone (Eds.), *Appraisal processes in emotion: Theory, methods, research* (pp. 121-138). New York: Oxford University Press.
- Solberg Nes, L., & Segerstrom, S. C. (2006). Dispositional optimism and coping: A meta-analytic review. *Personality and Social Psychology Review, 10*, 235-251.
- Spielberger, C. D. (1999). *Manual for the State-Trait Anger Expression Inventory-2*. Odessa, FL: Psychological Assessment Resources.
- Stouten, J., De Cremer, D., & van Dijk, E. (2006). Violating equality in social dilemmas: Emotional and retributive reactions as a function of trust, attribution, and honesty. *Personality and Social Psychology Bulletin, 32*, 894-906.
- Symister, P., & Friend, R. (2003). The influence of social support and problematic support on optimism and depression in chronic illness: A prospective study evaluating self-esteem as a mediator. *Health Psychology, 4*, 249-288.

- Tamir, M., Chiu, C.-Y., & Gross, J. E. (2007). Business or pleasure? Utilitarian versus hedonic considerations in emotion regulation. *Emotion, 7*, 546-554.
- Teasdale, J. D. (1999). Multi-level theories of cognition-emotion relations. In T. Dalgleish & M. Power (Eds.), *Handbook of cognition and emotion* (pp. 665-681). Chichester: Wiley.
- Tellegen, A. (1985). Structures of mood and personality and their relevance to assessing anxiety, with an emphasis on self-report. In A. H. Tuma & J. D. Maser (Eds.), *Anxiety and the anxiety disorders* (pp. 681-706). Hillsdale, NJ: Erlbaum.
- Terracciano, A., McCrae, R. R., Hagemann, D., & Costa, P. T., Jr. (2003). Individual difference variables, affective differentiation, and the structures of affect. *Journal of Personality, 71*, 669-703.
- Thomsen, D. K. (2006). The association between rumination and negative affect: A review. *Cognition and Emotion, 20*, 1216-1235.
- Tobin, R. M., Graziano, W. G., Vanman, E. J., & Tassinari, L. G. (2000). Personality, emotional experience, and efforts to control emotions. *Journal of Personality and Social Psychology, 79*, 656-669.
- Tooby, J., & Cosmides, L. (1990). On the universality of human nature and the uniqueness of the individual: The role of genetics and adaptation. *Journal of Personality, 58*, 17-67.
- Van Rooy, D. L., & Viswesvaran, C. (2004). Emotional intelligence: a meta-analytic investigation of predictive validity and nomological net. *Journal of Vocational Behavior, 65*, 71-95.
- Watson, D., & Clark, L. A. (1992). On traits and temperament: General and specific factors of emotional experience and their relation to the five factor model. *Journal of Personality, 60*, 441-476.

- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, *54*, 1063-1070.
- Weber, H. & Wiedig-Allison, M. (2007). Sex differences in anger-related behaviour: Comparing expectancies to actual behaviour. *Cognition and Emotion*, *21*, 1669-1698.
- Weiner, B. (1995). *Judgments of responsibility. A foundation for a theory of social conduct*. New York: Guilford.
- Wolpe, J. and Lang, P. J. (1964). A fear survey schedule for use in behavior therapy. *Behaviour Research and Therapy*, *2*, 27-30.