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An Appraisal Account of Individual Differences in Emotional Experience

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Abstract

People can differ tremendously in the emotions they experience, both in general as well as in response to specific events, and such differences have large impact on their lives. Based on recent research on individual differences in appraisal and emotion, we propose a framework to understand the basis for individual differences in emotional experience. In this framework, individual differences in how people appraise their circumstances and in how these appraisals are related to emotional experience are seen as crucial in determining how people differ in both contextualized emotional experience and more stable emotional dispositions. We discuss parallels with other explanatory frameworks, implications for the nature of emotion traits, and directions for future research.

A large part of what makes us individuals is our emotions. We all have unique ways of emotionally responding to the events that constitute our lives, be it the TV that breaks down or the birth of a child. Indeed, people vary in many of the defining features of emotions (Barrett, 2009; Davidson, 1998; Kuppens, Stouten, & Mesquita, 2009), and these differences constitute a large part of what makes people's personalities different (Clark & Watson, 2008; Meyer & Shack, 1989). Individual differences in emotion also predict what makes people happy or unhappy, the decisions they make in their lives, their well-being, and so on. It is therefore important to have a good understanding of what makes people emotionally different. In this study, we propose a framework that aims to explain individual differences in emotional experience. Although emotions consist of other components as well (e.g., behavior, physiology), our focus is on the subjective experience of emotion.

Individual differences in emotional experience have classically been studied on two different levels: the state level and the trait level. The state level is concerned with understanding how people emotionally respond to specific events, whereas the trait level is more concerned with how people can be characterized in terms of how they feel on average. Our framework aims to address individual differences at both these levels. As such, the main question we want to address is how we can understand individual differences in emotional experience, both in general as well as in response to specific events. We would like to point out that our analyses focus on proximal psychological sources of individual differences in emotional experience and do not directly speak to distal (e.g., genetic) causes or proximal biological factors, although we expect these levels of explanation to be heavily intertwined.

A Framework to Account for Individual Differences in Emotional Experience

Our account starts from the appraisal approach to emotion (Arnold, 1960; Frijda, 1986; Roseman, 2001; Scherer, 2009; Smith & Lazarus, 1993). Appraisal theories of emotion

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are among the most important theories to explain the elicitation and differentiation of emotional experience (Ellsworth & Scherer, 2003). Appraisal processes are traditionally considered to be involved in the generation of distinctly labeled emotional experiences (e.g., anger, fear, or happiness), but are equally involved in core affective experiences in terms of valence and arousal (Barrett, Mesquita, Ochsner, & Gross, 2007; Scherer, Dan, & Flykt, 2006). Appraisal theories aim to explain how emotional experience arises as a function of the person and the situation, based on two assumptions. First, people continually appraise their circumstances as a function of their own concerns, goals, and competencies. We appraise events in terms of whether it is relevant to our goals, whether it is advantageous or disadvantageous, who is responsible for it, whether we are able to cope with the situation and so on. Second, configurations of the outcomes of these appraisals are associated with particular emotional experiences. For instance, a person who has been insulted may appraise this event as blocking his or her goal, unfair, and due to someone else, and the combination of these appraisals may be associated with the experience of anger for that individual. In this view, appraisal is by definition seen as a subjective, constructive process that combines information from both the person and the situation (Frijda, 1986), although this does not necessarily occur consciously (Moors, 2010).

Although appraisal theories of emotions were initially developed to account for the wide variety in emotional responding both across and within individuals (Ellsworth & Scherer, 2003; Griner & Smith, 2000; Lazarus, 1994; van Reekum & Scherer, 1997; Roseman & Smith, 2001), until recently most appraisal research had been primarily concerned with charting general appraisal–emotion relations. As a result, little empirical attention had been paid to identifying the sources of individual differences in emotional experiences from the appraisal perspective. However, recent research has provided new insights into the processes implicated in creating differences in the emotions people experience and how these are related to broader traits and dispositions.

According to this research, appraisal theories afford two instances in which individual differences can influence the emotion-eliciting process (see Figure 1). First, people can differ in how they appraise their circumstances. Second, they can differ in the quality of experienced emotions in association with particular (patterns of) appraisal outcomes (Kuppens, Van Mechelen, & Rijmen, 2008; Kuppens, Van Mechelen, Smits, De Boeck, & Ceulemans, 2007). For example, when a person is insulted, this person may appraise this incident as damaging his or her social honor, caused by another person, and this set of appraisals may make the person angry. If this person would have appraised the event

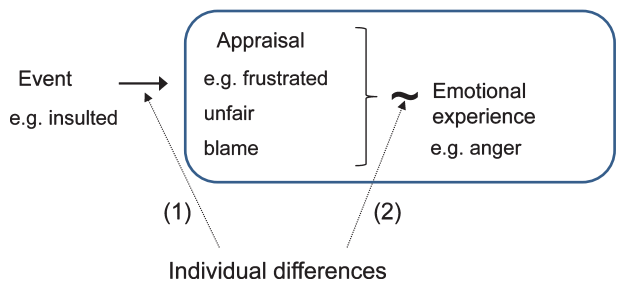

Figure 1 Schematic representation of individual differences in (1) the situational experience of appraisals and (2) appraisal–emotion relationships that are postulated to lie at the base of individual differences in emotional experience.

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differently, and/or if these appraisals were not associated with anger for that person, he or she would have had a different emotional experience. The first central assumption of our account is therefore the idea that individual differences in both these processes – how an event is appraised and how appraisals are related to emotional experiences – contribute to individual differences in emotional experience in response to specific events. For this assumption to be true, both processes should contribute to emotional experience and be subject to individual differences.

The second central assumption is that systematic distortions or biases in these processes lead to the tendency for people to experience certain emotions or affective experiences more frequent or more intensely than others, leading to individual differences in emotional experience at the trait level. In other words, some people are more prone to experience certain emotions in general (such as anger, happiness, or more general positive and negative affect), because their appraisal apparatus is skewed in the direction of these emotions. For this assumption to be true, individual differences in the two processes should be related to emotion-relevant dispositions in trait-congruent ways.

As such, our account aims to explain both the variability and consistency that characterizes the emotional life of individuals. Not incidentally, our ideas rest heavily on social-cognitive conceptualizations of personality (see also below). Following research on mental scripts (e.g., Baldwin, 1992) and individual differences in if-then stimulus–behavior associations (e.g., Mischel & Shoda, 1995; Vansteelandt & Van Mechelen, 1998), one way that the two discussed sources of individual differences in emotional experience could be conceptualized is through 'if-then' scripts, the first concerning the appraisals (the 'then') different people would make in specific situations (the 'if') and the second pertaining to the emotions (the 'then') different individuals would experience in response to specific appraisals (the 'if'). Such associations can be rule-based or associative (depending on factors such as cognitive resources; Moors, 2010).

In what follows, we review recent research that demonstrates the importance of each of the two identified processes in emotional experience (relating to assumption one) and how they relate to individual differences variables that reflect emotion dispositions (relating to assumption two).

Individual Differences in Appraisal

By definition, how people appraise their circumstances is of a subjective nature and is therefore subject to individual differences. It is only until recently, however, that research has begun to systematically uncover how (and why) people differ in how they appraise their world. We argue there are two ways individual differences come into play in the appraisal process: in the form of generalized tendencies and in interaction with the situation.

First, general appraisal tendencies refer to systematic distortions or sensitivities in how people appraise their circumstances, making an individual more prone to habitually appraise his or her environment in certain ways, irrespective of the specific event (Matthews, Derryberry, & Siegle, 2000; van Reekum & Scherer, 1997). Frijda's (1986) idea of sentiments as dispositional tendencies to evaluate objects along the likes/dislike dimension coincides with this notion of appraisal tendencies. Consistent with Lazarus's (1991) notion of dispositional appraisal styles, research has also demonstrated individual differences in how events are habitually appraised, for example, as advantageous or disadvantageous (related to optimism and pessimism, Scheier & Carver, 1985), as due to someone else's blameworthy action (the hostile attribution bias, Dodge, 1993), or as something one can

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cope with or not (related to self-efficacy, Bandura, 1997). In addition, appraisal theorists have also postulated emotion-specific appraisal styles, such as an anger-prone style and a guilt-prone style, in which events are chronically appraised in ways that encourage anger and guilt experiences, respectively (Roseman, 2001).

On a broader scale, the notion of appraisal tendencies also resonates with a wider literature on individual differences in how environmental stimuli are processed and regulated (Cervone & Shoda, 1999; Mischel & Shoda, 1995), such as those implicated in social comparison (Higgins, 1987), need for cognition (Cacioppo, Petty, Feinstein, & Jarvis, 1996), temporal construal (Trope & Liberman, 2003), and implicit theories (Dweck & Leggett, 1988). Such tendencies also link up with accessibility processes associated with personality. According to the literature on construct accessibility, personality variables are chronically accessible constructs that have been consistently activated throughout the individual's life (Bargh, Lombardi, & Higgins, 1988). Because these constructs are frequently primed, their 'action potential' for activation remains chronically high, and therefore lower levels of input stimuli are needed to activate them (Higgins, Bargh, & Lombardi, 1985).

Importantly, research has shown that such appraisal tendencies are meaningfully related to general personality dimensions and emotion traits and in turn predict the way people effectively appraise specific events (Hemenover & Dienstbier, 1996; Kuppens et al., 2007; van Reekum & Scherer, 1997; Silvia, 2008; Tong et al., 2006). Specifically, this research has produced consistent findings that emotion traits are positively related to appraisal tendencies for emotions or affective states associated with these traits. For example, studies have found that trait anger, the tendency to experience anger more frequently and intensely (Spielberger, Sydeman, Owen, & Marsch, 1999), is associated with the tendency to appraise events as more frustrating and unfair and others as more blameworthy (Kuppens & Van Mechelen, 2007; Kuppens et al., 2008), trait curiosity is associated with perceived ability to understand complex materials (Silvia, 2008), and individuals high in neuroticism are more likely to appraise events as unpleasant and harder to cope with (Gunthert, Cohen & Armeli, 1999; Tong, 2010a).

In addition, personality traits are not only associated with appraisals at the elicitation stage of the emotion experience; they also predict how appraisals might change after the emotion is initiated. For instance, in a study by Tong et al. (2009), male police officers reported their anger and appraisals regularly at approximately 30- min intervals during their day-shift and also completed a measure of trait coping styles. For each officer, a point in the day in which they felt angry was identified and the trajectories of his anger and anger-related appraisals were analyzed from this anger-provoking point. The analyses found that officers who were high in trait active coping showed a quicker reduction than those low in trait active coping in anger appraisals, which flowed in step with the more rapid decline of their anger. Together, these findings provide evidence that individual differences in appraisal tendencies play an important role in understanding individual differences in emotional experience, both before and after the emotion was elicited, and that they are related to dispositional variables in trait-congruent ways.

Second, research has shown that individual differences in appraisal can also be highly contingent on situational information. This is not surprising, as it follows directly from the interactional definition of the appraisal process, with appraisal being a function of both person and situation characteristics. So-called interactional or relational models have recently been developed to reveal how personality traits and situational features interact to shape the appraisals of frustration, other-blame, unfairness (Kuppens & Van Mechelen, 2007), motivational relevance, problem- and emotion-focused coping potential (Smith &

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Kirby, 2009; Smith & Pope, 1992), and self-efficacy (Cervone et al., 2008). These models stipulate how stable personality or person characteristics feed into appraisal processes depending on situational conditions (a similar line of reasoning forms the basis for the Knowledge-and-Appraisal model of personality developed by Cervone, 2004, 2005). For instance, whether a person finds a situation motivationally relevant depends on the extent to which he or she cares about a particular goal or issue and whether his or her circumstances are perceived as implicating that goal or issue (Smith & Pope, 1992). Consequently, this model predicts that a person will not find a situation motivationally relevant if he or she does not hold the goal that is at stake in the situation (or if the situation is not relevant to the goals of the individual). Context-dependent individual differences in appraisal are not only related to motivation, but also to personality. For instance, Kuppens and Van Mechelen (2007), in a study involving directed imagery tasks, showed that neuroticism and unstable self-esteem predicted appraisals of other-blame and threat to self-esteem in specific situations only. Trait-anger, however, predicted these anger-relevant appraisals regardless of the specific context (suggesting a generalized appraisal tendency instead).

Individual Differences in Appraisal–Emotion Relationships

Several lines of thought, based on biologically based temperaments, affective memory networks, and regulatory processes, converge in pointing to individual differences in appraisal–emotion relationships. First, early models of temperament posited neurologically based differences in motivational systems that result in different sensitivity to positive (or reward) and negative (punishment) signals between individuals (Gray, 1981). Such biological sensitivity is thought to serve adaptive functions, as they prepare the individual to respond to stimuli that are relevant to personal goals and well-being (Tellegen, 1985). These stimuli are not restricted to just external primes as commonly investigated, and it is just as plausible that individuals should differ with respect to how they respond to their mental processes (Eysenck, 1967; Gray, 1981; Strelau, 1987). Second, individuals are thought to differ as a function of associative networks that connect memory contents of similar valence. For instance, there is good evidence suggesting that individuals high in neuroticism hold stronger implicit associations between negative affective nodes and therefore should exhibit facilitated responses to negative thoughts (Gross, Sutton, & Ketelaar, 1998; Robinson, Ode, Moeller, & Goetz, 2007). This perspective suggests individual differences in affective outcomes in response to activation of appraisal meanings. Finally, there could be individual differences in regulatory abilities that add or detract to the emotions experienced given certain appraised meaning. Consistent with the seminal ideas of Lazarus and Folkman (1984), there is evidence suggesting that individual differences in regulatory control influence affective networks to the extent that the effect of specific appraisal meanings do not produce the same effect on emotions across different individuals (e.g., Meier, Robinson, & Wilkowski, 2006).

Hence, although some appraisal theorists have postulated strong, invariant relationships between appraisals and emotions, there are good reasons to think that the extent to which certain appraisals are associated with particular emotional experiences is not invariant. Indeed, there is increasing evidence that specific appraisals cannot be considered universally (meaning, holding for all people) necessary or sufficient for specific emotions (Kuppens, Van Mechelen, Smits, & De Boeck, 2003; Tong, 2010b). Instead, both laboratory as well as experience sampling studies have demonstrated that individual differences can exist with respect to how strongly individual appraisals (e.g., Nezlek, Vansteelandt,

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Van Mechelen, & Kuppens, 2008; Silvia, Henson, & Templin, 2009; Tong, 2010a) and patterns of appraisals (Kuppens et al., 2007; Van Mechelen & Hennes, 2009) are related to particular emotional experiences. For instance, when reporting appraisal and emotional responses to vividly imagined emotional scenarios, some people's anger was found to be highly contingent on whether someone was to be blamed for a frustrating event, whereas this was much less the case for others (Kuppens et al., 2008). Furthermore, Tong (2010b), in an experience sampling study, found that no appraisal configuration was sufficient for any given negative emotion (anger, sadness, fear, and guilt) in daily life; in other words, even highly specialized configurations comprising multiple appraisals, which one might otherwise think could be universally sufficient for eliciting the corresponding emotions, do not always lead to the predicted emotions.

Therefore, given the same appraisal of events (as mildly frustrating, for instance), one person may experience no anger at all, whereas someone else may boil with rage. Next to contributing to normal variation in emotional experiences, at its extreme this type of individual differences may also play a role in the occurrence of anomalous or dysfunctional emotions, such as pleasure in response to negative events (e.g., pain), or disruptive emotions (e.g., anxiety, depression) in the face of relatively little 'objective' appraisal basis. There is a large literature on how maladaptive thinking patterns contribute to clinical disorders. For instance, maladaptive attribution styles are known to predict depression (Sweeney, Anderson, & Bailey, 1986). However, our model posits that it is not just the presence of these disruptive thought patterns that precipitate psychopathological symptoms in some people, but also how little of these form of thinking is required to generate the symptoms which would otherwise cause much less distress in other people.

Research has started to identify the personality and emotion dispositions that are associated with the strength or pattern with which appraisals relate to specific emotional experiences (Kuppens et al., 2007, 2008; Silvia et al., 2009; Tong, 2010a). For instance, research by Kuppens using directed imagery tasks showed that people high in trait anger tend to have stronger relationships between anger appraisals and the experience of anger (Kuppens et al., 2007, 2008). Tong (2010a) showed in an event-sampling study that people high in neuroticism tend to be characterized by stronger contingency between negative emotions and their corresponding appraisals (see also, Bolger & Schilling, 1991). In general, these findings largely point to disposition-congruent relationships, albeit this time with appraisal–emotion relationships (for similar findings, see also Gunthert, Cohen, & Armeli, 1999; Hankin, Fraley, & Abela, 2005; Meier & Robinson, 2004; Meier et al., 2006).

Appraisal Basis of Emotion States and Traits

Our framework is assumed to underlie emotional experience not only at the state level, but also at the trait level. Trait approaches to emotion posit that people reliably differ on trait dimensions that underlie (or merely summarize or reflect, such as in the act frequency approach; Buss & Craik, 1983; see also below) stable habitual tendencies to experience particular emotions. Such stable tendencies have been proposed for the experience of positive or negative emotions in general (such as extraversion, positive affectivity and neuroticism, negative affectivity, respectively; Eysenck, 1990; Watson, 2000), as well as the experience of more specific emotions such as trait anxiety, trait anger, trait guilt, trait shame, and so on (e.g., Spielberger et al., 1999; Tangney, 1990).

According to our proposal, emotion traits can be considered as the phenomenological result of the underlying, appraisal-based processes that make the emotional experiences of

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a person gravitate toward a certain direction, both in general as well as in interaction with situational information. In our view, the connection between emotion dispositions and contextual emotional experiences can and should be understood from the two sources of individual differences in appraisal processes. In other words, the reason why individuals who differ from each other on certain emotion traits tend to have different emotional experiences lies in the stable patterns of how these different individuals appraise their circumstances both in general as well as in a function of contextual information, and how these appraisals are associated with the experience of particular emotions. A specific contribution of our proposal therefore lies in making very explicit the link between emotion traits and states in terms of appraisal processes. This is, perhaps surprisingly, not inconsistent with temperamental accounts of personality. For instance, Clark and Watson (2008) rely heavily on appraisal processes when they write that ''N/NE [the temperamental superfactor that reflects neuroticism and negative emotionality] reflects individual differences in the extent to which a person perceives the world as threatening, problematic, and distressing'' (p. 268). Also Spielberger explicitly acknowledged early on that appraisal processes play a crucial role in translating emotion traits (e.g., trait anxiety) to state emotions (Spielberger, 1966).

Also, the link between emotion states and such more stable patterns may well be bidirectional. On the one hand, emotion traits reflect stable patterns in appraisal processes that affect emotion states. On the other hand, appraisals and emotions at the state level may contribute to and build up particular personality tendencies which in turn reinforce similar appraisals and emotions on future occasions.

Relationships with Previous Frameworks

We are not the first to formulate a proposal on how individual differences in emotion can be explained. Next to classic trait approaches, our proposal also shows overlap as well as distinct contributions in relation to other models that sought to explain individual differences in emotion.

The two central assumptions of our account can be seen as an emotional instantiation of the social-cognitive account of personality as formulated in the Cognitive-Affective Personality System (CAPS) theory by Mischel and Shoda (1995, 1998). In our framework, it is likewise posited that a situation elicits particular cognitive–affective units (in the emotion context: appraisals), that the excitatory and inhibitatory influences of these units (appraisals) combine to determine certain outcomes (emotion), and that individual differences in these outcomes (emotion) result from how people differ in the accessibility of the CAPS units (appraisals) and in the ways these units give rise to the outcomes (emotions) (Kuppens, 2009). There have been previous, more isolated attempts to fill the gap between emotion traits and emotion states by drawing on social-cognitive processes. For instance, attribution styles can explain why people are differentially predisposed to depression and hopelessness (Abramson, Metalsky, & Alloy, 1989). Our framework makes this link between emotion traits and emotion states more complete by identifying the concrete CAPS variables centrally implicated in emotional experience, showing the role of individual differences in the two appraisal processes that contribute to emotional experience, and delineating how stable patterns in these processes might give rise to emotional traits.

Our approach can also be considered to mirror the distinction offered by Gross et al. (1998) between affect-level and affective reactivity in how personality traits impact on emotional experience (for related perspectives, see e.g., Bolger & Schilling, 1991; Suls,

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Green, & Hillis, 1998). The affect-level view holds that personality traits relate to stable, tonic levels of emotionality, whereas the reactivity view holds that personality moderates affective reactivity to events. Consistent with their finding that personality traits impact emotion in terms of both affect-level and affective reactivity, our account stipulates that both differences in general appraisal tendencies and in the reactivity of emotion to appraisal underlie individual differences in emotional experience. The most important difference, of course, is that our framework takes a step further by identifying appraisal as the crucial agent in both level and reactivity processes. Appraisals are missing from Gross's et al. model. Whereas their reactivity view describes emotional responses to events, our model describes emotional responses to appraisals of events. A basic assumption of appraisal theories is that it is not so much the event that impacts emotional responses but the appraisal of the event. The inclusion of appraisal helps to clarify the mediating link between events and emotions.

Recently, Robinson (2007) proposed a framework to understand the processes underlying affect-related traits. This framework complements our own analyses by laying out in detail the type of processes that may be implicated in the trait-congruent relationships between appraised meaning and emotional responses. First, he conceptualized emotional traits (e.g., neuroticism) as associated with stronger networks of congruent nodes (e.g., between negative thoughts). Hence, high neuroticism individuals are more likely to respond faster to negative targets after negative primes than low neuroticism individuals (e.g., Robinson et al., 2007). Although Robinson did not focus on appraisals, his model is relevant for the current analysis because it suggests individual differences in the accessibility of emotional responses given primed appraised meanings. For instance, one can conceptualize neuroticism as a system consisting in part of strongly connected networks of negative emotion and negative appraisal nodes. Hence, individuals high in neuroticism would require lower level of a relevant negative appraisal (e.g., perceived unfairness) to elicit the same amount of a negative emotion (e.g., anger) than those low in neuroticism (Gunthert et al., 1999; Hankin et al., 2005; Tong, 2010a).

The second process mentioned by Robinson (2007) concerned regulatory mechanisms that moderate the influence of affective primes. For instance, individuals high in agreeableness were found to exhibit higher accessibility of prosocial concepts even after they were exposed to hostile-related words (Meier et al., 2006). These results suggest that high agreeableness individuals are capable of inhibiting the negative emotional consequences generated by hostile thoughts. Again, these findings are relevant to our model because it suggests individual differences in the ability to control emotional responding given certain appraised meaning. For example, individuals high in agreeableness might be capable of reducing the enhancing effect of perceived unfairness on anger, either because the relationship between unfair and anger is weaker in them in the first place or because they actively suppress their experience of anger the moment it arises. This also ties in with research on affect regulation and thought control (Gross, 1998a) and suggests a largely uncharted research territory on how regulatory abilities might moderate the impact of specific appraisals on specific emotions.

Directions for Future Research

Despite the recent advances, several pressing issues remain for understanding individual differences in emotional experience from the proposed framework. First, research has demonstrated the significance of automatic appraisal processes (Moors, 2010). Although

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there is already evidence that evaluative judgments, moods, and emotions can be automatically activated (e.g., Chartrand, van Baaren, & Bargh, 2006; Murphy & Zajonc, 1993), it is only recently that direct evidence on automatic appraisal–emotion processes is available. For instance, there is now evidence that appraisals can be automatically constructed (Moors, 2010). Also, subliminal angry and sad faces were found to activate appraisals of other-agency and situation-agency, respectively (Yang & Tong, forthcoming). And subliminal primes related to the appraisal of unfairness were found to elicit angry facial expressions, facilitate responses to anger target words in lexical decision tasks, and bias interpretation of ambiguous situations as anger-provoking [D. H. Tan, E. M. W. Tong & Y. L. Tan (in preparation)]. These findings add to existing evidence regarding the role of automatic cognitive processes (e.g., attentional biases) in emotional disorders (e.g., Clark, Beck, & Alford, 1999; MacLeod, Mathews, & Tata, 1986). Drawing from these recent developments, we expect individual differences in automatic appraisal and automatic appraisal–emotion associations to also play a role in emotional experience (noting that most of the evidence presented in support of our account relied on self-reports). We offer a few suggestions for research on this issue. For instance, using priming paradigms, individual differences in the two sources of emotional experience could be tested by measuring appraisal and emotional responses in the presence of specific situational and appraisal primes, respectively; emotional responses (e.g. pride) to nonconscious appraisal primes (e.g., control) may be stronger with high levels of a relevant trait (e.g. conscientiousness); and individuals high in agreeableness might not show anger responses to subliminal unfairness primes, which could imply that their regulatory control over their appraisal processes can operate nonconsciously.

We mentioned earlier that the two sources of individual differences in appraisal processes could be expressed as if-then associations: (i) events (if) – appraisal (then) and (ii) appraisal (if) – emotion (then). Recent work has shown that individual differences in such associations interact with traits to predict emotion-related outcomes. For instance, high neuroticism individuals are more aggressive only if they hold strong implicit (if) stress – (then) aggression associations (e.g. Moeller, Robinson, & Bresin, 2010). These findings raise the question of whether relevant traits might interact with if-then appraisal associations to affect emotional responses.

Appraisal is not a one-off occurrence but is continuously updated as a function of changing events or concerns (Scherer, 2009). Consequently, appraisal plays an important role in emotion regulation as well, most notably in the form of reappraisal. Reappraisal refers to re-evaluating the emotion-eliciting meaning of an event to reduce its emotional impact and is part of the regulatory process that occurs after the first instantiation of an emotion (e.g., Gross, 1998a). There is consistent evidence that reappraisal (and individual differences therein) is capable of producing the desired consequence and of strongly aiding affect repair or emotional recovery (e.g., Gross, 1998b, 2001; Gross & John, 2003; Kross, Ayduk, & Mischel, 2005). Mirroring the present framework, an important avenue for future research therefore consists of examining individual differences in the reappraisal of events and individual differences in the impact of reappraisal on emotional experience. As a first step in this direction, Tong et al. (2009) found that individual differences in the speed by which anger returned to baseline levels corresponded with individual differences in the fluctuation of anger appraisals after the anger-provoking event. For example, those who exhibited the quickest reduction in anger over time also showed the quickest reduction in perceived moral violations. Hence, some people recover faster because they are more able to make adaptive reappraisals than others. Further research should identify the traits that predict post-event reappraisals and also post-event reappraisal–emotion

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relationships, which in turn can help answer questions about why different people adjust and adapt to negative events to varying degrees.

Finally, there is little work on the relationship between both sources of individual differences. One intriguing possibility is that both types of individual differences may be positively correlated with each other (given their mutual correlations with trait measures), reflecting a common direction of individual differences toward certain (types of) emotional experiences. Such a positive correlation between the different processes that make people more easily experience a certain emotion could reflect the fact that a person's emotional system is geared toward a communal goal, such as for instance the avoidance of conflict (as reflected by the trait of agreeableness), the reduction of social risk (such as hypothesized in depression; Allen & Badcock, 2003), or the fear of negative social evaluation (as observed in social phobia; Clark & Wells, 1995) (see, e.g., Matthews, 2008, for a similar line of reasoning).

In conclusion, we propose that individual differences in how people appraise their circumstances and how appraisals are associated with emotional experience play a crucial role in determining individual differences in emotion at both the state and trait level. We reviewed evidence that supports the notion that individual differences in these appraisal processes can be thought to lie at the base of both emotion traits and emotion states. For understanding what makes people different emotionally, future research should continue to study the processes that make people experience different emotions in specific contexts.

Short Biographies

Peter Kuppens is an Associate Professor at the University of Leuven, Belgium, a research fellow with the Flemish Fund for Scientific Research, and a Honorary Research Fellow at the University of Melbourne, Australia. His research focuses on understanding the componential and dynamical nature of emotions from an individual differences perspective. His most recent research aims to identify the determinants of and the patterns with which emotions change across time and how this plays a role in well-being and (mal)adjustment. More information can be found at http://ppw.kuleuven.be/okp/people/Peter_Kuppens/

Eddie Tong is an Assistant Professor at the National University of Singapore (NUS) and obtained his PhD in Psychology from the University of Michigan. His research centers on the interface between cognitive processes and specific emotions. He examines not just how social-cognitive processes such as appraisals elicit specific emotions, but also how these processes are shaped as a consequence of emotions. He also examines how emotional responses are elicited by supraliminal and subliminal environmental cues and how personality influences these processes. He teaches classes on emotion and social-cognition in NUS.

Endnote

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