Emotion Review
http://emr.sagepub.com/

Flavors of Appraisal Theories of Emotion

Agnes Moors

Emotion Review 2014 6: 303
DOI: 10.1177/1754073914534477

The online version of this article can be found at:
http://emr.sagepub.com/content/6/4/303

Published by:
SAGE
http://www.sagepublications.com

On behalf of:
isre International Society for Research on Emotion
International Society for Research on Emotion

Additional services and information for *Emotion Review* can be found at:

Email Alerts: http://emr.sagepub.com/cgi/alerts

Subscriptions: http://emr.sagepub.com/subscriptions

Reprints: http://www.sagepub.com/journalsReprints.nav

Permissions: http://www.sagepub.com/journalsPermissions.nav

>> Version of Record - Sep 11, 2014

What is This?

Downloaded from emr.sagepub.com at Bibliotheek fac Psych en on September 11, 2014

emotion review

Emotion Review
Vol. 6, No. 4 (October 2014) 303–307
© The Author(s) 2014
ISSN 1754-0739
DOI: 10.1177/1754073914534477
er.sagepub.com

Flavors of Appraisal Theories of Emotion

Agnes Moors
Department of Psychology, Ghent University, Belgium
Swiss Center for Affective Sciences, University of Geneva, Switzerland

Abstract

Appraisal theories of emotion have two fundamental assumptions: (a) that there are regularities to be discovered between situations and components of emotional episodes, and (b) that the influence of these situations on these components is causally mediated by a mental process called appraisal. Appraisal theories come in different flavors, proposing different to-be-explained phenomena and different underlying mechanisms for the influence of appraisal on the other components.

Keywords
appraisal, componential, constructivism, emotion

What Are the Essential Elements of Your Theory of Emotion? Which Elements Are Shared by Different Theories? What Element(s) Distinguish(es) Your Theory From the Others?

Appraisal theories of emotion (e.g., Ellsworth, 2013; Frijda, 2007; Lazarus, 1991; Roseman, 2013; Scherer, 2009) come in two broad flavors. Each has its own proposal about what the to-be-explained phenomena are and how to causally explain them.

The To-Be-Explained Phenomena

To arrive at a prescriptive or technical definition of emotion, appraisal theorists start from the descriptive or folk definition and trim it down so that the resulting set of instances is homogeneous according to the following criteria: A first criterion is that emotions are episodes that are triggered by a stimulus and that consist of several of the following components: changes in appraisal, action tendencies, somatic responses, expressive behavior, and experience or feelings. Additional criteria are that emotional episodes (a) contain an appraisal that the stimulus is relevant for a central goal or concern (cf. Moors, 2007, 2013; Oatley & Johnson-Laird, 1987), (b) contain an action tendency with control precedence (i.e., one that takes priority over other goals, Frijda, 2007) and/or (c) have strongly synchronizing components (Scherer, 2009). It may be noted that these criteria are all gradual in nature (episodes are more or less relevant to more or less central concerns; action tendencies take precedence with more or less force; and components can synchronize to a more or less extent), thus allowing for relative conclusions only (e.g., one episode is more/less emotional than another). Sharp distinctions between emotional versus nonemotional episodes are only possible when some threshold is chosen (e.g., an episode could be called emotional when an episode exceeds a certain degree of goal relevance, control precedence, and/or synchronization). Despite believing in the heuristic value of their criteria, several appraisal theorists realize that any criterion or threshold contains an element of choice not open to empirical test, and that there is a great lack of consensus.

Appraisal theories not only propose ways to demarcate the set of emotional episodes, but also ways to organize the variety within this set. A first flavor of appraisal theories (e.g., Lazarus, 1991; Roseman, 2013) splits the set into a limited number of subsets, corresponding to the specific emotions figuring in natural language (e.g., anger, fear, sadness). Proponents of the first flavor take these specific emotions as the phenomena to be explained. A second flavor of appraisal theories (e.g., Scherer, 2009) splits emotional episodes into a large or even infinite number of subsets, each characterized by a unique situation and hence a unique pattern of appraisal values. This has led proponents of the second flavor to shift the to-be-explained phenomena from specific emotions to (sub)

Author note: Preparation of this paper was supported by Methusalem Grant BOF09/01M00209 of Ghent University and Research Programme G.0223.13N of the Research Foundation – Flanders (FWO).
Corresponding author: Agnes Moors, Department of Psychology, Ghent University, Henri Dunantlaan 2, Ghent, B-9000, Belgium. *Email*: agnes.moors@ugent.be

Downloaded from emr.sagepub.com at Bibliotheek fac Psych en on September 11, 2014

emotional components (cf. Ortony & Turner, 1990). For instance, instead of trying to explain anger or fear, they try to explain the tendencies to dominate, attack, freeze, or avoid, without linking them to anger and fear, and ultimately even, without worrying about whether the components under study are emotional or not (Moors, 2013).

Explanation

Appraisal theories explain the occurrence of and the variety within the set of emotional episodes by invoking the process of appraisal. This explanation can be split into two fundamental assumptions. The first is that there are regularities or regular relations to be discovered among situations, on the one hand, and emotional episodes or components, on the other. For example, situations leading to the tendency to attack have something in common and they differ from those leading to the tendency to run away. In addition, appraisal theories have detailed hypotheses about the features of the situations involved in these regularities. Crucially, they argue that emotional episodes or components are not determined by intrinsic stimulus features but by features or factors characterizing the interaction between the stimulus and the internal or external context. Examples of factors shared by most appraisal theories are the extent to which a stimulus is relevant for (*goal relevance*) and congruent with a person's goals/concerns (*goal congruence*) and expectations (*expectancy*), and whether the person caused the occurrence of the stimulus (*agency*) and is able to control its consequences (*control*). The exact list of appraisal factors and the exact hypotheses about links between appraisal values and emotions/components differ among individual appraisal theories. These hypotheses have the status of working hypotheses and are open to empirical corrections.

A second fundamental assumption of appraisal theories is that the proposed appraisal factors must also be processed by the organism. It is not sufficient that a stimulus is goal relevant or that a person has little control; the organism needs to detect this also in some way (Frijda, 1986, p. 330; Moors, 2007). From this follows the postulate of appraisal theories that there is a mental process of appraisal in which a stimulus is evaluated on the proposed appraisal factors and that this process causes the other components. Once the appraisal process has produced an output (a representation of appraisal values, in any type of format) it drives changes in action tendencies, somatic responses, and motor behavior. Aspects of all these changes emerge into consciousness. The integration of these conscious aspects constitutes the content of the feeling component. Feelings may or may not be categorized or labeled with a specific emotion name.

Appraisal theories make almost no restrictions to the types of mechanisms that can underlie appraisal or the format of the representations on which these mechanisms can operate. Appraisal can be constructive, in the sense that information from different sources is combined on the spot, or it can be nonconstructive, in the sense that the stimulus by itself may trigger an already stored pattern of appraisal values. It is assumed that both can operate under conditions of automaticity, and that both can operate on all kinds of representations (e.g., propositional, conceptual, perceptual, sensorimotor, embodied; Moors, 2010).

The two flavors of appraisal theories each propose a different mechanism underlying the influence of appraisal on the other components. The first flavor proposes that the appraisal values are integrated in a pattern, perhaps linked to some core relational theme (e.g., danger, loss) and that this determines the specific emotion that occurs (e.g., fear, sadness). Once this is determined, the other components that belong to the emotion are activated. The transition from the core relational theme to the other components may even be mediated by an affect program (i.e., a dedicated brain circuit for the emotion). Hence this view is compatible with affect program theories (e.g., Ekman, 1994; Panksepp, 2012).

The second flavor proposes that each appraisal value determines part of the other components, and together these parts form the emotion. Here, emotion is an emergent phenomenon. There are many possible combinations of appraisal values and hence many possible emotions. Whereas the first flavor tries to discover the appraisal patterns causing specific emotions, the second flavor examines the influence of appraisal values on other components without linking them to specific emotions.

Second flavor appraisal theories share the idea with constructivist theories that emotional episodes emerge out of processes that are not specific to emotion (Brosch, 2013). The evaluation or appraisal process is not specific: it is neither necessary (there may be alternative causes, such as direct brain stimulation and imitation), nor sufficient (appraisal with the output goal irrelevant does not produce emotional components).

The second flavor subsumes several detailed scenarios of the transition from appraisal to the other components. One scenario is that each appraisal value shapes one aspect of the action tendency, which in turn shapes one aspect of the physiological response pattern and one aspect of the action. Another scenario is that each appraisal value contributes to the negotiation and selection of an entire action tendency (e.g., to attack), which engages the appropriate physiological response pattern needed to implement the action. Still another scenario is that some appraisal values (e.g., goal incongruence) give rise to the most general action tendency (e.g., to undo the goal incongruence), which in turn gives rise to ever more concrete action tendencies (e.g., to dominate) depending on other appraisal values (e.g., when control is high). Scenarios 1 and 3 are compatible with either a simultaneous or sequential processing of the appraisal values. In the sequential case, early appraisal values may already exert their influence on the other components, and the outputs of these other components may feed back to the appraisal component to start a new cycle (e.g., Scherer, 2009).

The causal claim has been criticized on several grounds. Some critics seem to deny the possibility of mental causation in general (e.g., Ramsey, 2008). Yet not all critics who deny the causal role of appraisal seem to consistently deny the causal role of all mental processes. Social and psychological constructivists typically dismiss or de-emphasize the causal role of appraisal

Downloaded from emr.sagepub.com at Bibliotheek fac Psych en on September 11, 2014

while allowing or emphasizing the causal role of other mental processes. A few examples: Parkinson (1995) argued that emotional interactions consist in behavior aimed at communicating what the interaction partners want to do or how they want to be (treated) in the relationship. Thus, behavior can be classified as part of an emotional interaction not based on its superficial features but based on the action tendencies that generated it. Like other motivational constructs, action tendencies are considered mental constructs (Bargh, 1997). Barrett (2012) argued that individuals categorize bodily changes along with the immediate situation as an emotional episode. Here, the mental process of categorization is said to influence only the content of experience ("I am angry") and not to produce a state with a distinct physiological signature. This may not count as a classic example of mental causation (i.e., mental events causing physical events). Yet both Parkinson (1995) and Barrett (2012) have added that once people think they have a certain emotion (e.g., "I am angry") this may influence their behavior (e.g., they may become more aggressive) and this does seem to be a classic case of mental causation.

The strong objections against the causal claim even have led some appraisal theorists to abandon it, while retaining the idea that appraisal factors describe the regularities between situations and emotional episodes (e.g., Clore & Ortony, 2013). These authors, moreover, claim to be committed only to appraisal as a component of emotional episodes, or better perhaps, appraisal as part of the content of the feeling component (Moors, 2013). What is puzzling, however, is how appraisal factors can be taken both as descriptions of the situation and as descriptions of the feeling content, without assuming some mental process for doing the translation from situation to feeling.

It may be noted that not even all constructivist theorists are dismissive of a causal role of appraisal. In Cunningham, Dunfield, and Stillman's (2013) model, for example, core affect may stem from the (primary) appraisal of a discrepancy between a stimulus (be it the situation or proprioceptive feedback) and a concern or expectation. Other features of the situation progressively constrain the interpretation in iterative reprocessing cycles, where the constraining can be done by (secondary) appraisal or other categorization processes.[1] Likewise, Russell (2012) allows causal influences among components (including those stemming from appraisal), but he sees them as less strong than appraisal theorists do.

One Way to Clarify Just What a Claim Includes Is to Ask What It Excludes. That Is, What Would Falsify a Claim? Please Elaborate on Those Distinguishing Elements of Your Theory by Stating How, at Least in Principle, They Would Be Falsified

To falsify the first assumption, that there are regularities between situations and emotional episodes or components, one should demonstrate that no such regularities exist. This seems an unrealistic purpose of investigation. It seems more fruitful to try falsifying detailed hypotheses of individual appraisal theories about links between specific appraisal values (e.g., goal incongruent) and specific values of the other components (e.g., corrugator activity).

Falsifying the second assumption, that appraisal is a mental process causally mediating the influence of encounters on emotional components, is not an easy task either. To determine whether appraisal causes the other components, we need to establish whether appraisal has occurred and we need to determine whether the components are emotional or not. Like any mental process, appraisal is not directly observable but needs to be inferred from observable responses. The criteria for demarcating emotional episodes proposed by appraisal theorists are gradual in nature and there is no consensus. Even if consensus were reached about a behavioral or neurological proxy for appraisal and about which components to count as emotional, we would still face the problem that most appraisal theorists do not see appraisal as a necessary cause of the other components.

How Does Your Theory View the Relation of Emotional Experience (the Subjective Conscious Feeling in an Emotion) to the Perception of Emotion in Another? What Is Each Process? Are They Qualitatively Different Processes? The Same Process? Are They Linked?

Appraisal theories take the experience or feeling component to be the reflection of aspects of all the other components into consciousness. Thus, each of the other components determines part of the content of emotional experience. This experience can, but does not have to be labeled with an emotion word. If it does get labeled, the label also enters consciousness where it also colors the emotional experience. Crucially, appraisal theories accept that there can be emotional experience without categorization or labeling of the experience as emotional (or as angry, sad, and fearful). In this respect, they differ from Barrett's (2014) psychological constructivist theory.

The mechanisms involved in the production of emotional experience are ones involved in the production of consciousness. The mechanisms involved in the conscious perception of other people's emotions may be quite similar. The output or content of experience and conscious perception, however, is probably different. Consciousness is often said to have an aboutness aspect (i.e., what it refers to) and a phenomenal aspect (i.e., the pure feeling; Block, 1995). When I have an emotional experience, I have access to different information than when I perceive someone else having an emotion. I can become aware of my own but not of another's appraisals, action tendencies, and physiological responses. But even if I had complete access to the aboutness aspect of the other person's experience, I would still not share the phenomenal aspect of her experience.

Downloaded from emr.sagepub.com at Bibliotheek fac Psych en on September 11, 2014

Emotions Are Now Typically Thought of as Having Components, Such as Changes in the Peripheral Nervous System, Facial Movements, and Instrumental Behavior. What Precisely Does Your Theory Say About the Relation of Emotion to the Components?

Talk of emotional episodes and components, obviously, implies a part–whole relation. Most appraisal theorists see emotional episodes as collections of components. At first sight, this seems incompatible with the idea in first flavor appraisal theories that the influence of appraisal on the other components is mediated by emotion. There are a few ways in which this idea can be understood, however. One interpretation is that an *emotional episode* consists of components, but that an *emotion*, equated narrowly with one of the components (e.g., an abstract action tendency or strategy), is the mediator. Another interpretation is that the influence of appraisal on the other components is mediated by the *detection or registration* of the emotion at stake, not by the emotion itself. The first interpretation is not fundamentally different from Scenarios 2 and 3 subsumed under the second flavor of appraisal theories (cf. previous lines). The second interpretation, however, from second flavor appraisal theories, is that for these theories, no detection of (or categorization in terms of) any specific emotion is required at any time before appraisal can exert its influence on the other components.

Is There Variability in Emotional Responding Within a Given Category of Emotion (Such as Fear, Anger, etc.)? If So, How Does Your Theory Explain That Variability?

First flavor appraisal theories assume that there are fixed patterns of appraisal for each emotion subset (or category). Each emotion subset, in turn, is linked to a fixed action tendency couched in fairly abstract terms (e.g., attack, dominate, withdraw, cf. Roseman, 2013). Within each emotion subset, there is variability in more concrete action tendencies/actions as long as they are a means to the fulfillment of the abstract action tendency characteristic of the emotion category. For example, fear could be characterized by a tendency to withdraw, which can be manifested in concrete action tendencies/actions like hiding, running, postponing, and averting one's gaze. The concrete action tendencies/actions are determined by the specific features of the situation, but processing of these features is not counted as part of the appraisal process. Additional variability can stem from regulation processes that interfere with the transition of the abstract action tendency into the concrete action tendencies/actions.

Second flavor appraisal theories do not consider emotion subsets such as fear and anger as the phenomena to be explained and so there is no variability to be explained within these subsets. Instead, they try to explain the variety within emotional components (changes in action tendencies, somatic responses, expressive behavior, and feelings). Driven by a desire to find general regularities and to be parsimonious, appraisal theories of the second flavor have started out with a relatively small set of appraisal factors, assuming that combinations of values on these factors already explain a great deal of the variety in emotional components (e.g., they may already suffice to determine the abstract action tendency). But the number of factors is not fixed; they need to be refined and supplemented with other factors to account for additional variety (e.g., the concrete action tendency/action). Proponents of the second flavor see it as their task to discover and map out these additional factors. It is precisely because of the difficulties to demarcate the set of emotional episodes (cf. previous lines) that there is no a priori limit to the number of factors that should be counted as appraisal or that should be studied. Second flavor appraisal researchers can find inspiration in other research traditions to extend their list of factors. For example, Carver and Scheier (1990) refine the factor *goal congruence* with the factor of the *velocity* with which the goal is attained. Attribution theorists (Weiner, 1985) refine *agency* by adding factors such as *stability* and *locus of cause*. Social constructivist theories (Boiger & Mesquita, 2012) suggest the importance of *status, role*, and *norms about the appropriateness of behavior* in different contexts. Before appraisal theories add new appraisal factors to their list, however, they will have to be convinced that the influence of these new factors is not mediated by already existing appraisal factors. Take the finding that status influences whether a person will engage in aggressive behavior (Diekmann, JungbauerGans, Krassnig, & Lorenz, 1996). Status will not be taken up as a new appraisal factor if its influence is mediated, for example, by the existing appraisal factor of control.

In addition to the issue of mediation, there is the issue of moderation. In the first flavor of appraisal theories, the relation between appraisal patterns and emotions is fixed and universal (the same in all persons of all cultures). Person and culture factors can influence the relation between stimuli and appraisal patterns and the relations between emotions and the other components, but not the relation between appraisal patterns and emotions. The second flavor of appraisal theories, by contrast, accepts that person and culture factors can moderate the relations among all components. For example, individual thresholds for action tendencies likely moderate the relation between appraisals and action tendencies.

I hope to have shown that appraisal theories (especially of the second flavor) are profoundly situated, and that they offer an ambitious research program for increasing insight into the specific situational factors involved in the variety of phenomena that emotion researchers are interested in.

Note

1 The appraisal process is also a categorization process, but one with a different input and output than the categorization process proposed in psychological constructivist theories. In appraisal theories, the

Downloaded from emr.sagepub.com at Bibliotheek fac Psych en on September 11, 2014

situation is categorized as goal relevant, goal incongruent, difficult to control, etc.; in constructivist theories, the bodily changes are categorized as anger, fear, sadness, etc.

References

Bargh, J. A. (1997). The automaticity of everyday life. In R. S. Wyer (Ed.), *Advances in social cognition* (Vol. 10, pp. 1–49). Mahwah, NJ: Erlbaum.

Barrett, L. F. (2012). Emotions are real. *Emotion*, *12*, 413–429.

Barrett, L. F. (2014). The conceptual act theory: A précis. *Emotion Review*, *6*, 292–297.

Block, N. (1995). On a confusion about a function of consciousness. *Behavioral and Brain Sciences*, *18*, 227–287.

Boiger, M., & Mesquita, B. (2012). The construction of emotion in interactions, relationships, and cultures. *Emotion Review*, *4*, 221–229.

Brosch, T. (2013). Comment: On the role of appraisal processes in the construction of emotion. *Emotion Review*, *5*, 369–373.

Carver, C. S., & Scheier, M. (1990). Principles of self-regulation: Action and emotion. In E. T. Higgins & R. M. Sorrentino (Eds.), *Handbook of motivation and cognition: Foundations of social behavior* (Vol. 2, pp. 3–52). New York, NY: Guilford.

Clore, G. L., & Ortony, A. (2013). Psychological construction in the OCC model of emotion. *Emotion Review*, *5*, 335–343.

Cunningham, W. A., Dunfield, K. A., & Stillman, P. E. (2013). Emotional states from affective dynamics. *Emotion Review*, *5*, 344–355.

Diekmann, A., JungbauerGans, M., Krassnig, H., & Lorenz, S. (1996). Social status and aggression: A field study analyzed by survival analysis. *Journal of Social Psychology*, *136*, 761–768.

Ekman, P. (1994). All emotions are basic. In P. Ekman & R. J. Davidson (Eds.), *The nature of emotion: Fundamental questions* (pp. 15–19). Oxford, UK: Oxford University Press.

Ellsworth, P. C. (2013). Appraisal theory: Old and new questions. *Emotion Review*, *5*, 125–131.

Frijda, N. H. (1986). *The emotions*. New York, NY: Cambridge University Press.

Frijda, N. H. (2007). *The laws of emotion*. Mahwah, NJ: Erlbaum.

Lazarus, R. S. (1991). *Emotion and adaptation*. New York, NY: Oxford University Press.

Moors, A. (2007). Can cognitive methods be used to study the unique aspect of emotion: An appraisal theorist's answer. *Cognition and Emotion*, *21*, 1238–1269.

Moors, A. (2010). Automatic constructive appraisal as a candidate cause of emotion. *Emotion Review*, *2*, 139–156.

Moors, A. (2013). On the causal role of appraisal in emotion. *Emotion Review*, *5*, 132–140.

Oatley, K., & Johnson-Laird, P. N. (1987). Towards a cognitive theory of emotions. *Cognition and Emotion*, *1*, 29–50.

Ortony, A., & Turner, T. J. (1990). What's basic about basic emotions? *Psychological Review*, *97*, 315–331.

Panskepp, J. (2012). In defense of multiple core affects. In P. Zachar & R. D. Ellis (Eds.), *Categorical versus dimensional models of affect: A seminar on the theories of Panksepp and Russell* (pp. 31–78). Amsterdam, The Netherlands: John Benjamins.

Parkinson, B. (1995). *Ideas and realities of emotion*. London, UK: Routledge.

Ramsey, W. (2008). Eliminative materialism. In E. N. Zalta (Ed.), *The Stanford encyclopedia of philosophy*. Retrieved from http://plato.stanford.edu/archives/fall2008/entries/materialism-eliminative/

Roseman, I. J. (2013). Appraisal in the emotion system: Coherence in strategies for coping. *Emotion Review*, *5*, 141–149.

Russell, J. A. (2012). From a psychological constructionist perspective. In P. Zachar & R. D. Ellis (Eds.), *Categorical versus dimensional models of affect: A seminar on the theories of Panksepp and Russell* (pp. 79–118). Amsterdam, The Netherlands: John Benjamins.

Scherer, K. R. (2009). The dynamic architecture of emotion: Evidence for the component process model. *Cognition and Emotion*, *23*, 1307–1351.

Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review*, *92*, 548–573.

Downloaded from emr.sagepub.com at Bibliotheek fac Psych en on September 11, 2014