Cognition and Emotion over twenty-five years
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INVITED REVIEW

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In the 25 years since its foundation, Cognition and Emotion has become a leading psychological journal of research on emotion. Here we review some of the ways in which this has occurred. Questions have included how parallel systems of cognition and emotion can operate in emotion regulation and psychological therapies (including the issue of free will), how the cognitive approach to emotion works, how emotion affects attention, memory, and decision making, and how emotion research is moving beyond the individual mind into the space of the interpersonal.

Keywords: Emotion regulation; Therapy; Attention; Memory; Social sharing.

“The beast does but know, but the man knows that he knows.” This thought by John Donne (1615–1631/1960, p. 225) might be a suitable motto for Cognition and Emotion. If we take Donne’s “man” to mean not “gendered human” but “thinking being” (“man” has the same root as “mental”), Donne is saying that we human beings can reflect on what we know and, one might add, on what we feel. Cognition and Emotion, then, might be thought of as the journal in which we explore the relationship between our knowledge and our emotions.

At the end of 2011, Cognition and Emotion will be 25 years old. Since its birth the Journal (this is how we shall refer to it here) has prospered in the care of five editors—Fraser Watts, Jerry Parrott, Craig Smith, and most recently Jan De Houwer and Dirk Hermans—together with four co-editors, Henry Ellis, Nico Frijda, Keith Oatley, and Andrew Mathews.

The idea for the Journal arose between Fraser Watts and Mark Williams whose research had a largely applied focus, trying to understand the role of cognitive processes in emotional disorders of
anxiety and depression, and how these were modified by cognitive therapy.

It increasingly seemed that this was just one aspect of an emerging field of cognitive processes in emotion. However, the field seemed to lack cohesiveness. For example, there was little connection between developmental and clinical research. It seemed to Watts and Williams that the field would benefit from a broadly conceived journal on cognition and emotion that could bring strands of work together and help to give the field coherence.

An important issue that came up in conversations was the balance of theoretical and empirical work. It would have been possible to go for a predominantly empirical journal. However, several influential voices such as George Mandler’s urged the importance of high-quality theory, and a decision was made to try to attract good theoretical papers as well as empirical work.

In the opening editorial statement for the Journal, Fraser wrote that questions about the relation between cognition and emotion were as yet undecided, so it was unclear whether the journal’s field should be cognition and emotion as parallel systems, or emotion in a cognitive framework, or influences of emotion on cognitive processes, or what. He wrote that “there may come a time when there is a consensus” but until then, “the prudent policy for a journal is to be catholic” (Watts, 1987, p. 2). Contributions to the Journal over the years show this policy to have been, indeed, prudent.

The Journal grew from an initial four issues per year to eight, and from 430 pages in 1987 to 1,476 by the end of 2010, with the print area of the pages having increased by 40% from its initial size.

In an editorial at the beginning of the third year of their editorship, Dirk Hermans and Jan De Houwer (2010) wrote that in the previous two years 21% of submissions to the Journal were published, confirming the suspicions of many that Cognition and Emotion is a high quality journal. Its current impact factor (average number of citations per article over two preceding years) is 2.08. Its five-year impact factor is 2.58. For psychology, the five-year window is more appropriate, and a correction should be made for that egregious practice, auto-citation. On this corrected five-year measure, Cognition and Emotion now ranks 21st among the 81 journals in the category “Psychology, experimental”.

Here, we take a selective look over the journal’s first 25 years. After a discussion of the history of ideas on cognition and emotion, we review cognition and emotion as parallel systems, the cognitive approach to emotions, the influence of emotions on attention, memory and decision making, and the extension of cognitive-emotional research beyond the individual into interpersonal transactions.

TRADITIONS OF RESEARCH ON COGNITION AND EMOTION

The first thoroughgoing students of the emotions in the West seem to have been the Epicureans and Stoics; both groups being cognitive theorists of emotions. Their work derived from Aristotle’s (330 bce/1954), and many of their ideas continue today. It may indeed be that, with the modern addition of empirical methods of psychology, the journal Cognition and Emotion should be thought of as a direct descendent of Epicurean and Stoic writings, of which more below.

Although aided by a strong push from Charles Darwin (1872), who not only observed emotional expressions but was among the first to use psychological questionnaires, research on emotion was slow to become established in psychology. In the first half of the twentieth century, under the influence of behaviourism, emotion seemed almost a non-subject. Now it has taken its place at the centre of psychology. We think this is a rightful centre because emotion is very close to us as human beings, arbiter of our values, the principal means by which the inwardness of selfhood meets the events of the outer world and other people. We think, too, that the core of cognition is central to emotion because the idea of the cognitive is to forward understandings of the mind about knowledge, conscious and unconscious, and how this knowledge is used in perceiving, thinking, and interacting with others.

In social and psychological science, research on emotion has extended its range of methods and this extension can be seen in the Journal’s first 25
years. The aspiration of these methods is to give valid and reliable bases for the evidence on which we draw to conceptualise emotion and its effects.

At the same time, the methodology of empirical research confronts us with a paradox. It can impose a distancing quality, as if emotions happen merely to research participants and to those who suffer from emotional disorders. But at its core, psychological interest in emotion is in understanding ourselves, other people, and our relationships with these others. The emphasis on cognition, in its relation with emotion, gives a basis for resolving this paradox because, with research, some of the knowledge that is implicit and unconscious can become explicit and conscious. The Epicureans, as Martha Nussbaum (1994) notes, were the first in the West to postulate the unconscious. They thought that people’s strivings for fame, even after they were dead, was so irrational it could only derive from something else, of which they were unconscious. Epicurean and Stoic programmes were devoted to increasing our consciousness of our emotional processes to enable us to live better lives.

PARALLEL SYSTEMS IN REGULATION AND THERAPY

In the history of ideas in the West, cognition and emotion were viewed as parallel systems in which one of them (emotion) might interfere with the other (rational cognition), although perhaps the other (rational cognition) might be able to moderate the effects of the one (emotion). Concern for these matters goes at least as far back as Plato (370 bce/1973) who, in Phaedrus, proposed the metaphor of the human soul, or as we now say mind, having three parts: a rational charioteer who tries to control two horses, one good and one bad. The good horse is something like mental energy and the bad horse is appetite, both horses being—as one might now think—aspects of emotion. The task of the charioteer, says Plato, “is necessarily a difficult and unpleasant business” (p. 51). In neurological terms, the idea of a tripartite structure to selfhood was reiterated in modern times with Paul Maclean’s (1990) triune brain: reptilian, limbic, and neocortical, three successive evolutionary layers in which the most recent, the neocortex, supposedly moderates the influence of the two earlier and more primitive layers.

As mentioned above, the leaders in discussions of the relation of rationality to other aspects of the soul, in how one could lead a good life even though pulled this way and that by the emotions, were the Epicureans and Stoics. The schools in which they taught continued for 600 years. They sought to diminish, or even extirpate, bad effects of emotions, especially anger. Ideas of these ancient schools in relation to modern theories of child development and moral implications of emotions were reviewed by Matthew Spackman (1999). The influence of these ancient schools has continued. The founding of the United States of America, with its idea that an imperial power was unnecessary to administer society because people are naturally sociable, and had a right to the pursuit of happiness, is distinctively Epicurean, as is the current sense of environmentalism that well-being consists in simple pleasures of friendship and harmony with nature. As Carol Gohm and Gerald Clore (2002) have found, well-being is correlated with people being able to understand their emotions, and to plan in relation to them, in ways the Epicureans would have understood. Stoic ideas continue in the precept that administration of justice should be dispassionate and indifferent to gender, social class, or race.

In everyday life, few issues are as pressing as relations between the emotional and the deliberative that the Epicureans and Stoics explored. If we had a closer grip on this issue, war and other kinds of strife might be much diminished, families might be happier, and all of us might be able to live more serenely than we do.

In research, these matters have been dealt with in two streams of thought: one is regulation, and the other is therapy for emotional disorders, especially depression and anxiety states. In the 1,128 articles that, according to a search by PsycINFO, were published in Cognition and Emotion between the first issue of the Journal in 1987 and the April issue of 2011, 77 had the term COGNITION AND EMOTION OVER TWENTY-FIVE YEARS

COGNITION AND EMOTION, 2011, 25 (8) 1343
“regulation” in any search field (including title, abstract or keyword). With the same search for terms that are significant in emotional disorders, 191 articles were found with the term “depression”, and 242 with the term “anxiety”.

Although regulation is the modern instantiation of those perennial problems of humankind that exercised the ancient Epicureans and Stoics, 25 years ago there was not much empirical research on what it meant and how it could work. Progress has been made, and a useful review of emotion regulation was published in the Journal a dozen years ago by James Gross (1999). In a recent special issue of Cognition and Emotion, on implicit emotion regulation, Sander Koole and Klaus Rothermund (2011) introduced papers in which new methods have been used successfully to study emotion regulation that occurs without the participants explicitly trying to modulate the intensity or duration of particular emotions. In the issue of the Journal that became available most recently to the writers of the current paper, James Gross, Gal Sheppes, and Heather Urry (2011) presented a printed version of a lecture sponsored by Cognition and Emotion at the 2010 Emotion Preconference of the Society for Personality and Social Psychology. They argue that the distinction between generation and regulation of emotions is one of the most fundamental in emotion research, but that because different emotions can arise in different contexts, this distinction should be used carefully.

The idea of regulation is that by taking certain decisions one can modulate the intensity or direction of an emotion. Psychological therapies for emotions extend the idea from single episodes (the focus of regulation) to habits of life and the formation of character. In both regulation and therapy there are two underlying assumptions. One is that rational cognition is potentially separate from emotion, and the other is the idea of free will. A search of PsycINFO did not reveal any use of the term “free will” in Cognition and Emotion since its inception, but Nico Frijda (2010) a frequent contributor to the Journal and a previous co-editor, has recently discussed it in a sister journal Emotion Review. Emotion-based action tendencies that prioritise some motives in comparison with others derive partly from the programming of our genes, partly from our upbringing, partly from constraints of society. “Free will” may not be the ideal term, but Frijda writes that it is a pointer to the ways in which some aspect of our selves need not be compelled by such influences and may affect emotion regulation. As Batja Mesquita and Frijda (2011) have written, in day-to-day life our emotions don’t usually occur one at a time, as they do in the laboratory. They are usually mixed, with different emotions relating to different aspects of an event. As they put it: one may be pleased that guests at our birthday party sing “Happy Birthday”, but also embarrassed. Because we value our relationships with our guests we choose to be pleased rather than to flee in embarrassment. Regulation in everyday life, then, is a matter not so much of suppressing or enhancing an emotion, as of choosing—by means of our free will—to give priority to one aspect of an event rather than another. In the same way, in far more severe circumstances, as Frijda discusses in his 2010 paper, some people freely chose to risk death during the Nazi occupations of World War II, when some non-Jewish people sheltered Jewish people, and during the 1994 genocide in Rwanda, when some Hutu women sheltered Tutsi children.

The question of how to understand the interactions of cognition and emotion in emotional disorders in a way that will inform therapy is also a matter of how the will can be applied to recalcitrant emotional habits, and it has been a recurring topic of the Journal from the beginning. For instance, in a special issue of the Journal on the cognitive psychology of depression, Zindel Segal and Michael Gemar (1997) found that 20 sessions of cognitive-behavioural therapy with depressed patients not only decreased depressive symptoms but decreased priming by negative self-descriptive concepts measured by interference in a Stroop task. In this way, an established laboratory method was able to point to the kinds of cognitive-emotional changes that therapy can accomplish.
COGNITIVE APPROACHES TO EMOTIONS: APPRAISAL AND BEYOND

Although occasional grumbling was once heard about “cognitive imperialism” the idea of a cognitive approach to emotions is now firmly at the centre of any articulated understanding of emotion. This articulation is in the theory of appraisal, in which it is proposed that emotions are central to human projects in the world. Even people who propose biologically based theories of emotion have to come to terms with this idea and its implications.

The basic idea of appraisal, derived from Magda Arnold (see Randy Cornelius, 2006), is that any particular emotion is based on how an event is evaluated in terms the experiencer’s goals and a number of other features. This evaluation became known as appraisal which, as Nico Frijda (1993) has explained, gives rise to one or several modes of action readiness, which take priority for a time in our progress through the world.

An influential, and representative, paper on appraisal, published in the Journal’s second year, was by Phoebe Ellsworth and Craig Smith (1988). They found that what distinguished recalled instances of positive emotions (interest, hope/confidence, challenge, tranquillity, playfulness, and love), was a distinct set of appraisals such as effort, agency, and certainty. In response to criticism that this kind of method was merely correlational, Ira Roseman and Andreas Evdokas (2004) found, by varying conditions of appraisal, that different appraisals do cause different emotions. A more recent finding is that appraisals can have different meanings for different people. Peter Kuppens, Iven Van Mechelen, Dirk Smits, Paul De Boeck, and Eva Caulemans (2007) found that whereas for some people anger could be caused by frustration, for others a sense of deliberate unfairness was necessary, and for yet others a threat to one’s selfhood was at issue.

Frijda was guest editor for a special issue of the Journal entitled “Appraisal and beyond”. In his paper in this special issue, Frijda (1993) wrote. “Appraisal occupies a pivotal role in much of present-day emotion theory” (p. 357) and, although some might argue that he should have said “the pivotal role”, his conclusion still holds. Later, in 2005, Frijda wrote that the experience of emotion is of meaning which:

...consists of perceived qualities that represent appraisal and action readiness ... Emotion experience not only represents a perspective on emotional reactions but also contributes to the constitution of those reactions, notably with respect to attention shifts, action initiation and action guidance, and emotion regulation. (p. 473)

Agnes Moors (2007) has argued that an approach based on cognitive (representation-mediated) processes is ideal for the study of emotions as processes that articulate events with people’s goals, and is superior to any conceptualisation that has no relation to goals, or a different relation to goals.

So, what is beyond the theory of appraisal? One issue is how appraisals develop during childhood. Marc Lewis (1996) argued that self-organising processes based on dynamic systems assemble themselves as a child interacts with the environment so that appraisals cohere with emotions. Self-organising appraisals stabilise and recur within individual repertoires, due to coupling among cognitive and emotional components. A second issue is of mechanism: Moors, Jan De Houwer, and Paul Eelen (2004) found in priming studies that an initial phase of appraisal, about whether an event is good or bad, is fast and automatic. A third issue is the question of whether styles of appraisal form the basis of certain traits of personality. Informative here is a study by Thomas Power and Laura Hill (2010). A fourth issue is how appraisals in the individual interact with relationships between individuals. Thus, Brian Parkinson and Sarah Illingworth (2009) showed how an appraisal of blame in a relationship can be the causation of guilt.

EFFECTS OF EMOTION ON COGNITIVE PROCESSING

The question of how emotion affects cognitive processing has been critically important in the lifetime of the Journal and, one might say, the Journal has been the natural home for studies
on this question. In their introduction to the special issue on the topic, Nazanin Derakshan and Michael Eysenck (2010) show how, over the last 25 years or so, we have started to understand mechanisms by which both positive and negative emotions influence attention and memory.

Consider attentional biases, particularly in anxious people. Early in the life of the Journal there was emphasis on documenting these biases, and in exploring the utility of various experimental methods of assessing them, including modified Stroop tests and dot-probe tests. As this work progressed, mechanisms became better understood. In one study, for instance, Karin Mogg and Brendan Bradley (1999) reported three experiments on whether individuals preferentially look towards the spatial location of threatening faces presented outside awareness. Evidence that preattentive processing causes a focus on threat was found. The effect was most apparent in the left visual field, suggestive of right hemisphere involvement, and the effect was larger in trait anxious people. But conditions for the effect were delicate, so that when stimuli were presented at the threshold of awareness, preattentive capture by threat was not evident. Understanding how attentional mechanisms work was further advanced by Manuel Calvo and Pedro Avero (2005), who studied eye movements of people shown emotional images of threat-related and pleasant scenes, and non-emotional, neutral images. Anxious people tended first to fixate on the emotional images rather than the neutral ones, but later during inspection tended to avoid the emotional images.

Another line of research has been on how emotions affect short-term working memory, and long-term memory including autobiographical memory. Filip Raes, Dirk Hermans, Mark Williams, and Paul Eelen (2006) found that, among those who habitually retrieve memories in a less specific way, the impact of a negative experience was less distressing than for those who retrieve memories in a more specific way. Reduction of memory specificity is used as an avoidant or repressive-defensive mechanism to regulate negative emotion. In turn, however, this style is associated with a propensity to depression.

Among new trends in emotion research, which we anticipate will grow, is the investigation of decision making as influenced by emotions. Katia Harlé and Alan Sanfey (2010), used the Ultimatum Game, much studied by economists, in which participants have either to accept or reject, from other players, monetary offers which are either fair or unfair. Wilhelm Hofmann and Anna Baumert (2010) also used this game to study the influence and effects of emotion on moral decision making.

EMOTIONS AND THE INTERPERSONAL

It has been a temptation of psychology to focus on what goes on inside the individual head. A movement is occurring in research on cognition and emotion to accompany this by considering what goes on between and among people. The two papers on decision making mentioned at the end of the previous section contribute to this movement.

A good place to start on the interpersonal issues of emotion is with the special issue of the Journal on “Emotion and social life”, for which Tony Manstead was guest editor. In his introduction to this issue, Manstead (1991) noted that areas of interest included the impact of emotions on social judgement and social perception; the influence of social contexts on emotional expression and experience; the role of emotions in creating, maintaining, and dissolving social relationships; the verbal and nonverbal communication of emotion; and the social functions served by emotions. Among the papers in this special issue was one by Bernard Rimé, Batja Mesquita, Pierre Philippot, and Stefano Boca (1991) that reported six studies on the confiding of emotions to others.

Rimé et al.’s most striking finding was that verbal sharing of emotions is the norm, not the exception. In all six studies, most emotions that could be remembered had been verbally shared with others; the percentages of emotions that were shared ranged from 88% to 96%. The paper provides an early example of cross-cultural research in the Journal in that, in one of the studies, rates of social sharing in ethnic Dutch and Belgian samples were compared with those in the collectivistic Surinamese population living in the Netherlands.
There were no significant differences. Nor did age or sex of participants affect rates of social sharing. These findings challenged the conception of emotion as a short-lived, intrapersonal phenomenon—sharing appears to be an integral part of emotion, with functional implications as important as those of intrapersonal mechanisms. With emotions, as in so many other realms, language greatly expands humans’ capabilities for coordination, coalition building, and accumulating information across individuals and generations. Social sharing is a uniquely human way of fulfilling some of the social functions of emotions. It not only communicates emotional information but also subjectively titrates one’s own emotional experience with that of others.

Social sharing has been the topic of three subsequent articles in the Journal. One refined the cross-cultural conclusions reported by Rime et al. by comparing social sharing of traumatic experiences by Asian American and European American women: Suzanne Park, Leslie Brody, and Valerie Wilson (2008) found that Asian Americans reported less social sharing, especially with family members, than European Americans. Whereas more upsetting events were shared more by European American women, social sharing by Asian Americans was unrelated to the degree of upset. The pattern of results was interpreted as revealing different coping styles.

Another article, by Antoinetta Curci and Guglielmo Bellelli (2004), addressed secondary social sharing: the tendency to relate to others an emotional incident that has been confided by someone else. Rates of secondary social sharing exceeded 75% for both positive and negative episodes, suggesting that being told about another person’s emotion can itself be an emotional experience.

A brief report by Curci and Rime (2008) established that people also share with others the emotions they experience in dreams. At least 60% of the dreams studied had been socially shared, and the intensity of the emotion was the single best predictor of whether the emotion would be shared.

Overall, the 1991 special issue on social life marked an expansion of the Journal’s scope. Conceptions of emotion started to become more social and research on specific social emotions began to appear frequently in the Journal’s pages: embarrassment, shame, guilt, anger, envy, jealousy, humour, schadenfreude, gratitude, love, and social anxiety have all been topics of multiple articles. Even topics formerly understood as “cognitive” came to be understood as “social”, examples being appraisal, memory, attention, and person perception.

CONCLUSION

The initial conception of Cognition and Emotion, as a forum for research on the various meanings that the conjunction of cognition and emotion might suggest, has held up well. Distinctive lines of research have developed, but at the same time, the policy of openness to new research on any aspect of how cognition and emotion might relate has been helpful. Some trends established in the Journal’s first 25 years will no doubt continue. A new trend is developing: to move analyses beyond the individual mind into the space between individuals and between groups of people.

REFERENCES


