
Handbook of Cognition and Emotion

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Edited by

Tim Dalgleish

MRC Cognition and Brain Sciences, Cambridge, UK

and

Mick J. Power

Department of Psychiatry, University of Edinburgh, UK

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About the Editors

Tim Dalgleish is a Research Scientist at the MRC Cognition and Brain Sciences Unit in Cambridge, UK and a practising Clinical Psychologist at Addenbrooke's Hospital, Cambridge. He carried out his doctoral thesis at the Institute of Psychiatry in London and also completed his clinical training there, before moving to Cambridge. His research interests include psychological reactions to trauma and cognition–emotion relations in emotional disorders in general. He has co-authored a book, *Cognition and Emotion: From Order to Disorder*, with Mick Power.

Mick J. Power is currently Professor of Clinical Psychology at the University of Edinburgh and a practising clinical psychologist in the Royal Edinburgh Hospital. In the past he has been a Senior Lecturer at the University of London and has worked as a clinical psychologist at Guy's Hospital, and the Bethlem and Maudsley Hospitals. He has worked for the Medical Research Council and currently acts as a Research Advisor to the World Health Organization. He has carried out research on emotion and on emotional disorders for many years and is the co-author, with Tim Dalgleish, of *Cognition and Emotion: From Order to Disorder*.

Contributors

Lynn Y. Abramson, *Department of Psychology, University of Wisconsin-Madison, 1202 W. Johnson Street, Madison, WI 53706, USA*

James R. Averill, *Department of Psychology, University of Massachusetts at Amherst, Tobin Hall, Amherst, MA 01003, USA*

Debra A. Bekerian, *Department of Psychology, University of East London, Romford Road, London E15 4LZ, UK*

Richard P. Bentall, *Department of Clinical Psychology, University of Liverpool, Ground Floor, The Whelan Building, Liverpool L69 3BX, UK*

Leonard Berkowitz, *Department of Psychology, University of Wisconsin-Madison, 1202 W. Johnson Street, Madison, WI 53706, USA*

Brendan P. Bradley, *Department of Experimental Psychology, Downing Street, Cambridge CB2 3EB, UK*

Sven-Åke Christianson, *Department of Psychology, University of Stockholm, S-106 91 Stockholm, Sweden*

Tim Dalgleish, *MRC Applied Psychology Unit, 15 Chaucer Road, Cambridge CB2 2EF, UK*

Richard J. Davidson, *Department of Psychology, University of Wisconsin-Madison, 1202 W. Johnson Street, Madison, WI 53706, USA*

Martin P. East, *Department of Experimental Psychology, University of Cambridge, Downing Street, Cambridge CB2 3EB, UK*

Paul Ekman, *Human Interaction Laboratory, University of California at San Francisco, School of Medicine, Psychiatry Department, Langley Porter Institute, 401 Parnassus Avenue, Box H1L, San Francisco, CA 94143-0984, USA*

Henry C. Ellis, *University of New Mexico, Department of Psychology, Albuquerque, NM 87131-0001, USA*

Elisabeth Engelberg, *Department of Psychology, University of Stockholm, S-106 91 Stockholm, Sweden*

Joseph P. Forgas, *Professor of Psychology, School of Psychology, University of New South Wales, Sydney 2052, Australia*

Susan J. Goodrich, *Department of Psychology, University of East London, Romford Road, London, E15 4LZ, UK*

Ian H. Gotlib, *Department of Psychology, Building 420, Jordan Hall, Stanford University, Stanford, CA 94305, USA*

Isabela Granic, *Centre for Applied Cognitive Science, OISE, 252 Bloor Street W., Toronto, Ontario M5S 1V6, Canada*

Jeffrey A. Gray, *Professor of Psychology, Department of Psychology, Institute of Psychiatry, De Crespigny Park, London SE5 8AF, UK*

Jonathan Haidt, *Assistant Professor of Psychology, Giler Hall, University of Virginia, Charlottesville, VA 22901, USA*

Helen Healy, *School of Psychology, University of Wales, Bangor LL57 2DG, UK*

Paula Hertel, *Department of Psychology, Trinity University, 715 Stadium Drive, San Antonio, TX 78284-0001, USA*

Alice M. Isen, *Johnson Graduate School of Management, Cornell University, Ithaca, New York 14853, USA*

Peter Kinderman, *School of Psychiatry and Behavioural Sciences, University of Manchester, Rawnsley Building, Oxford Road, Manchester M13 9LW, UK*

Richard S. Lazarus, *Professor Emeritus, 1824 Stanley Dollar Drive, Walnut Creek, California 94595, USA*

Linda J. Levine, *Department of Psychology and Social Behaviour, School of Social Ecology, 3340 Social Ecology II, Irvine, CA 92697-7085, USA*

Marc D. Lewis, *Centre for Applied Cognitive Science, OISE, 252 Bloor Street W., Toronto, Ontario M5S IV6, Canada*

Michael Lewis, *Institute for the Study of Child Development, Robert Wood Johnson Medical School, University of Medicine and Dentistry, 97 Paterson Street, CN19, New Brunswick, NJ 08903, USA*

William Lyons, *Professor of Moral Philosophy, Department of Philosophy, Trinity College, Dublin 2, Ireland*

Andrew MacLeod, *Royal Holloway College, University of London, Egham, Surrey TW20 0EX, UK*

Colin MacLeod, *Department of Psychology, University of Western Australia, Perth, WA, Australia*

Andrew Mathews, *MRC Cognition and Brain Sciences Unit, 15 Chaucer Road, Cambridge CB2 2EF, UK*

Gerald Matthews, *Department of Psychology, University of Dundee, Dundee DD1 4HN, UK*

Clark R. McCauley, *Professor of Psychology, Dalton Hall, Bryn Mawr College, Bryn Mawr, PA 19010, USA*

Richard J. McNally, *Department of Psychology, Harvard University, 33 Kirkland Street, Cambridge, MA 02138, USA*

Susan Mineka, *Department of Psychology, Northwestern University, Evanston, IL 60208, USA*

Karin Mogg, *Department of Experimental Psychology, Downing Street, Cambridge CB2 3EB, UK*

Brent A. Moore, *University of New Mexico, Department of Psychology, Albuquerque, NM, 87131-0001, USA*

Arne Öhman, *Department of Clinical Neuroscience and Psychiatry, Karolinska Hospital, S-17176 Stockholm, Sweden*

Gerrod Parrot, *Department of Psychology, Georgetown University, Box 571001, Washington, DC 20057-1001, USA*

Mick J. Power, *Department of Psychiatry, University of Edinburgh, Kennedy Tower, Royal Edinburgh Hospital, Morningside Park, Edinburgh, UK*

Paul D. Rokke, *Department of Psychology, North Dakota State University, Fargo, ND 58105-5075, USA*

Paul Rozin, *Department of Psychology, University of Pennsylvania, 3815 Walnut Street, Philadelphia, PA 19104-3604, USA*

Klaus R. Scherer, *Section of Psychology, University of Geneva, 9 Rte de Drize, CH-1227 Carouge-Geneva, Switzerland*

Zindel V. Segal, *Clarke Institute of Psychiatry, University of Toronto, 250 College Street, Toronto, Ontario MST IR8, Canada*

Nancy L. Stein, *Department of Psychology, University of Chicago, 5848 University Avenue, Chicago, IL 60637, USA*

Frank Tallis, *Edward House, 7 Lisson Grove, Charter Nightingale Hospital, London NW1 6SH, UK*

June Price Tangney, *Associate Professor of Psychology, George Mason University, Mail Stop 3F5, Fairfax, Virginia 22030-4444, USA*

John D. Teasdale, *MRC Cognition and Brain Sciences Unit, 15 Chaucer Road, Cambridge CB2 2EF, UK*

Cannon Thomas, *Department of Psychology, University of Virginia, 102 Gilmer Hall, Charlottesville, VA 22906, USA*

Fraser N. Watts, *Queens College, University of Cambridge, Cambridge CB3 9ET, UK*

Adrian Wells, *Clinical Psychology Department, Rawnsley Building, Manchester Royal Infirmary, Oxford Road, Manchester M13 9WL, UK*

Drew Westen, *Department of Psychiatry, Cambridge Hospital, Harvard Medical School, 1493 Cambridge Street, Cambridge, MA 02139, USA*

J. Mark G. Williams, *School of Psychology, University of Wales, Bangor LL57 2DG, UK*

Jacqueline Wood, *MRC Cognition and Brain Sciences Unit, 15 Chaucer Road, Cambridge CB2 2EF, UK*

Foreword

Keith Oatley

Cognition and emotion—this phrase connects two concepts, but it is ambiguous. For some people it means the cognitive approach to emotion. For others it means the joining of two domains, cognition and affect, that were previously thought to be disparate. Understandings of cognition and emotion, under both meanings of the phrase, now occupy a prominent place in psychology and psychiatry, and this useful book is a result.

In their excellent textbook, *Cognition and Emotion: From Order to Disorder*, Mick Power and Tim Dalgleish offered, for the first time, a cognitive treatment that was systematically applied all the way from normal emotions through to emotional disorders. Fresh from that success, Dalgleish and Power have now assembled this impressive handbook which, again, is a first. With a transparent organization, it offers a broad coverage of cognition and emotion by a set of distinguished contributors, many of whom have been instrumental in establishing the field.

Books such as this are important in any science: they mark the phase in which enough is understood to define a field. Research on emotion generally has progressed from a state in which there were scattered publications, infrequent conferences and occasional edited books, to one in which there are journals devoted to emotions, an international society, textbooks, and handbooks such as this one.

After a lull during the first half of the century after it came to be dominated, at least in America, by the theory of William James and by opposition to it from his son-in-law Walter Cannon, research on emotion branched into new directions. In 1951, John Bowlby published his first book on attachment, the theory of which came to be based on the cognitive idea of mental models. From that time, emotions and their functions came to be of interest to developmental psychologists. Emotional development, which turns out also to be social development, has now achieved an importance at least equal to intellectual development. In this volume, developmental research—with a cognitive emphasis—is

represented in a chapter by Michael Lewis, and one by Nancy Stein and Linda Levine.

At almost the same time, in 1954, Sylvan Tomkins began his work on emotion. He, too, had cognitive interests. Inspired by his new approach, there was a renewal of research on facial expression and restatements of the idea of a small number of basic emotions, each with distinctive cognitive and experiential properties. Here, this line of research is represented in two chapters by Paul Ekman. Also in 1954, Magda Arnold began developing her approach to appraisal of events as the principal means by which emotions are elicited. Appraisal has come to be central to almost all cognitive theories of emotion—discussions in this book are offered by Richard Lazarus and by Klaus Scherer. By now, a distinctive family of cognitive theories of emotion has grown up (see Part IV of this book).

The field of cognition and emotion is important in psychology and psychiatry, because it has finally established emotion as essential to the understanding of mind. A current cognitive conception, for which there is a broad consensus, is that emotions are central to mental and social life because they are our fundamental mediators between inner and outer worlds. They relate what is personally important (goals, concerns, aspirations) to the world (events, people, things). If we humans merely worked from what was important to us, we would be bundles of drives and species-typical action patterns. If we merely responded to events, we would be reflex machines. Instead, because of mediation by emotions, some aspects of our lives are given meaningful urgency, some people we know become uniquely important, and our many goals are prioritized.

From cognitive reformulations of psychology of the 1960s and 1970s, emotions were at first excluded, perhaps because they seemed too amorphous. Now, however, a growing understanding of effects of emotions on memory, reasoning, and attention (see Part II) and cognitive analyses of the elicitation and functions of specific emotions (see Part III) have established the field.

Understanding emotions has distinctive areas of application, notably the psychological therapies. These are modern descendents of those pioneered by the Hellenistic ethical philosophers, the Epicureans and Stoics, who were the first in the West to study systematically the relations between cognition and emotion, as ways of understanding their implications for self and society, and among the first to show how unwanted passions might be controlled. Such applications are represented in Part V.

This book shows how research on emotions has thrived in the social sciences and in philosophy in recent years. It demonstrates how our understanding of emotions has been influenced by cognitive approaches and, if we take cognition and emotion as separable domains, it shows also how fundamentally important these domains are in their influence on each other.

Keith Oatley is Professor of Psychology in the Centre for Applied Cognitive Science, Ontario Institute for Studies in Education, University of Toronto.

Preface

Any historical analysis of the evolution of ideas about emotions, both in philosophy and more recently in psychology, shows us that the publication of a *Handbook of Cognition and Emotion*, implying as it does a productive marriage between the two research areas in its title, is something of an achievement. Cognition and emotion have by no means always been such comfortable bed-fellows. The Platonic notion, as outlined in the *Republic*, that feelings were the enemy of reason and that true “citizens” would do all they could to banish emotion from their day-to-day “cognitive” decisions, has had far-reaching implications for the way Western society has dealt with the subtleties and vagaries of emotional life, and has dominated psychological and philosophical thinking until relatively recently.

Perhaps outside of the discussion and exchange of ideas in the academic and clinical traditions, this Platonic view of emotions prevails. There is clearly a degree of folk psychological suspicion of emotions and what they can do, with relatively little emphasis on how useful or functional they might be. However, within psychology and philosophy, there has been a sea change in our approach to emotions over the last 50 years. The Aristotelian view that cognition is an integral part of emotion, an approach that has fared so badly for two millennia, is now probably the dominant paradigm. Furthermore, the perhaps more radical suggestion that emotions are integral to adaptive cognitive processing, as evidenced by recent work in neuropsychology, is enticing many cognitive psychologists to take a closer look at the issue of cognition–emotion interactions. Many of these changes have of course gone hand-in-hand with the subtle shaping and extension of what we mean when we use terms like “cognition” or “emotion”; for example, few now think of cognition solely in terms of conscious, rational information handling. However, debates concerning such semantic controversies have evolved into highly productive discussions about the nature of cognition–emotion interactions, regardless of whether we can all agree on what to label them.

There are many such debates in cognition and emotion, some heated; in putting together this volume we have endeavoured not to take any stances, methodological or theoretical, as to its contents. As Fraser Watts noted in his editorial to the first issue of *Cognition and Emotion* in 1987, which addressed the nature of the area and the policy of the new journal:

There may come a time when there is a consensus on how to frame the questions and how to seek answers to them, but that time has not yet come. Until it does, the prudent policy for a journal is to be catholic and to publish good work of all kinds.

A lot has happened in cognition and emotion since 1987: Fraser, for example, is now a lecturer in theology!¹ Nevertheless, his words still apply, there remains little consensus in the area about the exact questions that need answering or indeed how to answer them. However, as in much of psychology, there is increasing acceptance that the pursuit of such consensus may be a red herring. What we need to do is approach the same broad issues from a multiplicity of directions: from neuroscience, from a developmental perspective, from the socio-cultural domain, from philosophy, in the clinic, and in the experimental psychology laboratory. If anything, it may be that emotions are the perfect test case for such multiple levels of analysis and integration because they do not fit readily into any one approach. Indeed, this reason may be why emotions have proved so compelling a research focus for some of us, but have at the same time been so readily overlooked by the mainstream research community.

Our first aim, then, in putting together the *Handbook of Cognition and Emotion*, was to try to gather together for the first time in one volume contributions from the leading researchers in the field, across the range of theoretical perspectives and methodologies. We are not suggesting that we have succeeded in sampling the whole gamut of cognition and emotion research. There are inevitably some gaps but, nevertheless, the diversity of content in the 38 chapters represents most theoretical and empirical persuasions within the area.

Our second aim was to try to provide a balance across a number of dichotomies in the literature; in particular, work on “normal” emotional experiences and research on emotional disorders, on pure theory and empirical data, and on relatively more abstruse as well as more applied issues. It is to the credit of all of the contributors that the volume delivers the variety and depth that we were hoping for.

Finally, we would like to acknowledge some of those whose patience and wisdom have been significant in the development of the project. In particular, Michael Coombs, Wendy Hudlass and Lesley Valerio at Wiley, the *Cognition*

¹ Although we are pleased that he came out of retirement to co-author something for this volume; see Chapter 27.

and Emotion Research Group at the Cognition and Brain Sciences Unit in Cambridge, especially John Teasdale, Andrew Mathews, Phil Barnard and Jenny Yiend, our secretarial support, Jane Bartolozzi, and not least our partners, Lorna Champion and Nicola Morant, for their patience and support as we grappled with the delights of book editing!

Tim Dalgleish
Mick Power
Cambridge and Edinburgh, March 1998

Part I

General Aspects

Chapter 1

The Cognition–Emotion Debate: A Bit of History

Richard S. Lazarus

University of California, Berkeley, CA, USA

The purpose of this essay is not to renew the cognition–emotion debate, but to interpret it in the context of history and my emotion theory. I shall be cool yet partisan in my analysis.

The role of cognition in emotion has long been the subject of intense psychological interest and controversy. Somewhat less attention has been given to the role of cognition in motivation, an issue that covers much the same ground. This was the topic of a much earlier volume edited by Bernard Weiner (1974), based on a conference at which a number of cognitivists presented papers, including me (Lazarus, 1974). Tetlock & Levi (1982) later noted the similarity of the two issues and expressed doubts about the conclusiveness of what has been and, indeed, can be said about these functional relationships.

We need to recognize that to speak of a relationship implies the independent identities of three concepts of mind—namely, cognition, emotion and motivation, which are more or less fictions of scientific analysis, whose independence doesn't truly exist in nature. Thus, in my monograph on emotion and adaptation (Lazarus, 1991a), I referred to the theory I presented as cognitive, motivational and relational to emphasize that emotion does not occur in the absence of meaning, which an individual constructs out of an ongoing person–environment relationship, and a goal that creates a stake in that relationship. To do justice to the broader issues inherent in the nature of adaptation, the debate must be broadened considerably and contribute to a theory of mind.

CLASSICAL ORIGINS OF THE DEBATE

From a historical perspective, speculation about these three psychological functions is part of a philosophical tradition of the Ancient Greeks and Romans. Bolles (1974) has made the stunning claim that psychology has always emphasized the cognitive mediation of emotion and motivation. He wrote, for example (1974, p. 14), that:

Originally, before psychology became an autonomous discipline [when, in the 1940s, it finally split off from philosophy in the university], cognitive views of man prevailed. The early philosophers as well as the man of letters and the thoughtful layman all stressed man's rationality and explained his behavior in terms of ideas, perceptions and other intellectual activities. Then psychologists suffered that curious passion to be scientific. Thinking was merely a physical process going on in the brain; perception was merely the result of certain neural inputs; man was reduced to a mass of S-R connections; and behavior was explained by a vast matrix containing nothing but S-R units. This was an appealingly simple system but it was soon found to be inadequate even for the explanation of animal behavior.

In effect, academic psychology in the USA after the 1960s and 1970s was beginning to abandon radical behaviorism and logical positivism. Seen from the perspective of the long history of cognitivism, behaviorism was a historical aberration whose guiding epistemological force was greatly weakened, if not lost, when psychology returned some decades later to its original cognitivist tradition in what has been called, in a fit of over-sanguinity, "the cognitive revolution".

When the history of behaviorism is recounted, we tend to forget that this movement was strong mainly in academic rather than applied circles, and by no means universal, even in academe. We tend to ignore the extensive influence of a number of outstanding cognitivists, many of whom could also be called phenomenologists, such as Lewin (1935), Murray (1938) and Tolman (1932), and a later group that includes, among others, Asch (1952), Harlow (1953), Heider (1958), Kelly (1955), McClelland (1951), Murphy (1947), Rotter (1954) and White (1959). We should include Freud and other psychoanalytic writers of the day, especially the ego psychologists, as having given substantial attention to cognition as the executive of the mind.

Some of these theorists, such as Harlow, McClelland and White, contributed to the demise of the simple drive concept by adding cognitive drives or, later on, by showing that goals involve directional or cognitive underpinnings as well as energetic ones. Bolles (1974) views Tolman—a deviant from the behaviorist-mechanist scientific oversimplification—as an early father of the value-expectancy approach to human motivation and action, which now dominates the treatment of motivation in social science circles, and which he considers to be the basic framework for all modern cognitive models of behavior. Nor should we forget the "New Look" movement in the late 1940s and 1950s, which gave perception a more cognitive and phenomenological look, emphasizing as it did

individual differences and the role of motives and ego-defenses in the way we perceive the world.

Other theorists, such as Schachter (1966) and Mandler (1984) sought to preserve the behaviorist concept of drive while giving more importance than previously to the role of cognition in emotion. The *Zeitgeist* in recent years seems to have favored abandonment of the drive concept, which seems too close to tissue tension or arousal, in favor of an emphasis on goals, which are directed by and suffused with thought. I view these two-factor theories as a cautious step—a delay *en route*—on the way to a strong and affirmative cognitive position.

It is remarkable that psychology regards the emphasis on cognition as modern when, in reality, Plato was a cognitivist, and so was Aristotle. The ecclesiastical philosophers of the medieval Catholic Church, such as Thomas Aquinas, who drew heavily on Aristotle, also emphasized what we call today “cognitive mediation”. However, the Church was mainly preoccupied with helping people make moral choices in which animal instincts would be subordinated to reason and controlled by acts of will (or will-power).

The cognition-emotion and cognition-motivation debates were necessitated by the ancient Greek tendency to separate—indeed, to put it more strongly, to presume the inevitability of conflict between—desire, reason and passion. This idea of separation and conflict created the modern need in philosophy and psychology to specify the functional relationships between what are now called cognition, motivation and emotion.

Plato (1961) appears to be the first to have divided the soul (or mind) into these three different parts or functions. This tripartite formula has dominated psychology ever since. For Plato, each operates as a kind of homunculus, guiding human choices in action and feeling. He regarded reason as the highest of the three functions, and as the moral agency holding destructive animal passions in check.

I note in passing that conflict, and the concern of classical writers and the medieval Church about the role of reason in the control of the passions, implicate the concept of *coping* in the emotion process. Space limitations prevent me from discussing coping here. Suffice it to say, however, that it is an integral feature of emotion. It, and the thoughts on which it rests, appears in all stages of the emotion process and depends on both cognition and motivation. Coping has been under-emphasized in most emotion theories.

Anyway, all is not conflict, however, which becomes clear in Aristotle’s treatment of the functions of mind. For Aristotle, emotion and action were said to depend on reason. In “Rhetoric” (1941, p. 1380), he wrote: “Anger may be defined as a belief that we, or our friends, have been unfairly slighted, which causes in us both painful feelings and a desire or impulse for revenge”. He was, in effect, saying that anger is the result of particular thoughts (cognitive causation) which, in turn, motivate aggressive actions.

Even before Christianity, Roman scholars adopted and expanded on many of Plato’s and Aristotle’s views, and of these, Seneca stands out most clearly. During

the cognition–emotion debate of the 1980s, the readership of the *American Psychologist* was treated to an informative comment by Hans Toch (1969, 1983) about Seneca’s views on anger and violence. Long concerned with violence and its control, and as part of the cognition–emotion debate, Toch (1969) wrote a brief but useful account of Seneca’s approach to anger, which was as cognitive as it could be. For Seneca, the instigation to violence is a perceived injury, hurt or affront (I would use the word “appraised”, which is more evaluative than a cold perception).

Thus, as Aristotle opined, although reason must control emotion, the arousal of an emotion also depends on reason. Like Aristotle, Seneca also drew on the concept of motivation, writing that the goal of anger is usually retribution for an injury. However, he distinguished between the desire to avenge an injury and sadistic aggression, in which cruel people delight in the suffering of others. He believed that the proneness to react with anger and violence was the result of a vulnerable self-esteem, which disposes a person to feel hurt. In this respect, Seneca anticipated the modern personality-centered concern with individual differences. (Although they deal with aggression rather than anger, for a somewhat different view about the role of self-esteem, see Baumeister, Smart & Boden, 1996.)

Seneca also focused attention on efforts to inhibit the urge to retaliate in anger, and viewed this as the most promising way to control the runaway feelings leading to angry violence. The interventions Seneca suggested mounting against the tendency to react with anger and violence, writes Toch, can be viewed as versions of the modern concept of cognitive restructuring. They consist of efforts to persuade violence-prone persons to abandon their aggressive actions, and enjoinders to hold themselves above the foolishness inherent in an angry attack.

One should not assume from this brief history that cognitive approaches to motivation and emotion are to be found only in classical thinking and the medieval Church, or that in the nineteenth century the dominant cognitive–mediational outlook had waned. For example, in Lazarus (1991a), I quoted a Rashomon-like statement by Robertson, a late nineteenth century British philosopher at University College London, which shows the continuing prominence of the cognitive outlook. Notice in the quote below (Robertson, 1877, p. 413) the use of the concepts of motivation and emotion, and the emphasis on individual differences and physiological arousal:

Four persons of much the same age and temperament are travelling in the same vehicle. At a particular stopping-place it is intimated to them that a certain person has just died suddenly and unexpectedly. One of the company looks perfectly stolid. A second comprehends what has taken place, but is in no way affected. The third looks and evidently feels sad. The fourth is overwhelmed with grief, which finds expression in tears, sobs, and exclamations. Whence the difference of the four individuals before us? In one respect they are all alike: an announcement has been made to them. The first is a foreigner, and has not understood the communication. The second has never met with the deceased, and could have no special regard for

him. The third had often met with him in social intercourse and business transactions, and been led to cherish a great esteem for him. The fourth was the brother of the departed, and was bound to him by native affection and a thousand ties earlier and later. From such a case we may notice that [in order to experience an emotion] there is need first of some understanding or apprehension; the foreigner had no feeling because he had no idea or belief. We may observe further that there must secondly be an affection of some kind; for the stranger was not interested in the occurrence. The emotion flows forth from a well, and is strong in proportion to the waters; is stronger in the brother than in the friend. It is evident, thirdly, that the persons affected are in a moved or excited state. A fourth peculiarity has appeared in the sadness of the countenance and the agitations of the bodily frame. Four elements have thus come forth to view.

ISSUES RAISED BY THE 1980S DEBATE

The modern argument about cognition and emotion began with an article by Zajonc (1980) in the *American Psychologist* about feeling and thinking, which was delivered on the occasion of his Distinguished Scientific Contribution Award from the American Psychological Association. In it he took exception to contemporary treatments of affect as post-cognitive, maintaining that a considerable number of experimental findings on preferences, attitudes, impression formation and decision making, strongly suggest “that affective judgments may be fairly independent of, and precede in time, the sorts of perceptual and cognitive operations commonly assumed to be the basis of these affective judgments” (1980, p. 151).

Two key issues are expressed in Zajonc’s quoted summary of his position. First, emotion (Zajonc speaks of affect) can, to some extent, be independent of thought; and second, emotion can precede thought. Following Zajonc’s article, there ensued a remarkable series of comments and articles over the next 6 years, including my rebuttal (Lazarus, 1982). They were remarkable because of their verve, thoughtfulness, diversity and number. Zajonc had touched a nerve and uncovered an unresolved set of modern issues that apparently had lain dormant in the minds of many psychologists.

The list of contributions to this debate, ordered by date, is as follows: Zajonc (1980), Baars (1981), Slife (1981), Lazarus (1982), Zajonc (1984), Lazarus (1984), Ellis (1985), Kleinginna & Kleinginna (1985), Scheff (1985) and Leventhal & Scherer (1987). Although seemingly not directly motivated by the debate, the list should include a relevant article by LeDoux (1986), who focused on the neurophysiology of cognition and emotion, and a comment about it by me (Lazarus, 1986) in the same journal issue. The chapters of an edited book by Bearison & Zimiles (1986), which address the relationship from the standpoint of development, should also be added to the list.

Rather than discussing the points made in each comment or article sequentially, the best tack is to center discussion of the substance of the debate on what seem to me to be the most important issues. I shall first address the issue—or non-issue, as I would prefer to say—of primacy, then discuss the problem of

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