



## Book Review

*Adult Crying, A Biopsychosocial Approach.* Edited by Ad J. J. M. Vingerhoets and Randolph R. Cornelius. Brunner-Routledge, 2001

Reviewed by Elizabeth McCardell

This excellent book deals with adult crying in a most comprehensive way, unearthing often contradictory theses that appear more based on ideological stance, speculation, and analysis of cultural (including laboratory) artefact than careful observation and examination.

The ancient problem of the why and how of adult crying has occupied thinkers since Aristotle. Crying was at least as problematic for Darwin (1872), and, more recently, Montagu (1959), but these are merely a scraping of thinkers perplexed by the phenomenon. Aristotle's catharsis thesis has been pervasive and persuasive for hundreds of years. Recent study, as noted by Cornelius in the chapter 'Crying and Catharsis' in this book, suggests that crying is less of a psychological and physical cathartic experience than initially thought; indeed, crying actually increases emotional and physical tension. Sympathetic arousal, muscle tension, etc (events that have been suggested in relation to stress reduction and associated with ulcer formation and dermatological eruptions), are not reduced by crying. The catharsis model appears to be incorrect.

Tears are interesting in themselves. The composition of tears is proteins (lysozyme, lipocalin and lactoferrin), enzymes, lipids, me-

tabolites and electrolytes. The protein concentration differs between emotional tears and the tears produced by irritants. The complex composition of tears, though, differs throughout the daily cycle of human existence.

Physiologically tears are under the control of the parasympathetic nervous system, and serve to protect the eye from microbial infections. Crying as a behavioural event, is under a combination of parasympathetic and sympathetic systems. Crying prenatally occurs, thus crying itself is not necessarily a learned behaviour; it is, however, modified by socialization, context, relationships, pathology, etc.

Infants cry, as Zeifman's chapter in *Adult Crying* notes, in order to 'connect the infant to a caregiver, its source of nurture and protection, and has been posited as an adaptive strategy in the species' struggle for survival over the course of human evolution' (p. 37). The show of tears, the scrunched up face, the heaving shoulders, the rhythmical wail, do not change over a person's lifetime. The infant's tearfulness arises in response to negative, distressing circumstances, of an emotional and physical kind. The nature of what stimulates crying in adults, though, is apparently more subtle than those the infant responds to. An interesting dif-

ference, is not the actual shift in circumstantial stimulation but in the biological nature of the tears themselves. There are male-female differences in the composition of tears, but not in the volume (menstruating and pregnant women are an exception) or rate of flow of tears. Females cry more than men between the ages of 15 to 30 years, though the tools of measuring these differences are problematic: self reporting, irritation of the eye, filming of subjects while showing them movies designed to elicit lacrimal flow, etc. are fraught with inherent experimental flaws. Except for the first (self reporting), all techniques measure adult crying within the time limit of the experiment; they do not measure any crying that might occur in the hours or days following the experiment.

The chemical composition of tears reveals an interesting insight. Frey, *et all.* (1986), cited by van Haeringen in his contribution to this book, showed that the presence of prolactin in both male and female tears suggests that this substance may function to stimulate tear production. The tears of women between the ages of 15 and 30 years contain greater amounts of prolactin than male tears. Prolactin, as Haeringen (p. 29) notes, increases dramatically in pregnancy. The relationship, though, of the higher presence of prolactin in serum levels does not necessarily suggest greater propensity for crying. This is demonstrated by patients with functional hyperprolactinaemia who, though have high levels of prolactin, were no more prone to crying than healthy individuals.

Pathological crying, as Shaibani, Sabbagh, and Khan note in their chapter in this book, has been poorly investigated by researchers. People with certain disorders, such as Parkinson's Disease, Multiple sclerosis, Alzheimer's disease, and motor neuron disease, for instance, experience defective emotional control and a tendency to cry without provocation. Whether or not the variously used terms of 'emotional lability', 'emotional incontinence', 'pathological display of affect', 'pathological crying', or whatever, are accurate accounts of the behav-

our in all cases, is open to question. I'm not convinced that these terms have been scrutinized enough in this book, or anywhere else for that matter. Shaibani, Sabbagh, and Khan at least have drawn together features that distinguish normal crying from its pathological counterpart (see p. 268). They identify these as: crying that is 'inappropriate to the situation because it follows nonspecific or inappropriate stimuli'. These nonspecific stimuli 'include contraction of facial muscles, someone approaching the patient, removal of bed covers, feeding the patient, etc. Pathological crying is 'unmotivated', that is, there is 'no relation between the affect and the observed expressions. Additionally, there is no relief or mood change after the expression resolves.' Pathological crying is 'involuntary' with its 'own autonomic patterns and occurs against the patient's will.' Is this crying separate from, or concomitant with, emotional crying? This a question that still needs scrutinizing.

The results of studies conducted by research into other pathologies reveal interesting things about pathological crying. One poignant example is quoted by Shaibani, Sabbagh, and Khan in their contribution to this book. They describe a clinical case study of a patient who, in their words: 'presented with sudden onset of vomiting, left hemisensory loss of the face and body, and progressive loss of verbal responsiveness who was noted to be crying continuously. The computer tomography (CT) scan 12 hours after onset of symptoms showed a hyperdensity in the tip of the basilar artery, suggesting basilar artery thrombosis.' 'Cerebral arterial angiography confirmed occlusion of the basilar artery. Hence, PC [pathological crying] may be the first symptom of a catastrophic brainstem cerebrovascular event.' (p.272) Crying is thus more than just emotional expression. People who demonstrate pathological crying may not necessarily be feeling sad at all. Investigation into pathological crying may be a useful tool for identifying what crying is: first sympathetic nervous system arousal and then emotion label-

ling – perhaps?

Pathological crying is disabling socially, embarrassing to the sufferers of it. Treatment with antidepressants, L-dopa, and fluoxetine is effective. Serotonin reuptake inhibitors are particularly effective, but their efficacy seems to be independent of their antidepressant characteristics.

Most non-pathological adult crying is a response to emotional upset or the memory of such upsets. Tears well up in specific situations and in specific interpersonal relationships (loss, conflict, reunions, marriages, deaths). Crying may occur when one feels overwhelmed and powerless. Situations and relationships modify a person's propensity for crying versus weeping (a largely concealed cry). Social factors such as culture, gender, age, socialization, as much as personality shape the expression of crying. The crying threshold differs in individuals according to physical factors (fatigue, menstruation, pregnancy) and mental ones (frustration, anger, sadness). Adult tears may elicit frustration, anger, or an empathic response in other people. Adult crying may serve

also to provoke an emotional response in others (perhaps in a manipulative way), or it may function in such a way whereby the crier is able to avoid confrontation or a tense social situation.

The field of adult crying is still open to problems. Much of the research done contradicts other findings. The methods of investigation are not always useful, and sometimes downright flawed. This book, though, is generally thorough in exposing those difficulties. Most valuable, however, is its multidisciplinary approach (biopsychosocial) where the cultural, and anthropological sit side-by-side with the biophysical. Such a holistic approach lends itself well to the proper examination of phenomenon of adult crying. Highly recommended.

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