# Chapter 30 Neuroimaging and Emotion

A.H. Brooke and N.A. Harrison

University of Sussex, Brighton, UK

# Abstract

Emotion forms a central part of everyday human experience. Emotional stimuli within our environment capture our attention and enhance memory encoding. Furthermore, emotion is fundamental to our social relationships, forming a foundation for empathetic interactions with others. While emotion undoubtedly influences multiple psychological functions, contemporary emotional neuroscience has tended to focus on fear processing. Throughout this chapter we follow this focus, which accords with an emphasis on responses to stress. Disorders of emotion regulation are manifest in a range of psychiatric conditions; emotional imbalance underpins much of human unhappiness, and is not confined to the anxiety disorders. The chapter reviews the contribution of neuroimaging to our neurobiological understanding of emotion. We discuss how emotion interacts with cognition, and demonstrate how understanding the mechanisms behind this can enable a deeper understanding of stress-related psychiatric morbidity.