PART V

INTEROCEPTION

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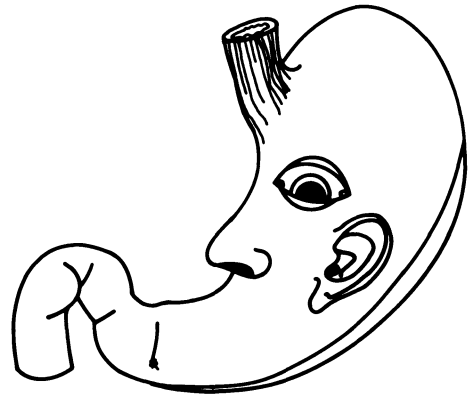

The last section of this book deals with a relatively new field of gastrointestinal psychophysiology—investigation of the role of visceral sensation in behavioral and homeostatic processes. Speculation about the significance of these vague messages from our bodies is of course not new—nearly a century ago James (1884) published a theory of emotion which assigned a primary role to visceral perceptions, and 70 years ago Cannon (1912) proposed a role for such sensations in the regulation of food intake. However, it has been only recently that experimental procedures and physiological transducers have been developed which permit a systematic investigation of this topic.

In Chapter 17, Whitehead describes procedures which have been developed for the investigation of visceral perception in humans. He also summarizes the early observations of Hertz, who in 1911 systematically explored the sensibility of the alimentary tract in humans at the beginning of the century with the methods available at that time. Although many of his methods were primitive, Hertz was able to make some observations which are no longer possible, such as interrogating patients who were undergoing abdominal surgery without anesthesia. Also in Chapter 17, Whitehead describes the five major hypotheses about the significance of visceral perception for human behavior and summarizes the evidence for each. He concludes that visceral sensations which are consciously perceived serve as discriminative stimuli regulating interactions with the environment such as the selection of a socially appropriate time and place for defecation.

Ádám, in Chapter 18, describes his pioneering experiments on visceral perception in animals and humans. It was his work which introduced the study of visceral perception to western scientists. He describes the surgical and other investigative techniques developed in his laboratory and summarizes the experi-

ments which led him to the conclusion that visceral stimuli may have opposite effects depending on their intensity.

It is somewhat puzzling that the study of visceral perception has attracted so few investigators, since visceral perception has been implicated in several major psychological enigmas—the self-attribution of emotion, the regulation of food intake, and the etiology of psychosomatic disorders, among others. Much remains to be learned, and the experimental methods are now available. This is a fertile field for more psychophysiologists to enter.

References

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