

Who Needs Emotions? The Brain Meets the Robot

Editors: Jean-Marc Fellous and Michael A. Arbib

To be published by Oxford University Press in 2004

Preface

I Perspective

“Edison” & “Russell”: Definitions versus Inventions in the Analysis of Emotion.

Could a Robot Have Emotions? Theoretical Perspectives from Social Cognitive Neuroscience – R. Adolphs

II Brains

Neurochemical Networks Encoding Emotion and Motivation: an Evolutionary Perspective – A. E. Kelley

Towards Basic Principles for Emotional Processing: What the Fearful Brain Tells the Robot – J-M Fellous and J.E. Ledoux

What Are Emotions, Why Do We Have Emotions, and What is Their Computational Basis in the Brain? – E.T. Rolls

How Do We Decipher Others' Minds? – M. Jeannerod

III Robots

Affect and Proto-Affect in Effective Functioning – A. Ortony, D.A. Norman, and W. Revelle

The Architectural Basis of Affective States and Processes – A. Sloman, R. Chrisley, and M. Scheutz

Moving Up the Food Chain: Motivation and Emotion in Behavior-based Robots – R.C. Arkin

Robot Emotions: A Functional Perspective – C. Breazeal and R. Brooks

The Role of Emotions in Multiagent Teamwork – R. Nair, M. Tambe, and S. Marsella

IV Conclusions

Beware the Passionate Robot – M.A. Arbib