

Contents

<i>List of illustrations</i>	<i>x</i>
<i>Acknowledgements</i>	<i>xi</i>
1 Introduction	1
<i>The centrality of cognition</i>	<i>2</i>
<i>The wider picture</i>	<i>5</i>
<i>A summary of the main arguments</i>	<i>7</i>
PART I	
Knowledge and economics	15
2 The uneasy relationship between knowledge and economics	17
<i>The role of knowledge in modern economic growth theory</i>	<i>17</i>
<i>The characteristics of goods</i>	<i>20</i>
<i>How excludable is knowledge?</i>	<i>22</i>
<i>The convergence debate</i>	<i>24</i>
<i>The neo-Schumpeterian school</i>	<i>26</i>
<i>Non-rival knowledge</i>	<i>27</i>
<i>The stylised empirical facts of economic development</i>	<i>30</i>
<i>Conclusions</i>	<i>32</i>
3 The role of distributed knowledge in economics	34
<i>Introduction</i>	<i>34</i>
<i>The division of labour in classical economics</i>	<i>36</i>
<i>The division of labour in modern economics</i>	<i>43</i>
<i>Hayek on the division of labour</i>	<i>47</i>
<i>Modern schools of thought on asymmetrically distributed knowledge</i>	<i>49</i>

PART II

The principle of cognitive economy	53
4 Knowledge and the principle of cognitive economy	55
<i>Information, learning and knowledge</i>	56
<i>Knowledge and environmental adaptation</i>	61
<i>The internal representation of knowledge</i>	68
<i>The internal representation of knowledge: categorisation theory</i>	71
<i>Connectionist versus modularity concepts of knowledge</i>	73
<i>Symbolic storage and communication of knowledge</i>	76
<i>The cognitive leverage effect of symbolic systems</i>	80
5 Communication and distributed knowledge	83
<i>Dual inheritance and the relative cost of acquiring knowledge</i>	84
<i>The impact of communicated knowledge on overall population fitness</i>	89
<i>Price, substitution and quantity effects</i>	93
<i>Incentives to learn and to trade</i>	95
<i>Alternative channels of knowledge transmission</i>	96
6 The economy as a knowledge communication system	100
<i>Production and trade as a knowledge transmission channel</i>	101
<i>The cognitive mechanics of specialisation</i>	104
<i>Specialisation and transaction costs</i>	107
<i>Secondary uncertainty, transaction costs and institutions</i>	111
<i>Transaction costs reconsidered</i>	115
<i>Conclusions</i>	118
7 Economies of scope	120
<i>Schumpeterian competition</i>	123
<i>Economies of scope</i>	125
<i>The extent of the market</i>	127
<i>Complementarity of knowledge sets</i>	129
<i>Fisher's Theorem</i>	135
<i>Conclusions</i>	136

PART III

The cognitive mechanics of institutional change	139
8 The role of institutions	143
<i>What are institutions?</i>	143
<i>The how and why of institutions</i>	149
<i>A critique of the voluntary cooperation approach</i>	155
9 The state's monopoly on violence	161
<i>Specialisation and anonymous trade</i>	161
<i>The necessary conditions for anonymous trade</i>	163
<i>The relevant social science literature in a nutshell</i>	166
<i>Barzel's theory of the state</i>	172
<i>A critique of models with exogenous monopolies on violence</i>	174
<i>Endogenising violence</i>	176
10 Endogenous institutions	180
<i>Introduction</i>	180
<i>Production versus conflict</i>	183
<i>Sharing norms</i>	187
<i>Asymmetrically distributed conflict technology</i>	190
<i>Unequally distributed production technology</i>	192
<i>Policy implications of the model</i>	199
<i>Conclusions</i>	203
Notes	205
Bibliography	210
Index	222