

# Index

- abductive reasoning 39–44  
Abernathy, C.M. 157  
*Abhidhamma* 86, 89, 94  
Abolathia, M.Y. 196  
absorbed coping, concepts 40–2, 73–5  
'abstract concepts', Thompson's four  
    guidelines for inquiry 248–50, 254–7  
action rationality, decision rationality 162–3,  
    181–6, 244  
actions  
    *see also* enacting  
    concepts 4–8, 10, 16, 27–44, 66–81, 122–7,  
        130–48, 153–70, 173–221, 273–4  
    doubt 262–71  
    enacted environments 6, 189–204  
    entrapment cultures 175–86  
    information overload 66–81  
    organized sensemaking 136–48  
    positive organizing 207–20  
active systems 162–70  
actors 22–3, 139, 144–8, 181–6, 189–90,  
    199–204, 257  
adaptation/adaptability theme 18, 21, 32,  
    51, 59–60, 137, 141, 189–204,  
    217–20, 229–39, 248–57  
    *see also* changes; doubt; dropped tools  
adjustment types, enactment 194–204  
*Administrative Science Quarterly* (ASQ) 243,  
    245, 247–57  
advanced beginner stage of expertise 76–8,  
    100–1  
adversity 153–86  
AES *see* Applied Energy Systems  
agents 4–8, 33, 51, 59–60, 131–48,  
    190–204  
air traffic control systems 101, 145, 196–7  
aircraft carriers 101, 164, 217–18  
airline pilots 15–16, 58–9, 248  
Albert, S. 142  
alert state, mindfulness 92–3, 98–103  
alertness concepts 31–44, 92–3, 98–103,  
    117–27  
Allinson, R.E. 270  
Allport, Floyd 12  
ambivalence assumption  
    concepts 10, 18–23, 55–61, 213–14  
    indecisiveness contrasts 20  
analysis 8, 9–23, 117–27, 144–8, 211–20  
anchors  
    concepts 6–8, 12–13, 109–28, 129–48,  
        207–20  
    faith 6, 27–44  
    recurrence 6, 119–27, 140–8  
animation 226–39, 266–71, 274  
    *see also* changes  
    leadership focus area 266–7  
anticipation 13–14, 124–7  
Apple 233  
Applied Energy Systems (AES) 57  
approximations 58–9  
    *see also* retrospect  
ardent state, mindfulness 92–3, 99–103  
argumentation levels, interdependencies  
    55–61

- Argyris, C. 237  
 arrhythmia 157–8  
 arrogance of optimism 118–19,  
 212–20, 271  
 articulation, definition 138  
 Asch, S.E. 216, 218  
 Asda 230  
 Ashby, Ross 159  
 assumptions  
 ambivalence assumption 10, 18–23,  
 55–61, 213–14  
 complexity assumption 10, 20–3, 47–61  
 concepts 10–23, 32–44, 117–27,  
 189–204  
 as context 15–21  
 continuity assumption 10, 15–23  
 entrapment cultures 177–86  
 evolution assumption 10, 17–23, 130,  
 138–48, 194–204  
 inertia 232–5  
 information overload 70–3  
 levels of analysis assumption 10, 21–3,  
 117–27, 144–8, 211–20  
 organizing 11–23  
 social order 10–23  
 unfreezing 237–9  
 Atlan, H. 4  
 attend activities  
*see also* distributed sensemaking; informa-  
 tion overload; mindfulness  
 concepts 8, 45–105, 110–27, 176, 189–90,  
 273–4  
 Austin, Lambert 123  
 authentication, leadership focus area 266,  
 269–70  
 ‘automatic pilot’ 112–13, 117–27  
 autonomy of professionals, medical care  
 systems 184–5  
 awareness concepts 91–103, 117–27, 140–8  
*see also* mindfulness  
 Baron, R.M. 114–15, 161, 273–4  
 Barrett, F.J. 238  
 Bartlett, C.A. 230  
 Bartlett, Sir Frederic 109  
 Bate, P. 233, 238  
 Bateson, Gregory 12  
 battered child syndrome, background 8, 9,  
 28–44, 160–3, 167  
 battlefield commanders 267–8  
 Battlement fire 216  
 ‘be where you are with all your mind’ 42, 89  
 becoming 14–15  
 Beer, M. 227, 235  
 behavioral commitment issues, sensemaking  
 176–86, 235–9  
 believing  
 concepts 28–9, 32–5, 37–44  
 definitions 37–9  
 faith 37–9  
 seeing 34–5, 86–103, 113–16  
 Benner, P. 76–8, 101, 133–4, 137–8, 162,  
 167, 214  
 Bennis, W. 262, 263–71  
 Bhopal disaster 209, 215  
 bioterrorism 51–61  
 blame cultures 184–6  
 blind spots  
 enacted environments 193–4, 202–4  
 entrapment cultures 176–86  
 blurred images 109–27  
 Boden, Deirdre 198  
 Bodhi, B. 86, 97  
 Boeing 120  
 Boettinger, Henry 9  
 Bolsin, Dr Stephen 180  
 Boschetti, C. 6  
 Bosk, Charles 158  
 boundary conditions 40–2, 73–5, 160–3,  
 167–70  
 bracketing, organized sensemaking 134–48,  
 225–7  
 brands 97  
 breakdowns 11–23, 28–44, 76–81, 100–1,  
 109–27, 140–8, 207–20  
*Breaking the Code of Change* (Beer & Nohria) 227  
 Bristol Children’s Hospital (BCH) 178–9  
 Bristol Royal Infirmary 14, 110, 143, 167,  
 175–86  
*see also* entrapment cultures  
 background 175–6, 177–83  
 CEO (Dr John Roylance) 180–2  
 discussion 183–6  
 early complaints 179–80  
 inquiry 180–3  
 justification issues 176–86  
 optimism effects 110, 180–6  
 reconstructed history 183–6  
 small entrapment actions 175–6, 177–86  
 British Rail 233

- bronchospasm 157–8  
 Brown, A. 143  
 Brown, K.W. 99  
 Brown, S.L. 230  
 Brunsson, N. 162–3  
 Buddhism 86, 89–103, 130, 176, 244–5  
   *see also* Eastern . . .  
   ‘cardinal meditation involving impermanence, suffering, and egolessness’  
     dynamic 86, 91, 93–103, 176, 244–5  
     concepts 90–1, 97, 130  
     core message 90–1  
 Butcher list, information overload 65
- California Management Review* 176–88  
 Cameron, Kim S. 208, 220  
 Campbell, Donald 12, 17, 18–19, 139,  
   163–4, 213–14, 216, 236  
 capabilities, linguistic categorizing  
   capabilities 16  
 ‘cardinal meditation involving impermanence,  
   suffering, and egolessness’ dynamic 86,  
   91, 93–103, 176, 244–5  
 Cartesian anxiety 32  
 Center for Disease Control and Prevention  
   (CDC) 6, 47–61  
 certainty, doubt 261–2  
 chains of errors 14  
*Challenger* disaster 54, 118, 183, 203, 209  
 changes  
   change within change 6, 226–39  
   codes of change 239  
   concepts 6, 7, 85–103, 223–71  
   continuous change 6–8, 101–3, 130–48,  
     225–39  
   definitions 229–32  
   doubt 261–71  
   dropped tools 6, 124–5, 243–57, 268–9  
   emergent change 225–39  
   episodic change 225–9, 231–9  
   impermanent organizations 3–8  
   inertia 232–5  
   legitimation of doubt 261–71  
   mindful attention 6, 189–90  
   planned change 225–9, 231–9  
   programmatic change assumption 235–7  
   programs 226–39  
   rates of change 154–5  
   recurrence 6, 225–39  
   rise and fall of patterns 6–8, 225–39  
   sensing mechanisms 35  
   social order 3–8  
   unfreeze-change-refreeze 7, 225–9, 237–9  
 chaos 4, 8, 12–13, 32–3, 36–7, 60, 134–48,  
   204, 263–4  
   *see also* complexity theory  
 Chernobyl 215  
 Chia, Robert 3–4, 8, 48–9, 90, 133, 134,  
   135, 225  
 child abuse 8, 9, 28–44, 160–3, 167  
 Chisholm, D. 118–19, 212  
 Chittipeddi, K. 142–3  
 Chrysler 196–7  
 Churchill, Winston 270  
 Citibank 196–7  
 Clegg, S. 190–1  
 clinical interpretation, concepts 162–3  
 closed systems  
   *see also* systems  
   system theories 167–70, 214  
 co-evolution theory 56, 59–60, 130, 138–48  
 codes of change 239  
 codification, abductive reasoning 39  
 cognitive dissonance 11, 13–14, 42, 119–21  
 cognitive interdependencies, concepts 54–61  
 cognitive processes 11, 12, 13–14, 28–44,  
   47–61, 69–70, 114–27, 130–48,  
   189–204  
   information overload 69–70  
   interdependencies 47–61  
   mindfulness 95–6  
   sensemaking 55–61, 114–16, 130–48,  
     273–4  
 cognitive psychology 142–3  
 Cohen, M.D. 6  
 collective cognition effects, sensemaking  
   55–61  
 collective mindfulness 16  
 collective sensemaking 6, 9, 16, 47–64,  
   145–8  
 Collins, J.C. 230  
 Columbia shuttle (STS-107) tragedy 6, 9, 22,  
   109–27  
   background 109–27  
   channeling decisions to experts 125–7  
   conclusions 126–7  
   Crater computer model 120–1, 124  
   foam shedding 109, 111, 113–14  
   in-family/out-of-family problems 119–21  
   labeling 120–1

- Columbia shuttle (*continued*)  
 mindful abstracting 113–16  
 mindful organizing 116–27  
 preoccupation with failure 117–27  
 reluctance to simplify 119–27  
 resilience/anticipation issues 124–7  
 sensitivity to operations 121–7  
 standards of proof 118–19  
 STS-114 mission 122
- commitment issues, sensemaking 176–86,  
 235–9
- communications, organized sensemaking  
 137–48, 183, 199–204
- compasses/maps, sensemaking 264–8
- competence  
 change drivers 235–9  
 stage of expertise 76–8, 100–1
- competitive advantages 97
- complex adaptive systems 51, 59–60
- complexity  
*see also* simplicity  
 assumption 10, 20–3, 47–61  
 concepts 4, 10, 20–3, 32–3, 47–61,  
 262–71  
 doubt 262–71  
 sensemaking 56–60
- complexity theory 22, 32–3, 36–7, 47, 51,  
 59–61  
*see also* chaos  
 substitutions 59–60
- complication issues, information overload  
 72–3
- compound abstractions 28–9, 34–44,  
 113–27
- compounding of adversity 157–9
- computational information processing  
 perspectives, information overload  
 70–3, 75, 165
- computer service centers 17
- concentration concepts 91–103  
*see also* mindfulness
- conceptions  
 mindfulness 85–103  
 perceptions 34–44, 51, 110–27, 161–3,  
 273–4
- conceptual slack 153–4  
*see also* requisite variety
- confirmation bias 14, 177–86
- confused complexity periods, learning 20–1
- consciousness, mindfulness 90–103
- consequences, explanations for the failure to  
 drop tools 253–4
- content, mindfulness 85–103
- context  
 assumptions as context 15–21  
 enactment 195–6  
 ideas as context 13–15
- continuity assumption, concepts 10,  
 15–23
- continuous change 6–8, 101–3, 130–48,  
 225–39
- control factors, explanations for the failure to  
 drop tools 252–4
- conversations  
*see also* smoke  
 concepts 4–8, 33, 39–42, 109–27, 131–2,  
 200–4, 219–20
- Cook, R.I. 166
- cooperation, independent persons 3
- coordination  
 by mutual adjustments 55–61, 114–16  
 changes 233–9  
 inertia 233–4  
 requisite variety 161–3
- Corriado, R. 6
- Crater computer model 120–1, 124
- creation of viable realities 10
- criterion problem, Thompson's four  
 guidelines for inquiry 248–50,  
 254–7
- crucial assumptions 8, 9–23
- crucible of the quotidian 9
- crystal  
*see also* redundancy; regularity;  
 repetition; texts  
 smoke contrasts 4, 6, 32–3, 37, 42
- cues 7, 35, 41, 49, 57–61, 95–103, 129–48,  
 190–1, 219–20, 270
- cultural issues 31–44, 117–27, 175–86,  
 215–20, 238–9  
*see also* entrapment cultures  
 blame cultures 184–6  
 cultures of fear 184–5  
 definition 177  
 emergent change 225–39  
 'culture of invincibility' 119
- Cummings, T. 262
- curiosity 18–19
- Czarniawska, Barbara 3, 11–12, 144, 189,  
 203, 231

- Daft, R.L. 8, 162
- danger signals, sensemaking resources  
7, 16, 127
- Dashman case 269–70
- decision making  
*see also* expertise  
Columbia shuttle (STS-107) tragedy 6, 9,  
22, 109–27  
conclusions 79–81  
hierarchy issues 125–6, 183–4, 264–6  
information overload 6, 65–81  
migrating decisions 125–6, 264–6  
rational decision making 141–2, 147,  
162–3, 167–70, 181–6, 244  
sensemaking contrasts 265–6
- deliberation levels, interdependencies 55–61
- Denning, Greg 273–4
- determinate systems 168–70  
*see also* systems
- Dewey, John 5–6, 14–15, 37, 39–40, 66,  
72–3, 81, 208
- Dhasmana, Dr Janardan 179–80
- Diablo Canyon nuclear power station 153–4
- diagnoses  
bizarre diagnoses 36  
SLE 49–61  
treatments 28–44, 157–70  
West Nile virus 6, 9, 47–64
- differentiated expectations 85–103, 112–27,  
134–48, 273–4  
*see also* labeling; mindfulness
- disasters 39–42  
*see also* interruptions
- discarding  
concepts 28–9, 32, 35–44  
definitions 35–6
- disconfirmation 140–8
- discontent 7–8
- disruptions, mindfulness 85–6, 90, 95–103,  
131–2
- distinctions, mindfulness 85–103, 110–27,  
273–4
- distributed information processing,  
interdependencies 54–61
- distributed organizations 5
- distributed sensemaking, concepts 6, 47–61,  
132, 145–8
- distributed systems  
Columbia shuttle (STS-107) tragedy 6, 9,  
22, 109–27  
perceptions 109–27, 161–3  
disturbances, systems theory 159–70  
divergent perspectives 153–70  
diversity 59–60, 153–70  
*see also* variety
- Dixon, N.M. 238
- Dodge, Wagner 216, 250–4
- dogma 186
- double interacts 22–3
- doubt  
actions 262–71  
benefits 261–71  
compasses/maps 264–8  
complications 261–2  
concepts 6, 15, 19–20, 38–9, 55–61,  
85–103, 153–70, 216–20, 261–71  
dynamic complexity 262  
knowing balance 19–20, 38–9, 153–4,  
216–20, 261–71  
leadership challenges 261–71  
legitimation of doubt 261–71  
sensemaking 6, 15, 19–20, 38–9, 55–61,  
153–4, 216–20, 261–71
- Dreyfuss, H.L. 76–7, 100
- Dreyfuss, S.E. 76–7, 100
- Driebe, Dean J. 49
- dropped tools 6, 124–5, 243–57, 268–9  
concepts 243–57, 268–9  
examples 247–8  
explanations for the failure to drop tools  
251–4, 257  
identity 253–4, 257  
'law of the instrument' 248  
Mann Gulch fire disaster 12, 23, 41, 129–30,  
209, 211, 216, 243–57  
preserved patterns 6, 243–57  
South Canyon disaster 216, 247, 250–7  
Thompson's four guidelines for inquiry  
248–50, 254–7
- Dude fire, Arizona 266
- Dutch troops 261–2
- Dutton, Jane E. 208, 220
- Eastern philosophy/psychology 6  
Buddhism 86, 89–103, 130, 176, 244–5  
concepts 6, 35, 85–103, 130, 176, 244–5  
impermanence 6, 35, 85–103  
mindfulness 6, 35, 85–103  
'not wobbling' capabilities 86–7, 89–103  
Western connections 99–103

- Eco, U. 201
- ecological change 139–48, 194–204  
*see also* evolution . . .
- economists, potential threats 256–7
- Edmunds, A. 65
- egolessness, ‘cardinal meditation involving impermanence, suffering, and egolessness’ dynamic 86, 91, 93–103, 176, 244–5
- Eisenberg, Eric 32, 57
- Eisenhardt, K.M. 230, 257
- electricity analogy, information overload 65, 74–5
- emergence theory 51, 56, 59–60, 230–9
- emergent change  
*see also* changes  
 concepts 225–39  
 conclusions 238–9  
 definition 229–31  
 inertia 232–5  
 planned change 231–2  
 in practice 229–30  
 programs 226–39  
 theory 230–1
- emotions 18–23, 41, 94–5, 132, 144–8
- empirical studies, information overload 71–2, 80–1
- enacted environments  
 blind spots 193–4, 202–4  
 concepts 6, 189–204  
 definition 189–90, 193–4  
 illustrative delimiting examples 196–7  
 presumptions 197–204  
 shortcomings 193, 194, 202–4
- enacting 6–7, 28–44, 49, 58–61, 66–81, 130–48, 189–204, 218–20, 270, 274  
*see also* actions; agents; cognitive processes; order  
 adjustment types 194–204  
 concepts 6, 28–9, 32–44, 58–61, 66–81, 139–48, 189–204, 218–20, 270, 274  
 context 195–6  
 critique 193, 194, 202–4  
 definitions 36–7, 58–9, 189–90, 193–5  
 environmental issues 6, 189–204  
 examples 58–9  
 faith ties 37  
 flux 6, 134, 189–204  
 historical background 189–90, 195–6  
 illustrative delimiting examples 196–7  
 improvisation 37, 190–204  
 information overload 66–81  
 perceptions 198–204  
 precision concerns 194–5  
 presumptions 197–204  
 sensemaking 36–7, 49, 58–61, 139–48, 189–204, 218–20  
 shortcomings 193, 194, 202–4
- enactment theory 139–48
- entrapment cultures  
 blind spots 176–86  
 concepts 14, 175–86  
 definition 177, 182  
 justification issues 176–86
- entropy 32, 59–60, 209–10, 214–20
- environmental issues  
 complexity assumption 20–1  
 enacted environments 6, 189–204  
 inertia 232–5  
 intraorganizational evolution 130, 138–48  
 systems 12, 15, 22–3, 56, 59–60, 153–70
- epilogue 273–4
- episodic change 225–9, 231–9  
*see also* changes
- epistemology 201–4
- ESR 139–48
- ethnocentrism 167, 190–1, 195–6
- evidence 4, 27–44
- evolution assumption  
 concepts 10, 17–23, 130, 138–48, 194–204, 207–8  
 intraorganizational evolution 130, 138–48
- experiences 4–8, 10, 12, 27–44, 57–9, 99–103, 122–7, 131–48, 189–204, 219–20, 267–8, 273–4
- expert stage of expertise 76, 78
- expertise  
*see also* decision making; listening  
 Columbia shuttle (STS-107) tragedy 125–7  
 concepts 7–8, 12, 76–81, 98–103, 125–7, 164–70, 218–20, 264–6, 274  
 five stages 76–8, 100–1  
 hierarchy issues 125–6, 183–4, 264–6  
 HRO processes 7, 98, 101–3, 112–27, 164–70, 218–20, 274  
 information overload antidote 75–81  
 Exxon Valdez disaster 209
- F-15 pilots 132
- façade maintenance, productivity studies 13

- fact, faith 3
- faction 10
- failures  
 concepts 7–8, 16, 17, 28–44, 98–103,  
 109–27, 159–70, 209–20, 253–4, 274  
 explanations for the failure to drop tools 253–4  
 HRO processes 7, 98, 101–3, 112–27,  
 164, 175–6, 218–20, 274  
 systems 159–70
- faith 3, 4, 23, 27–44  
 anchors 6, 27–44  
 believing 37–9  
 concepts 4, 6, 23, 27–44  
 definition 27–9, 38–9  
 enacting ties 37
- ‘faith that we are right’ step 23, 38–9
- fallacy of centrality 36, 167, 273–4
- false negatives/positives, systems 166–7
- Farjoun, M. 110, 127
- fatality investigations 86–7, 98–103
- FBI 67–9
- fear 18–19, 184–6
- fears of punishment 184–6
- feedback loops 3–8, 38–9, 185–6, 194–204
- feelings 18–23, 41, 94–5, 132, 144–8
- Feldman, Martha 37, 234
- Ferriani, S. 6
- Festinger, Leon 12, 13–14
- fictions  
*see also* permanence illusions  
 concepts 6–7
- fingerprints 67–9
- firefighters 6, 9, 14, 19, 36, 56, 75, 86–103,  
 129–30, 196–7, 207–20, 243–57,  
 265–9  
*see also* dropped tools
- five bags medical error 157–9
- Five-Hundred-Dollar-Bill Theorem 256
- Flin, Rhona 75
- flow charts, system diagrams 169–70
- flux  
 enacting 6, 134, 189–204  
 organized sensemaking 134–48, 225–7,  
 273–4
- foam shedding, Columbia shuttle (STS-107)  
 tragedy 109, 111, 113–27
- ‘focus on relationships’, Thompson’s four  
 guidelines for inquiry 248–50, 254–7
- focused state, mindfulness 92–103
- Follett, Mary Parker 190
- Ford, J.D. 238
- Ford, L.W. 238
- ‘Four Foundations’, mindfulness 91–3, 99–100
- frames of reference 7, 132–3, 154, 185–6,  
 219–20  
*see also* identity
- freezing, unfreeze-change-refreeze 7, 225–9,  
 237–9
- fugitive quality of organizing 273–4
- fulfilment 208–20
- functional deployment, labeling 134–5  
*The Future of Leadership . . .* (Bennis, Spreitzer,  
 Cummings) 262
- garbage cans 6
- Garfinkel, Harold 12, 189, 195, 262
- gastritis 157–8
- Geertz, Clifford 10
- Gehman, H.W., Jr 22
- generalizations 34–5, 96–7, 102–3, 273–4  
*see also* simplicity
- generation of texts, concepts 5–8
- generic existential strategy 4–5
- Ghoshal, S. 230
- Gioia, D.A. 131–2, 140–1, 142–3, 232
- Gleason, Paul 19, 49, 56, 176, 216, 261–2,  
 265–8
- globalization 145
- Goffman, Erving 129
- Goleman, D. 97
- greed axiom 256–7
- Greenwood, R. 145, 190, 194
- groundlessness concepts 32
- guesses in an unknowable world 27–9, 38–44
- Gunaratana, B.H. 91, 94
- Guttman scale 54
- habits 37, 72–3  
*see also* routines
- Hackman, Richard J. 255–6
- Ham, Linda 118, 122, 125–6
- Hamm, R.M. 157
- Hammond, Dr Phillip 180
- Handbook of Organizational Decision Making*  
 (Starbuck & Hodgkinson) 66
- handoffs, Columbia shuttle (STS-107)  
 tragedy 109–27
- Harmon-Jones, C. 14
- Harmon-Jones, E. 14
- Harrowitz, N. 39

- 'having the bubble' 121–2  
heart disease 157–8  
heedful interrelations within groups  
  concepts 154–5, 158–70, 207–20, 274  
  properties 218  
Heidegger, M. 10, 14, 40, 73–5, 199  
Hein, Piet 22  
help requests, requisite variety 165, 167  
Hendry, C. 225, 237  
Henig, R.M. 56  
heterogeneous agents 51, 59–60  
hidden transformations in an author's mind  
  12–13  
hierarchy issues, expertise 125–6, 183–4,  
  264–6  
high reliability organizations (HROs)  
  *see also* expertise; failures; operations;  
  resilience; simplicity  
  concepts 7–8, 20–1, 98–9, 101–3, 109–27,  
  164–70, 175–6, 218–20, 274  
high reliability theory (HRT) 112–27  
hindsight 165–6, 210–11, 273–4  
hindsight bias 210–11  
Hodgkinson, G. 66  
holding patterns 58–9  
HROs *see* high reliability organizations  
HRT *see* high reliability theory  
Hughes, J. 145  
human condition 12, 15–16, 195–204,  
  207–20  
human errors 14, 28–44, 153–72, 175–86  
humility 264–6, 270–1, 274  
Hurst, D.K. 264  
Hutchins, E. 47, 60, 202
- ideas  
  cognitive dissonance 11, 13–14  
  concepts 11–23  
  as context 13–15  
  generation concepts 11–23  
  truth 14–15  
  unanticipated consequences 13–14  
  wisdom 14–15
- identity 7, 41, 49, 57–61, 129–48, 190–1,  
  194–204, 219–20, 253–7, 270  
  *see also* frames of reference  
  construction issues 142–3  
  definition 142  
  explanations for the failure to drop tools  
  253–4, 257
- sensemaking 129–30, 142–8, 190–1,  
  194–204, 219–20, 270  
imagination 31, 41–2, 274  
impermanence  
  *see also* mindfulness  
  'cardinal meditation involving imper-  
  manence, suffering, and egolessness'  
  dynamic 86, 91, 93–103, 130, 176,  
  244–5  
  concepts 3–4, 6, 86, 91, 93–103, 130,  
  176, 225–39, 244–5  
  definition 3–4, 6, 93–5  
  extent of impermanence 154–5  
  feelings 94–5  
  qualities 94–5  
  selflessness quality 94–5, 101–3  
  truth 32–3  
  unsatisfactoriness quality 94–5, 101–3  
  variety 4, 33, 60, 153–70
- impermanent collaborations 6  
impermanent organizations  
  *see also* permanence illusions  
  concepts 3–8, 9–23, 48–61, 93–103  
  definition 3–4  
  infrastructures 27–44, 189–204  
  wisdom 10–23
- impression management, concepts 13–14  
improvisation 7, 28–44, 102–3, 124–7, 147–8,  
  190–204, 211–20, 266–8, 273–4  
  *see also* resilience  
  concepts 37–44, 102–3, 124–7, 266–8,  
  273–4  
  definition 267  
  enacting 37, 190–204  
  leadership focus area 266–8  
  wary improvisation 37–8
- in-family problems 119–21  
inaccuracy findings, management percep-  
  tions 141–2  
incident commanders 75  
indecisiveness, ambivalence contrasts 20  
independent persons, cooperation 3  
individualistic cultures 202–3  
inertia  
  concepts 232–9  
  images of organization 233–4  
inexplicable, unexplained 129–30  
informal system theories  
  *see also* systems  
  concepts 166–70

- information conflicts, variable disjunction of  
 information 48–9
- information overload  
 actions 66–81  
 assumptions 70–3  
 Butcher list 65  
 cognitive processes 69–70  
 complication issues 72–3  
 concepts 6, 65–81, 141–2  
 conclusions 79–81  
 coping strategies 69–70  
 critique 72–81  
 definitions 65, 69–70  
 electricity analogy 65, 74–5  
 empirical studies 71–2, 80–1  
 enacting 66–81  
 expertise antidote 75–81  
 information processing perspectives 70–3,  
 75, 165  
 interpretation aspects 72–81  
 interruptions 70–5, 78–81  
 listening 71–81  
 meaning 72–3, 75–81  
 mechanisms of adjustment 69–70  
 perceptions 69–81, 141–2  
 reconceptualizing overload 76–81  
 rethinking the assumptions 72–5  
 sensemaking 6, 65, 73–81, 141–2  
 significance factors 66, 72–81  
 symptoms 68–70  
 thrownness 72–81  
 time pressures 70–81  
 transitory aspects 66–81  
 understanding 66–81
- information processing perspectives,  
 information overload 70–3, 75, 165
- infrastructures, impermanent organizations  
 27–44, 189–204
- inputs  
 information overload 65–81  
 systems theory 159–70
- inquiry impediments, levels of analysis  
 assumption 10, 21–3
- insights, mindfulness meditation 97–103
- instigations to sensemaking 140–1
- institutions, sensemaking 132, 144–8,  
 190–1, 198–9, 201–4
- intellectual capital 65–81
- intelligence, interconnectivity product 47–8,  
 57–61
- interactions 7, 12, 22–3, 154–70, 207–20  
 Interagency Hotshot (Zig Zag) Crew 265–6  
 interconnectivity product, intelligence 47–8,  
 57–61
- interdependencies 22–3, 47–61, 146–7,  
 154–70, 185–6, 195–204, 270–1  
 cognitive processes 47–61  
 distributed information processing  
 54–61, 165  
 reciprocal interdependencies 55–61,  
 195–204
- INTERPOL 67–9, 81
- interpret activities  
 Columbia shuttle (STS-107) tragedy 6, 9,  
 22, 109–27, 130–48  
 concepts 8, 12, 16, 17–18, 72–81, 107–72  
 information overload 72–81  
 process of organized sensemaking 129–48  
 requisite variety 153–70  
 variety mitigates adversity 153–70
- interruptions  
*see also* sensemaking  
 concepts 10, 12, 14–15, 39–40, 70–5,  
 78–81, 95–103, 131–48  
 definition 10, 39  
 information overload 70–5, 78–81  
 recovery 39–40, 102–3, 131–2  
 resilience 41–2  
 types 39–40
- intraorganizational evolution 130, 138–48
- Irwin, Robert 34–5, 87, 113–14
- Isenberg, Dan 267–8
- James, William 3, 5–6, 8, 12, 18–19, 23,  
 32–3, 36–8, 41, 74, 110, 189, 213–14
- Jennings, P.D. 145, 190–1, 194
- Jobs, Steve 233
- Journal of Management Inquiry* 87
- just-in-time learning 124
- justification issues  
 definition 181  
 explanations for the failure to drop tools  
 251–4  
 sensemaking 176–86, 202–3, 251
- Kabat-Zinn, J. 92, 100
- Kahn, R.L. 32, 169–70
- Kant, Immanuel 51
- Kaplan, A. 248
- Katz, D. 32, 169–70

- Kellman, S.G. 271  
 Kelman, Steve 41  
 Kempe, Henry 31–2  
 Kentucky Fried Chicken (KFC) 230  
 key ideas 7–8, 27–44, 273–4  
 Kierkegaard 40  
 Kilbourne, Edwin 56  
 Kilduff, M. 196  
 Klein, Gary 12, 134, 148  
 knowing  
   doubt balance 19–20, 38–9, 153–4,  
     216–20, 261–71  
   enactment 201–4  
 knowledge  
   by acquaintance 34–5, 114–16, 274  
   by description 34–5, 114–16, 274  
   creation 255–6  
 Kock, N. 66, 73, 81  
 Korzybski, Count 265  
 Kouzes, J.M. 230  
 Kramer, E.-H. 6, 261–2  
 Kuhnian version of science 256–7
- labeling  
   *see also* differentiated expectations; regular-  
   ity; routines; streaming experiences  
 Columbia shuttle (STS-107) tragedy  
   120–1  
   concepts 27–9, 32–44, 81, 87, 110–27,  
   134–48, 163–4, 273–4  
   definitions 33–4, 134–5  
   functional deployment 134–5  
   ‘seeing is forgetting the name of the thing  
   seen’ 34–5, 87, 113–16  
 Landau, M. 118–19, 212  
 Langer, E. 35, 85–6, 90, 95–6, 99–100, 117,  
   273–4  
 Langton, Christopher 4  
 language, concepts 5–8, 131–48, 226–7  
 Lao Tzu 244  
 Latour, B. 199–200, 203  
 ‘law of the instrument’, dropped tools 248  
 Law of Requisite Variety 159–60  
   *see also* requisite variety  
 LCES structure 19, 208, 215–20  
 leadership 8, 49, 90, 180–6, 261–71  
   animation focus area 266–7  
   authentication focus area 266, 269–70  
   challenges 264–71  
   compasses/maps 264–8  
   exemplary leaders 265–6  
   focus areas 266–71  
   improvisation focus area 266–8  
   learning focus area 264–6, 270–1  
   legitimation of doubt 261–71  
   lightness focus area 266, 268–9  
   Paul Gleason 19, 49, 56, 176, 216,  
     261–2, 265–8  
 Leape, L. 157  
 learning  
   concepts 8, 14, 18, 20–1, 32–3, 36, 80–1,  
     124–7, 130–48, 162–3, 183–6, 201–4,  
     223–71  
   confused complexity periods 20–1  
   curves 180–1  
   dropped tools 248–57  
   just-in-time learning 124  
   leadership focus area 264–6, 270–1  
   mistakes 130–48, 183–6, 212–13  
   unlearning 248–57, 268–9  
 legitimation of doubt 261–71  
 levels of analysis assumption 10, 21–3,  
   117–27, 144–8, 211–20  
 Lewin, Kurt 225, 237–8  
 liabilities, concepts 6, 9, 110, 175–86  
 lightness leadership focus area 266, 268–9  
 linguistic categorizing capabilities 16  
 listening  
   *see also* expertise  
   concepts 5–8, 21, 42, 71–81, 116–27,  
     251–4, 268–9  
   explanations for the failure to drop tools  
     251–4  
   information overload 71–81  
 living forwards, understanding backwards  
   40–2  
 long-term plans, permanence illusions 6–7, 56  
 loose/tight fits, organizational designs 35,  
   48, 53–61, 123–7, 163–70  
 loosely connected organizations 48, 53–61,  
   123–7, 163–70
- McDaniel, Reuben 36–7, 49, 170, 264  
 Mach, Ernst 212  
 Maclean, Norman 12, 216, 250  
 McNamara, Tracey 52  
 macro–micro phenomena 21–3, 139,  
   144–8, 158–70, 181–7, 199–204,  
   207–20, 257, 273–4  
 macrocosms of wisdom 215–20

- Madrid train bombings 67–9
- Magala, S.J. 146
- Maines, D.R. 5
- management perceptions  
*see also* leadership  
 inaccuracy findings 141–2
- managing  
 Bristol Royal Infirmary 180–6  
 Columbia shuttle (STS-107) tragedy 6, 9,  
 22, 109–27  
 definition 8, 90  
 the unexpected 47–61, 71–2, 117–27
- Mandler, George 12
- Mann Gulch fire disaster 12, 23, 41, 129–30,  
 209, 211, 216, 243–57  
*see also* dropped tools  
 background 250–1  
 explanations 251–4
- maps/compasses, sensemaking 264–8
- March, J. 6, 12, 212, 234, 257
- Marshak, R.J. 233, 237
- Maruyama, Magorah 12
- Maslow's hierarchy of needs 220
- Mayfield, Brandon 67–8
- Meacham, J.A. 19, 213
- Mead, George Herbert 16, 110, 189
- meaning  
 concepts 72–3, 75–81, 131–48, 183,  
 189–204, 210–20  
 failure reexaminations 210–20  
 information overload 72–3, 75–81
- Measure for Measure* (Shakespeare) 262
- mechanical systems  
*see also* systems  
 informal system theories 169–70
- mechanisms of adjustment, information  
 overload 69–70
- medical care systems 6, 28–44, 153–70,  
 175–86, 196–7, 217–18
- medical errors 14, 28–44, 153–72, 175–86,  
 196–7, 217–18  
*see also* requisite variety
- meditation, mindfulness meditation 86–103
- Mehra, A. 140–1
- Mercedes-Benz 196–7
- Merton, Robert 13
- meso level, heedful interrelations within  
 groups 154–5, 158–70, 207–20, 274
- messes 51, 59–60
- Meyer, Alan 148
- Meyerson, D. 6
- Mezias, J. 141–2
- micro–macro phenomena 21–3, 139,  
 144–8, 158–70, 181–7, 199–204,  
 207–20, 257, 273–4
- migrating decisions 125–6, 264–6  
*see also* expertise
- Miles, R.H. 233
- Miller, J.G. 22
- Mills, G.H. 131, 140–2, 146
- mindful abstracting, Columbia shuttle  
 (STS-107) tragedy 113–16
- mindful attention  
 changes 6  
 concepts 6, 85–103, 189–90
- mindful organizations  
*see also* expertise; failures; operations;  
 resilience; simplicity  
 Columbia shuttle (STS-107) tragedy 116–27  
 concepts 6–8, 20–1, 85–103, 109–27,  
 154, 164–70, 207–20  
 guidelines 6–8, 98–9  
 positive organizing 218–20
- mindfulness 6–8, 20–1, 31–44, 85–103,  
 154, 273–4  
*see also* impermanence; moment-to-  
 moment experiences  
 'be where you are with all your mind'  
 42, 89  
 'cardinal meditation involving imper-  
 manence, suffering, and egolessness'  
 dynamic 86, 91, 93–103, 130, 176,  
 244–5  
 cognitive processes 95–6  
 concepts 6–8, 20–1, 35, 85–103, 154,  
 273–4  
 conclusions 102–3  
 definitions 85, 89–93, 95–6, 99, 273–4  
 distinctions 85–103, 110–27, 273–4  
 Eastern philosophy/psychology 6, 35,  
 85–103, 130, 176, 244–5  
 fatality investigations 86–7, 98–103  
 'Four Foundations' 91–3, 99–100  
 guidelines 6–8  
 movie analogy 92  
 'not wobbling' capabilities 86–7, 89–103  
 organizational studies context 96–103  
 organizational theory 93–103  
 organizing 6–8, 85–103  
 process/content 85–103, 117–27

- mindfulness (*continued*)  
 remembering-the-present aspects 86–7,  
 89, 91–103  
 ‘seeing is forgetting the name of the thing  
 seen’ 34–5, 87, 113–16  
 three sets of internal mental objects 92–3  
 voids 95–103  
 Western philosophy/psychology 35, 85–7,  
 95–103
- mindfulness meditation  
 concentration starting point 97–8  
 concepts 86–103  
 definition 89, 97–8, 103  
 insights 97–103  
 methods 97–8  
 mindfulness starting point 97–8  
 misleading conceptual moves 97–8
- mindlessness 35, 95–103, 112–27
- mindsets 180–6
- Mintzberg, H. 231
- misleading abstractions 97–8, 112–27
- Misovich, S.J. 114–15, 161, 273–4
- mission 229–30
- mistakes  
 concepts 12–15, 32–3, 57–8, 130–48,  
 165–6, 175–86, 209–20, 273–4  
 learning 130–48, 183–6, 212–13  
 positive organizing 209–20  
 truth 32–3, 135–6, 165–6, 211–13, 273–4
- misunderstandings of medical systems  
 166–70
- moment-to-moment experiences 6, 85–103,  
 127, 137  
*see also* mindful organizations
- Morris, A. 65
- movie analogy, mindfulness 92
- mundane poetics 9–23
- myocardial infarction 157–8
- names 34–5, 87, 113–16, 134–48  
*see also* labeling  
 ‘seeing is forgetting the name of the thing  
 seen’ 34–5, 87, 113–16
- NASA 6, 41, 109–27, 196–7  
*see also* Columbia shuttle (STS-107) tragedy
- National Health Service 178, 182
- natural systems 170  
*see also* systems
- nature 18–19
- navy  
 dropped tools example 248  
 ‘having the bubble’ 121–2
- negative emotions, sensemaking 146–7
- negative organizing, wisdom 213–14
- neglected current details 7, 219–20  
*see also* cues
- Neisser, Dick 12
- Nelson, R. 234
- nested hindsight capabilities, requisite  
 variety 165–6
- networks of conversations 5
- New York Central Railroad 89
- Nicholson, Nigel 193–4
- nihilism 41
- Niskar, W. 92
- Nohria, N. 227
- non-linear dynamics 51, 59–61
- Nord, Walter 41
- normal accident theory 112–27
- normalization tendencies, unexpected events  
 54–5, 60, 112–27, 183
- ‘not wobbling’ capabilities, Eastern  
 philosophy/psychology 86–7, 89–103
- novice stage of expertise 76–8, 100–1
- ‘now and then’ concepts 130, 135–6,  
 165–70
- nuclear-powered aircraft carriers 101,  
 217–18
- nurses 75–8, 101, 132–48
- nursing scenario 75–7
- NYC Health Dept. 51–61
- Obstfeld, David 130–51, 274
- Olsen, J.P. 234
- ‘one contact with the real’ 42
- ongoing concepts 7, 41, 49, 57–61, 121–7,  
 129–48, 190–1, 194–204, 219–20,  
 264–6, 270  
*see also* updating of changed impressions
- ontology 202
- open systems  
*see also* systems  
 system theories 167–70, 214
- ‘operational definitions’, Thompson’s four  
 guidelines for inquiry 248–50, 254–7
- operations  
 Columbia shuttle (STS-107) tragedy  
 121–7  
 concepts 7–8, 98–103, 112–27, 164–70,  
 218–20, 248–50, 274

- HRO processes 7, 98, 101–3, 112–27, 164–70, 218–20, 274
- optimism effects  
 arrogance of optimism 118–19, 212–20, 271  
 Bristol Royal Infirmary 110, 180–6  
 Columbia shuttle (STS-107) tragedy 110–27  
 organizational behavior 110–27, 180–6, 212–20
- order  
*see also* enacting; sensemaking; social . . .  
 concepts 32–44, 131–48, 189–204  
*Organization at the Limit: Lessons from the Columbia Disaster* (Farjoun & Starbuck) 110  
*Organization Science* 130  
*Organization Studies* 10–23, 29–44  
 organizational behavior 6, 9, 14, 15–18, 22, 28–44, 54, 109–27, 153–72, 175–86, 233–9  
 Columbia shuttle (STS-107) tragedy 6, 9, 22, 109–27  
 optimism effects 110–27, 180–6, 212–20  
 organizational change *see* changes  
 organizational designs 34–5, 48, 53–61, 70–2, 96–103, 163–70  
*see also* high reliability organizations  
 information overload 70–2  
 loose/tight fits 35, 48, 53–61, 123–7, 163–70  
 loosely connected organizations 48, 53–61, 123–7, 163–70  
 mindfulness studies 96–103  
 reactive quality of organizations 56–61  
 organizational processes *see* processes  
 organizational studies, dropped tools 6, 243–57  
 organizational theory 4–8, 9–23, 51–61, 70–1, 93–103, 132–48, 233–9  
 ‘cardinal meditation involving impermanence, suffering, and egolessness’  
 dynamic 86, 91, 93–103, 130, 176, 244–5  
 concepts 11–23, 70–1, 93–103, 132–48, 233–9  
 critique 4–8  
 mindfulness 93–103  
 mundane poetics 9–23  
 searches for wisdom 9–23  
 styles 11–12  
 organizational tragedies  
 dropped tools 6, 243–57, 268–9  
 positive organizing 210–20
- organizations, organizing contrasts 7, 100–1  
 organized impermanence  
 concepts 4–8, 9–23  
 definition 3–4  
 overview of the book 3–8  
 organizing  
 assumptions 11–23  
 Columbia shuttle (STS-107) tragedy 116–27  
 communications 137–48, 183, 199–204  
 definition 7, 39–40, 96–7, 100–1, 129, 133–4, 225–6, 274  
 fugitive quality 273–4  
 imagination 31, 41–2, 274  
 infrastructures 27–44, 189–204  
 mindfulness 6–8, 85–103  
 organization contrasts 7, 100–1  
 positive organizing 207–20  
 resilience 39–42, 124–7, 164–70, 218–20  
 sensemaking process 6, 129–48, 194–204  
 unknowable world 211–15, 264–71  
 Orlikowski, Wanda 17, 140, 230–1, 234  
 out-of-family problems 119–21  
 outputs  
 information overload 65–81  
 systems theory 159–70  
 overdetermination concepts 254–7  
 overview of the book 3–8  
 overview of key ideas, concepts 8, 27–44, 273–4
- Paget, Marianne 12, 14, 32–3, 57–8, 130, 135–6, 165–6, 207, 211, 212, 273–4
- parents, battered child syndrome 8, 9, 28–44, 160–3, 167
- ‘parliament of selves’ 110
- partisans of neglected perspectives, systems 161–3
- passive systems, concepts 162–70
- past experiences 7, 37, 57–9, 122–7, 131–48, 189–204, 219–20, 267–8, 270, 273–4  
*see also* retrospect
- pediatricians 8, 9, 28–44, 110, 132–48, 160–3, 167, 175–86, 196–7  
 autonomy of professionals 184–5  
 battered child syndrome 8, 9, 28–44, 160–3, 167  
 Bristol Royal Infirmary 14, 110, 143, 167, 175–86  
 critique 36, 143, 160, 167, 175–86

- perceptions  
 compound abstractions 28–9, 34–44, 113–27  
 conceptions 34–44, 51, 110–27, 161–3, 273–4  
 distributed systems 109–27, 161–3  
 enacting 198–204  
 fallacy of centrality 36, 167, 273–4  
 inaccurate management perceptions 141–2  
 information overload 69–81, 141–2  
 mindfulness 91–103  
 selective perceptions 274  
 permanence illusions 6–7  
*see also* fictions; impermanent organizations
- Perrow, Charles 14, 112, 203
- Peters, T. 230
- Pettigrew, A.M. 237–8
- Pfeffer, J. 53, 146, 232, 255–7
- Pierce, Charles S. 38–9
- pilots 15–16, 58–9, 248
- planned change  
*see also* changes  
 concepts 225–9, 231–9  
 emergent change 231–2
- plasticity of categories 135
- platypus 129, 201
- plausible stories 7, 41, 49, 57–61, 80–1, 130–48, 165–70, 190–1, 194–204, 219–20, 264–6, 270, 274  
*see also* sensemaking  
 concepts 141–8, 165–70, 190–1, 194–204, 219–20, 264–6, 270  
 truth 141–8, 165–70, 264–6
- poetry, mundane poetics 9–23
- Point/Counterpoint: Central Debates in Organisation Theory* 190–1
- politics, sensemaking 146, 203, 255–6
- Polo, Marco 201
- Porrás, J. 230
- positive emotions, sensemaking 146–7
- Positive Organizational Scholarship* . . . (Cameron, Dutton, Quinn) 208
- positive organizational scholarship (POS) 207–20
- positive organizing  
 concepts 207–20  
 entropy 214–20  
 heedful interrelations within groups 154–5, 158–70, 207–20, 274
- LCES structure 19, 208, 215–20  
 macrocosms of wisdom 215–20  
 mindful organizations 218–20  
 mistakes 209–20  
 respectful interactions between individuals 154–70, 207–20, 226–39, 269, 274  
 STICC 208, 215–20, 261  
 tragedies 210–20  
 unknowable world 211–15, 264–71  
 wisdom 213–20
- Posner, B.Z. 230
- power  
 requisite variety 161–3, 166–70  
 sensemaking 132, 144, 146–8, 161–3, 166–70, 203
- PowerPoint slides 124
- pragmatism, concepts 5–6, 13–23, 189–204
- precision concerns, enactment 194–5
- predecessors  
 concepts 8, 9–23  
 identities 12–13
- premature baby 133–48
- present-at-hand theories 40–2, 73–5, 78–81
- preserved patterns 6, 243–57
- presumptions  
 enacted environments 197–204  
 sensemaking 136–48, 197–204
- Private Eye* 180
- problem resolution teams 122–3
- processes 6, 9, 11–23, 85–103, 117–27, 129–48  
 Columbia shuttle (STS-107) tragedy 111–27  
 concepts 6, 9, 110, 175–86  
 liabilities 6  
 mindfulness 85–103, 117–27  
 sensemaking 6, 129–48  
 systems theory 159–70
- Proctor & Gamble 196–7
- productivity studies  
 cognitive dissonance 13–14  
 façade maintenance 13
- proficient stage of expertise 76–8, 100–1
- profound simplicity, HRO processes 7, 20, 98, 101–3, 112–27
- programmatically change assumption 235–7
- Putnam, Ted 10, 86–105, 243–4, 247, 253
- quantum theory 36–7, 263–4
- Quinn, Robert E. 7, 208, 225
- quotidian, crucible of the quotidian 9

- radial structures 135
- Rasmussen, J. 47, 168, 212–13
- rates of change 154–5
- rational decision making 141–2, 147,  
162–3, 167–70, 181–6, 244
- re-accomplished social order 3–8, 9, 28–9,  
32–44, 183
- reactive quality of organizations 56–61
- ready-to-hand alertness 10, 14, 40–2, 72–5,  
76–8, 100–1
- realities 10, 15–21, 42, 96–7, 99–103  
assumptions 15–21  
'one contact with the real' 42  
viable realities 10
- Reason, James 14, 117–18, 175, 203, 210, 215
- reciprocal interdependencies 55–61, 195–204
- reconceptualizing overload 76–81
- reconstructed history 183–6, 273–4
- recovery  
*see also* resilience; sensemaking  
concepts 10, 14–15, 16, 39–40, 102–3,  
131–2, 211–20, 273–4  
definition 10, 39–40  
interruptions 39–40, 102–3, 131–2
- recurrence  
anchors 6, 119–27, 140–8  
change 6, 225–39  
concepts 3–8, 23, 28–44, 109–27, 140–8,  
154–70, 225–39
- redoing, concepts 28, 32–44
- redundancy 33  
*see also* crystal
- Reeves, T.K. 48
- references 275–8
- refined expectations  
*see also* mindfulness  
concepts 85–103, 117–27, 166–70, 273–4  
informal system theories 166–70
- regularity  
*see also* crystal; labeling  
concepts 4, 5–8, 28–9, 32–44, 126–7, 134–48
- regulators, systems 153–70, 190–1
- relationships  
heedful interrelations within groups 154–  
5, 158–70, 207–20, 274  
respectful interactions between individuals  
154–70, 207–20, 226–39, 269, 274  
Thompson's four guidelines for inquiry  
248–50, 254–7  
thrownness 263–4
- reliable performance 96, 98–9, 110–27,  
164–70
- reluctance to conceptualize label 102–3  
*see also* high reliability organizations
- remembering-the-present aspects of  
mindfulness 86–7, 89, 91–103
- repetition 4, 17–18, 33  
*see also* crystal
- requisite variety 60, 153–70  
*see also* systems . . . ; variety
- concepts 153–70  
coordination 161–3  
fascinating quality 165–6  
help requests 165, 167  
interpretation 161–3  
methods 160–1  
nested hindsight capabilities 165–6  
power 161–3, 166–70  
in practice 164–70  
rebalancing methods 164–6  
schoolteacher example 160
- resilience  
*see also* improvisation; recovery  
Columbia shuttle (STS-107) tragedy  
124–7  
concepts 7–8, 39–42, 98–103, 112–27,  
147–8, 164–70, 218–20, 274  
HRO processes 7, 98, 101–3, 112–27,  
164–70, 218–20, 274  
interruptions 41–2  
organizing 39–42, 124–7, 164–70,  
218–20
- resources for sensemaking 7, 109–27
- respectful interactions between individuals  
154–70, 207–20, 226–39, 269, 274  
*see also* trust . . .
- 'response repertoires control noticing'  
assumption 16, 125, 134
- restless searching, concepts 5–8
- retention concepts, evolution assumption  
17–18, 130, 138–48, 194–204
- retrospect 7, 12, 41, 49, 57–61, 129–48,  
189–204, 219–20, 270, 274  
*see also* approximations; past experiences;  
sensemaking
- richer thinking 49, 117–27, 215–20
- rise and fall of patterns 6–8, 225–39
- Roberts, K.H. 125, 164, 200, 202–3,  
217–18
- Rochlin, G.I. 122

- Roethlisberger, Fritz 269–70  
 Romanelli, E. 232–4  
 Rorty, Richard 41, 238, 256  
 routines  
   *see also* habits; labeling  
   concepts 7–8, 10–23, 28–44, 134–48,  
     153–4, 273–4  
   sequences 7  
 Roylance, Dr John 179–80  
 Rumsey, Walter 250–2  
 Ryan, R.M. 99  
 Ryle, Gilbert 37–8
- St Louis Encephalitis (SLE) 5, 49–61  
 Salancik, G.R. 53  
 Salancik, Jerry 20  
 Sallee, Bob 250–2  
 Sandelands, Lance 244  
 saying, seeing 17–18, 27–9, 34, 41–2, 137,  
   266–7  
 Schein, E.H. 177, 238  
 Schneider, S.C. 69–70  
 Schomburg, Calvin 115  
 schoolteacher example, requisite variety 160  
 Schulman, Paul 116, 153–4, 161  
 Schutz, Alfred 12, 189–90  
 Schutz, William 20  
 Scott, W.R. 170  
 searches for wisdom, organizational theory  
   9–23  
 seeing  
   believing 34–5, 86–103, 113–16, 266–7  
   ‘response repertoires control noticing’  
   assumption 16, 125, 134  
   saying 17–18, 27–9, 34, 41–2, 137  
 ‘seeing is forgetting the name of the thing  
 seen’ 34–5, 87, 113–16  
 self-efficacy 143  
 self-esteem 143  
 self-fulfilling prophecies 37, 58–9,  
   193–204, 213  
   *see also* enacting  
 self-justification issues, sensemaking  
   176–86, 202–3  
 self-knowledge 97–8  
 self-organization theory 51, 56, 59–60,  
   154–5  
 self-referential inconsistencies, concepts  
   40–2  
 self-remembering 97–8  
 self-respect 216–20, 236–9, 267  
   *see also* respectful interactions . . .  
 selflessness  
   ‘cardinal meditation involving imper-  
   manence, suffering, and egolessness’  
   dynamic 86, 91, 93–103, 176, 244–5  
   impermanence 94–5, 101–3  
 Senge, P. 237  
 sensegiving 142–3  
 sensemaking  
   *see also* interruptions; order; recovery;  
   SIR COPE  
   actions 136–48  
   blurred images 109–27  
   bracketing 134–48, 225–7  
   cognitive processes 55–61, 114–16,  
     130–48, 273–4  
   collective cognition effects 55–61  
   communications 137–48, 183, 199–204  
   compasses/maps 264–8  
   complexity 56–60  
   complexity theory substitutions 59–60  
   concepts 5–8, 20–1, 27–44, 47–61,  
     85–103, 109–27, 131–48, 175–86,  
     189–204, 235–9, 264–71  
   conversations 4–8, 33, 39–42, 109–27,  
     131–2, 200–4, 219–20  
   cues 7, 35, 41, 49, 57–61, 95–103,  
     129–48, 190–1, 219–20, 270  
   decision making contrasts 265–6  
   definitions 39–40, 55–6, 131–2, 194–5,  
     264–5  
   distributed sensemaking 6, 47–61, 132,  
     145–8  
   doubt 6, 15, 19–20, 55–61, 153–4,  
     216–20, 261–71  
   emotions 144–8  
   enacting 36–7, 49, 58–61, 139–48,  
     189–204, 218–20  
   flux 134–48, 225–7, 273–4  
   identity 129–30, 142–8, 190–1, 194–  
     204, 219–20, 270  
   information overload 6, 65, 73–81, 141–2  
   instigations 140–1  
   institutions 132, 144–8, 190–1, 198–9,  
     201–4  
   interactions 7, 12, 22–3, 154–70, 207–20  
   intraorganizational evolution 130, 138–48  
   labeling 27–9, 32–44, 81, 87, 110–27,  
     134–48, 273–4

- leadership challenges 264–6  
 nature viewed conceptually 12, 138–43  
 nature viewed descriptively 132, 133–8  
 nature viewed prospectively 132, 143–8  
 ongoing concepts 7, 41, 49, 57–61,  
 121–7, 129–48, 190–1, 194–204,  
 219–20, 270  
 organizing 6, 129–48, 194–204  
 Paul Gleason 19, 49, 56, 176, 216,  
 261–2, 265–8  
 plausible stories 7, 41, 49, 57–61, 80–1,  
 130–48, 190–1, 194–204, 219–20,  
 264–6, 270, 274  
 poetry 11–23  
 politics 146, 203, 255–6  
 power 132, 144, 146–8, 161–3,  
 166–70, 203  
 powerful mechanism for sensemaking  
 175–86  
 presumptions 136–48, 197–204  
 processes 6, 129–48  
 properties 6, 56, 129–48, 190  
 resources 7  
 retrospect 7, 12, 41, 49, 57–61, 129–48,  
 189–204, 219–20, 270, 274  
 skills 147–8  
 subtle dynamics properties 56  
 systemic aspects of sensemaking 136–48,  
 153–70  
 truth 141  
 sensing mechanisms 35, 153–5  
 sequences 4–8, 10, 22, 28–44, 225–39  
 concepts 7, 225–39  
 recurrence 7, 28–44, 225–39  
 routines 7  
 streaming experiences 4–8, 10, 117–27,  
 129–48, 274  
 Shackle, G.L.S. 9  
 Shakespeare, William 262  
 shareability constraint 110–27, 273–4  
 shared beliefs 145  
 significance factors, information overload  
 66, 72–81  
 Simon, Herbert 71, 80–1  
 simplicity  
*see also* complexity . . . ; generalizations  
 Columbia shuttle (STS-107) tragedy  
 119–27  
 concepts 7–8, 20–3, 98–103, 112–27,  
 164–70, 218–20, 274  
 HRO processes 7, 20, 98, 101–3, 112–27,  
 164–70, 218–20, 274  
 informal system theories 166–70  
 SIR COPE 41, 49, 57–61, 190–1,  
 194–204, 270  
*see also* cues; enacting; identity . . . ;  
 ongoing . . . ; plausible . . . ; retrospect;  
 social . . .  
 skills  
 explanations for the failure to drop tools  
 252–4  
 sensemaking 147–8  
 SLE *see* St Louis Encephalitis  
 small entrapment actions, Bristol Royal  
 Infirmary 175–6, 177–86  
 smoke 4, 6, 32–3, 37, 42  
*see also* complexity; conversations;  
 variety  
 Snook, Scott 79–80, 132, 209  
 social loafing 209–10  
 social order  
 assumptions 10–23  
 concepts 3–8, 10–23, 41, 49–61, 114–27,  
 136–48, 183, 190–1, 194–204, 253–4,  
 270, 273–4  
 explanations for the failure to drop tools  
 253–4, 257  
 loosely connected organizations 48,  
 53–61, 123–7, 163–70  
 social resources 7, 219–20  
*see also* conversations; interactions  
 social workers 28–44, 160–3  
 South Canyon disaster 216, 247, 250–7  
*see also* dropped tools  
 background 250–1  
 explanations 251–4  
 Southern Pacific Railroad 196–7  
 Sparrow, P.R. 69–70  
 Speier, C. 69–70  
 Spence, Kenneth 257  
 Spreitzer, G.M. 262  
 SRS *see* Supra Regional Service  
 stabilizing event clusters 6–7, 134–48  
 Stacey, R.B. 67–8  
 Starbuck, Bill 21, 29, 66, 110, 118–19,  
 127, 141, 142, 189–90, 210–11, 257  
 Stephen, Fitz James 23  
 Stevens, Wallace 226–7  
 STICC 208, 215–20, 261  
 strategies, permanence illusions 6–7

- streaming experiences  
*see also* labeling  
 concepts 4–8, 10, 111–27, 129–48, 274  
 definition 10
- STS-107 *see* Columbia shuttle . . .
- STS-114 mission 122
- styles  
 of analysis 8, 9–23, 27–44  
 of thinking 8, 9–23
- substantiating  
 concepts 28–9, 32–3, 39–44  
 definitions 39–42
- substitutions, complexity theory 59–60
- subtle dynamics properties, sensemaking 56
- suffering, ‘cardinal meditation involving  
 impermanence, suffering, and  
 egolessness’ dynamic 86, 91, 93–103,  
 130, 176, 244–5
- superficial simplicities 20–1
- Supra Regional Service (SRS) 178
- surprises 6–7, 140–8
- Sutcliffe, Kathleen M. 66–84, 85, 117,  
 130–51, 165, 167, 176–88, 210, 213,  
 218, 220, 274
- ‘swiss cheese’ model 215
- systemic aspects of sensemaking 136–48,  
 153–70
- systems 12, 15, 22–3, 32, 56, 59–60,  
 136–48, 153–70, 209–10, 214–20  
*see also* heedful interrelations . . . ; mindful  
 organizations . . . ; requisite variety;  
 respectful interactions . . .  
 active/passive systems 162–70  
 boundaries 160–3, 167–70  
 closed/open systems 167–70, 214  
 determinate systems 168–70  
 entropy 32, 59–60, 209–10, 214–20  
 false negatives/positives 166–7  
 feedback loops 3–8, 38–9, 185–6,  
 194–204  
 flow charts 169–70  
 informal system theories 166–70  
 mechanical systems 169–70  
 natural systems 170  
 partisans of neglected perspectives 161–3  
 regulators 153–70, 190–1  
 variety as a property 159–63
- tacit knowledge 138, 261
- task interdependencies, concepts 54–61
- Taylor, James 4–5, 8, 21–2, 32–3, 53–6, 57,  
 59, 137, 200–4, 274
- temporarily stabilized event cluster, concepts  
 3–4, 134–48
- temporary systems, concepts 6, 9, 154,  
 207–20
- Tenerife disaster 14, 209, 244
- terrorist attacks  
 Madrid train bombings 67–9  
 UA flight 93 on 9/11 3
- texts  
*see also* crystal  
 concepts 4–8, 33, 39–42, 131–48, 273–4  
 generation of texts 5–8, 131–2
- Thanissaro, B. 92–3
- Thera, N. 91–4
- Thomas, J.B. 142–3
- Thompson, James 47, 54, 71, 168–9, 243,  
 247–50, 254–7
- Thorngate, W. 40–1
- threats  
*see also* interruptions  
 economists 256–7  
 undifferentiated backgrounds 32–44, 74,  
 112–27, 134–48
- thrownness  
*see also* interruptions  
 concepts 39–41, 72–81, 263–71, 273–4  
 information overload 72–81  
 relationships 263–4
- time pressures, information overload  
 70–81
- ‘tiny steps’ 230
- Tolman, Edward 257
- total quality management (TQM) 256
- train-robbery analogy 3, 8
- transcendental meditation 97
- transformations in an author’s mind  
 12–13
- transitory aspects  
 information overload 66–81  
 mindfulness 94–103
- Travelers 196–7
- treatments, diagnoses 28–44, 157–70
- trust 124–7, 155–70, 209–20, 236–9,  
 252–4, 267  
*see also* respectful interactions . . .  
 explanations for the failure to drop tools  
 252–4
- trustworthy observers 216–20, 236–9, 267

- truth  
 ideas 14–15  
 impermanence 32–3  
 mistakes 32–3, 135–6, 165–6, 211–13, 273–4  
 plausible stories 141–8, 165–70, 264–6  
 sensemaking 141
- Tsoukas, H. 34, 41, 96–7, 133, 135, 273–4
- turbulence 51, 59–60
- Turner, B. 48, 119, 203
- Tushman, M.L. 232–4
- UA flight 93 on 9/11 3
- unanticipated consequences  
 concepts 13–14, 124–7  
 positive aspects 14
- uncertainties  
 concepts 49, 71–2, 109–27, 261–71  
 definition 71
- uncertainty absorption, distributed systems  
 109–27
- Uncertainty and Surprise in Complex Systems . . .*  
 (McDaniel & Driebe) 49
- understanding  
 complexity/simplicity 20–1  
 information overload 66–81  
 stages 20–1  
 understanding backwards and living  
 forwards 40–2
- undifferentiated backgrounds, threats  
 32–44, 74, 112–27, 134–48
- unexpected events  
 managing the unexpected 47–61, 71–2, 117–27, 183  
 normalization tendencies 54–5, 60, 112–27, 183
- unexplained, inexplicable 129–30
- unfreeze-change-refreeze 7, 225–9, 237–9
- Union Pacific Railroad 196–7
- unknowable world 27–9, 36–7, 38–44, 129–48, 211–15, 264–71, 274
- unlearning, dropped tools 248–57, 268–9
- unready-to-hand disruptions 10, 14, 40–2, 72–5, 76–8, 100–1
- unsatisfactoriness quality, impermanence  
 94–5, 101–3
- updating of changed impressions 7, 146, 219–20, 264–6  
*see also* ongoing concepts
- USNCB 67–9, 81
- Valéry, Paul 12
- values, entrapment cultures 177–86
- Van Every, Elizabeth 4–5, 8, 21–2, 32–3, 53–6, 57, 59, 137, 200, 201–4, 274
- Van Maanen, John 256–7
- Varela, F. 32, 94
- variable disjunction of information 48–9
- variation concepts, evolution assumption  
 17–18, 139–48
- variety 4, 33, 60, 153–70, 207–20, 226–39, 269, 274  
*see also* diversity; requisite variety;  
 smoke  
 adversity 153–70  
 concepts 153–70  
 heedful interrelations within groups  
 154–5, 158–70, 207–20, 274  
 properties of systems 159–63  
 respectful interactions between  
 individuals 154–70, 207–20, 226–39, 269, 274
- Vaughan, Diane 58, 112–27, 183, 203
- viable realities 10
- Vietnam war 195
- virtue concepts 91–103  
*see also* mindfulness
- viruses, West Nile virus 6, 9, 47–64
- vision 229–32, 262
- vitality 208–20
- vocabularies 33–44, 145
- Vogus, Tim 220
- voids, mindfulness 95–103
- Wageman, Ruth 255–6
- Wallace, B.A. 90
- Wallenda, Karl 248
- warranted assertions, concepts 14–15
- wars 261–2, 267–8
- wary improvisation 37–8
- Waterman, R.H., Jr 230
- Weber, Klaus 145
- Weick, Kyle 127, 177
- Wells, H.G. 81
- West Nile virus 6, 9, 47–64  
 collective cognition effects 55–61  
 conclusions 59–61  
 loosely connected organizations 53–61  
 overview of the event 51–3  
 sensemaking 41, 49, 57–61  
 SIR COPE 49, 57–61

- Western philosophy/psychology  
  Eastern connections 99–103  
  mindfulness 35, 85–7, 95–103
- Westrum, Ron 28–9, 31–2, 36, 125, 140,  
  167, 213, 273–4
- Westwood, R. 190–1
- Whetton, D. 142
- Wildavsky, A. 124
- Wilde, Oscar 271
- wildland fires *see* firefighters
- Wilkof, M.V.D. 238
- The Will to Believe* (James) 23
- Winter, S. 234
- wisdom  
  definitions 19–20, 38, 213, 244  
  discarding 36  
  of impermanence 10–23  
  macrocosms 215–20  
  negative organizing 213–14  
  ‘not wobbling’ capabilities 86–7, 89–103  
  organizational theory 9–23  
  positive organizing 213–20
- Wisheart, Dr James 179–80
- WNV *see* West Nile virus
- Woods, D.D. 75–7, 166
- workflow interdependencies 59–61
- Ylvisaker, Paul 263, 268–9
- Yugoslavia 261–2
- Zen 97
- Zucker, L.G. 144



