

Index

- Abbott, Andrew, 29–30, 39, 44
 - intellectual borrowing, 166, 195
 - niche-thinking, 267
 - sociology of professions, 140
 - time matters, 169
- Abbott, H. Porter, 177
- Abrams, Meyer, Howard, 59, 109
- academic industries, 310
- Achen, Sven, Tito, 267
- Ackroyd, Peter, 37, 75, 120, 161, 197
- Acocella, J., 113
- A-creativity (artistic creativity), vii, x, xiv, 34, 51, 173, 213
 - compositions, 68
 - craft model of, 253
 - evoke/express emotions, 86
 - transforming facts into fiction, 68, 90, 164, 213
- actants, 236, 248
- actor-networks, 273
- Adams, Laurie, Schneider
 - ambiguity of art, 198, 242
- Adelman, Jeremy, 288
- Adorno, Theodor, W., 176, 244
- advanced mathematics as historical knowledge
 - constraint, 194
- aesthetic appreciation, 5
 - role of physical originals, 108
 - unity, complexity, intensity as core criteria, 119
 - vary with art form, 111
- aesthetic effects
 - knowledge of physical constraints, 121
 - texture, 160
- African hunters, 21
- Agassi, 22
- Alexander, Paul, 163
- Allen, Woody, 124
- Alvarez, Al
 - agent for Sylvia Plath, 261
- Amabile, Teresa, 3, 52
- context of creativity, 268
- model for measuring creativity, 274
- role of patience, 93
- ambivalence of modern art, 242
- Anagnostopoulos, Georgios, 1, 16
- analogy (deep meaning), 227
- Ancestry of Man, The*, xii
- ancient Greece, xv, 21
 - architects, 2
 - geometry, 186
 - physics, xiii
- and and emotions
 - anger/revenge, 59
- Andersen, Hanna, 22
- Andersen, Hans Christian, 91
- Anderson, Sherwood
 - agent for Hemingway, 205
- Andersson, Åke, E., 46, 53, 236
- Andréasson, Per-Gunnar, 31, 210
- Anna Karenina principle, 11, 28, 31, 82, 302
- anomalies, 29, 39
- Anzhi, Zang, 40
- Arana, Marie, 303
- archaeology, vii, xi, xiv, 18, 40, 155, 232, 296
- architecture
 - Chicago, 46
 - classical, 34
 - Hegel, physical constraints, 55
 - site-specific, 53
 - stones as physical constraints, 53
- Aristides, Juliette, 62
 - value/hue, 103
- Aristotle, vii, xi, xiii, 1, 6–7, 16, 32, 47
 - attitude towards practical knowledge, 209
 - basic lesson of, 295
 - constraint theory of creativity, 219
 - craftsman as model for creator, 253
 - effective cause, 208
 - epistemology, 209
 - final cause of science, 212
 - First principle of physics, 141

- Aristotle (cont.)
 - founder of biology, 253
 - how to categorize and manipulate emotions, 293
 - material cause, 209
 - method of studying emotions, 293
 - operational aspect (demonstration, proof etc.), 212
 - Poetics*, 229, 293
 - productive knowledge, 212
 - research and teaching, 295
 - Rhetoric*, 73, 293
 - structure of creative processes, 241
 - theory of change, 219
 - theory of First principles, 295
 - theory of science, 216
 - theory of the four causes, 221
 - arms race, 5, 41, 60, 152
 - Arnheim, Rudolph, 13, 43, 66
 - art and emotions, 87
 - moving camera, 123
 - Aron, Raymond, 249
 - art and emotions
 - ambivalence, 227
 - authentic/sincere, 302
 - calm, 55
 - coping with feelings of guilt, 163
 - emotional response, 302
 - evoking and expressing emotions, 109, 119, 241, 305
 - humour/wit, 59
 - mass, volume and light, 56
 - mourning, 105
 - pity and fear, 72, 106
 - repair work, 105, 164, 182
 - wishful thinking, 107
 - art as genius, 27, 213, 216, 279
 - art for art's sake, 9, 13
 - art forms, xiii, 22
 - art gallerists, 45, 132, 206, 237, 308
 - art history, 40, 64, 284
 - art movements
 - abstract expressionists, 78
 - Arte Povera, 59
 - purism, 147
 - Surrealism, 61
 - art worlds
 - evolution of new, mediating professions, 283
 - artifacts, xiv, 18, 34, 65
 - artistic and scientific revolutions, 281
 - artistic careers
 - avant-garde, 58
 - career strategy, 132
 - structure of motivations, 75, 230
 - uncertainty, 230
 - artistic creativity (A-creativity), 58, 109, 229
 - artistic freedom, 27
 - privileged life, 215
 - artistic movements
 - avant-garde, 56
 - conceptual art (ready-made), 63, 147, 213–214
 - constructivism, 56
 - Cubism, 57, 59, 200
 - Dadaism, 90
 - Fauvism, 59, 77
 - futurism, 56
 - minimalism, 148
 - monumentalism, 148
 - artistic revolutions, xiii, 61, 128
 - cyclical logic, 219
 - artistic strategies
 - masking, 190
 - musical version/imitation of pure feelings, 147
 - artworks
 - artifacts, 157
 - imitation, 213
 - imitations, 157
 - pretence, 213
 - representations, 157
 - Asplund, Joan, 231, 288
 - astronomy, 23, 297
 - audiences, 310
 - connoisseurs, 43, 128
 - lay, 45, 72
 - mass, 43
 - professional, 71
 - Auiler, Dan, 116
 - Austen, Jane, 106
 - facts into fiction, 107
 - life crisis, 107
 - Pride and prejudice, 107
 - Austen, Jane, 76
 - Austin, John, L., 35
 - avant-garde art, 215, 276
 - absence/negation of traditional artistic technique such as background, frame, bright colour, dark colour, 223
 - collage, imitation of editing in movies, 225
 - imitation as colonization of other art forms, 147
 - incomprehensibility as imitation of science, 198, 213
 - non composed compositions as imitation of photography, 225
 - Nude descending a stair case* as imitation of moving pictures, 225
 - performance art as imitation of dramatic emotions in theatre, 147

Index

361

- pop art as imitation of commercial art, 225
- return to primitivism constrained by arms race
 - with film art, 147
- avant-garde modernist writers, 226
 - personal support systems, 260
- Bach, Steven, 178
- Bacon, Francis, 140
- Bain, Tracy, 105, 163, 260, 289
- Bakhtin, Michail, M., 2, 289, 294, 305
- Baldwin, Neil, 39, 195
- Barnes, Barry, 73
 - sociology of science, 203
- Barr, Alfred, H., Jr., 13–15, 55, 57, 80–82, 104, 121, 132, 188, 278, 287
- Barron, F., 268
- Barthes, Roland, 9, 54
 - anchoring, 43
 - death of the author, 82, 303
 - Greta Garbo's face, 293
 - myths, 212
 - Writers, Intellectuals, Teachers*, 304
- Basalla, George, 58, 232, 240
- Bates, Jonathan, 37–38, 75, 161
- Bauer, Henry, H., 4, 23, 69
- Bauhaus
 - beauty of machine aesthetics, 147
- Bauman, Zygmunt, 244
- Baxandall, Michael, 5, 12, 23, 25, 42, 67, 221, 278
 - artistic intentions, 174
 - Firth bridge, 132
 - problem situations, 162, 182
 - translations from words to pictures, 229
- Bazerman, Charles, 2
- Beagle, The, 39, 44
- Beardsley, Monroe, C., xiv, 18, 37, 42, 119, 253, 300
- beauty, 229
 - sublime, the, 229
- Beauvoir, Simone, de, 110
- Beck, Ulrich, 76
- Becker, Christoph, 181
- Becker, Howard, 7, 29, 42, 73, 76
 - commitments, 93
 - side-bets, 92
 - tricks of the trade, 215
 - working together, 116
- becoming a writer, 262
 - credentialism vs. low entrance barriers, 262
 - proletarian writers, 262
 - skunk works, 262
- Beecroft, Vanessa
 - static installations, 74, 158
- Behlmer, Rudy, 116
- Bellow, Saul, 72, 163, 285
- Benjamin, Walter, 177
- Bentley, Eric, 65, 105, 175
- Berenson, Bernhard, 55, 74, 200, 226, 247
- Berger, Peter
 - biological instincts, 197, 272
 - homeless mind, 61
 - social construction of reality, 70
 - tinkering, 68
- Bergman, Ingmar, 9, 37, 45, 64, 112, 119, 292
 - artistic career, 124
 - Bilder*, 123
 - cannibalizing on significant others, 189, 233
 - Fanny and Alexander*, 45
 - Laterna Magica*, 123
 - learning the craft, 123
 - Persona*, 123
 - professional juggling, 293
 - Smiles of a Summer night*, 123
 - Summer with Monika*, 123
 - The Seventh Seal*, 123
 - Wild Strawberries*, 123
- Bergreen, Laurence, 7, 67
- Bertaux, Daniel, 274
- Bevor, Antony, 43
- Biagioli, Mario, 22, 247
- biological instincts and social bonds, 197
- Björkman, Stig, 214
- black boxes, 310
- Bloor, David, xiii, 3, 30, 32, 34–35, 73, 238, 273, 309
 - science as myth, 131
 - strong program, 130, 234
 - symmetry principle, 130
- Boden, Margaret, A., 6, 52
 - level of creativity, 269
- body of knowledge, 5, 212
- Bohm, David, 6, 25, 39, 100, 129
 - theoretical physics as prototype for creativity, 70
- Bok, Sissela
 - kindergardens and Scandinavian welfare states, 127
- Bono, Edward, de, 6, 44
- Boorstin, Daniel, 12, 27, 34, 46, 57, 127, 190, 194, 247
- Booth, Wayne, 2, 9, 17, 264
- Bordwell, David, 4, 115, 117, 119, 129, 175
 - clarity of narrative structure, 177, 242
- Bottom, Alain, de, 107
- Boundas, Constantiv, V., 43, 248
- Bourdieu, Pierre, 3
 - distinction, 206
 - economic capital, 76

- Bourdieu, Pierre (cont.)
 - intellectual fields, 70
 - rejection of biographical data, 289
 - rules of art, 71
 - social recognition, 238
 - symbolic capital, 71, 187, 273, 286
- Bowler, Peter, J., 239
- Boyd, Brian, 10
- Boyd, Robert, 21, 232
 - change of teeth, 148
- Bradbury, Malcolm, 106
- Brahe, Tycho, 30, 98
- Brandell, Gunnar, 106, 161
- Braque, Georges, 41, 56
- Brecht, Bertold
 - art as resistance to the ruling interests, 175
 - disagreement with critical theory, 175
 - helpers, 176
 - ideology as hegemony, 175
 - in Hollywood, 65, 176
 - Leben des Galilei*, 244
 - montage, 56
 - Mutter Courage*, 176
 - naivety, 176
 - personal danger, 189
 - problem situation, 176
- Bredsdorff, Thomas, 38, 106, 163, 260
- Bretell, Richard, R., 62, 161
- bricolage, 236
- Brinnin, John, Malcolm, 259
- Browne, Janet, 6, 15, 47, 52, 80, 101, 165–166, 168, 172, 186, 193, 202
- Brownlow, Kevin, 46
- Brucoli, Matthew, J., 259
- Brumer, Jerome, 15
- Brummer, Hans-Henrik, 222, 224
- Bruner, Jerome, 6, 16, 271
 - constant instructions and corrections, 78
 - critique of Piaget, 89
 - early teaching of mathematics, 264
 - education, 86
 - helpers, 200
 - pioneer of cognitive science, 310
 - play instinct, 169
 - practical problem solving, 264
 - scaffolding, 29, 86
- Burgess, Anthony, 71, 226, 285
- Burke, Edmund, 229
- Burkhardt, Edmund, 28
- Burkhardt, Frederick, 166
- Burns, Tom, 74, 164
- business economics, 47
- Butler, Ruth, 108
- Butscher, Edward, 260, 290
- Butterfield, Herbert, 33, 44
- Cachin, Francoise, 61, 181
- Cage, John, 112
- Cahn, Steven, M., 55, 109, 200, 253
- calculations
 - abstract, 34
 - algebra, 34
 - geometry, 34
 - history of mathematics, 34
 - mathematical knowledge, 34
 - vector theory, 38
- Campbell, Donald, T., 151
- Cardwell, T., S., 232
- Carroll, Noëll, xiv, 4, 9–10, 42, 129, 184, 214, 231, 290
 - artistic intentions, 174
 - evoking and expressing emotions, 107, 110
 - life and art, 299
 - methods for studying art, 242
- Carruthers, Peter, 21, 85, 311
- Carter, Ronald, 13, 54, 140
- cases
 - biographical, xvii
 - choice/selection of, 264
- catch-up capacity, 288
- Caves, Richard, E., xvi, 180, 198, 249
- Cela-Conde, Camilo, J., 149
- Céline, Frédéric
 - Journey to the end of the night*, 285
- Cézanne, Paul, 59, 63
 - combination of naturalistic and symbolic techniques, 225
 - geometrical forms as prototype, 75
 - prototype for Matisse, 205
- Chagall, Bella, 76
- Chagall, Marc, 45, 52, 64, 74, 200, 291
 - artistic career, 82
 - autobiography, 78
 - career choice, 78
 - childhood memories, 290
 - emotional reality, 290
 - evolution of personal style, 77
 - from professional to pioneer, 77
 - historical circumstances, 291
 - memory, 77
 - mentors, 80, 201
 - opportunity, 76, 201
 - patrons, 80
 - personal problem situation, 76
 - physical access, 77
 - pleasure, 77
 - pressure, 76, 102
 - primitivism, 159
 - problem situation and problem solver, 159
 - professional learning processes, 291
 - prototypes, 75, 77

Index

363

- rational and emotional uncertainty, 76
- self-presentation, 80
- solid training as novice, 79
- support system, 201, 259
- symbols, 291
- transformation from professional to pioneer, 82
- type of primitivism, 81
- underestimation of role of mentors, 290
- Vitebsk, 74, 76, 290
 - watercolours, 224
- Chalmers, Allen, H., 210
- Chancellor, Gordon, 166
- Chaplin, Charles, 64, 114
 - artistic career, 118
 - City Lights*, 116–117
 - creative practices, 115
 - forced exile, 118
 - Gold Fever*, 117
 - improvisation in front of live audiences, 117, 158
 - improvisation on the set, 117
 - inventive solutions, 117
 - Modern Times*, 117
 - morose mood, 117
 - professional emigrant, 184
 - professional experience, 116
 - The Dictator*, 117
- Chaplin, Elizabeth, 60
- Chekhov, Michael, 87
- chemistry, 32
 - clarification of First principles, 258
 - physical chemistry, 46
- Childe, V., Gordon
 - invention of controlled fire, 127
- childhood experience/memories
 - constraining visual art, 184
 - importance for artistic pioneers, 291
- children, 4, 8, 21
 - Chaplin's early training, 117
 - creativity of children and novices, 271
 - learning of language, 21, 36, 89
 - natural curiosity, 4, 85
- Christie, Agatha, 71, 187
- cichlids in Lake Victoria, 3
 - process of speciation, 170
- Cinqualabre, Olivier, 53, 253
- co-evolution, 5, 41, 56, 62
 - art and science, 173
 - art and technology, 162, 224
 - competitive form/cinema & avant-garde art, 147
 - cooperative form, coral reefs, 151
 - image field of painting and invention of writing, 153
- invention of oil painting, 224
- technological and aesthetic complexity, 153
- cognitive science, 22
 - critique of behaviorism, 89
 - evolution of, 310
 - First principles, 85, 89, 277
 - Kantian roots, 280
- Cohen, H., Floris, 141, 219
- Cohen-Solal, Annie, 162
- collage, 41
- Collins, Randall, ix, 18, 29, 39, 209
 - credentialism, 262
 - intellectual energy, 263
 - law of small numbers, 137
 - speed of falsification, 70
- Columbus, Christopher, 1, 7
 - discovery of Sargasso Sea, 210
 - rationalization, 67
- coming out, 305
- commitment, 303
- common descent, 30
- communism, 24
- comparative advantages of the newcomer, 66, 121, 181
- complementary competencies, 288
- complementary knowledge, 247
- complex and paradoxical questions creativity, 255
- complexity and paradoxes of creativity, x, 10, 33, 47, 61, 70, 82, 103, 110, 119, 135, 298
 - combining Aristotle and Darwin, 217
 - complexity of great artists, 239
 - getting in right, 270
 - logic of scientific discovery, 168
 - postmodernism, 247
 - social recognition, 239
 - unintended discovery, 154
- compositional problems in art, 226
 - compositional constraints of art forms, 226
- computer science, 24
- concepts, xii, 219
 - and knowledge objects, 295
 - categorizing, 65
 - clarification of, xv
 - complexity of, 253
 - conceptualizing, 58
 - results of methodology, 255
- Condit, Carl, W., 46, 159
- confidants, 6, 28, 38, 44, 191
- conformism of the avant-garde, 198
- constituted rules of the game, xii, 14
- constraints
 - definition, ix
- context of creativity approach, 268
- contingency theory, 27, 280

contingency theory (cont.)
 contingency as First principle, 58
 Goodman's theory of artistic languages, 226
 Saussure's theory of signs, 35
 continuity, 277
 controlled experiments, method of, 298, 306
 conventions, 300
 convergent evolution, 5, 40
 conversion, 44
 Copernicus, Nicolaus, 15, 22, 40
 based upon fictive facts, 218
 Copernican revolution, 23, 33
 theoretical model's lack of parsimony, 129,
 218, 229, 297
 unsuccessful, 212
 Corbridge, Stuart, 288
 core problem of pioneers, 289
 Cornwall, I., W., xiv
 correct answers, 5
 Coser, Lewis, A., 45, 88, 174, 204, 286–287,
 308
 Cowling, Elizabeth, 14, 38, 43, 56, 133, 197,
 199, 287
 Craft, Anna, 271
 creative explosion
 personal, 260
 creative explosions, x, xvi, 21, 163
 creative industry, 180
 creative milieus
 art colonies, 116, 173
 Berlin, 266
 Cambridge, 18
 Chicago architecture, 46, 159
 Chicago, literary circles, 204
 cities, 236
 Egypt, 266
 England, resistance to evolutionary theory,
 203
 German expressionism, 121
 Greek art, 266
 Greek science, 194
 Hollywood, film industry, 58, 174–175
 Leipzig and Berlin/physiological research,
 238
 London, 44
 Malmö Stadsteater, 293
 New York school, 184
 Padua/anatomical research, 57
 Paris as Mecca of art, 237
 Paris/anatomical research, 57, 238
 physical access to data, 238
 Silicon Valley, 101, 196
 small and big cities, 237
 Vienna circle, 125
 Vitebsk, 78, 290

creative personality approach, 268
 creative professionals, 128
 creativity
 of pioneers, 275
 types of, 298
 creativity abroad, 121
 Bergman, 293
 Hitchcock, 292
 creativity regimes, xvii, 51, 58, 208, 221, 231,
 311
 and support systems, 271
 doing and thinking different things, 271
 modeled upon N-creativity, 281
 science and functional differentiation, 267
 creativity science
 barriers to, 253
 biographical details, 293
 can Darwin explain Darwin, 243
 choice of prototypes, 9
 clarification of First principles, vii
 core problems of, 255
 discipline of its own, vii
 entanglements, 270
 explanations, 238
 falsification of theories of creativity, 232
 First principle of creativity science, 244
 general science, 269
 here to decode and reconstruct complexities,
 291
 historical science, 288
 is consciousness necessary for creativity?, 269
 levels of creativity, 269
 methodological issues, 263
 philosophical issues, 256
 search for, vii
 search for emerging empirical patterns, 306
 search for theoretical model, 306
 separating facts from fiction, 232
 similarity with pedagogy and philosophy, 263
 tasks of, 265
 types of data, 298
 unintended versus intended forms of problem
 solving, 270
 what is science?, 269
 why different creativity regimes have different
 logics of discovery, 291
 why pioneers across intellectual fields have
 something in common, 291
 credit cycle, 113, 187, 238, 309
 Crick, Bernard, 72, 284
 Crick, Francis, xv, 28, 38, 44, 46, 66
 training in physics, 235
 Cro Magnon, 22
 Cropley, Arthur, J., xv, 268
 cross pollination, 31

Index

365

- Crowther, Paul, 249
- Crystal, David, 36, 89, 264
 - biological sounds, 127
- Csikszentmihalyi, Mihalyi, 3, 14, 45, 52
 - extrinsic motivation, 268
 - flow, 78
 - foregrounding professional level of creativity, 271, 275
 - originating in Amabile's model of measuring creativity, 274
 - problem of motivation not the same as problem of problem solving capacity, 275
 - systems model, 45, 269
- Csikszentmihalyi/Gardner model
 - inconsistencies in combined model, 275
 - levels of creativity (pioneers and professionals), 269, 275
 - opportunity factor missing, 275
- Culler, Jonathan, 54, 72, 301
- cultural barrier, 249
- cultural tools, 30, 308
- cultural transmission
 - Billy Wilder, 179
- Cunliffe, Barry
 - Roman hygiene, 127
- Curran, John, 71
- Dahn, Daniela, 92
- Dale, Martin, 45, 176, 181
- Danielsson, Bengt, 61
- Danto, Arthur, C., 14, 41, 73, 112, 215, 224
- Darling, David, 22, 24–25, 38, 100, 129, 131, 154, 194
- Darwin, Charles, ix, xi, 5, 9, 38–39, 44, 51, 80, 169
 - and Linnaeus, 168, 280
 - aristotelian roots, 208
 - common descent, 168
 - confidants, 172
 - context and content of discovery, 168
 - contrasting comparison as basic method, 172
 - evolution of theory, 165
 - explanation as fact, 202
 - failure to independently discover Mendel's Laws, 66
 - Galapagos effect, 170
 - Henslow as agent, 202
 - heretic thoughts, 168
 - hostility towards evolutionary thinking in England, 167
 - Lyell as mentor, confidant and agent, 202
 - methodological discoveries (First principles), 173
 - move to Downe, 172
 - observations, 166
- parsimony, 173
- pleasure, pressure and opportunity, 171
- private patronage, 202, 309
- problem of complexity, 173
- securing of priority, 202
- skunk works, 168, 172
- support systems, 203
- The Origin of Species*, xvi, 9, 15, 28, 40
- transmutation of species, 168
- unintended discoveries, 173
- unsolved issues, 239
- data, viii, xii, xvii, 8, 23
 - biographical, xiv, 113
 - biography and autobiography, 293
 - correct data, 130
 - dismissal of biographical data, 289
 - exceptional cases, 297
 - invalid data, 255
 - material cause, 47
 - representative sample, 296
 - selection criteria, 53, 263
 - types of biographical data, 292
 - unreliability of autobiographical memory, 114, 290
- Davies, Stephen, 281
- Davis, Bette, 203
- Dawidowicz, Lucy, S., 231
- Dawkins, Richard, xiv, 5, 27, 31, 40–41, 53, 58, 126–127, 143, 192, 217, 270, 277
 - constraints, 220
 - convergent evolution, 142
 - cultural memes, 150, 152
 - reading, 232
 - selfish genes, 150
 - sonar radar system, 144
 - trade off, 145
- D'Azevedo, 215–216
- Dearborn, Mary, 45, 179, 182, 203
- death of the author, xiv, 8, 12, 58, 82, 139, 306
- Deleuze, Gilles, 110
- demarcation problem, x–xi, 18, 258
- Denmark, xi
- DeRosa, Steven, 118, 174
- design, 25, 58, 221
- Desmond, Adrian, 44, 52
- Deutsch, David, 26, 31, 295
- Deutscher, Isaac, 185
- development constraints, 57
- Dewey, John, 4, 85
 - art as holistic approach, 267
 - children's natural curiosity, 264
- dialogue, 294
- Diamond, Jared, 11, 36, 40, 152, 244, 298, 306
 - evolution of idea of contrasting comparison of natural experiments, 306

- Dick, Bernard, F., 96, 196
 Dickie, George, xiv, 42, 61
 Dickson, Peter, R.
 market segments, 155
 science-based marketing techniques, 249
 Dierig, Sven, 57, 238
 disciplined imagination, 140, 165, 194
 disciplines in the making, x, xii, xiv, 33
 discovery
 logics of, 311
 of colour as hue, 104
 of Sargasso Sea, 210
 of tectonic plates, 210
 of the structure of DNA, 31, 46, 136
 unintended, 210
 Dissanayake, Ellen, 214
 Dollenmayer, David, 112, 260
 Donald, Merlin, 21, 150, 264, 277, 311
 human consciousness, 264
 Dondis, Donis, A., 55, 74
 Golden Mean, 265
 Donner, Jörn, 45
 Downe, 44
 drama, structure of
 helpers, 54
 protagonists, 54
 du Gay, Paul, 249
 Duchamp, Marcel, 59
 artistic career, 113
 Dudek, Peter, 94
 Due, Reidar, 43
 Durkheim, Emile, 3, 263
 anomie, 273
 background in pedagogy, 156
Division of Labour in Society, 152
 education as practical science, 264
 fallacy of induction, 218
 individuation, 233
 mechanical/organic solidarity, 156
 social forces, 273
 Suicide, 273
 Dutch painting, 3
 Duyer, Richard
 star system, 184, 203
 Dysthe, Olga, 294

 Eastlake, Sir, Charles, Lock, 224
 Easts Germans, 91
 Ebaugh, Fuchs, R., M., 95, 115
 last straw, 261
 Eco, Umberto, 17, 54, 72, 213, 242, 283,
 301
 economic history
 technological creativity and the industrial
 revolution, 232

 economy, technological creativity as knowledge
 interest, 88, 232, 271
 Edel, Leon, 249, 289
 Edison, Thomas, 41, 114
 business strategy, 195
 lax patent strategy, 195
 trained as engineer, 195
 Edström, Vivi, xvii, 72, 106, 161, 262, 285, 308
 education
 curiosity killing teaching practices, 264
 humanistic training, 34
 illustrative examples, 263
 importance of texts, 264
 institutionalized forms of learning, 29
 inter-professional learning, 116
 introductory textbook, 17, 263
 learning environment, 36
 learning of artistic techniques, 74
 mediated forms of learning, 74
 motivating students, 94
 pedagogical tools, 264
 personal learning (P-creativity), 91
 practical science, 264
 problem-based learning, 92
 talking as prime tool of teaching, 264
 teachers, 30, 262, 306
 teaching in the GDR, 94
 theory of teaching, 263
 educational psychology, x, 3, 42
 focus on novices, 263
 structural similarity of novels and the
 pedagogics of class rooms, 294
 Edwards, Steve, 62
 Egyptian painting
 abandonment of naturalistic forms of
 representation, 152
 Einstein, Albert
 “God does not play dice”, 25
 discovery of relativity theory, 25, 100
 finding the right way to formulate the
 problem, 258
 role model for Popper, 100
 trained as an engineer, 25, 38, 211
 working in a patent bureau, 38
 Eisner, Loni, 121
 elaboration approach, 269
 Eldridge, Richard, 200
 representations, 157
 Eldridge, Richard, 310
 electricity, history of, 297
 elegance, 5, 40
 Eliot, T., S.
 objective correlates as masking of emotions,
 188
 personal support system, 260

Index

367

- elite institutions, 238
- Elkins, James, 198, 307
- Ellman, Richard, 71, 226
- Elster, Jon, ix, xvi, 1, 4–6, 11, 14, 25, 27, 32–33, 39–42, 47, 54, 68, 71, 73, 75, 87, 107, 115, 140, 213, 290
 - “sour grapes”, 289
- art and emotions, 214
- artistic practices, 174, 233
- commitments, 303
- constraints, 200, 233, 265
- emotions, ix, 293
- intermittent reading, 300
- mechanisms, 268
- point of view, 301
- rationality and rationalization, 294
- emotional reality (truth), 290, 292
- emotional responses
 - effects in film, 114
- emotions, ix, xii, 9, 14, 16, 21, 23, 37, 43, 302
 - Darwin’s physical constraints theory of, 293
 - of human species, 75
- Engdahl, Horace, 64
 - magic of art, 215–216
 - personal voice, 115, 128, 205
- Engels, Friedrich
 - fiction of classless societies, 212
- engineering science, 22, 24
- engineers
 - here to create new facts, 211
 - intentional problem solving, 211
 - problem solving strategies, 131
- Engler, Wolfgang, 92
- entanglements, xvi, 109, 289
 - life and art, 299
- entrance barriers, 307
- entrepreneurship, 47
- Eribon, Didier, 267, 279
- Ericsson, K. Anders, 140
- Erikson, Erik, 44, 76, 87
 - theory of life cycles, 106
- ethics, ethical dilemma of artists, 124
- Ette, Ottmar, 305
- Etzioni, Amitai, 29
 - moral order, 156, 273
- evolution
 - body of thought, 218
 - evolution of Hitchcock’s style, 122
 - evolution of style, 200
 - evolutionary models of creativity, 240
 - intended in technology, 135
 - role of physical constraints, 206
- Ewers, Adalbert
 - managing uncertainty, 134
- extrinsic motivation, 268
- Eyman, Scott, 178
- facts, xii, 28
 - biographical, 10
 - counter-factual arguments, 246
 - discovery of, 267
 - discovery of indisputable facts, 125
 - disputable, 68, 192, 261, 289
 - facts into fiction, 246
 - indisputable facts, 66, 100, 126, 157, 234, 292
 - invention of fictive facts, 126
- Fagan, Brian, 127, 232
- fallacy of induction, 26, 137
 - First principle of the history of science, 219
- Spoto’s interpretation of Hitchcock, 292
- falsification, xv, 3, 24, 26
 - conceptual type, 126
 - empirical type, 125
 - methodological type, 125
 - unintended, 39, 100, 129
- family order approach, 269
- Fant, Kenne, 192
- Farrington, Benjamin, 141, 245
- Faulkner, Robert, R., 116
- Fausing, Bent, 267
- Feinstein, Elaine, 162, 260
- Fenton, Charles, A., 204
- Ferguson, Kitty, 12, 30, 98, 129
- Fest, Joachim, 73, 191
- Feuer, Lewis, S., 90
- Feyerabend, Paul, ix, xii–xiii, 22, 73, 142, 213
 - anarchistic theory of science, 265
 - confidant and mentor, 258
- fiction, xii, xvii, 1, 3, 10, 24, 66
 - of ether, 67
- film, 197
 - acting in cinema, 114
 - action-packed movies, 114
 - agent bureaus, 46
 - American cinema, xiii, 41, 45, 58
 - auteurs, 129
 - behavioristic communication, 87
 - collective art form, 116
 - dominating art form, 61
 - dreamlike quality, 61
 - editing techniques, 41, 114
 - European versus American film, 46
 - film studios, 46
 - flickers, 117
 - French “New wave”, 292
 - Hollywood film making, 113, 117

- film (cont.)
 - Hollywood studio system, 117
 - motifs, 65
 - movie industry, 46, 113
 - photoplay, 128
 - scenography, 116
 - script, 116
 - stars, 45, 117
 - storyline, 116
 - support systems, 122
- Finnegan's Wake*, 226
- First principles, vii, x-xi, 1, 33
 - clarifications of, 69, 125
 - theory of, 243
- Firth Bridge, 25
- Firth, Raymond, 236
- Fitzgerald, F., Scott, 305
- Fitzgerald, Michael C., 45
 - Picasso's change of art gallerists, 133
- Fleming, Donald
 - "skills and attitudes", 17, 58, 183
- Florida, Richard, 46, 236
- Flyvbjerg, Bent, 4, 29, 39
- Follett, Ken, 187
- Fonsmark, Anne, Birgitte, 182
- Foucault, Michel, 235, 248
 - Mots et les Choses, Les/The Order of Things*, modelled upon Saussure's theory of language, 279
 - personal reality/living in Uppsala, Linnaeus' home university, 279
 - similarity to Kuhn, 256
 - words and things, 281
- four causes, theory of, 6, 47, 243
 - design, 254
 - effective cause, 9, 12, 93, 208, 241
 - final cause, 9, 14, 55, 297
 - formal cause, 9, 13
 - live models, 163
 - material cause, xii, xiv, 8–9, 38, 160, 302
 - memories, 221
- Frängsmyr, Tore, 22, 30
- Franklin, Rosalind, 186
 - failure to solve "the problem of the century", 66
- Freedman, Jonathan, 118, 179, 197
- French, Michael, xiv, 32, 194, 217, 270, 277
- French, Philip, 46, 96, 173, 184
- Freud, Sigmund, 61
 - fiction as daydreaming, 107
- Freund, Julien, 194, 256
- Friedrich, Otto, 161
- Frijda, Nico, H., 75, 87, 293
- Frost, Jenny, 264, 271
- Fuchs, Stephan, 3, 203, 238
- functional differentiation, 45
 - comparative advantages, 267
 - rare in painting, 267
- Furberg, Mats, 141, 216, 280
- Gabler, Neal, 96, 118, 184
- Gabora, Liane, 41
- Gage, John, 146, 200
- Galapagos effect, 6
- Gale, Matthew, 61
- Galileo, xii–xiii, 12, 16, 22, 34
 - algebra and physics, 194
 - falsification of Aristotle's biological theory of the law of fall, 129
 - forced public confession, 189
 - masking strategy, 189
- Gamble, Clive
 - end of nomadic life style, 150, 266
- Gardiner, Patrick, 219
- Gardner, Howard, xv, 6, 11, 14, 21, 28, 41–42, 72, 85, 171
 - can Darwin explain Darwin, 239
 - cognitive science as prototype, 277
 - human minds, 296
 - including science, 269
 - problems of sampling when testing multiple intelligencies theory, 277
- Gates, Bill, 101
- Gauguin, Paul, 61
 - combination of naturalistic and symbolic techniques, 216
 - comparative advantages of the newcomer, 180
 - latecomer, 261
 - rational and emotional uncertainty, 77
 - support system, 182
 - turn to primitivism, 181
- Gauguin, Pola, 77
- Gay, Peter, 6, 44, 172, 287
- Gedin, Per, 204, 262, 305
- general purpose tool, 97, 114
- generational change, 179
- Genette, Gerard, 177, 265
- geniuses, vii, 4, 27, 39, 52, 271
 - Einstein, 38
 - idea of romantic genius, 86, 146
- Mozart, 37
- Shakespeare, 37
- genre, 289
- geology, xii, 69
 - knowledge object of, 256
 - rock cycle, 256
 - uniformatism, 256
- Gerber, David, A., 118, 185
- getting it right, 5, 13, 18, 27, 39–41, 60, 126, 146
 - in science, 211, 270

Index

369

- Ghiselin, Michael, 202
- Giannetti, Louis, 116, 129
- Giddens, Anthony, 16, 54, 76, 87
 - double hermeneutics, 248
 - Durkheim, 273
 - individuation, 233
 - reflexivity, 248
- Giddens, Anthony, 253
- Gill, Jo, 163, 310
- Gilot, Françoise, 278
 - Kahnweiler as agent, 200, 203
 - Picasso's aesthetic strategy, 133
 - Picasso's resentment towards Kahnweiler, 198
- Gimpel, Jean
 - Gothic cathedrals, 55
- Glaessner, Gert-Joachim, 92
- Glaeser, Barnery, 253
- Gleick, James, 37, 39
- Goertz, Ted, 32, 47, 66, 186
- Goethe, 160
- Goffman, Erwin, 87, 273, 305
- Gohr, Siegfried, 83
- Goldman, William
 - "nobody knows anything"-principle, 185
- Goldstone, Jack, A., 232
- Gombrich, E., H., xiv, 55, 152, 247, 266
 - Egyptian contrived symbolic style, 88
 - mannerist, 121
 - scheme, 198
 - sfumato, 224
- Goodall, Jane, van, Lawick-, xv, 136
- Goodman, David, 32
- Goodman, Nelson, 73, 218
- Gottfried, Martin, 75
- Gottlieb, Sidney, 64–65, 114, 119, 121, 128, 179, 197
- Gould, Stephen, 44
 - punctualism, 220
- Gouldner, Alvin, W.
 - bad news, 186
 - critique of Habermas, 69
 - moral order, 273
 - personal reality, 236
- Graham, Gordon, 53
- Gramsci, Antonio, 175
- Gray, Lois, S., 113
- Green, Christopher, 14
- Greenberg, Clement, 15, 41, 56, 64, 73, 108, 199, 222, 224, 240, 287
 - abstract expressionist, 179
 - recognizable style, 128, 162, 198
 - role as mentor and agent, 182
- Griffin, Peter, 260
- Griffith, Richard, 113
 - Hollywood Jewish producers as star handlers, 185
 - star system, 203
- Gronow, Jukka
 - sociology of taste, 161, 206
- Grosskurth, Phyllis, 44
- grounded theory, 253
- Gruber, Howard, E., 166, 172
- Guernica*, 13
- Guggenheim, Peggy, 45, 179
 - role for social recognition of Jackson Pollock, 182
- Gumprecht, Holger, 177
- Habermas, Jürgen
 - knowledge interests, 68
- Hacking, Ian, ix, 22, 99, 142, 297
- Hacomen, Malachi, Haim, 7, 41
 - lapse of memory, 115
 - problem situations, 182
 - Vienna circle, 125
- Hägg, Göran, 262
- Hall, Edith, 141, 217, 253
- Hall, Peter, 46, 80, 177, 236
- Halldén, Sören, 235
- Hankinson, R., J., 6, 47, 217, 253
- Hanson, Norwood, N., xv, 209, 221
- Hanson, Carola, 303
- Harris, Nathaniel, 75
- Harrison, Charles, 78, 183
- Hart, John, P., 240
- Hastrup, Kirsten, 69
- Hauser, Arnold, 87
- Havel, Václav, 190
- Hayman, Ronald, 260–261
- Hayward, Susan, 197
- H-creativity (creativity of humanity), vii, xiv–xv, 6
- Hegel, Georg, Friedrich, 2, 32, 54–55, 75, 128, 205
 - art as deception, 200
 - compositional problems in art, 226
 - Greek architecture, 265
 - major styles, 220
 - music, 226
 - Owl of Minerva, 221
 - paradox of science in art, 115, 233
 - stylistic constraints, 75
 - symbolic style, 88
 - theory of the evolution of styles, 266
- Heilbut, Anthony, 177
- Heisenberg's uncertainty principle, 297
- Helfenstein, Josef, 74, 76, 159
- Heller, Nathan, 45

- Hemingway, Ernest
 becoming a professional writer, 204
Hills Like White Elephants, 223
 support systems, 260
- Henrikson, Alf, 35
- Henry, John, 219
- Herman, Luc, 177
- Hermann, Armin, 38
- Hesmondalgh, David, 249
- Hesse, Mary, 297
- Hippel, Eric, von, 73, 186, 235
- Hirschman, Albert, O., 288
- historians of medieval technology, 272
- history, xi
 Spanish civil war, 43
 Whig history, 33, 246
- history of science
 First principles modelled upon Galileo's controlled experiment/quantitative method, 141, 272
- Hitchcock, Alfred, 65, 120, 122, 292
Birds, 292
 combine suspense movies with cinematic techniques, 119
 difficulties with story line, 118
 doubling, 120
 early training, 120
 English type of mordant humour, 179
 evolution of personal style, 122
 physical unattractiveness, 120, 292
 professional migrant, 178
Psycho, 292
Rear Window, 119
 symbolic motifs, 119
To Catch a Thief, 118
Vertigo, 120
- Hitchcock, O'Connell, Patricia, 119
- Hitler, Adolf, 8
 creativity of Final Solution, 191
 failure of Kristallnacht, 191
 rhetoric, 73
- Hjort, Mette, 9, 87, 302
- Hobhouse, Janet, 188, 237, 259
- Hodder, Ian, 232
- Hodge, Alison, 87
- Hodge, Jonathan, 239
- Hodgson, G., 240
- Hofman, Hans, 198
- Højgaard, Mette, 56
- Hölldobler, Bert
 chemical signals, 127
- Hollows, Joanne, 113, 197
- Hollywood immigrant entrepreneurs, 96
- Hollywood movie making
- Classical Studio system, 117
 New Hollywood, 178
- Hollywood movies
 aesthetic formula, 58
Cast Away, 116
 genres, 179
Gone with the Wind, 116
It Happened One Night, 116
Pretty Woman, 116
- Hollywood producers
 Louis B. Mayer, 185
- Hollywood stars
 Bette Davis, 203
 Charles Chaplin, 185
 Marlene Dietrich, 178
 Mary Pickford, 185
 Vivien Leigh, 178
- Hollywood studios, 178
 Paramount, 178
- Holquist, Michael, 54, 294
- Holroyd, Michael, 105
- Homo sapiens, ix, 21
- homology, 58
- Honneth, Axel, 3
 struggle for recognition, 93, 273
- Honour, Hugh, 41–42, 57, 128, 266
 co-evolution of writing and painting, 153
 evolution from Paleolithic cave paintings, 153
 physical constraints in sculpture, 146
 sand painting, 183
- Horkheimer, Max, 175, 244
- Horning, Peder, M., 90
- how life constrains creativity, 188
- Huaco, George, A., 121
- Huff, Theodore, 114
- Hughes, Everett, 76, 96
 entrepreneurs of their own lives, 76
 uncertainty, 76
- Hughes, H., Stuart, 175
- Hughes, Ted
 Sylvia Plath as patron and agent, 162
- Hugo, Victor
 completion of *Les Misérables*, 193
- Hull, David, L., 170
- human mind
 shaped in hunters and gatherers societies, xiv, 264
- humanities, 34
- Hutton, James
 discovery of geological time, 135, 255
- Idestam-Almquist, Bengt, 113
- Illeris, Knud, 91
- illuminative examples, 263
- image of the scientist, 244

Index

371

- imitation of imitations, 253
- immigrant entrepreneurs, 195
- impersonal patrons, 260
- Impressionists, 40
 - problem situation, 161
- improvisation, 42
- incommensurability/loss and gain of meaning in artistic translation, 229
- incomprehensibility/problems of communication between disciplines, 3, 23, 69
 - Darwin's failed attempt to make Lyell understand evolutionary theory, 202
 - strategy in avant-garde art, 188, 198, 206
- inconsistency, 310
- independent discovery, 26, 40, 89, 96
- individuation, 76, 233
- induction
 - Copernicus' theoretical model, 218
- Industrial Revolution, 232
- intellectual biographies, xii, xiv, 1, 32
 - as data, 109
- intellectual borrowing, 5, 31
- intellectual domain, 72
- intellectual fields, 38, 72, 269
- intellectual migration, 99
- intellectual migration, 6, 31, 38, 44
- intellectual niches, 267, 290
- intellectual resistance, 175, 203, 254
- intellectual stealing, 225
- intellectual tool, x, xvii, 236, 254
- intellectual traditions, xiv, 58
- intensity, 300
- intentions, 8, 39, 41
 - artistic, 42
 - consciously intended, 44, 63
 - fallacy of intentions, xiv, 42
 - in human evolution, 150
 - unintended discoveries, 26, 100
- interdisciplinary thinking, 289
- interface, 196
- interpersonal relations, 29
- interpretive work, 188
- inter-species co-evolution
 - arms race, 151
 - coral reefs, 151
- intimate knowledge, 233
- intra-species co-evolution, 221
 - anatomical changes, 149
 - behavioural changes, 149
 - evolution of human species, 149
- Galapagos effect, 151
 - in nature, 149, 152
 - in science, 149
- Lyell's *Principles of Geology*, 256
- Thomsen's stylistic methodology, 256
- woodpeckers, 152
- intrinsic motivation, 275
- intuition, 53
 - Thomsen's, 258
- investment theory approach, 269
- Irwin, William, H., 184
- Isaacson, Walter, xv, 24, 28, 37–38, 40, 45, 73, 89, 100–101, 131, 179, 196
- Iser, Wolfgang, 162
- Israel, Joachim, 209
- Jacobs, Lewis, 41, 114, 232
- Jacobsen, Harald, 189
- Jacobsen, Robert, 56
- Jaki, Stanley, L., 141
- Jane Austen, 2
- Jensen, Jørgen, xv, 17, 62
 - end of nomadic life style, 150, 266
- Jensen, Jørgen, 152
- Jewish stubbornness, 185
- Jobs, Steve, 101, 179
 - stealing ideas, 196
- Johnson, Paul
 - early industrial modernity, 76
- Jones, Steve, xi, 9, 239
 - Darwin's research at Downe, 202
- Jørgensen, Jens-Erik, 26, 198, 225
- Josephson, Ragnar, 23, 31, 58, 64, 197, 225–226, 229, 278
- journalism, 205
- Joyce, James, 71, 226
 - personal support system, 260
 - writer's writer, 226
- Judson, Horace, Freeland, 47, 66, 186
- just so stories, 292
- Kahnweiler, Daniel-Henry, 27, 45
- agent, 200
 - influence on Picasso's aesthetic strategy, 133
 - myth of artistic freedom, 265
- Kant, Immanuel, 18, 54, 213
 - art as genius, 27, 63, 109, 146
 - human mind a categorizing machine, 280
 - idea modelled upon Linnaeus' pre-darwinian theory of science, 280
 - in *Kritik der Urteilskraft*, 265
 - quid juris/quid facti, 134, 210, 295
 - split between ontology (*Ding an sich*) and epistemology, 256, 280
 - theory of aesthetic judgement, 27
- Karlsson, Ingemar, 191
- Karmel, Pepe, 162, 200
- Katz, Jacob, 116
- Keller, Laurent, 127

- Kendall, Tim, 310
 Kepler, Johannes
 discovery of elliptical form of planetary trajectories, 131
 unintended falsification of Aristotle's geometrical theory that all celestial objects, 129
 Ketteringham, John, 6, 47, 169, 186
 Keynes, John, Maynard, 239
 Keynes, Richard, 52, 148, 201
 Killick, David, 40, 277
 invention of metallurgy, 150
 King, Geoff, 46, 113, 129, 178, 197
 Kirk, Connie, Ann, 233, 260, 290
 Kirkeby, Per, 83, 291
 geographical migration/Galapagos effect, 215
 support system, 201, 259
 Kirton, Michael, 45, 103
 Kitcher, Philip, 5, 26
 Kivy, Peter, 226
 Klee, Paul, 64, 88–89
 Kline, Morris, 21, 35, 70, 141, 186, 194
 Knausgård, Klaus-Ove, 189, 223
 becoming a writer, 262
 physical constraints of writing, 302
 Knorr-Cetina, Karin, 234
Knowledge and Imagery, xiii
 knowledge constraints, x, xiii, 2, 8, 29, 31, 34, 40, 99
 discovery of the DNA, 186
 mathematical knowledge, 130, 150
 why there is no creativity science, 72, 109
 knowledge forms
 personal, 31, 94
 practical, 38
 productive, 16
 theoretical, 98
 knowledge objects, xii, 25, 33, 47
 of the humanities, 272, 308
 Koestler, Arthur, 6, 31, 40, 100, 267
 Kepler's discovery, 129
 unique combinations, 81
 Kolakowski, Leszek, 209
 Koren, Yehuda, 162
 Koskinen, Maaret, 64, 122, 190, 293
 Kostof, Spiro, 2, 53, 55, 153
 Koszarsky, Richard, 113
 Kracauer, Siegfried, 147
 Kraft, Hartmut, 107
 Krauss, Rosalind, E., 28, 51, 59, 103, 197
 Kress, Gunther, 30, 88, 263
 Krisevá, Eda, 191
 Kroksmark, Tomas, 78, 85–86, 294
 Kroll, Judith, 87
 Kröyer, Peter, Severin, 90
 Krüll, Marianne, 174
 Kuh, Katharine
 childhood memories, 184
 Kuhn, Thomas, xiii, 23, 27, 29, 99
 and Linnaeus, 280
 change of support system, 258
 claim that scientific pioneers do not solve problems, 131, 142, 218
 confusion of the incommensurability of art forms and the incomparability problem between disciplines, 218, 234
 cyclical laws, 257
 denial of falsification, 70
 failure to solve the demarcation problem, 258
 paradigm shifts, 257
 rejection of biographical data, 289
 scientific revolutions as invention of new languages, 218
 taxonomic solution, 218
 Kuhn's mistake, 229
 Kundera, Milan, 43, 213, 301
 la langue
 diachronic analysis, 35
 synchronic analysis, 35
 lack of social skills
 Pollock, Jackson, 182
 van Gogh, Vincent, 182
 Lagercrantz, Olof, 106, 161, 262
 Lagerlöf, Selma, xvii, 161
 becoming a writer, 262
 Lakatos, Imre, 274
 Lakoff, George, 119
 Lamarque, Peter, 231
 Lampugnani, Vittorio, Magnano, 57
 Lang, Fritz, 65
 escape from Nazi Germany, 178
 Fury, 176
 prototype for Hitchcock, 292
 Langer, Susanne, K., 87, 267
 languages
 articulated, 22
 body language, 87
 communication, 34
 human, 127
 in nature, 127
 incommensurability, 22, 30
 incomprehensibility, 23
 knowledge object of the humanities, 272
 learning of, 22, 36
 of art, 226
 phonemes, 36
 poetic, 290
 signs, 35, 280
 spoken, 34

- studied by philosophers, 272
- visual, 290
- Las Meninas*
 - Foucault's interpretation, 278
 - prototype for art about art, 278
 - representation of strongly personal relation between patrons and painters, 279
- Laswell, H. D.
 - creativity of nature, 126
- late modernity
 - epistemic democratization, 249
 - postmodernism and platonic epistemology, 249
 - problem situation for painters and fiction writers, 283
- latecomers, 261
 - painters and writers, 286
- Latour, Bruno, 3, 22, 28–29, 34, 52, 73, 99, 148
 - "we have never been modern", 186
 - actants, 236
 - artifacts, 235
 - credit cycle, 113, 187, 238
 - floating concepts, 248
 - inscriptions, 235
 - mediated forms of the social, 167, 238
 - novels, 299
 - personal reality, 236
 - reduction of science to rhetoric, 131
 - role of scientific instruments, 235
 - Salk Institute, 234
 - theory of local validity modelled upon Aristotle's false theory of gravity, 130
- Laudan, Larry, xi, 18, 28
 - unsolvable underdetermination problem, 257
- Laudan, Rachel, 21, 24, 31, 44, 221, 232
- Lave, Jean, 39
- laws
 - biological, 240, 257
 - cyclical, 298
- Le Corbusier, 2, 34
 - machine aesthetics, 57
 - perceptual psychology, 162
 - rediscovery of classical Greek architecture, 128
- Leader, Zachary, 72, 164, 285
- Lee, Hermione, 54, 249
- legitimate periphery participant, 92
- Lemarque, Peter, 10, 72, 249, 289, 300
- Lenning, Arthur, 113, 178
- Leonard-Barton, Dorothy, 192
 - complementary strategies, 196
- Leonardo, da Vinci, 226
- Les Demoiselles d'Avignon*, 15, 63, 188, 283
- Lessing, Doris, 230
- Lessing, Gotthold, Ephraim, 23, 32, 300
- levels of, Dimension II, xviii
- Levin, Janna, 25
- Levinson, Jerrold, 10, 111, 213, 226
- Lewis-Williams, David, 88, 267
- Libby's atomic clock, 258
- Lindberg, David, C., 141
- Linnaeus, Carl, 22, 258
 - God's garden, 280
 - Systema Naturae*, 30
 - taxonomic view of science, 280
- lion cubs, 241
- Lipset, Martin, Seymour, 184
 - pressure to innovate, 96, 286
- literary biography, 289
- Lloyd, E., R., 5, 18, 126, 141, 209, 212, 217, 253, 280, 297
- Lolita*, 10, 35, 300
- long argument, 9
- Long, Robert, E., 124
- Lopes, Dominic, 55, 86, 199
- Lubitsch, Ernst, 178
- Lucie-Smith, Edward, 88, 102
- Luhmann, Niklas, 41, 45
 - autopoiesis, 69
 - life planning, 95
- Lukes, Steven, 156, 273
- Lumet, Sidney, 113, 128
- Lumière brothers, 195
- Lyell, Charles, xi, 31, 257
 - clarification of First principles, 135
 - founder of geology, 254
 - mentor and agent for Darwin, 202
 - Principles of Geology*, xvi, 9, 15, 167, 210
 - The Ancestry of Man*, 255
 - theory of special creation, 9, 15, 39, 168
- Lymam, R., Lee, 240
- Lynn, Kenneth, S., 114–115, 204
- Lynton, Norbert, 63, 290
- Lyon, Jerome, K., 175
- Lyotard, Jean-François, xiii
- Maddox, Brenda, 47, 66
- Magalaner, Marvin, 71, 226
- Mailer, Norman, 200, 285
- Makarius, Michel, 75
- Malcolm, Janet, 233, 260
- Malinowski, Bronislaw, 236
- Maltby, Richard, 58, 129, 184
- Manet, Eduard, 161
- Mann, Heinrich, 174
- Margulis, Lynn, 31
- Markovits, Inga, 91
- Marshall, Alfred, 3
 - in the air, 183
 - neo-economics, 155
 - rational choice, 155

- Martin, Jacqueline, 37
- Martindale, Colin, 22, 47
 - role of boredom, 219, 243
- Marton, Ferenc, 17, 264
- Marx, Karl
 - bees, 208
 - dedication to Darwin, 208
 - false consciousness of the mass consumer, 249
 - Feuerbach thesis, 209
 - myth of return to a sinless state, 212
 - role of consciousness for complex problem solving, 211
- Marx, Leo, 117, 185
- materials
 - of painting, 307
 - variety of constraints in painting, 222
- mathematics
 - intellectual tool functioning as knowledge constraint, 130
- Mathews, Nancy, Mowll, 61
- Matisse, 14, 287
 - artistic career, 84
 - calm, 55
 - career strategy, 132
 - contrast to Hemingway, 205
 - crisis, 105
 - dancing figures, 121
 - elongated bodies, 121
 - growing reputation, 158
 - in Russia, 82
 - physical constraints, 108
 - physical constraints in painting, 158, 303
 - private patronage, 201
 - prototypes, 158
 - support system, 159
 - transformation to pioneer, 104, 108
 - voracious imitator, 103, 108
- Matthew effect, 139, 238, 309
- Maurois, André, 193
- May, Lary, L., 118, 184
- Mayr, Ernst, xvi, 6, 27–28, 31, 51, 57, 96, 126, 139, 183, 192, 202
 - Aristotle as founder of biology, 253
 - common descent, 268
 - complexity of evolutionary theory, 268
 - evolution takes place between life forms, 151
 - homology, 221, 268
 - Lyell's failing to understand Darwin, 254, 268
 - resistance to evolutionary thinking in England, 167, 182
 - science of science, 267, 297
- McBrien, Judith, Paine, 160
- McCarthy, Doyle
 - culture as knowledge, 110
- McDougal, Dennis, 46, 203
- McEwan, Ian, 213
- McGilligan, Patrick, 178
- McKeon, Michael, 2, 54, 107
- McQuail, Denis, 249
- Mead, George, Herbert, 87, 189, 277
 - mechanisms, 6, 39
 - chemical, 41
 - natural selection as mechanism, 268
 - mediated forms of the social, 30, 109, 157, 167, 236, 238, 308
- medieval historians, 232
- mediterranean countries, 54
- Meecham, Pam, 61, 183
- Meldolesi, Luca, 288
- Menger, Pierre-Michel, 187, 230
- Merton, Robert, K., 2, 4, 15, 26, 29, 40, 193
 - agent for Kuhn, 142
 - ambiguity of science, 138
 - communism in science, 94, 138
 - critique of sociology of knowledge tradition, 143
 - CUDOS model, 138
 - discovery as routine, 137
 - dysfunctions, 139
 - manifest and latent level, 139
 - Matthew effect, 131, 238
 - multiples, 140
 - organised scepticism, 138
 - scientific genius, 138, 141
 - secrecy as pathology, 138, 195
 - struggle for priority, 138, 187
- metallurgy, 277
- metaphysics, 295–296
- meth
 - contrasting comparisons of natural experiments, 93
- methodology, 23
 - Aristotle and Darwin, 254
 - border problems, 288
 - calculations, 194
 - choice in method when studying emotions, 293
 - comparing problem solving strategies in science, technology and nature, 136
 - contrasting comparison of Darwin and Wallace, 309
 - contrasting comparisons of natural experiments, 31, 51, 78, 82, 96, 106–107, 113, 116, 119, 122, 129, 132, 145, 158–161, 170–171, 176, 182, 188, 190–191, 205, 231, 292, 298, 300
 - contrasting comparisons of physical constraints of painting and writing, 303
 - contrasting comparisons of teachers and writers, 305

Index

375

- danger of one-factor approach, 120–121
 Darwin's method to study emotions, 293
 insights, 255
 quantitative, 137
 representative cases, 263
 retrospective analysis, 288
 stylistics as alternative methodology to hermeneutics, 255
 systematic observation, 130
 text-based, 256
 Verstehen, 194, 256
 why data and methods matter, 294
- Michelangelo, 57
 Microsoft, stealing ideas, 196
 Middlebrook, Diane, 162, 260
 support system, 201
 Migayrou, Frédéric, 162
 Miller, Arthur, I., 39
 Miller, David, 26, 41
 Mills, Hillary, 285
 Mitchell, W., J. T., 177
 Mithen, Steven, xv, 232, 256
 Mizener, Arthur, 204, 306
 modernity, xv
 hybrid, 73
 late, xiii, 76
 middle, early industrial, 76
 Mokyr, Joel, 172, 192, 232, 240
 Mol, Annemari, 236
 molecular biology, 31
Mona Lisa, 160
 Monaco, James, 113
 Monet, Eduard, 62
 Montuschi, Eleonora, 1
 moral order, 274
 moral resistance, 191
 moral value of art, 285
 Mordden, Ethan, 45, 178, 184
 Morell, Lars, 9, 73, 83, 129, 214
 artistic techniques, 174
 imitation/pretense, 213
 Morgan, Janet, 71
 Moszynska, Anna, 56, 147, 200
 automatism in Surrealism, 146
 rise of the New York School, 183
 strategy of specialization, 198
 Motherwell, Robert, 183
 motivational constraints, 3, 9, 12, 33, 37, 53, 75,
 274
 Bergman, 123
 lion cubs, 241
 opportunity, xii, 3, 17, 101
 pleasure, 3, 93
 pressure, 3, 14–15, 93
 motivations to become a writer, 231
- aesthetic motive, 230
 historical impulse, 230–231
 political motive, 230
 selfish motive, 230
 Muhlstein, Anika, 184
 Müller, Jürgen, E., 87
 multi-factorial explanations, 238
 multiples, 26
 Munch, Edvard, 60
 Murnau, Friedrich, Wilhelm, 292
 Murray, Peter, 283
- Nabokov, Vladimir, 10, 35
 Naess, Arne, 12
 Naremore, James, 114
 narrative techniques, 213
 natural experiments, 11, 306
 natural history
 discovery of, 254
 relevance of, 257
 types of (minerals, artifacts, species), 256
 natural selection
 theory of, 239
 nature-culture divide, 41, 253
 N-creativity (creativity of nature), vii, ix, xii, xvii,
 31, 34, 89, 173, 298
 inventiveness of nature, 127
 role model for art, 158
 unintended problem solving, 136
 Neanderthals, 22, 127
 New Guinea, 36
 New York School
 action painting/prototypes, 184
 color field, 184
 Newcomen's steam engine, 132
 Newman, Barnett
 quip, 310
 religious background, 184
 techniques of originality, 199
 Newton, Isaac
 parsimony, 129
 theory of gravity, 25
 Nielsen, Klaus, 92
 Nietzsche, Friedrich
 platonic epistemology, 248
 slave mentality, 284
 Nisbet, Robert, A., 30, 105, 208, 255
 Nobel committee, 73
 Nobel, Agnes, 86
 non-conformist thinking, 268
 normal science, 29, 210
 novelistic genres, 213
 novels, 2, 9, 43, 306
 destiny of characters, 54
 formlessness, 225

- novels (cont.)
 - intermittent reading, 54
 - invisible thoughts of characters, 54
 - late modernist, non-aristotelian technique, 164
 - narrator, 9
 - suspense/withholding information, 54
 - vraisemblance/vivid and memorable characters, 54, 163, 177
 - novelty and originality, 39, 45
 - novices, viii, xi-xii, 3, 29, 39, 88, 188
 - numismatics, xii
- Oates, Joyce, Carol, 231
 - Grave Digger's Daughter, The*, 231
 - mood, 301
- O'Brian, Patrick, 13, 199
- O'Brien, Michael, J., 232
- O'Hear, Anthony, 41
- Olby, Robert, 31, 38, 46, 66, 68, 186, 287
- Oldroyd, David, 31
- Olivier, Fernande, 15, 105, 200
- Olsen, Stein, Haugom, 305
- ontogeny, x
- ontology and epistemology, 283, 295
- Oppenheimer, Stephen, 22, 232
- originals, physical, 282
- Orwell, George, 72, 116
 - Animal Farm*, 285
 - career, 285
 - concentrated efforts, 300
 - Down and out in Paris and London*, 284
 - Homenaje a Cataluña*, 285
 - latecomer, 261
 - Nineteen Eighty-Four*, 285
- Ostow, M., 287
- Owl of Minerva, 21
- painting, general
 - colour, 56, 162
 - constraints of, 74
 - conventions in, 73
 - motif, 161
 - rituals, 88
 - techniques, 161
 - texture, 110, 160
- painting, modern
 - action painting, 61
 - biomorphic forms, 157
 - colonization, 45, 61, 74, 119
 - primitivism, 90
- painting, older
 - Chinese, 40
 - Florentine, 55
 - French, xiii
- Japanese, 40
- Paleolithic cave paintings, 88
- Renaissance, 55
- tactile qualities, 56
- Venetian, 56
- Paleolithic, xiv
- Panofsky, Erwin, 267
- Papagianni, Dimitra, 22
- paradigm, xiii, 22
- paradox, x
- parsimonious solutions, 5
- parsimony, 5, 33, 40
 - explanation, 129
 - refunctionalization, 157
 - reuse, 65
 - simplicity, elegance, economy, 128
 - trade off, 145, 157
- Parsons, Talcott, 95, 273
 - evolving body of thought, 218
 - moral order, 156
- passions and interests, 288
- Pasternak, Anna, 161, 163, 286
- Pasternak, Boris, 163, 190, 286
- Pasteur, Louis, 235, 248
- patent laws, 195
- Pauling, Linus, 32
 - unaware of secret competitors, 187
- P-creativity (personal creativity), x, 7, 91
 - as H-creativity, viii
 - Hemingway, 260
 - learning processes, 215
 - need of protection, 215
 - Plath, Sylvia, 261
- Penrose, Roland, 13, 38, 44, 105
- Perkins, David, 11, 42, 54, 174
 - need for critical reflection, 169
 - unreliability of autobiographical data, 115
- personal characteristics of pioneers, 185
- personal commitment, 8
- personal knowledge constraints
 - Darwin's lack of mathematical knowledge, 194
- personal reality, 8, 236
- personal relations between patrons and artists
 - Kirkeby, 278
 - Las Meninas*, 278
 - Matisse, 278
 - Picasso, 278
- personal transformations
 - skills and attitudes, 98
- personal transformations
 - academic entrepreneurs, 98
 - biographical data, 4
 - biographical projects, 8, 260
 - biographical variations, 112

Index

377

- career plans, 261
- commitments, 92
- evolutionary process, 96
- from professional to pioneer, 109, 115
- learning/unlearning, 94–95
- life plans, 260
- Plath, Sylvia, 261
- shock, 91
- turning points, 115
- uncertainty, 93
- Peters, Tom, 6, 44, 47, 169, 186
- Petrosky, Henry, 11–12, 22, 24, 39, 58, 133, 142, 194, 232
- Pevsner, Nikolaus, 5, 53, 63
- Pfeiffer, John, E., xv, 40, 87
 - discovery of Paleolithic cave paintings, 267
 - Neolithic revolution, the, 127, 152
- phenomenological theory of perception, 162
- philosophy
 - data and method, 264
 - philosophy of science, 142
 - photography, 62
 - phylogeny, x
 - physical constraints, xii, 2, 9, 14, 36, 41, 62, 90, 103, 108
 - and art forms, 214, 292
 - as marketing device, 121
 - physics, ix, xiii, 22
 - Piaget, Jean
 - children and mathematics, 86
 - Picasso, xii
 - Picasso, Pablo, xii, 12, 38, 287
 - aesthetic strategy, 133
 - career strategy, 132
 - classical period, 56
 - private training, 75
 - training in art schools, 75
 - Pierce, Charles, Sander
 - interpretant, 17
 - Pine, II, B., Johnson, 249
 - Pinker, Steven, 21, 35, 89, 264
 - pioneering work, xii, 3, 11, 17
 - in science, 24, 132
 - in technology, 131
 - in the social sciences, 289
 - pioneers, viii, xiv, 11, 27, 39
 - of novels, 54
 - Pixar, 180
 - planned economy, 209
 - Plath, Sylvia, 38, 163
 - academic industry, 310
 - Bell Jar, The*, 233
 - Daddy*, visual detail on “black shoe”, 290
 - life crises, 106
 - patron and agent for Ted Hughes, 201
 - suicide, 261
 - support systems, 261
 - Plato, 18, 34, 55, 59
 - cave metaphor, 209
 - epistemology, 209
 - ideal forms, 217, 279
 - Menon*, 85
 - mentor for Aristotle, 217
 - prototype for Aristotle’s astronomy, 129
 - theory of ideals forms, 129
 - poetry
 - poets, 161
 - symbolist, 59
 - point of view, 298, 301
 - Polke, Sigmar, 158
 - Pollock, Jackson
 - drip paintings, 88
 - lack of social skills, 182
 - support system, 259
 - pop art
 - Warhol, Andy, 59
 - Pope, Robert, 34
 - Popper, Karl, 6, 24, 26, 39, 41, 68, 100, 239
 - all life is problem solving, 67, 144
 - attraction to Kant, 262
 - bold conjectures, 267
 - Conjectures and Refutations*, 210
 - critical of Aristotle’s epistemology and ontology, 209
 - critical tests, 210
 - critique of historicism, 208
 - Darwin as metaphysics, 212
 - denial of indisputable facts, 159
 - denial of unintended discoveries/falsification, 211
 - Einstein as prototype, 131, 208
 - failure to solve the demarcation problem, 258
 - intellectual biography, 263
 - intra-species co-evolution, 148
 - Logic of Scientific Discovery, The*, 125, 168, 262
 - N-creativity constrained by knowledge, 211
 - personal reality, 262
 - problem of what makes science a science, the, 134
 - problem solving strategies of nature and science, 134, 209, 211, 234
 - theory of falsification, 212
 - theory of science, 126
 - trained as a teacher, 262
 - two main prototypes, 210
 - unsolved paradoxes in Popper’s thinking, 135
 - World of Parmenides, The*, 125, 263
 - Porter, Edwin, S., 114

- postmodernism
 - claims, 214
 - floating concepts, 247
 - theory, 8, 28
- Powdermaker, Hortense, 116, 176
- presentations of self, 273
- pressure to innovate, 287
- Prdeaux, Sue, 60, 74, 222
- primateology, xv
- primitivism, 59, 63
 - flat surface, 56
- problem of complexity
 - unintended falsification, 167
- problem situation, 94
 - professional, 10, 37
- problem situations, xvii, 8, 12, 15, 37–38, 41, 65, 91, 287, 300
 - ancient Egypt versus ancient Greece, 266
 - crisis of painting, 147
 - Darwin vs. Crick & Watson, 180, 203
 - discovery of colour, 147
 - historical, xiii, 10, 17, 37, 39, 90, 229
 - objective, 145
 - personal, 5, 37
 - professional, 5, 14
 - rise of the modern novel, 233
- problem solvers, 7, 29, 42, 65
- problem solving capacity, 4
- problem solving strategies, xii, xiv, 38, 47, 67
 - in science, 130, 234, 258
 - of artists, 42, 71, 133
 - of engineers/in technology, 131, 133, 232
 - of nature, 232
 - practical, 26
- productive knowledge
 - and constraints, 214
 - Aristotle, 212
- professional juggling, 293
- professionals, viii, 17, 29, 39, 71
 - jazz musicians, 43
 - painters, 161
 - writers, 54, 161
- protection of vulnerable versions, core of
 - pioneering work, 289
- prototypes, 2, 8, 14, 23, 27, 29, 31, 40, 104, 109
 - and pioneering work, 104, 109
 - expressionist techniques, 121
 - in architecture, 46
 - relative clumsiness of the first versions, 169
- Proust, Marcel, 265
- psychology of art, 86
- psychology of creativity, 270
 - evolution of, 270
 - individuals as knowledge object, 70
 - levels of problem solving capacity, 259, 271
- Ptolemy, 70, 212
- Pudovkin, Vsevolod, 114, 122
- Putnam, S., 110, 259
- Ramsay, Terry, 61, 74, 195
- Rapp, Christoph, 16, 73
- rationality, 7
- rationalization, 8, 10, 67–68, 95
- Rauterberg, Hanno, 72, 198, 242, 283
- realism
 - beyond rationalism and empiricism, 296
 - rediscovery, 205, 235
 - of platonian epistemology, 249
 - reflexive practitioner, 253
 - refunctionalization, 157
 - in Cubism, 157
- Reich-Ranicki, Marcel, 176
- religion and magic, xiii, 60
 - religious belief, 68
- Renn, Jürgen, xi, 11–12, 22, 154, 194
 - law of fall, 129
- Repcheck, Jack, 30, 255
- representative samples, 23
- research programme, 274
- responsitivity, degree of, 288
- retrospective analysis, 40
- Rewald, John, 237
- rhetoric, 16, 22, 42
 - core trick, 243
 - lack of complexity, 73, 243
 - lack sincerity or authenticity, 73
 - science and, 243
 - science-based, 73
- Richards, Robert, J., 30, 239
- Richardson, John, 14, 38, 45, 52, 59, 74–75, 105, 111, 173, 188, 203, 237
- Richardson, Samuel
 - Pamela*, 2, 107
- Ricoeur, Paul, 177
- Ridley, Matt, xv, 31, 38, 66, 149
 - “problem of the century”, 180
- Rihll, T. E., 21, 34, 194
- Rihll, T. E., 141, 186
- Robert, Marthe, 225
- Robinson, David, 46, 61, 64, 114–115, 117, 173, 195
- Roe, Sue, 13, 41, 203, 237, 283
- Rogers, E., M., 101
- role models, 34
- role of the reader, 17
- romantic genius, 199
 - falsification of the idea of, 200
- Romer, J., 266
- Roper, Robert, 10
- Rose, Frank, 46

Index

379

- Rosenberg, Nathan, 73
 - Adam Smith's theory of technological creativity, 233
 - complementary knowledge, 247
 - general purpose tool, 97, 114
 - tools to make tools, 232
- Ross, Alex, 258
- Ross, Stephanie, 64, 75, 120, 162, 199, 260
- Rosten, Leo, 116, 176
- Roth, Philip, 285
 - Plot Against America, The*, 231
- Rothery, David, A., 257
- Rothko, Marc, 78, 287
 - art as artifact, 157
 - art as object for itself, 200
 - religious background, 184
 - techniques of painting, 225
- Rothman, Brian, 86
- Rothman, Stanley, 185
- Rousseau, Henri, 59
- Rousseau, Jean-Jacques
 - Emile ou de l'éducation*, 85
 - pedagogy of romantic genius, 147
- Rowley, Hazel, 110
- Rubenfeld, Florence, 179
- Rubin, James, H., 161
- Rubin, William, 41, 63, 121, 200
- Rudwick, M., J., S., 6, 44
 - liminality, 167, 172, 202, 254
- rules of art, 231
- rules of borrowing, 200
 - artists, 197
 - engineers, 196
- Ruse, Michael, 58
 - Darwin's moral issues, 167
 - homology, 221
 - natural selection, 256
- Ruskin, John, 53
- Russell, Bertrand, 18, 209
- Ryle, Gilbert
 - didactic approach of science, 123
- sacrifice, 216
 - artistic symbols of, 266
- Säljö, Roger, x, 30, 263
 - problems of reading, 264
 - talking as prime tool of teaching, 304
- Sartre, Jean-Paul, 7
 - experience as teacher, 263
 - latecomer, 261
 - Nausea*, 110, 263
- Sassure, Ferdinand, de, 35
 - theory of language, 279
- Sawin, Marlica, 6, 15, 45, 78, 88, 173, 177, 179, 182–183, 200, 203
- Sawyer, Keith, R., 31, 231
 - systems model, intellectual domains, 274
- Sawyer, Kieth, R., xv, 269
- Saxenian, Annalee, 101
- Schatz, Thomas, 117, 179
- Schellwald, Barbara, 82
- Schepelern, Peter, 83
- Schickel, Richard, 113, 288
- Schmitz, Martin, 92
- Schnauber, Cornelius, 177
- Scholes, Robert, 34–35, 279
- Scholz, Dieter, 26, 74, 88, 199
- Schön, Donald, 4, 29, 39, 253
- Schrödinger, Erwin, 179
- Schumacher, E., 41, 65, 74, 175–176
- Schumpeter, Joseph, A., 196, 232
 - Capitalism, Socialism and Democracy*, 248
- Schuster, P.-K., 90
- Schusterman, Richard, xiii, 214, 249
- Schutz, Alfred, 86
- scientific revolutions, xiii
- S-creativity (scientific creativity), vii, xii, xiv, 11, 31
 - birth of science, 34
 - conceptual confusion, 73
 - falsify previous theories, 67
 - proof/evidence, 68
 - separate facts from fiction (false beliefs), 68
 - sculpture, 56
- Searle, John, ix, xiv, 18
 - brute facts of nature, 167
- secrecy, 197
 - Cold War, 192
 - Darwin, 193
 - Final Solution, 191
 - Ford company, 192
 - Hugo, 193
 - relative lack of in artistic careers, 307
 - self-presentations, 11, 80
- Seligman, Kurt, 184
- Selznick, David, 122
- semiotics, 283
 - as method, 305
- Server, Lee, 116, 174
- Shackelford, George, T., M., 61, 181
- Shapin, Steven, 22, 165, 219, 247
- Shaw, George, Bernard
 - life crisis, 105
- Shelden, Michael, 261, 284
- Shields, Carol, 2, 106
- Shields, Christopher, 24, 209, 216, 219
- Shiff, Richard, 5, 14, 26, 63, 87, 103
 - discovery of colour, 147
 - technique of originality, 182

- signs
 - give off, 87
 - signification, 35
 - system of, 35
- Sikov, Ed, 118
 - European pessimism, 178
 - generational change of movie audiences, 179
- Simmel, Georg, 166
 - individuation, 76, 233
 - numbers, 223
 - secrecy, 191, 197
- Simonton, Dean, Keath, 1, 36, 53, 171
 - natural selection, 268–269
- Sjögren, Henrik, 122
- Skidelsky, Robert, 239
- skills and attitudes, 17, 37, 58, 93, 97
 - necessary to think like a scientist, 310
 - transfer of skills and change of attitude, 94
- Sklar, Robert, 184
- Skorecky, Josef, 24
- skunk works, 6, 13, 15, 28, 38, 44, 100–101, 190
- Slide, Anthony, 196
- Sloan, Philip, 18, 166, 172
- Smith, Adam
 - learning theory, 233
 - moral theory, 155
- Smith, Charles, H., 168
- Smith, Paul, 161
- social constructionism, 274
- social forces, 273
- social recognition, 238
 - idols of the tribe, 239
 - thirty years' rule, 239
- social stratification
 - role of family ties, 274
 - rooted in/biology, 274
- sociobiology, viii
- sociocognitive, 4, 12, 18, 29, 52, 88, 91, 142
- sociocultural tools, 30
- sociology, 3
 - co-evolution with disciplines, 156
 - knowledge as rhetoric, 140
 - methodology, 52
 - moral conservatism, 273
 - moral order, 166, 273
 - not a homogenous discipline, 166
 - of knowledge, 29
 - of religion, 60
 - reducing science to a routine affair, 140
 - sociological tradition, 140
 - why there is no sociology of creativity, 273
 - Solomon, Maynard, 37
 - Solzenitsyn, Alexander, 190
 - Sonesson, Göran, 111
 - texture, 160
 - Sontag, Susan, 62, 112, 119, 197, 277
 - support system, 260
 - sour grapes, 289
 - specialization, functional, 3
 - species, hierarchy of, 30
 - speech act theory, 35
 - Sperling, Cas, Warner, 116
 - Spielberg, Steven, 288
 - spontaneous generation, xi, 7
 - Aristotle, eels, 66
 - Spoto, Donald, 118, 120, 197, 204, 292
 - Sprinchorn, Evert, 75, 106
 - Sprungling, Hilary, 62, 74, 103, 105, 108, 112, 132, 158, 173, 187, 197, 199, 201, 206, 237, 300
 - Staiger, Janet, 117
 - Stangos, Nicos, 14
 - Stanislavski, Konstantin, 74, 87
 - star system, 185
 - Starko, Alano, Jordan, 271
 - status
 - of great artists, 288
 - passages, 29
 - Stecker, Robert, 281
 - Steffensen, Erik, 2, 43, 74, 82–83, 109, 162, 174, 188, 201, 278
 - Stein, Gertrude
 - mentor for Hemingway, 205, 259
 - patron for Picasso, 237, 259
 - Stein, Leo
 - Berenson as mentor, 259
 - Steinberg, Leo, 188
 - Stenberg, Henrik, 230, 306
 - Sternberg, Robert, 52, 269
 - Stevenson, Anne, 38, 106, 162, 260
 - Stone, Irving, 57, 60, 182, 261
 - Strauss, Anselm, 9, 29
 - institutionalised support, 261
 - last straw, 261
 - masks, 233
 - mirrors and masks, 107
 - Strauss, Lévi
 - bricolage, 247
 - Strauss, Marc, 197
 - Strindberg, August
 - becoming a writer, 262
 - Dream Play, A*, 91
 - exile years, 106
 - full time professional writer, 106
 - Hemvälderna*, 106
 - life crisis, 106
 - professional writer, 106
 - Röda Rummet*, 106

Index

381

- Stringer, Chris, 258
- Stroheim, Erich, von, 178
 - artistic career, 113
- strong program, 273
- Strong, Brent, xvi, 37, 171, 239
- struggle for recognition, 3, 273
- student nurses, 93
- style, 115
 - ancient Egypt/symbolic style, 57, 59, 266
 - ancient Greece/naturalistic style, 57
 - change of, 75
 - classical/functionalist style in architecture, 53
 - constraints, 75
 - doric, ionic, corinthian, 55
 - expressive, 60
 - group style, 199
 - Impressionism, 62
 - machine aesthetics, 63
 - Mannerism, 60
 - motif, 64
 - ornamental/decorative style in architecture, 53
 - personal style, 64, 129, 199
 - recognizable style, 13, 64
- stylistic analysis, xii, 17
- stylistic revolutions, 266
- subatomic physics, 297
- sublime, the, 229
- Sullivan, Frank, 38, 171, 269
- Sumner, William, G.
 - in-group/out-group, 198
- Suppe, Frederick, 142, 297
- support systems, 28, 43, 45, 65, 105, 304
 - agents, 25
 - for avant-garde writers and popular novelists, 260
 - helpers, xii, 6, 15, 37
 - im teaching, 260
 - in art world, 203
 - in artistic careers, 201, 307
 - in book publishing, 205, 308
 - in Hollywood film studios, 204
 - in nature, 254
 - in science, 262–263
 - mentors, 37, 79, 102
 - patrons/patronage, 37, 46, 101
 - private/public, 201, 309
- Surrection of Christ, The*, 229
- Svanholm, Jette, 173, 181
- Svedjedal, Johan, 72, 106, 110, 161, 197
- Swedberg, Richard
 - theorizing, 71
- Sweetman, David, 74, 77, 180, 261
- symbolic capital, 71, 192, 273
- symbols, 43
 - theory of, 267
- symmetry principle, xiii
- Symons, Julian, 54, 71, 226
- systems model, 277
 - role of support system undertheorized, 275
 - social field presumed to be functioning independently of intellectual domain, 276
- Tafdrup, Pia, 87, 189
- Tan, Ai-Girl, 271
- taxonomic solution, 22
- Taylor, John, Russell, 64, 175, 178, 292
- T-creativity (technological creativity), vii, x, xii, xiv, 160
 - Chicago architecture, 135, 160
 - creating new facts, 67
 - designs, 68
 - engineers, 39
 - evolutionary logic, 58
 - getting it right, 160
 - invention of computers, 40
 - invention of metallurgy, 40
 - knowledge object of several disciplines, 232
 - material science, 24, 34
 - Monadnock Building, 159
 - raising curiosity by anticipation, 301
 - refunctionalization, 159
 - science-based technology, xv, 11
 - scientific instruments, 73
 - transitional forms, 159
- team work, 44
 - Crick & Watson, 179
 - Gauguin, 181
 - New York School, 183
- techniques of acting
 - professional acting techniques, 88
- techniques of art, 2, 9
 - acting, 114
 - anticipation, 54
 - architecture, 53, 55
 - composition, 75, 221
 - masking, 189
 - of originality, 5, 63, 84
 - pretense, 190
- techniques of fiction, 301
 - mood evoking destiny, 301
 - narrator shares information hidden from
 - invented characters, 301
 - reliable witnesses, 228
 - suspense, the withholding of information, 231
 - vraissemblance, 231
- techniques of painting, 55
 - bright/shimmering colour (hue), 56, 60, 63
 - brushwork, 60
 - calligraphy, 224
 - chiaroscuro, 22, 63

- techniques of painting (cont.)
 - copying masters/postmodernism, 158
 - deception/illusions, 55, 57
 - getting it right, 23
 - materials, 56, 222
 - naturalistic, 57
 - painting quickly, 62, 224
 - rediscovery, 224
 - repertoire/toolbox, 215
 - sfumato, 224
 - spontaneous, 62
 - symbolic, 225
 - tempera, 225
- texts, 30, 34, 195
 - personal reality of most academics, 290
- theatre, 65
 - acting in, 74
 - Chinese, 74
 - drama, 75
 - Elizabethan drama, 38, 75
 - everything is pretense, nothing is real, 190
 - scenography, 41
 - spectacle, 74
 - techniques of acting, 114
 - theatricality, 293
- theoretical knowledge
 - constraints, 214
- theoretical model, xvi, 256
- theoretical physics
 - bad choice as a prototype, 298
 - methodological dilemma of, 298
- Therborn, Göran, 175, 273
- thinking
 - ethical/moral, 22
 - practical/engineering, 21
- thirty years rule, 275
- Thompson, Jon, 62–63, 158, 222
 - debate between Greenberg & Judd, 242
 - lack of emotions in New York School, 267
- Thompson, Kristin, 175
- Thompson, Laura, 71, 222
- Thomsen, Christian, Jürgensen, xi, 18, 32
 - clarification of First principles of archaeology, 135
 - discovery of natural history of culture as co-evolution, 255
 - methodological discovery, 256
- Thomson, Belinda, 180–181, 222
- Thoren, V., 98
- Thurman, Judith, 230
- Tidd, J., 180
- Timm, Michael, 122
- Tocqueville, Alexis, de
 - public opinion in American democracy, 118
- Tøjner, Paul, Erik, 83
- Tolstoy, Lev, 73, 189, 248, 299
 - authentic/sincere emotions, 302
 - evoking and expressing emotions, 233
- Tomkins, Calvin, 59, 112, 237
- totalitarianism
 - rule, 209
 - terroristic, 212
- translations, problems of, 226
 - music, 229
- Trier, Lars, von, 83
- Trigger, Bruce, G., xi, 212
- Truffaut, François, 65, 118, 197
- Tudge, Colin, 34, 127, 254
- turn to primitivism, 284
- types of, Dimension I, xviii
- Ullmann, Linn
 - De orliga*, 124
- underdetermination problem, 28
- unique combinations, 260, 267
- utterances, 305
- van Gogh, Vincent, 60, 104, 108, 182
 - Arles episode, 182
 - latecomer, 261
 - violent brushwork, 182
 - wrong support system, 182
- Veblen, Thorstein, 287
- Vermeer, Johannes
 - light effects, 121
- Verne, Jules, 25
- Verstehen, 7
- Vest, James, 118
- Vezin, Anette, 173, 200
- Vincenti, Walter, G., 24, 58
- Vitoux, Frédéric, 261, 285
- vulnerable ideas
 - protection of, 5, 44
 - protection of in science, 45
 - protection of in technology, 45
- vulnerable versions, 44
- Vygotsky, Lev, 21, 277
 - children's learning of language, 89
 - controlled experiments, 86
 - naturalistic techniques, 86
 - psychology of art, 86
 - zone of proximate development, 78, 86
- Wagner-Martin, Linda, 161, 260
- Walker, Alexander, 178
- Wallace, Alfred, A.
 - lack of sufficient patronage, 203
- Walther, Ingo, 63, 90, 181–182
- Walton, John, 263
- Walton, Kendall, L., 86, 158, 213, 300

Index

383

- Warhol, Andy, 56
 - artistic career, 113
- Wartofsky, Marx, W., xvi
- Watson, James, xv, 28, 38, 44, 46, 66, 70, 98, 183, 287
- Watts, James, 135
- Weber, Max, xiii, 7, 59–60, 68, 95, 212
 - calculations bereft of meaning, 99
 - disenchantment, 214
 - iron cage, 139
 - kantian roots, 280
 - rationality and rationalization based on religion, 155
 - reduction of qualitative methods of interpretation of texts, 195, 294
 - religion as a covenant, 184
 - sacrifice, 216
 - Science as a Vocation*, 214
 - slavery in ancient civilization, 127
 - sociology of knowledge modelled on sociology of religion, 155
 - training in jurisprudence and religion, 155
- Weber, Nicholas, Fox, 34, 95, 128
- Weber, Robert, J., 24
- Wegener, Alfred, 26
 - continental drift, 67
- Weisberg, Robert, W., 6, 11, 14, 28, 52, 269
- Welch, Evelyn, 42, 95, 283
- Weldon, Fey, 230
- Wennberg, Arne, 99
- Wensierski, Hans-Jürgen, von, 91
- Wertsch, James, W.
 - mediations, 167
- West, Nathaniel, 176
- Wetsch, James, W., 30
- Whewell, William, 18
- White, Harrison, C., 187, 224, 273
 - anomy as overcrowding of artistic labour markets, 273
 - Careers and Creativity. Social Forces in the Arts*, 273
- White, Lynn, 232, 272
- White, Michael, 38
- Whitfield, Eileen, 185
- Whitfield, Sarah, 81
- Whitley, Richard
 - too much originality, 138, 199
- Whittemore, Don, 178
- Wickham, Glynne, 74
- Wiener, Norbert, 31, 221
- Wild, John, J., 44, 239
- Wilder, Billy, 58, 118, 179
 - Menschen am Sonntag*, 178
 - professional opportunity, 178
- Will, Barbara, 259
- Williams, Esther, 176
- Wilson, Edmund, xv, 3, 22, 30, 34, 152, 170, 198
 - adaptive radiation, 170
 - human language, 264
 - kinship theory, 150
- Wilson, Leonard, 31, 44
 - Darwin and Lyell, 167
- Wilson-Bureau, Juliet, 62, 161
- Wimsatt, W., K., xiv, 42
- Winchester, Simon, 193
- Wittgenstein, Ludwig, 159
- Woodhead, Lindy, 249
- Woolf, Virginia
 - personal support system, 260
 - working together, 29
- Wright Brothers, the, 131
- Wright, Christopher, 3, 224
 - brushwork, 182
 - specialization in Dutch painting, 161
- Wrigley, E. A., 232
- Wullschlager, Jackie, 45, 52, 74, 76, 79, 81, 96, 159, 224, 290
- Zalewski, Daniel, 54, 72, 122, 213
- Zangwill, John, 5, 15, 40, 111
- Ziman, John, 26
- Zorn, Anders, 222, 224
- Zukowsky, John, 160