

## Index

---

- Abelson, Philip, 452  
 accident/s, 173  
   accident reports, 25  
 accretionary lapilli, 86, 88, 91, 92, 94, 99  
 adaptation/adaptationism (biological), 22, 147,  
   158, 407, 428, 436  
 aesthetic, 6, 68, 332, *See* emotions, emotions  
 affect, 6, 12, 42, 50, 52, 363, 364, 374, 376  
 Aidinoff, Marc, 310  
 algebra  
   algebraic simplification, 318  
   computer algebra, 312  
 Al-Shawaf, Laith, 431  
 Alvarez, Walter, 61, 62, 65, 98, 99  
 ambiguity, 447, 451, 458  
 American Psychological Association  
   (APA), 373  
 Amherst, Barge (ship), 173–174  
 Amor, Ken, 89, 91, 96, 239  
 Amsterdamska, Olga, 288  
 analogy, physical, 453, 454, 455, 458, 460, 462  
 ancestor (biological), 212, 215, 405, 408,  
   412, 420  
 Andersen, Line, 23, 52, 156, 207, 216, 274,  
   310, 334, 372, 397, 398, 416, 452,  
   453, 460  
 anecdote/s, 19, 35, 242, 351, 352, 353, 354,  
   355, 357, 358, 359, 360, 361, 362, 363,  
   364, 365, 366  
*Anekdota*, 351, 352  
 Ankeny, Rachel, 340, 359  
 Anna O, 45  
 anomaly, 240  
   iridium, 65, 70, 77  
 Anonimale Chronicle, 329  
 anthropology, 7, 14, 18, 125, 208, 268, 291  
 ant-lions, 25  
 apprentice, 254  
 Arber, Agnes, 193, 197  
 archaeology, 8, 16, 19, 39, 117, 122, 123, 187,  
   189, 207, 208, 293  
   stratigraphy, 128  
   theory, 123  
   time, 131  
 archive/s, 132, 176, 185, 186, 188, 194, 195,  
   197, 201, 208, 229, 292, 328, 342  
 Argonne National Laboratory, 312  
 argument, 22, 84, 304, 331, 333  
 argumentation theory, 424, 427  
 Aronson, Jeff, 361  
 artificial intelligence, 50, 317, 318  
 Asiatic Society of Bengal, 168  
 asperities (geological), 107, 117  
 astronomy, 69, 70  
 astrophysics, 70, 433  
 Atkinson, Paul, 357  
 atlases, 192, 200, 201  
 audience, 212, 220, 290, 335, 358, 371  
 Austen, Jane, 144, 448  
 automation, 7, 309, 310, 312, 313, 315, 316,  
   317, 325, 329  
 auxanometer, 149, 151  
 Bachelard, Gaston, 280  
 background knowledge, 242, 451, 452, 453,  
   *See* tacit knowledge  
 back-projection (of seismological data), 117  
 backstory, 22, 23, 74, 233, 269, 405, 409, 414,  
   416, 420  
 bacteriology, 291, 296  
 Bal, Mieke, 145, 151  
 Bar, Moshe, 374, 381  
 Barash, David, 428  
 Barrett, Lisa Feldman, 374, 381  
 Bary, Heinrich Anton de, 195  
 Bauman, Richard, 373, 375, 379  
 Baxter, Janella, 338  
 Bay of Bengal, 165, 167  
 Bayesian analysis, 372  
 Beach, Derek, 230  
 Beadle, George, 247, 248, 255, 257  
 Beatty, John, 23, 38, 45, 84, 147, 149, 208, 216,  
   217, 242, 273, 331, 353, 417  
 Beer, Gillian, 144

## 466 Index

- beginnings and endings, 272, 330, 331, 333, 334  
 behaviourism. *See* psychology  
 behaviourist psychology. *See* psychology  
 Bellon, Richard, 160  
 Benjamin, Walter, 277, 365  
 Berry, Dominic, 8, 36, 43, 83, 124, 125, 207, 222, 311, 332, 336  
 Betsey Galley (ship), 171  
 Bhattacharyya, Debjani, 21, 25, 47, 242, 291, 453  
 Biden, Christopher, 180  
*Bildungsroman*, 143, 146, 157, 158, 159  
 biochemistry, 44, 335, 363  
   biochemical engineering, 335  
   biochemical genetics, 247, 255  
 biology, 8, 10, 11, 14, 38, 45, 62, 189, 193, 438  
   bio-mimicry, 281  
   biotechnology, 335  
   data-centric biology, 335, 338  
   design biology, 336  
   developmental biology, 195, 335  
   microbiology, 335  
   noise, 341  
   time, 332  
 Birch, Arthur, 270  
 Blane, Gilbert, 180  
 Böher, Martin, 19  
 bolide impact, 62, 71  
 Boodle, L. A., 195  
 botany, 50, 143, 147, 187, 193, 194, 195, 196  
   botanical gardens, 218  
 Bourbaki, Nicholas, 319  
 Bouvard, Michel-Philippe, 241, 353  
 Boyer, Robert, 319, 321  
 branch points/turning points (in narratives), 418  
 Branney, Michael, 92  
 Braudel, Fernand, 331  
 Broad, Thomas, 171  
 Brown, David, 361  
 Brown, Richard, 92  
 Bruner, Jerome, 35  
 buracanes. *See* cyclone  
 burial/s, 126, 128  
 business cycle, 20  
  
 Calvert, Jane, 336  
 Campbell, James McNabb, 292  
 Campos, Luis, 336  
 Caracciolo, Marco, 449  
 cartography, 165  
 case histories (also case reports, case studies), 35, 39, 229, 233, 242, 290, 304, 358, 359, 361, 450  
 catastrophe theory, 19  
 catastrophism, 61, 70, 77  
 categorizing, 18, 22  
 causation, 22, 61, 65, 66, 70, 71, 74, 75, 77, 78, 83, 95, 174, 185, 189, 207, 235, 238, 239, 248, 251, 272, 277, 297, 304, 371, 372, 374, 426, 431, 447, 448, 449, 461  
   causal claim, 358  
   causal relation, 359  
 Caytoniales, 186, 194, 195  
 central subject, 215, 217, 221, *See* protagonist  
 Chadarevian, Soraya de, 152  
 Chapman, Robert, a, 450  
 character/s (in story), 37, 46, 62, 69, 174, 247, 250, 252, 257, 258, 259, 282, 334  
 charts, 301, *See* representation  
   coastal, 170  
   of barometric pressure, 172  
   of depth sounding, 172  
 Chatman, Seymour, 252  
 chemistry, 9, 15, 39, 40, 41, 54, 106, 208, 267, 273, 275, 276, 282, 284  
   chemese, 9, 23, 272, 279, 285  
   chemical actions, 273  
   chemical article, 277  
   chemical narratives, 280  
   chemical substances, 276, 280, 282  
   human chemist, 276  
   reaction, 267, 271, *See* reaction diagram  
   reactions. *See* chemistry  
   syntheses, 269, 270, 273, 282, 284  
   synthetic reaction schemes, 269, 270  
   thin chemical narratives, 277, 284, 285  
 chronicle/s, 62, 83, 124, 125, 127, 129, 130, 131, 133, 134, 135, 136, 137, 138, 149, 207, 210, 223, 328, 329, 331, 332, 333, 335, 336, 339, 340, 341, *See* chronology  
 chronology, 8, 16, 41, 61, 67, 68, 74, 83, 122, 127, 128, 129, 130, 131, 132, 136, 137, 146, 151, 207, 236, 251, 281, 287, 294, 295, 296, 297, 300, 301, 305, 330, 333, 335  
   absolute chronologies, 127  
   reductive chronologies, 132, 134  
   relative, 127, 131  
 Church, Alonzo, 321  
 circumnutation, 155, 159  
 classical narratology, 39, 46  
 classification, 194  
 Cleland, Carol, 76, 206  
 climate change, 66  
 closure (narrative), 331  
 clues, 100, 208, 232, 233, 235, 354, 413  
 cognition, 35, 42, 45, 47, 260, 273, 310

- cognitive  
 narratology, 31, 37, 50, 52  
 science, 36, 54
- cognitive science, 400  
 narratology, 96  
 neuroscience, 373  
 psychology, 371
- coherence, 43, 85, 123, 160, 206, 240, 242, 334, 338, 430, 436
- Cold War, 312
- colligation*, 12, 25, 40, 124, 176, 243, 291, 305, 447, 452
- colonial  
 knowledge, 165  
 officers, 291  
 science, 165  
 writing, 165
- comets, 61, 65, 77
- common ancestry, 209, 210, 212, 221, 222
- community, 9, 23, 73, 77, 83, 85, 247, 249, 255, 258, 262, 263, 311, 323, 377, 439
- complexity, 18, 119, 148, 284, 287, 289, 294, 342
- complexity theory, 19
- computation, 104, 112, 132, 311
- computational linguistics, 447, 450, 451, 452, 461
- configuration/configuring*, 12, 18, 40, 41, 53, 289, 296
- confocal microscopy, 337, 338
- consilience, 66, 76, 120, 436
- constraint-based generality, 343
- constructivism, 48
- context, 279, 355, 356, 361, 362, 365
- contextual knowledge, 447, 450, 451, 459
- contingency, 105, 144, 146, 148, 149, 151, 169, 217, 268, 277, 278, 279, 284, 289, 372, 417, 424, 426, 434, 447
- contingent history, 281
- contrastive and contingent aspects, 276
- contrastive and contingent thickenings, 278, 285
- cosmology. *See* astronomy
- counterfactual/s, 70, 73, 74, 84, 91, 419, 421, 435, 447  
 counterfactual difference-making, 419
- courts, 165, 167, 168, 169, 171, 178, 182
- Crasnow, Sharon, 16, 34, 45, 46, 208, 231, 249, 416, 425, 426, 434, 435, 461
- credibility, 160, 172, 353
- Cretaceous period, 61
- Crislip, Mark, 360
- Crombie, Alistair, 144
- cultural relativism, 315, 321
- Currie, Adrian, 84, 117, 189, 250, 436, 461
- cyclone/s, 21, 25  
 memoirs, 170, 175
- cyclonology, 166, 167, 176, 180
- D'Israeli, Isaac, 353
- Dalrymple, Alexander, 170, 173
- dance of agency, 146, 153, 160
- Danto, Arthur, 83, 207, 217
- DARPA, 317
- Darwin, Charles, 10, 17, 48, 67, 98, 143, 157, 175, 295, 408, 410, 417
- Darwin, Erasmus, 147
- Darwin, Francis, 148, 151
- Darwinism, 45, 405
- Daston, Lorraine, 152, 182, 192, 311
- data, 104, 105, 109, 237, 249, 251, 304, 336  
 curators, 341  
 metadata, 341
- dating  
 (in archaeology), 122, 126  
 absolute dating, 123, 129  
 amino acid racemization, 130  
 ceramic rehydroxylation, 130  
 palaeomagnetic, 130  
 radiocarbon dating, 16, 125  
 radiometric dating, 91, 130  
 relative, 128  
 summed probability, 133  
 uranium series, 130
- Delmans, Mihails, 336
- democratic peace hypothesis, 17
- demography, 291
- dendrochronology, 130
- description, 15, 83, 95, 96, 100, 168, 174, 195, 196, 206, 223, 275, 294, 296, 330
- design decisions, 310
- detective  
 story, 192, 193, 232  
 work, 208
- diagram/s, 40, 41, 51, 70, 73, 74, 93, 94, 111, 119, 144, 166, 167, 177, 178, 194, 199, 206, 207, 210, 215, 218, 271, 289, 453, 456. *See* representation
- plain tree, 210, 223
- stratigraphic, 70
- tree, 41, 44, 212, 217, 330, 453
- dialectical requirement, 424, 427, 441
- Dick, Stephanie, 7, 19, 43, 310, 329, 451
- dinosaurs, 61, 62, 65, 77
- discourse, 34, 39, 41, 43, 44, 45, 46, 49, 50, 53, 61, 67, 68, 252, 254, 371
- discovering new relations, 273
- discovery, 175, 358, 359, 361, 362

## 468 Index

- DNA  
 promoters, 336, 339  
 reporters, 336
- Dostoevsky, Fyodor, 68
- Doyle, Arthur Conan, 193
- drawings, 128, *See* representation
- drosophila melanogaster*, 247
- Du Bois, W. E. B., 18
- Duncan, Ian, 159
- Dupré, John, 155
- Dutrochet, Henri, 151
- earth history, 82
- earth sciences, 62, 70, 106
- earthquake, 17, 18, 49, 104, 176, 236  
 rupture narratives, 50, 104, 106, 112, 115,  
 116, 119, 134  
 rupture process, 104, 105, 106, 107, 108,  
 109, 111, 112, 113, 114, 115, 116, 117,  
 118, 119, 236  
 Tohoku, 17, 38, 41, 49, 104
- East India Company, 165, 167, 169, 170
- ecology, 19, 160, 187, 200
- economics, 10, 26, 106, 399
- Edwards, Elizabeth, 198
- ejecta blanket, 90
- Eldredge, Niles, 461
- electromagnetism, 454, 456, 458, 460  
 mutual embrace, 457, 457, 458, 460
- electrotonic state, 454, 458, 458, 460, 462
- embedded narratives, 16, 45
- embodiment, 455, 460
- emotions, 47  
 aesthetic emotions, 382
- empire, 23, 164, 169, 188, 270, 289, 291, 320
- emplotment, 70, 153
- Engelmann, Lukas, 18, 21, 25, 170, 189,  
 290, 378
- engineering, 8, 25, 335, 338, 340, 342, 408, 451  
 biological, 336  
 engineers, 197
- Englemann, Lukas, 241
- Enkin, Murray, 360
- Ephrussi, Boris, 247, 255, 257
- epidemiological  
 narrative, 170  
 reasoning, 289, 291, 295, 296, 297, 304,  
 305, 306
- epistatic interactions, 414
- epistemic  
 choices, 336  
 competition, 336  
 constraints, 330, 331  
 division of labour, 365  
 genre, 4, 28  
 goals, 332, 339, 341  
 humility, 189, 201  
 objects, 195, 249, 255, 256  
 order, 106  
 plot, 261, *See* plot  
 programme of reform, 335  
 resource, 362, 363, 365  
 scene, 247, 256, 257, 259  
 switch, 19, 178, 241, 351, 353, 354, 356,  
 358, 366, 449, 450, 459  
 thing, 249  
 vantage points, 353  
 virtues, 42, 186, 195, 436
- equations, 9
- ethnography, 357
- ethnology, 125, 292
- European Enlightenment, 320
- evolution, 10, 11, 14, 17, 22, 26, 41, 45, 74,  
 130, 143, 156, 158, 185, 186, 187, 196,  
 242, 340, 341, 342  
 microevolution, 73
- evolutionary  
 biology, 14, 45, 405, 425  
 histories, 206, 207, 210, 218, 223  
 psychology, 433
- exaptation, 143, 148, 151, 156, 158, 159
- exemplar, 263
- exemplifying narrative, 263
- experience, 351, 357, 358, 360, 363, 366
- experientiality, 37, 447, 448, 449, 452, 455,  
 460
- experiment, 146, 247, 253, 261, 281, 283,  
 284, 318  
 experimental commodities, 336  
 experimental organism, 247  
 experimental scene, 261  
 experimental systems, 249  
 investigations, 275  
 method, 27, 276, 278  
 protocol, 153
- expertise, 9, 23, 25, 74, 172, 194, 198, 207, 273,  
 276, 288, 290
- explanation, 50, 82, 84, 91, 100, 185, 189, 193,  
 197, 206, 212, 218, 229, 239, 242, 287,  
 289, 299, 330, 331, 356, 405, 419,  
 420, 428  
 explanatory gap, 16  
 explanatory level, 353  
 explanatory narrative, 365, *See* narrative  
 explanation  
 explanatory pluralism, 440, 441  
 explanatory power, 331  
 historical, 206  
 narrative, 331  
 sketch, 440

- extinction, 42, 70  
 mass, 15, 17, 18, 21, 23, 61, 63, 65, 66, 68,  
 70, 73, 75, 76, 77, 78  
 narrative of, 70  
 extraterrestria, 98
- fabula*, 67, 68, 71, 72, 76, *See* story/discourse  
 distinction
- facts, 6, 124, 128, 131, 248, 261, 290  
 factual narratives, 33, 35, 250, 252, 253  
 factual narratology, 38, *See* factual narrative  
 factuality, 38, 46, 330  
 fairy tales, 44  
 family pedigrees, 216  
 family trees. *See* tree diagrams  
 Faraday, Michael, 437, 447, 454, 455, 456, 457,  
 457, 462  
 fault, 104, 105, 106, 107, 108, 109, 111, 112,  
 114, 115, 117, 118  
 feeling, 374  
 Félicité X, 26  
 Fenves, Peter, 364  
 field and subfield formation, 328, 329, 332,  
 335, 338, 343  
 fieldwork, 70, 73, 86, 137, 170  
 filigreed tree, 210, 212, 214, 215, 218  
 Fineman, Joel, 353  
 Fisher, R. A., 438  
 Fisher, Walter, 426, 437  
 fitness, 405, 409, 412  
 flatfish, 45, 242, 405, 406, 409  
 Fleming, Paul, 355  
 Flis, Ivan, 373, 375, 386  
 Fludernik, Monika, 252, 449, 455  
 fluorescent proteins, 338, 341  
 focalization, 38, 39, 46, 47, 48, 49, 157  
 Fodor, Jerry, 372, 381  
 following and unfollowing, 6, 9, 15, 17, 331  
 Forber, Patrick, 76  
 forecasting, 164, 167  
 forensic  
 criminology, 172  
 science, 187  
 formal language, 9, 10, 20, 268, 274, 284, 314,  
 364, 447, 448, 450, 451, 452, 453, 460,  
 460, 461  
 of rigorous proof, 274  
 formal representation, 274, 447, 454, 457,  
 458, 460  
 formal structure, 274  
 formalized sequences as narratives, 273  
 formalism, 61, 309, 323, 434  
 forms of knowledge, 343  
 chronicle, 339, 340, 341  
 genealogy, 340, 342  
 historical, 328, 329, 331, 332, 335  
 narrative, 331, 341, 342, 343  
 scientific, 329, 332, 336  
 formulae. *See* representation  
 fossil/s, 15, 16, 21, 42, 61, 62, 63, 64, 67, 68,  
 69, 70, 71, 72, 73, 74, 75, 76, 84, 185, 186,  
 189, 190, 191, 194, 196, 214, 241  
 Foundations Crisis, 320  
 framework, 351, 352, 353, 355, 357, 363,  
 365, 366  
 Frege, Gottlob, 320  
 Freud, Sigmund, 45  
 Fricker, Elizabeth, 364  
 Frodeman, Robert, 84, 85  
 fruit fly, 38, 247  
 Fukushima, 104  
 functions, 269
- Galison, Peter, 152, 192  
 Gallie, Walter Bryce, 149, 418  
 Gatacre, Sir William, 292  
 Geertz, Clifford, 18  
 genealogy/genealogies, 8, 10, 11, 124, 125,  
 130, 133, 134, 136, 137, 216, 222, 328,  
 329, 330, 332, 333, 335, 336, 339  
 finding connections, 330  
 moral of, 330  
 general problem solver, 317  
 general\_purpose technology, 3, 7, 26  
 generic narrative, 248  
 genetics, 17, 130, 255, 335  
 Genette, Gérard, 41, 45, 253  
 genre, 11, 48, 146, 153, 160, 250, 287, 290,  
 291, 305, 331, 344, 373, 374  
 theory, 334, 335  
 geochemistry, 91  
 geodetic data, 109, 114  
 geography, 10, 17, 133  
 geological narratives, 85, 95  
 Geological Survey of Great Britain, 86  
 geology, 9, 14, 18, 22, 26, 36, 37, 42, 45, 61, 62,  
 66, 69, 70, 82, 86, 100, 167, 187, 214, 230,  
 236, 238, 275, 284, 328, 343, 365, 395,  
 433, 453  
 planetary, 70  
 GEONET, 109  
 George, Darwin, 148  
 Ginzburg, Carlo, 191  
 Giordano Bruno Foundation, 221  
 glaciation, 98  
 Gödel, Kurt, 321  
 Goethe, Johann Wolfgang von, 196  
 Goldschmidt, Richard, 421  
 Gombrich, Ernst, 201  
 Goodchild, J.G., 86, 94, 95

## 470 Index

- Goody, Jack, 15  
 Gould, Stephen Jay, 67, 147, 148, 407, 424, 425  
 GPS data, 105, 114  
 graphic narratives, 160  
 graphs, 10, 291, *See* representation  
 Great Expectations, 157  
 Green, Sara, 342  
 Greimas, Algirdas, 54  
 Griesemer, James R., 83, 206, 333  
 Griffith, Eric, 76  
 Griffiths, Devin, 11, 17, 39, 48, 175, 189, 295, 335, 418  
 Gubbio, Italy, 62
- Hacking, Ian, 311, 315, 430  
 Haffner, Jeanne, 192  
 Haines, Elizabeth, 21, 50, 146, 178, 208, 241, 301  
 Hajek, Kim M., 6, 18, 39, 47, 67, 217, 252, 333, 334, 392, 393, 418, 449  
 Hamshaw Thomas, Hugh, 50  
 Happé, Francesca, 365  
 Hardy, Anne, 290  
 Haseloff, Jim, 336  
 Hauser, Kitty, 192  
 Hein, Jürgen, 353  
 Hempel, Carl, 440  
 Herman, David, 35, 52, 96, 393, 400, 452  
 Hill, Ernest, 292, 293, 296, 298, 301  
 Hirsch, August, 293  
 histoire, 67, 252  
*histoire-récit*, 44  
 historical  
   account, 275  
   narrative, 282  
   science, 15, 24, 39, 45, 51, 61, 69, 74, 76, 83, 189, 208, 215, 230, 328  
 historical facts, 124  
 historicity, 433  
 historicization, 426, 429  
 historiography, 329, 332, 343  
   animal history, 330  
   environmental, 330  
   feminist, 330  
   global, 330  
   history of, 328, 332  
   history of ideas, 330  
   narrative histories, 333  
 Hoffmann, Roald, 267, 277  
 hopeful monsters, 421  
 Hopkins, Andrew, 9, 18, 22, 26, 36, 37, 38, 39, 42, 45, 51, 62, 106, 189, 207, 215, 238, 240, 329, 334, 365, 395, 435, 453  
 Horace, Darwin, 148, 151  
 horizon of expectations, 51, 160  
 horizontal management, 315  
 Horsburgh, James, 173  
 Hubálek, Michal, 124  
 Hull, David, 85, 218  
 human  
   elements, 279  
   history, 82  
   human-chemical interaction, 268  
   interest, 277, 278  
   intervention, 272  
   sciences, 47, 48, 54  
   societies, 122  
   users, 282  
 Hunter, Kathryn Montgomery, 357, 366  
 Hurwitz, Brian, 19, 178, 241, 242, 250, 268, 355, 360, 449, 459  
 Huss, John, 15, 17, 18, 42, 67, 73, 106, 146, 215, 254, 329, 428  
 hydrography, 168  
 hypnotism, 47  
 hypotheses, 6, 83, 84  
   hypothesis testing, 231, 238  
   working hypotheses, 66  
 hypothesis, 229, 232, 233, 235, 238, 239, 240, 241, 247, 248, 249
- idiographic, 61, 66, 70, 77  
 illustrations, 143, 146, 153, 156  
 images, 94, 129  
 imagination, 31, 33, 35, 51, 144, 146, 324, 428, 455  
 impact craters, 65, 89, 240  
   hypervelocity impact, 90  
 impact periodicity, 69  
 impactoclastic, 92, 94  
 impersonal narratives, 7  
 implicit knowledge, 272  
 IMRaD structure, 250  
 incipient stages, 409, 410, 414  
 inclusion and exclusion, 332, 338  
 inclusive narratives, 132  
 Indian Civil Service, 292  
 Indian Ocean, 21  
 inference, 20, 21, 73, 249, 301, 304  
 inferential actions, 392  
 information encoded in formulae, 273  
 informational order, 331  
 instruction. *See* pedagogy  
 integrating narratives, 50, 104, 106, 116, 117, 118, 119, 120, 143, 210, 237  
 intellectual property, 344  
 intelligence-gathering, 50  
 intelligent agents, 37  
 intelligibility, 85

- ‘internalist’ and ‘externalist’ accounts, 284  
 interpretation, 82, 83, 84, 88, 89, 91, 97, 98, 99,  
   100, 123, 125, 186, 190, 192, 193, 195,  
   200, 201, 207, 229, 241, 289, 299, 372  
 interventionism, 4  
 Iraq War, 46  
 iron pyrite, 126  
 isotope geochemistry, 70  
 iteration, 233, 243
- Jadad, Alejandro, 360  
 Jahn, Manfred, 54  
 Jajdelska, Elspeth, 23, 51, 54, 249, 297, 363,  
   399, *see*  
 James, Erin, 144  
 Jauss, Hans Robert, 160  
 joint inversions, 115, 116  
 Jolles, André, 355  
 judicial inquiry, 182  
 justification, 425, 430  
 justificatory insufficiency, 430, 432  
*just-so story/stories*, 331, 424, 425, 431, 433,  
   434, 435, 436, 440, 447  
 juxtaposition, 13, 178
- kangaroo, 10, 26  
 Kay, Lily E., 255  
 Kipling, Rudyard, 170, 425  
 Kirshenblatt-Gimblett, Barbara, 155  
 Kleinhans, Maarten G., 84  
 Koch, Tom, 301  
 Kohlhasse, Michael, 323  
 Kranke, Nina, 10, 17, 26, 41, 44, 51, 83, 197,  
   301, 453  
 Kühn, Alfred, 262  
 Kuhn, Thomas, 263
- laboratory, 170, 195, 201, 250, 258, 280, 283,  
   285, 288, 296, 311  
   observation, 336  
   routine, 273  
 labour, 322, 324  
 Labov, William, 416  
 ladder of inference, 124  
 ladder thinking, 221  
 Lamarckianism, 412  
 Landecker, Hannah, 338  
 Lang, W. H., 196  
 language, 32, 50, 51, 217, 310  
 Lapworth, Arthur, 281  
 last appearance datum, 71  
 Laszlo, Pierre, 40, 269, 272  
 law of storms, 169, 172, 176, 180  
 Lawrence, T. E., 186, 199  
 Lawson, D.E., 86
- legal  
   analysis, 23  
   battles, 164  
   literature, 21  
 legal studies, 6  
 legibility, 181  
 Leonelli, Sabina, 338, 341  
 Lewontin, Richard, 407, 424  
 LiDAR, 129  
 life-history, 143, 146, 157  
 lineage, 72, 208  
 lines of descent, 330  
 lines of force, 447, 453, 454, 456, 457,  
   458  
 linguistics, 217  
 listening, 35  
 lists, 291  
 literary  
   language, 51  
   narratives, 277  
   studies, 31, 32, 33  
 literature, 6, 344  
 Lloyds, 165, 168, 169  
 Locke, John, 352  
 logbook, 173  
 logic, 447, 449, 452, 461  
 López Beltrán, Carlos, 438  
 Louis XV, 353  
 Love, Alan, 341  
 Lawson, James Alfred, 292, 293, 295, 297  
 Luce, S. B., 179  
 Lyell, Charles, 67, 98  
 Lyteris, Christos, 297
- machine language, 451, 459  
 macroevolution, 73  
 MACSYMA system, 309, 310, 311, 312, 313,  
   314, 315, 316, 317, 318, 319, 324,  
   325, 326  
 Malm, August, 410  
 management science, 7  
 manipulable fact, 359  
 map of relations, 275  
 mapping, 185, 188, 191, 199, 200, 201, 235,  
   289, 291, 301, 304  
 maps, 170, *See* representation  
 Marine Biological Laboratory, 67, 428  
 Marine Court of Enquiry, Calcutta, 164, 168,  
   171, 180  
 marine insurance, 164, 166, 168, 169  
 marine science, 169  
 marsupial tree, 221, 222, 223  
 Marvin, Ursula B., 92, 98, 99  
 material culture, 125  
 material overlap, 333, 339

## 472 Index

- mathematics, 7, 9, 10, 13, 17, 19, 23, 41, 43, 52, 287, 309, 329, 372, 391  
   induction, 391, 395, 402  
   mathematical expressions, 314  
   proof, 391  
   proofs, 274, 452  
   representation, 460  
 matrix, 10, *See* representation  
 Maxwell, James Clerk, 447, 453, 454, 455, 457, 458, 461, 462  
 Maynard Smith, John, 407  
 means of construction, 332, 333, 338  
 means of ordering, 333  
 measurement, 17, 194, 289  
 mechanical objectivity, 152  
 mechanics, 149  
 mechanism/s, 71, 230, 231, 234, 235, 238, 243, 311, 359  
 Medel, López, 165, 175  
 mediating facts, 124  
 mediation, 20  
 medicine, 7, 19, 35, 192, 241, 288, 291, 438  
   biomedicine, 340, 351  
   clinical experience, 360  
   clinical practice, 354  
   *clinical stories*, 438  
   medical officers of health, 290  
   medical records, 450  
   medicalization of everyday life, 356  
 memory, 50, 174, 237, 277, 314, 353, 355  
 meta-argument, 432  
 metadata, 73  
 metaphor, 31, 32, 125  
 meteor/meteorite, 22, 82, 92  
 meteorology, 165  
   Aristotelian astrometereology, 167  
 Meunier, Robert, 7, 17, 19, 36, 38, 41, 44, 45, 46, 49, 51, 65, 112, 114, 146, 157, 212, 237, 262, 272, 274, 275, 375, 380, 399, 437, 439, 462  
 miasma, 297  
 micro-histories, 143, 145, 156, 305  
 micro-narrative, 11, 295  
 migration, 206, 207, 214, 215, 217, 218, 221, 224, 293  
 military, 316  
   intelligence, 185, 187, 189, 197, 198, 200  
 mineralogy, 70  
 Mink, Louis, 12  
 Mivart, St. George, 147, 409  
 Miyake, Teru, 5, 17, 38, 41, 49, 50, 71, 134, 176, 236, 237, 243, 295, 329  
 model, 9, 17  
 model dependence, 112  
 model evolution, 106, 113, 114, 115, 118, 119  
 modelling, 67, 69, 92, 104, 105, 106, 111, 133, 287, 335, 372, 380  
 modernity, 269, 292  
 modes of knowing, 447, 451, 453, 458, 461, 461  
 modes of narrativity, 340  
 modularity, 309, 318, 319, 325  
 molecular biology, 335, 341, 342, 453  
 molecular phylogenetics, 208  
 monsoon winds, 165  
 Montelius, Oscar, 128  
 Morgan, Mary, 33, 35, 36, 40, 48, 49, 51, 106, 124, 149, 166, 176, 182, 243, 251, 254, 267, 289, 333, 355, 357, 392, 399, 427, 434, 438, 447  
 morphology, 67, 73, 195, 196  
 Morson, Gary Saul, 149  
 mosaics, 255  
 Moses, Joel, 313, 318  
 Muller, Richard A., 70  
 multiple personality, 18  
 multi-scalar, 185, 189, 197, 199, 201, 202  
 multi-stage syntheses, 278  
 Mumford, Lewis, 325  
 murder mystery, 68  
 Murphy, Michelle, 282  
 Museum of Economic Geology, 168, 169  
 museums, 11, 73, 218  
 mutations, 247  
 mythology, 281  
  
 narratee, 253, 259, 260, 375  
 narrating, 253, 254  
 narration, 39, 67, 145, 146, 165, 167, 169, 178, 189, 331, 355, 376  
 narrative  
   accompaniments, 10  
   accounts, 16  
   argument, 22, 84, 304, 331  
   beyond productive order, 268  
   binding, 8  
   building, 132  
   chunks, 36  
   closure, 16, 37, 42, 43, 61, 65, 66, 68, 69, 70, 76, 77, 78, 254  
   conjectures, 186  
   explanation, 24, 25, 62, 66, 70, 74, 83, 123, 148, 206, 207, 216, 217, 267, 424, 425  
   facts, 124  
   form, 267  
   gaze, 19  
   implicit, 378  
   inference, 6  
   interpretive framework, 176  
   knowing, 35, 36



- logic, 84
- making, 178
- medicine*, 438
- micro-narratives, 151, 158, 359
- narrative-making, 3, 8, 16, 19, 43, 49
- narratives as arguments, 119
- narratives as filters, 119
- narratives as unifying instruments, 119
- narratives from nature, 144, 146
- natural narrative, 274
- nonnarrative, 371, 391
- of nature, 7, 8, 11, 38, 39, 40, 41, 44, 46, 65, 73, 112, 115, 146, 212, 247, 248, 250, 251, 261, 262, 273, 274, 335
- of research, 73, *See* research narrative
- of the wreck, 169
- oral narrative, 41
- performativity, 51, 249, 373
- perspective, 19
- positioning, 17, 249, 253, 258
- practice, 186, 187, 189, 193, 196
- reasoning, 127, 297, 299
- representation, 454, 458, 460, 462
- scaffolding, 156, 157
- sentence, 83, 96, 97, 207
- sketch, 74
- standardization, 175
- statements, 83, 92
- studies. *See* narrative theory, narrative theory
- style, 279
- surprises, 394
- syntheses, 332
- theory, 31, 32, 34, 36, 37, 44, 49, 332, 415
- thick, 166, 176
- thick and thin, 39, 40, 44, 54, 73, 215, 267, 268, 270, 272, 274, 276, 283, 284, 357, 450, 462
- thickening, 277, 282
- thin narratives of nature, 279
- utopian, 311
- verbal, 9
- voice, 253
- worlds, 332
- worthiness, 45, 273, 405, 415, 416, 418
- narrative theory, 7
- narrativity, 37, 38, 39, 40, 41, 43, 47, 330, 331, 340, 344, 426, 449, 461
  - braided, 334
  - deferred, 333, 341
  - embryonic, 333, 341
  - figural, 334
  - modes of, 333
  - multiple, 334
  - narratavizing, 12, 16, 167
  - underlying, 334
- narratology, 6, 32, 33, 34, 36, 43, 250, 252, 447, 448, 449
  - natural narratology, 448, 449, 452, 453, 455, 460
  - post-classical narratology, 35
- narrator/s, 46, 47, 49, 151, 157, 250, 252, 258, 260, 379, 399, 416
- narrators, 6
- NASA, 317
- natural
  - products, 276, 282
  - sciences, 248
  - selection, 147, 159, 406, 414, 428
- natural history, 15, 293, 328
- natural language, 9, 20, 177, 274, 314, 364, 447, 448, 449, 450, 451, 452, 453, 454, 455, 458, 461
  - natural language generation, 450
  - natural language processing, 450
  - natural language understanding, 67, 450
  - of narrative, 274
- nautical marketplace, 167
- navigation, 168
- Nemesis hypothesis, 61, 65, 66, 70, 71, 77
- Netz, Reviel, 394
- neuroscience, 376
- new mechanists, 425, 426
- Newell, Allen, 317
- Nicholson, Daniel H., 155
- Nilsson, Maria, 207
- nomenclature, 214
- nomological model of explanation, 424, 426, 435, 440
- nomothetic, 61, 67, 70, 77, 428
- non-specialist. *See* expertise
- Novella, Steven*, 360
- nutshell narrative, 351, 357
  
- O'Donnell, Michael, 356, 357, 364
- O'Hara, Robert J., 206
- objectivity, 123, 206, 310
- observation, 4, 100, 105, 164, 167, 174, 178, 249, 260, 340, 351, 361, 365
- observatories, 167
- Olmos, Paula, 24, 36, 83, 331, 407, 430, 436, 447, 461
- ontology, 4
- Oort cloud, 61, 65
- Optically Stimulated Luminescence, 130
- oral seminar, 277

## 474 Index

- ordering, 13, 15, 17, 22, 39, 44, 46, 61, 67, 68, 69, 83, 84, 96, 106, 127, 130, 149, 166, 167, 178, 195, 248, 251, 254, 259, 271, 272, 289, 291, 295, 331, 333, 340, 419
  - argumentative, 330
  - thematic, 330
- Oreskes, Naomi, 99
- organic chemistry. *See* chemistry
- orientation to the world, 333, 334
- Osterloh, Ian, 362
- out-of-time artefacts, 123
- palaeobotany, 185, 186, 187, 189, 194, 197, 201
- palaeontology, 14, 66, 69, 70, 71, 73, 99, 189, 214, 328
- palaeobiology, 42, 67, 68, 428
  - analytical, 66
- Palladino, Paolo, 332
- pandemic, 18, 25
- Panglossian paradigm, 406
- panoptic view, 198
- panselctionism, 431
- paper technology, 284, 290
- parameterizing, 41, 112
- particulars, 353, 360
- Paskins, Mat, 9, 10, 23, 38, 39, 40, 54, 73, 166, 176, 194, 215, 355, 357, 450, 462
- path dependencies, 280
- patient, 356
- pattern/s, 70, 71, 74, 78, 166, 167, 169, 180, 181, 194, 234, 254, 305, 354, 397, 398, 401, 438, 447, 452, 456, 460
  - of expression, 337
- Peano, Giuseppe, 320
- pedagogy, 169, 178, 182, 186, 192, 193, 194, 199, 200, 206, 392, 402, 451
- Pedersen, Rasmus Brun, 230
- Peirce, Charles Sanders, 252
- Penn, Jonnie, 316
- perception, 50, 372, 377, 457
- performance studies, 153
- performativity, 23, 371, 373, 399
- periodicity, 16, 61, 64, 65, 67, 69, 70, 76, 77, 78, 156, 293
- perspectives, 351, 353, 354, 365
- petrology, 98
- Pfizer, 361
- philosophy of biology, 193
- philosophy of history, 12, 25, 328, 332, 418
- photography, 21, 188, 194
  - aerial, 178, 185, 186, 188, 190, 192, 197, 199, 201, 202, 241
- phylogenetic
  - markers, 209, 212, 214, 215, 217, 218
  - narratives, 207, 218, 221
  - Phylogenetic Analysis Using Parsimony
    - \*and other methods – (PAUP\*), 209
  - phylogenetic trees, 10, 206, 301
  - phylogenetics, 41, 44
  - phylogeny, 197, 206
- physical laws, 82
- physics, 11, 41, 208
- physiognomy, 192
- physiology, 149, 248, 363
  - physiological genetics, 255, 257
- Pickering, Andrew, 146, 153
- Piddington, Henry, 25, 164, 165, 166, 169, 171, 173, 174, 175, 180
- Piketty, Thomas, 448, 462
- plague/s, 25, 287
  - narratives, 18, 21
  - Third Plague Pandemic, 289
- plant/s, 17, 38, 186, 189
  - behaviour, 143
  - narratives, 143, 160
  - physiology, 143
- plant/ss, 186, 190, 195
- plate tectonics, 84
- plausibility, 16, 20, 22, 23, 66, 74, 83, 135, 165, 172, 174, 175, 181, 231, 354, 409
- plot/s, 6, 34, 62, 63, 159, 175, 333, 449
  - plottable, 180
  - plotting, 170
- pluralism, 8, 315, 326
- Poincaré, Henri, 401
- pointless stories, 416
- Polanyi, Michael, 248
- politics, 309, 310, 311, 313, 314, 316, 319, 321, 322, 326
  - political narrative, 223
  - political science, 17, 45, 229, 435
- Pollak Williamson, Bernardo, 336
- polyphony, 47, 170, 291
- portable, 283
- Porter, Ted, 269, 284
- positional disadvantage, 352
- practice-world, 44, 249, 252, 253
- pragmatism*, 429
- precision, 122, 123
- predictability, 417
- Priest, Greg, 10, 144
- prisoner's dilemma, 10
- privatization, 325
- problem-solving, 277
- process ontologies, 267, 280
- process tracing, 16, 45, 117, 208, 229, 230, 231, 232, 233, 235, 242, 243, 434
- processes, 83, 84, 88, 90, 92, 94, 95, 99, 280
- processual, 155, 279, 281

- processual thickening, 280, 282, 284  
 Procopius, 351, 352  
 professional. *See* expertise, experts  
 professionalization, 320  
 prognostication, 182  
 proofs, 23, 320, 323  
   as narratives, 452  
 protagonists, 37, 38, 215, 217  
 protocol, 258  
 Proust, Adrien, 292  
 pseudo-code, 451  
 pseudo-generic, 263  
 psychoanalysis, 39, 45  
 psychology, 35, 39, 50, 54, 192, 373, 374  
   psychological inferences, 297  
 public science, 165  
 publics, 330  
 Puckett, Kent, 49, 54  
 punchline, 353, 356, 364  
 punctuated equilibria, 67  
 puzzles, 12, 133, 216, 218, 234, 236, 297  
  
*QED Manifesto*, 309, 311, 319, 323, 324  
 QED system, 309, 310, 311, 312, 315, 316, 319,  
   320, 321, 322, 323, 324, 325  
 quantification, 289  
 quarantine, 294  
  
 Rampino, Michael, 77  
 ratiometry, 338, 340, 341  
 Raup, David, 62, 63, 65, 67, 70, 71, 77  
 reaction  
   mechanism, 276  
   scheme, 271, 284  
   sequence, 271  
 reaction diagrams. *See* representation  
 read a new language, 192  
 Read, H.H., 82, 84, 100  
 reader, 253  
 reading, 6, 7, 8, 10, 11, 23, 24, 35, 39, 45, 48,  
   50, 51, 52, 61, 68, 74, 167, 181, 207, 209,  
   214, 372, 391, 392, 396, 399, 451,  
   452, 453  
   idealized, 67  
   literal, 67  
   reading evidence, 185, 189, 190, 192,  
   197, 202  
 reason-giving practice, 424, 426, 427, 432, 441  
 reasoning, 3, 5, 31, 33, 35, 38, 45, 50, 51, 52,  
   53, 82, 83, 84, 91, 241, 254, 274, 287, 288,  
   317, 351, 352, 392  
 recipe, 21, 178, 258, 358, 396  
*récit*, 67  
 reconceptualization, 146, 371, 372, 375, 378,  
   381, 383, 385, 386  
  
 reconfiguring, 143, 176  
 reconstruction, 104, 105, 113, 295, 301, 393,  
   394, 399, 401, 402  
 recurrence, 61, 66, 69, 77, 78  
 reductionism, 429, 430, 431  
 reference model, 116, 118  
 reflexivity, 333, 334, 341  
 reframe, 351, 352, 358  
 Reid, William, 180  
 Reidy, Michael, 169  
 relationality, 329, 332, 335, 336  
 relationship between reader and world, 334  
 relevance and irrelevance, 330  
 replication crisis, 373  
 repositories, 311  
 representation, 3, 6, 8, 9, 10, 18, 26, 35, 48, 49,  
   73, 104, 106, 110, 111, 113, 127, 165, 166,  
   175, 197, 206, 214, 215, 252, 254, 273,  
   301, 309, 312, 328, 372, 374, 385,  
   392, 459  
 research  
   articles, 32, 247, 274  
   narrative, 7, 11, 38, 39, 40, 65, 73, 104,  
   106, 114, 115, 119, 212, 237, 247, 250,  
   263, 274, 275, 278, 279, 335, 380,  
   437, 439  
 results, 247, 251, 259, 261  
 reticulate, 146, 185, 189, 193, 194, 195, 197,  
   199, 201, 202  
   reticulate practice, 21  
 retroposon, 209, 212, 213, 223  
 Rheinberger, Hans-Jörg, 194, 200, 249  
 rhetoric, 6, 267, 331  
   rhetorical structure, 334  
 Richards, Robert J., 82, 100  
 Ricœur, Paul, 35  
 Riemann hypothesis, 35, 391  
 Ries crater, 89  
*rigour*, 338  
 Ritsema, Jeroen, 108  
 Robinson, Robert, 269, 274  
 role of the human chemist, 271  
 root logic, 309, 312, 316, 322, 323, 325  
 Rosenberg, Charles, 296  
 rotational theory of winds, 175  
 Roth, Paul, 13  
 Rouse, Joseph, 42  
 Royal Admiralty, 173  
 Royal College of Physicians, 292  
 Royal College of Surgeons, 292  
 Royal Society, 270  
 Russell, Bertrand, 320  
 Russian formalism, 54, 67  
 Ryan, Marie-Laure, 16, 35, 37, 38, 51, 251,  
   261, 333

## 476 Index

- Sachs, Julius, 149, 152, 418  
 sanitary science, 291  
 Saussure, Ferdinand de, 252  
 scaffold/s, 10, 12, 19, 117, 124, 125, 128, 129, 207, 210, 223  
 scale/s, 15, 145, 153, 188, 191, 195, 197, 199, 202  
 Schank, Roger, 452  
 Schmitz, Jürgen, 212  
 Schopf, Thomas J. M., 67  
 Schubert, Lenhart, 451, 452  
 Schürch, Caterina, 340  
 Schyfter, Pablo, 336, 342  
 Science for the People, 433  
 science studies, 37  
 scientific  
   articles, 166  
   practice, 15, 50, 70, 192, 248, 391  
   realism, 69  
 scientists' accounts of their research, 3, 7, *See* research narratives  
 script breach, 398, 400  
 script/s, 23, 52, 54, 96, 156, 274, 334, 372, 393, 394, 397, 401, 402, 416, 447, 449, 452, 453, 460  
 seismic  
   data, 109, 115  
   hazard, 105  
   wave tomography, 118  
   waves, 105, 107  
 seismology, 49, 71, 104, 108, 176, 195, 236, 295  
   seismograph, 105  
 self-recording instruments, 152  
 semantics, 96  
 semiotics, 54, 165  
 Sepkoski, David, 66  
 Sepkoski, Jack, 62, 63, 65, 67, 70, 77  
 sequence, 52, 61, 73, 128, 129, 130, 132, 159, 236, 271, 272, 330, 340, 392, 395, 399, 402, 408, 414, 448  
   of actions, 392, 395, 396  
   of chemical events, 272, 274  
   of reactions, 271  
   of specific actions, 280  
   sequencing syntheses, 279  
 Seward, Albert, 194  
 Sherlock Holmes, 185, 189, 191, 199, 200  
 ship-log, 164, 166, 170, 172, 174, 175, 178, 180  
 shipwrecks, 21, 164, 167, 168, 175, 242  
 shock metamorphism, 90, 98  
 shocked quartz, 70, 90, 97  
 Shoemaker, Eugene, 98  
 showing and telling, 11  
 Signor-Lipps effect, 65, 71  
 sildenafil, 361, 362, 363  
 Simberloff, Daniel, 67  
 Simon, Herbert, 317  
 Simons, Massimiliano, 340  
 simulation, 13  
 situated, 363  
 sketch, 239  
 skilled reader, 274  
 slip inversion, 105, 109, 112, 117  
 smoking gun, 76  
 snowflakes, 9  
 social constructivism, 69  
 social logic of the text, 332  
 social science, 10, 14, 54, 83, 192, 231, 395  
 sociobiology, 427  
 sociology, 14, 291, 330, 357  
 sociopsychological level, 351, 353  
 source model/s, 104, 105, 106, 109, 111, 112, 113, 114, 115, 117, 118, 119, 134, 237  
 South America, 10  
 spatial arrangement, 275  
 specialist. *See* expertise  
 speciation, 210, 212, 215, 217  
 species of composition, 353  
 Spiegel, Gabrielle M., 330, 331, 332  
 Stac Fada Member, 37, 42, 82, 85, 86, 88, 90, 91, 92, 95, 97, 99, 100, 238, 453  
 standardization, 169, 175, 181, 305, 336, 338, 341, 343, 363  
   standards, 173  
 Stanley, Steven, 66  
 star, 61, 65, 77  
 statistics, 21, 62, 287, 291  
 Sterelny, Kim, 117, 436, 461  
 Stewart, A.D., 95  
 Stoer Group, 86  
 Stokes, George, 460  
 storm  
   card, 21, 164, 166, 167, 175, 177, 178, 181, 182, 453  
   library, 175  
   memoirs, 166, 167  
   narratives, 164, 166, 169, 170, 174, 182  
 story, 34, 35, 36, 39, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 82, 84, 96, 123, 143, 144, 145, 146, 151, 210, 252, 254, 256, 257, 258, 287, 289, 310, 357, *See* storytelling  
   short stories, 19  
   storyteller, 83, 144, 288, 305, 331, 353, 371, 433  
 stratigraphy, 82, 95  
   stratigraphic record, 70  
   stratigraphic sequences, 128  
   stratigraphic stage, 63

- structural formulae, 271, 273, 274, 275, 278, 284  
 Sturtevant, Alfred, 255, 262  
 styles  
   of reasoning, 311, 315  
   of thickening, 284  
   of thinking, 37  
 subjectivity, 123  
 subsumption, 461  
 suevite, 91  
 surprise, 394, 396  
 syaesthesia, 382  
 synthesis, 9, 278  
   of tropinone, 271  
 synthetic biology, 8, 43, 311, 328, 329, 335, 336  
   control, 339  
   observation, 339  
   parts, 336, 339, 341, 343  
   parts registry, 336, 339  
   precision, 339  
 systematics, 218  
 systematizing, 170  
 systems biology, 335, 343  
*syuzhet*, 61, 67, 68, 71, 72, 76  
  
 tabulation, 178, 289, 291, 330  
 tacit knowledge, 51, 70, 74, 178, 181  
 tales of the unexpected, 351  
 Tatum, Edward, 247  
 taxa, 62, 71, 77  
 taxonomy, 67, 206  
 Teather, Anne, 8, 14, 16, 19, 39, 42, 117, 123, 126, 136, 156, 207, 293, 329  
 technological systems, 310  
 tellability, 6, 12, 16, 416  
 telling, 392, 394, 395, 396  
 temporality, 69, 137, 210, 272, 277, 287, 301, 405, 447, 448, 449, 450  
   temporal narrative, 275  
   temporal sequence, 83, 95  
*temps du récit*, 41  
 terminus ante quem, 128  
 terminus post quem, 128  
 Terrall, Mary, 437  
 terrestrial explanation, 98  
 testimony, 352, 353, 357, 358, 360, 361, 362, 363, 364  
 text, 6, 9, 10, 11, 94, 167, 212, 248, 250, 351  
   textual analysis, 125  
   textual narrative, 112, 116, 151  
 text-reader interaction, 449, 453  
 theory, 6, 20, 82, 84, 207, 231, 242, 428  
 theory ladenness, 123  
  
 thick and thin description, 267, 268, 269, 276, 284, 357  
   contextual thickening, 279, 282, 284  
   thickening, 279  
 Thomas, Hugh Hamshaw, 185, 241  
 Thomsen, Christian Jürgensen, 128  
 Thomson, William, 460, 462  
 thought experiment, 72, 75  
 tide charts, 170  
 time, 8, 12, 13, 14, 15, 23, 37, 39, 40, 62, 71, 82, 93, 95, 112, 122, 137, 143, 220  
 toolkit, 312  
 top-down rules, 318  
 Torridonian, 85, 86, 89, 91, 95, 97, 99, 100  
 Toulmin, Stephen, 430  
 Town of Kulawund, 187  
 traces, 3, 8, 18, 66, 68, 69, 73, 74, 84, 100, 145, 192, 197, 201, 208, 231, 232, 233, 235, 236, 238, 239, 240, 241, 243  
   tracing, 46, 53, 416  
 trained judgement, 51, 192  
 training of the eye, 166, 180  
 traits, 408, 412  
 translation, 459  
 tree of life, 10, 144  
 trial and error, 318  
 tropinone  
   molecule, 40, 44, 269, 274  
   synthesis, 277  
 truth bias, 371  
 tsunami, 104  
   data, 109  
   earthquake, 118  
 Turing, Alan, 321  
 typologies, 129  
  
 underdetermination, 68, 71  
 understanding, 331, 401, 402, 448, 451, 452, 455, 457, 462  
 uniformitarianism, 42, 61, 70, 77, 98, 239, 343  
 universalism, 324  
 unrepeatable singular events, 439  
 untrained. *See* expertise  
  
 validation, 35, 392, 401  
 values, 309, 311, 312, 316  
   epistemic, 329, 332  
   political, 329, 332  
 Varillas, Antoine, 352, 354  
 Vecchione, Elisa, 31  
 Verenius, Bernhardus, 175  
 vertebrate tree, 219  
 Viagra, 241, 361  
 visual representations. *See* representation

## 478 Index

- visualization, 73, 111, 164, 166, 175, 178, 185, 188, 189, 192, 206, 272, 301, 304, 330, 336, 339, 453  
live cell imaging, 338  
volcano/volcanism, 22, 66, 77, 88, *See* geology eruption, 82  
von Wahlert, Gerd, 420  
Vrba, Elisabeth S., 148
- Wadd, William, 355  
Waismann, Friedrich, 427  
Wakley, Thomas, 355  
Wallace, Alfred Russell, 410  
Ward, Peter, 71, 72  
ways of knowing, 27  
weather. *See* metrology  
Weber, Wilhelm, 454  
Whewell, William, 12, 120  
White, Hayden, 331  
Whitehead, Alfred North, 320
- Whittle, Alasdair, 134  
Wiedijk, Freek, 323  
Wigmore Chart method, 22  
Wilder, Kelley, 410  
Williams, Bernard, 352, 357, 365  
Willstätter, Richard, 278  
Wise, M. Norton, 3, 9, 13, 20, 33, 37, 41, 46, 106, 134, 177, 182, 251, 274, 289, 304, 314, 364, 365, 377, 401, 434, 437, 453, 457  
Withering, William, 358, 359, 362  
witness, 174, 352, 353, 354, 355, 364  
Wollheim, Richard, 353  
Wood, Elisabeth, 234  
Wood, James, 354  
Woodward, James, 419  
Worliczek, Hanna Lucia, 336  
Wright, Sewall, 17, 438  
writing, 50, 197  
Wylie, Alison, 189