

# Index

Abbott, H. P., 266–267	animal communication, 53, 242–244
Abelson, R. P., 267	Arbib, M. A., 221
abstract symbols, 11, 27, 70, 99	argumentation
Action Units, facial, 102-103	communication and, 185
action-sequence compatibility effect, 91	conflict talk and, 203
ad hoc signals, 143–144	conversation and, 204-206
Adams, R. B. Jr., 44n155, 183n644, 208, 216,	layering and, 202
250	play and, 214
adrenaline, 44, 165	silent, 205
affect, 101, 114-116	Aron, A., 107
affective valence, 117, 156	arousal
interoceptive experience and, 107, 109, 115,	action and, 308
119	neurons and, 39
relationships and, 156	physiological, 111, 117, 121, 140
affiliation, signals of, 142	sensory input and, 109
affordance, 125, 279	survival circuits and, 39, 108
of tools, 54, 56	arousal, emotion and, 96, 107, 114-116, 119
aggression	Arundale, R. B., 187-188, 190
aggression theory, 248	Attardo, S., 249–250
avoidance systems and, 109	attribution, 107, 129
coercive power and, 175–176	audience, 151-153, 284-287
communication relationships and, 163-164	auditory metaphor, 236
coping with, 51	autonomy, perceived, 161, 167
homeostasis and, 174, 246	autopoesis, 2, 21
humor and, 174, 207, 247-249	avoidance systems, 109
mating and, 39	awareness, phenomenal, 36
playful language and, 207	axons, 23
sexual, 61, 69	
signals of, 61	back-channel signals, 139
survival circuits and, 106	background knowledge, 50, 191, 226
agon (competition), 211	Baldwin effect, 34, 43
Akhavan, B., 230	Bargh, J. A., 243
alea (games of chance), 211	Baron-Cohen, S., 16, 181
Allen, J. A., 255	Barrett, L. F.
ambiguity	basic emotions, 105
communication and, 7	body budget, 106
joke resolution and, 252	emotion and communication, 104,
of language, 50, 72, 98, 134, 149	106n446
metaphor and, 240	emotion specificity, 112
signals and, 143	interoception, 119
Amjad, F. A., 230	language and emotion, 114–115
analogy, 241–244	layers and, 202

333



Barsalou, L. W.	Chan, A., 256
computational processing, 22n93	character types in story, 266–268
conceptual thought, 87	Cheney, D. L., 60, 62, 64
introspection, 37	Chomsky, N., 85
perceptual simulations, 2, 11, 86, 93, 242	Civil War, US, 293–298
Basic Emotion Theory, 112	civility schema, 168
Baumeister, R. F., 83–84	Clark, A., 216
Beam, M. A., 262	Clark, H. H., 149-151, 182, 201, 268
Beavin (Bavelas), J., 13, 128	Clinton, H., 152, 227
Bem, D. J., 83	Coates, J., 217, 272
Bergen, B. K., 90	code metaphor, 70, 187, 190, 282n1013
Berman, T. R., 264	cognition. See also computer model of
bitter humor, 261	cognition; metacognition
Blow, C. M., 296	defined, 280
bonding, interpersonal, 15, 49, 207	embodied, 1, 11, 19
Borghi, A. M., 90	evolution of, 47–63
Boroditsky, L.	extended, 281, 288
cognitive science origins, 85	feelings as dimension of, 55
frames, 95	homeostasis and, 51, 55
human conceptual system, 97	humor and, 250–251
perceptual simulations, 92–93	language and, 81–100
symbol relations, 97	need for, 184
Bowdle, B. F., 242	signaling and, 302–304
brain, 22–23. See also forward projection	theory of, 28
computer model of, 6, 8, 27, 29	cognitive context, 147–149, 158. See also
consciousness and, 37	cognitive environment
dual-mode, 171	affective valence and, 156
embodiment perspective and, 22–23, 30–31	common ground and, 147
emotion and, 102, 106	cues and, 153
hemispheric specialization of, 38–39	culture and, 158–160
homeostasis and, 302, 308	discourse context and, 153–154
meme theory and, 75–79	face and, 160
mentalese and, 1, 27, 86	frames and, 156–158
mind and, 15	homeostasis and, 161
simulation and, 146	multiple, 252
social relationships and, 303	mutual cognitive environment and, 148
structure of, 30–31	participants as part of, 151
brain-body connection, 30	perceived autonomy and, 161
Broca's area, 33, 38, 68, 132	personal identity and, 148
Bruner, J., 221, 264	relationships and, 154–156
Brunvand, J. H., 273	relevance and, 148–149
Bryant, G., 225, 232	schemas and, 147, 151
Bryant, J., 108 Buck, R., 109n458	scripts and, 147, 154
Buck, K., 10911436	types of conversation, 152–153
Casianna I T 7n47 00 104 171n602 104	cognitive environment. See also mutual
Cacioppo, J. T., 7n47, 98, 104, 171n602, 184, 242	cognitive environment
	cognitive context and, 147–148, 151, 154
Cameron, L. J., 151, 224, 228, 244	common ground and, 147
Cantor, J. R., 108, 247	defined, 148
Cappella, J. N., 109	face and, 161
cellphone, 286–287	forward projection and, 161
central nervous system, 22–23, 29	impoliteness and, 161
cerebral cortex, 11, 55	representation and, 178
Chafe, W., 100, 138	Cognitive-Affective Model, 241–242
Chaffee, S. H., 6	Colbert, S., 262



collaborative story, 270–271, 273, 278 Colombetti, G., 112–113, 120	theory of, 1, 4, 7 theory of mind and, 59
common ground	communicative context, 43, 91, 145
cognitive context and, 147	competition
communication and, 146	games and, 208
conversation and, 192	play and, 211–212
establishing, 149–150	relationships and, 164
maintaining, 161	social interaction and, 174
mutual cognitive environment and, 147,	status, 61
161	comprehension, semantic association models
relationships and, 161	of, 225–226
representation and, 178	computer model of cognition
theory of mind and, 60–61, 67	coding and, 27
communication. See also metacommunication;	communication and, 8–9
metaphor, computer; signals; technology,	communication signals and, 28
communication	digital mind, the, 85–86
aggression and, 163–164	embodiment perspective and, 27–30
animal, 52–55	inadequacy of, 29
biological basis of, 7–9, 12	model of the brain, 27–30
•	neurons and, 27, 29
brain and, 22–23, 30–31	problem-solving and, 88
central nervous system and, 22–23	1 0
cognition and, 11–12	computer/internet, 286
communication media, 279	Conceptual Metaphor Theory, 2, 11, 121, 228
concepts of, 13–15	conceptual metaphors, 226–234
conceptual perspective, 7	abstract concepts and, 93, 120, 234, 244
consciousness and, 84	analogy and, 242–244
cultural, 7, 12–13	complex concepts and, 215
defined, 13, 128	generic, 244
embodiment perspective, 6, 20	interpretation of, 233
emotion and, 106, 120–121	language development and, 70
facework and, 181	simulations and, 70
functions of, 146	system of, 121
homeostasis and, 6, 15–44, 166, 301–311	conflict talk, 203–205
indirect, 223	Conjoint Co-Constituting Model of
instruction and, 203	Communication, 187–191
intentionality and, 57, 125–131	consciousness, 81-85. See also mind
invention and, 17	awareness and, 2
language development and, 63-65	brain and, 37
metaphorical terms for, 13–15	communication and, 84
metaphors of communication and, 9–11	development of, 71
mutual cognitive environment and, 147	messages and, 2
nonverbal/nonlexical, 118, 130, 142	representation and, 15, 84
paratelic communication, 80, 164, 186	role of, 83–85
physical environment and, 146	self-awareness and, 16
physiology of, 30–31, 40–43	contested identity story, 272
process of, 1, 146	context, 146–161. See also cognitive context;
relevance and, 148-149	social context
representation and, 15–18	common ground and, 149-150
reproductive fitness and, 57	culture and, 158–160
reward systems and, 43-44	discourse, 153
social, 6, 12	elements of, 146
social environment and, 146	framing and, 156-158
social perspective, 6–7	homeostasis and, 161
symbolic, 64	interpretation and, 115, 149-150, 241
telic, 185–186	physical environment and, 158



### 336 Index

context (cont.) relevance and, 160-161 politeness and, 160-161 repairs and, 200 sequence of utterances in, 189 relationship and, 155-156 relevance and, 147-149 settings for, 150-153, 202-206 social setting and, 150-153 signals and, 132, 138-140, 306 story and, 265 social dominance and, 183 Context-Limited Simulation Theory, 97-100, speaker support in, 140 status and, 174-177, 193 244 conversation, 182-206 storytelling in, 138, 268-276 structure of, 65, 186-200 argumentation and, 204-206 beginnings of, 192 telic communication and, 185-186 broader discourse and, 155 termination of, 192 code metaphor and, 190 topic changes and, 192-193 common ground and, 192 turn-taking and, 139, 193-200 communication media and, 279-300 conversation machine, the, 185, 193 comprehension and, 2 conversational delay, 196-197, 286 conflict talk and, 203-204 convolution, 241-242 Conjoint Co-Constituting Model of Cook, G., 211, 215 Communication and, 187-191 cooperation, 302 contextual knowledge and, 147 coordination, 40, 49, 71 culture and, 178-180 Corballis, M. C., 63 defined, 289 cortisol, 44, 165 delay in, 196-197, 275, 286 creativity, 58, 215, 242, 263, 278 deliberation and, 127 Crivelli, C., 112 evolution of, 46-47, 62 Csikszentmihalyi, M., 210 face and, 186, 197 cues fine structure of, 187-191 affective, 106 flow of language in, 139 affordances and, 126 forward projection and, 184-186, 195-196 emotional, 104, 117-119 frames and, 158, 192-193 face and, 306 functions of, 186 framing and, 157, 160 genres of, 202-206 intentionality and, 177 grooming and, 164, 182 nonverbal, 124 homeostasis and, 161, 182-206 patterns and, 128-130 impoliteness and, 185 vs. signals, 14 intentionality and, 127 social, 94 language and, 46-47, 304-306 speaker support and, 140 layers and, 201 turn-taking and, 194, 272 logic and, 204-206 Culpeper, J., 169 mediated context, 152-153 cultural communication, 12-13 cultural construction model of emotion, 109 narrative skills and, 183 paratelic communication and, 186 cultural development, 5, 16, 49, 69 cultural practice, 62, 73-75, 78 participants in, 151 personhood and, 304-306 cultural processes, 62, 78 physical environment and, 158 culture play frames and, 203 abstract concepts and, 227 play in, 216-220 adaptation and, 287 politeness and, 160-161 cognitive context and, 158-160 positive response preference in, 198, 275 control and, 174 power and, 174-177, 193 culture wars, 276 public discourse vs., 289-292 defined, 158 purposes of, 154 development of, 280 readiness for, 191 dimensions of, 159 recursion in, 200-202 display rules and, 113 relationships and, 180-181 emotion categories and, 115



expectations and, 179, 186	public, 206
gestures and, 135	society, of, 288
group, 166	technology, communication and, 280, 299
homeostasis and, 164–165	discourse context, 153, 155, 189
joking, 218, 255–257	displacement, 56, 81
master-plots and, 267	display, emotional, 101, 140-141
meme propagation and, 181	DNA, 23
representation and, 179, 248	dominance, social, 183
reproductive fitness and, 12	dopamine, 25, 44
signals and, 141	Dor, D., 28n108, 49
social settings and, 150	Douthat, R., 276, 291, 293-294, 297-298
curiosity, 17, 68, 208, 213	drift, language, 72
	dualism, mind-body, 1
Damasio, A.	Dumais, S. T., 72, 96, 225
computational processing, 22n93	Dunbar, R.
computer metaphor, 9	cognition and language, 55
cross-excitation, on, 23	friendship, 168
emotion, 2, 96, 116	gossip/grooming, 6, 12
forward projection, 26, 114, 149	grooming, 182, 184
homeostasis, 4, 21, 107	social functions of language, 51, 72, 123
perception, 22, 86	social structure, 71
representation, 55, 148	social themes, 267
representation and, 51	Dutton, D., 107
somatic marker hypothesis, 116	DuVernay, A., 298
survival circuits, 39	Dyhouse, V., 238
Dawkins, R., 7, 20n85, 73-74	•
De Jaegher, H., 22n93	Ekman, P.
Dediu, D., 47	basic emotions, 106, 110, 113-114
delay, conversational, 196-197, 286	emotion categories, 103
deliberate metaphor, 240	expression matching, 118
deliberation, 127, 205	facial Action Units, 103
Demjén, Z., 257	research procedures, 104
dendrites, 23	Elaboration Likelihood Model, 7n47, 77, 98
Dennett, D. C.	electronic media, 285-287
cultural evolution model, 75	emblems, 135–136
fitness of memes, the, 78	embodiment perspective, 1
homeostasis, 165n583	action, coordinating, 40
humor, 44n155, 183n644, 208, 216, 250	brain and, 22–23, 30–31
meme evolution, 76	central nervous system and, 22-23
meme propagation, 181	cognition and, 19
memes, 7, 74–75, 78	communication and, 6-9
DeRuiter, J. P., 194	computer model of cognition and, 27-30
DeSoucey, M., 218, 255	evolution and, 20–21
Dessalles, J. L.	experience and, 37
friendship, 176, 216	hemispheric specialization and, 38-39
language play, 221	homeostasis and, 21–22
relationships, 278	memory and, 37–38
social functions of language, 51, 55,	metaphors of communication and, 9-11
183–184	mind and, 20
Di Paolo, E. A., 22n93	perception and, 34–37
digital code model, 43, 134, 142-143	physiology and, 40–43
discourse	representations, coordinating, 40
development of, 306	reward systems and, 43–44
fragmentation of, 299	social communication and, 2-18
gossip and, 306	survival circuits and, 39-40



emotion, 101–122. See also emotion, arousal and	Enfield, N. J. conversation machine, the, 185, 193
affect and, 114–116	question phrasing, 198
basic, 101–103, 140	sound particles, 132
Basic Emotion Theory, 112	turn-taking, 194–196
biological basis of, 115	environment, 21n88, 22n80, 22. See also
bodily effect of, 113	cognitive environment
categories of, 103–104, 106, 115, 119–120,	ephapsis, 29
150	Esmaeili, P., 229–230
communicating, 117–121	Everett, D. L.
complex social organization and, 116	abstract concepts, 68
core affect and, 101	computer metaphor, 28n108
cues and, 117–119	evolution of human intelligence, 71
cultural construction of, 106-109, 115	gesture and language development, 67
enactive view of, 112–114	language, purpose of, 49
entrained, 112	language and physiology, 40
excitation transfer and, 107-109	language development, 50, 62
expressions of, 120	language patterns, 47
facial Action Units and, 102	sign progression theory, 56
facial feedback effect and, 109	Everts, E., 217
homeostasis and, 99, 109-112, 307-308	evidence, 205
interoception and, 96, 119	evolution
methodological issues in the study of,	brain and, 308
104–105	cognition and, 47-51
mirror neurons and, 111	creationist account of, 10
natural kind theory of, 137	cultural, 5, 7, 75
nonverbal expression of, 101	embodiment perspective and, 6
perceptual simulation and, 95–96	evolutionary pressures, 57
physiology of, 106	fitness and, 20
psychological constructionist theory of, 101	genetic, 43, 73, 287
reason and, 116–117	human intelligence and, 71
self-attribution of, 107	humor and, 250–251
signals and, 117–119	language development and, 47–51, 71,
simulation of, 120	79
social emotions, 105, 112	neural systems, of, 22
strategic signaling and, 111–112	process of, 61
survival circuits and, 105–106, 108, 110	reward systems, of, 43
symbols and, 111	signaling and, 65, 131
volition and, 131	social organization and, 161
emotion, arousal, and, 114–116	stimulus-response systems and, 131 storytelling and, 264
emotion categories and, 115 excitation transfer and, 107	vocabulary and, 65
induced, 107	excitation transfer, 107–109
interoception and, 119, 145	expectations, 179, 186, 190
perceptual simulations and, 96	experience, conversation and, 37, 49
empathy, 16, 67, 181, 300	exteroception, 15, 22, 34, 119
endorphins	exteroception, 13, 22, 34, 11)
bonds and, 15	face. See also face-threatening act; face-work
grooming and, 44, 210, 212	grooming and, 187, 193
humor and, 253	homeostasis and, 110, 169
pleasure circuits and, 210	impoliteness and, 166–174, 185
positive affect and, 114	lying and, 172
relationships and, 165	negative, 160, 166, 168–169, 212
reward systems and, 109, 167, 213	play and, 212
social behavior and, 44	politeness and, 160, 185
	=



positive, 160, 166-168, 212	frames, 94–95
privacy and, 172	attentional, 58
reactance and, 168	Civil War and, 293
relationships and, 156, 160	conflict in, 293
sexual morality and, 172	cues and, 160
turn-taking and, 197	defined, 156–158
face-threatening act. See also face; face-work	humor and, 249-251, 258
civility and, 168	incongruity and, 249
cognitive environment and, 161	play and, 203, 208, 217, 222, 248, 262
conversation and, 186	recipient design principle, 190
defined, 161	scripts and, 158
effects of, 167	topic changes and, 192–193
homeostasis and, 169-171, 173	wordplay and, 214
humor and, 256	French, J. R. P. Jr, 175
impoliteness and, 170	Frenkel, N., 225
irony and, 260	Fridlund, A. J., 112
morality and, 173	Friesen, W. B., 103-104
repairs and, 200	
social control and, 173	Galati, D., 103
status and, 193	Gamson, W., 249, 254
strategic impoliteness and, 170	gaps, experiential, 49
facework. See also face; face-threatening act	Gendron, M., 104
defined, 17	genes
development of, 71	detrimental, 20n73
exchange and, 168	DNA and, 23
forward projection and, 190	evolution and, 43
homeostasis and, 171–173	forward-looking behavior and, 22
relationships and, 160, 164, 166-174	reproductive fitness and, 20n85, 73
representation and, 170	the selfish, 73
theory of mind and, 71	genres, conversational, 186, 202-206
facial efference, 109	Gentner, D., 242
facts, 205, 287, 291-292	gestures
fake news, 298–299	coded, 135–136, 192
feelings, 19-44, 55	culture-specific, 135
fiction, 284	development of, 67
Fine, G. A., 218, 255	gesture language, 53
flow, 210–211	imitation of, 64
flow of language, 71, 138–139	language and, 63
forward projection	nonsymbolic, 48
alternative realities and, 221	social status and, 141
brain and, 26, 114, 195, 221	speech and, 139
cognitive context and, 149	turn-taking and, 194
cognitive environment and, 161	as words, 47
conversation and, 184–186	Gettysburg, Battle of, 295
decision-making and, 305	Gibbs, R., 87, 259–262
facework and, 190, 304	Giora, R., 92, 251
group, 307–308	glass ceiling, 225, 227, 232–233
homeostasis and, 21, 99, 110	Glenberg, A. M., 91
interoception and, 119	glia, 23, 29
interpersonal relations and, 178	Goatly, A. P., 28n108
logic and, 185	Godfrey-Smith, S., 60, 62
social context and, 111	Goethe, J. W., 284
social status and, 174	Goffman, E., 156, 160, 167
storytelling and, 79, 221	gossip, 12
turn-taking and, 195–196	cultural frames and, 260



#### 340 Index

gossip (cont.) heuristics, moral, 3 Heyes, C., 62, 75n311, 106n446, 121 discourse and, 306 Hogan, P. C., 267 exchanging news as, 3 homeostasis and, 16 homeostasis, 2, 15-44. See also group relationships and, 72, 182 homeostasis secondary surveillance, as, 79 aggression and, 174, 246 surveillance function of, 16 brain and, 99, 302 Graded Salience Theory, 251 cognitive context and, 161 communication and, 6, 301-311 grammar, 62, 68 grammatical metaphor, 234-235 conversation and, 182-206 Greene, J. D., 3, 171 defined, 301 Grice, H. P., 161 emotion and, 107, 109-112, 307-308 Griffiths, P., 111, 117, 119 expanded groups and, 307 grooming face and, 110, 169-172 bonding, interpersonal, 15 face-threatening acts and, 169-171, 173 cell-phones and, 286 feelings and, 19-44 forward projection and, 21, 99, 110 conversation and, 164, 182 endorphins and, 44, 210, gossip and, 16 212 humor and, 246-247, 261 face and, 187, 193 individual vs. group, 166 as function of language, 6 language and, 79-80 language and, 72, 304 mind and, 125 play and, 221 morality and, 173 politeness and, 169, 185 narrative and, 292 protolanguage and, 64 nervous system and, 15 relationships and, 3, 12, 166, 176 perception and, 19-44 signals and, 53, 67 play and, 213, 220-221 group homeostasis. See also homeostasis politeness and, 169 process of, 21, 99, 295 bitter humor and, 246 degrees of, 302 relationships and, 164-166, 177 early hominids and, 51 representation and, 99 emotions and, 308 reproductive fitness and, 65, 123 facework and, 171 signaling and, 19-44, 61 impoliteness and, 171, 185 survival circuits and, 39-40 individual and, 150 vocabulary and, 64 Homo erectus, 33, 43 interactions and, 182, 303 language and, 280 hormones, 39, 44, 109 maintenance of, 164 humor, 246-263. See also humor, incongruity narrative and, 292 and relationships and, 164-166 aggression and, 174, 207, 247-249 social control and, 173-174 ambiguity and, 252 social emotions and, 105 bitter, 246, 261, 263 sweet humor and, 247 cognition and, 250-251 threats to, 174, 232 cognitive context, 250 group identity conflict talk and, 204 defined, 289 coping mechanism, as, 257-259 status and, 177 endorphins and, 253 story and, 274, 276, 278, 289 evolution and, 250-251 wordplay and, 213 face threats and, 256 Gruner, C. W., 247–248 frames and, 249-251, 258 Graded Salience Theory and, 251 Halliday, M. A. K., 69, 234 groups and, 255 Hawkins, J., 95 homeostasis and, 246-247, 261 hearing, 30, 36, 305 humor cultures, 255-257 hemispheric specialization, 38-39 informativeness and, 251



irony and, 246–263	indexes, 57
play frames and, 203, 248, 262	information theory, 51, 51n181
playful, 253–254	informativeness, humor and, 251-252
political, 261	instruction, 5, 12, 64, 78, 203
relevance and, 251–253	intentionality
Relevance Theory and, 252	communication and, 57
schemas and, 252	deliberate, 127
social interaction and, 254-257	genes and, 73
stringing a line, 220	nonconscious/nondeliberate, 127
sweet, 246, 263	nonverbal communication and, 130
teasing and, 254	signals and, 125-131
theories of, 247–257	theory of mind and, 62–63
humor, incongruity and, 183n644, 247,	interoception
249–250, 254, 257–258	emotion and, 96, 119
Hurley, M. M., 44n155, 183n644, 208, 216,	forward projection and, 119
250	internal environment and, 22
	nervous system and, 15
identity. See also group identity	perception and, 34
accents and, 142	phenomenal awareness and, 36
collective, 46	representation and, 30
contested, 272	simulations and, 87
homeostasis and, 295	survival circuits and, 105
metaphor and, 243-245	interpersonal bonding, 49
national, 277	interpretation
the self and, 82–83	context and, 115, 149–150, 241
stories and, 276-277	history and, 294
theory of mind and, 60	intended, 237
ilinx, 211	recipient design principle, 190
illusion, perceptual, 5	representations and, 287
illustrators, 136–137	sequential interpretation principle, 189
images, visual, 281-282	intonation unit, 138, 282
imitation	introspection
cues and, 118	emotion and, 96
memes and, 76, 106	introspective awareness, 34, 82
play and, 58	metacognition and, 37, 87, 119
totemic, 67–68	meta-simulation and, 68
vocabulary and, 64	perception and, 115
impoliteness	invention, communication and, 17
cognitive environment and, 161	irony
face and, 169–170, 185	face-threatening acts and, 260
group homeostasis and, 171, 185	humor and, 246–263
intentional, 66	incongruity and, 222
morality and, 172-173	metaphor and, 235
strategic, 170, 172–173, 185n650	Izett, C. D., 260, 262
theory, 169–170	, , ,
incivility, 170	Jackson, D. D., 13, 128
incongruity. See also humor, incongruity and	Johnson, M.
deep, 250	analogy, 242
frames and, 249	conceptual metaphors, 11, 93, 215, 228, 234
irony and, 222	metaphor, 69n284
metaphor and, 227	juvenile play, 209–210
perceptual simulations and, 250	J 197
play and, 208, 221–222, 253	Kahneman, D., 3
recognition, 221	Kaschak, M. P., 91
resolution of, 44n155, 263	Kaup, B., 92



#### 342 Index Kintsch, W., 97, 226n802 surveillance function of, 279 Koch, C., 69n278 syntax and, 68-71 Kohn, A., 208 telic uses of, 66-67 Kövecses, Z., 230 theory of mind and, 304 Krippendorff, K., 10 turn-taking and, 139 Krzeszowski, T. P., 9, 15 uses of, 48, 85-88 Kuhn, D., 3 vocabulary and, 67-68 word form and, 134-135 Labov, W., 264, 266, 269, 277 written language, 282-283 Lakoff, G. language play. See play analogy, 242 larynx, 42 Latent Semantic Analysis, 96 conceptual metaphors, 11-12, 93, 215, 228, 230, 234-235 layering, 201-202, 268 metaphor, 69n284 LeDoux, J. perceptual simulations, 93 emotions, 110 LaMarre, H. L., 262 negative affect, 114 Landauer, T. K., 72, 96, 225 survival circuits, 39, 99, 105, 117, 119 Landreville, K. D., 262 Leech, G. N., 161 language. See also non-verbal/non-lexical Lehman-Willenbrock, N., 255 communication Leonardelli, G. J., 243 ambiguity of, 50, 72, 98 Lepper, M. R., 208, 210 animal communication and, 52-55 Levinson, S. C., 47 cognition and, 81-100 lexical priming, 97 components of, 49-50 lexicon, 47, 49 contemporary, 72-73 logic, formal, 3, 185, 204-206 coordinating action and, 71-72 logic indicators, 68 defined, 47-51 Luckmann, T., 280 development of, 63-65 Lüdtke, J., 92 digital code, as, 134 lying, 172 drift of, 72 early, 48 Mao, F., 234 embedded, 201 mapping, metaphors and, 228, 241 emblems and, 135-136 Marshall, G. D., 107 embodied simulation, 87 Masicampo, E. J., 83 emotion and, 115 master-plots, 266-268 evolution of, 15-16, 46-63, 79 Maturana, Humberto R., 2, 21 figurative uses of, 133 McNeill, D., 67 McWhorter, J., 68 flow of, 139 framing and, 156-158 meaning, private intentional, 50 gestures and, 53, 63 media grooming and, 72, 304 audience and, 284-287 homeostasis and, 79-80 communication and, 17, 279 memes and, 73-79 electronic, 285-287 natural, 27-28, 28n109, 93, 96-97, 99 misinformation and, 298 origins of, 46, 49, 221-222 print, 283-284 perceptual simulations and, 88 role of, 280 personhood and, 304-306 social, 292, 298 technologies, 297 representation and, 50 role of, 8 visual images, 281-282 sign languages, 131 written language, 282-283 sign progression theory and, 56 memes signals and, 65-67, 125-132, 305 competence without comprehension, 78 social bonding and, 305 cultural practice and, 73-75 social interaction and, 161, 183 defined, 74

development of, 76

social tool, as, 55-58



evolution of, 75–76, 75n311, 78 fitness of, 78	indirect communication, as, 223 interpretation and, 233, 241
imitation and, 76, 106	lexical, 223–225
logic as, 185	mappings and, 228, 241
memeplex, 61, 74–75	metaphorical terms, 5–6
pernicious, 5	multimodal, 235–236
play and, 213	perceptual simulations and, 93–94, 98, 226,
print media and, 284	240, 242
reproductive fitness and, 76	personal identity and, 243–245
social interaction and, 17	playful, 238–240
social media and, 287	1 0 .
	schemas and, 69
spread of, 74	self-perception and, 243
suicide meme, 44, 76–77	semantic association model, 225–226
symbolic behaviors as, 61	semantic connections and, 240
theory of, 75–79	simulations and, 215, 240–241
ways, as, 74	social structure and, 243–245
nemory	story and, 236–240, 270–271
declarative, 38	thematic, 244
dynamic nature of, 84–85	transcategorization, 234
embodiment perspective and, 37–38	visual, 235
episodic, 38, 85	word origins and, 305
implicit, 37–38	meta-simulation, 68
semantic, 38	metonymy, 223–225
situational, 65	mimicry, 69, 211
story and, 267	mind, 1-2, 15, 19-20, 81-83. See also theory
types of, 37–38	of mind; consciousness
nentalese, 1, 27, 28n108, 86	mind-wandering, 82
netacognition, 16, 37, 65, 84, 87. See also	mirror neurons, 54, 64, 111
cognition	mirror systems, 68
netacommunication, 16, 66. See also	morality, 171–172
communication	emotion and, 96
netaphor, 223–245. See also Conceptual	face-threatening acts and, 173
Metaphor Theory; conceptual metaphors	frameworks for, 96
ambiguity and, 240	homeostasis and, 173
analogy and, 242-244	moral judgment, 170–171
auditory, 236	reasoning and, 96, 171
background knowledge and, 226	sexual, 172
code, 14, 70	strategic impoliteness and, 172–173
Cognitive-Affective Model and, 242	morphemes, 134
communication and, 9–11	morphology, 48, 134–135. See also word form
computer, 8, 14, 19, 23, 27–30	Moscovici, S., 165
container/conduit metaphor, 9	motivated reasoning, 3, 3n31, 5, 205, 262,
convolution, 242	298
creativity and, 58	multimodal metaphor, 235–236
dead/sleeping, 224	muscular activity, 40, 91–92
defined, 69n284, 224	music, 113, 285
deliberate, 240	mutual cognitive environment. See also
development of, 69	cognitive environment
emotion and, 115, 229	common ground and, 147–148
figurative language, as, 133	communication and, 98, 144, 149
generic, 229	establishment of, 149
gestures and, 136–137	humor and, 190, 251
grammatical, 234–235	physical environment and, 158
identity and, 243–245	relationships and, 161
incongruity and, 227	signals and, 309



344 Index	
Mutz, D. C., 170	Pei, M., 42
myelin, 23	perception, 34
	embodiment perspective and, 34-37
narrative. See also story	expectation and, 35
chronological sequence in, 266	homeostasis and, 19-44, 99
conflicting, 294–298	interoception and, 34
defined, 264–266	introspection and, 115
foundational, 297	perceptual world, the, 128
frame conflict and, 293	selective, 298
hero in, 292	perceptual neural system, 87
homeostasis and, 292	perceptual simulations. See also simulations
incongruity and, 222	abstract concepts and, 11
national, 276-277, 291	activation of, 88, 99
skills, 183	concept association and, 87
societal, 292–298	defined, 2
national identity, 277	embodied, 87, 146
natural language, 27-28, 28n109, 93, 96-97, 99	emotion and, 95-96
neocortex, 25, 27	evidence for, 88–89
nervous system, 15, 22–23, 29	expressive language and, 215
neural functioning, 23–27	homeostasis and, 22
neural processes, 4, 83, 112	incongruity and, 250
neural system	muscular experience and, 91–92
consciousness and, 69n278	neural system and, 86
evolution of, 43	partial nature of, 90
homeostasis and, 125	play and, 215
language and, 280	scenarios and, 94
perceptual simulations and, 86	schemas and, 94
signaling and, 302	scripts and, 94
triggering event and, 112	syntax and, 90
neural transmission, 23, 25, 27, 29	theories of, 93
neurons, 23	visual, 89–91
arousal and, 39	words and, 72, 133
computer metaphor and, 27, 29	perceptual simulations and metaphor, 93-94,
mirror, 64, 111	240–241
pyramidal, 37	activation of, 94, 226, 240
nonverbal/nonlexical communication, 101,	context and, 98
118, 124, 130	novel metaphors, 92
nonverbal/nonlexical communication and	processing of, 242
signals	perceptual symbols, 86–88, 92–93
ambiguity of, 142	perceptual systems, 22, 135, 146
functions of, 12, 47, 144	personal identity, 148, 243–245, 276–277,
meaning and, 64	304–306
representation and, 124	Petri, A., 261
written language and, 283	Petty, R. E., 7n47, 98, 171n602, 184, 242
norepinephrine, 44	phenomenal awareness, 36
Norrick, N. R., 203, 219, 234, 249, 269, 277	phonemes, 47, 134
Nuñez, R. E., 93	phonemic clause, 138
, <del></del> , <i></i>	phonetics, 48
Obama, B., 224, 228, 234–235, 238, 241	phonology, 48
Comma, B., 22 1, 220, 20 1 200, 200, 211	physical environment, 158
parasocial relationships, 67, 76, 284–285	communication and, 146
paratelic communication	physiology. See brain; neural system
conversation and, 186, 222	Plato, 2, 282
power and, 193	play, 58, 207–222
narticinants categories of conversational 151	adult 211–214



aggression and, 207	political humor, 261
argumentation and, 214	power
categories of, 211	bases of, 175–176
cognitive evolution and, 213	coercive, 176
competition and, 208, 211-212	conversation and, 193
in conversation, 216–220	paratelic communication and, 193
creativity and, 213	referent, 176
curiosity and, 17, 208	relationships and, 174–177
endorphins and, 210	signals of, 141, 175
face and, 212	status and, 193
flow and, 210	Powers, E., 95
grooming and, 221	pragmatics, 48, 63
group identity and, 213	prediction, 26, 37, 99–100
homeostasis and, 213, 220–221	Premack, D., 58
humor and, 253–254	pretend play, 68
imitation and, 58	Price, V., 95
incongruity and, 208, 222	print media, 283–284, 291
• •	*
joking culture and, 218 juvenile, 209–210	Prinz, J., 85, 92–94, 97 privacy, 172
•	1 .
language origins and, 221–222	Progovac, L., 60, 62
language play, 214–216	prosody, 50, 195
memes and, 213	public discourse, 289–292
metaphor and, 238–240	defined, 289
mimicry and, 211	fake news, 298–299
nature of, 207–209	fragmentation and, 299
object, 208	narrative and, 292–298
pattern completion and, 216	topic-focused, 289
poetry and, 214	US Civil War and, 293–298
pretend play, 68	punishment imperative, 16
rehearsal function of, 209	1:- 205 206
role play, 212, 221	radio, 285–286
simulations and, 215	Ramscar, M., 97
social functions of, 208, 254–257	Raskin, V., 249
subversion of reality in, 214	Raven, B., 175
wordplay, 212	Raymond, G., 190
play and frames	reactance, 168, 232
conflict talk and, 204	readiness, signals of, 191
establishment of, 203	reasoning
humor and, 217, 262	abstract, 119
reframing, 208	communication and, 48
teasing and, 248	emotion and, 116–117
termination of, 222	inductive/deductive, 205
poetry, 214	language play and, 214
politeness	mathematical, 93
cognitive context and, 148	moral, 96, 171
conversation and, 185	reasoning, motivated, 3, 3n31, 5, 205, 262
face and, 71, 166–174, 185	298
grooming and, 185	recall, 57, 153
homeostasis and, 169	recipient design principle, 190
maxims, 161	recursion in conversation, 200–202
norms of, 197	Reddy, Michael, 9
relevance and, 160–161	reference, displaced, 51
signaling and, 66	relationship maintenance, 154
theory, 160–161, 169	relationships
theory of mind and, 71	affective valence and, 156



relationships (cont.)	defined, 20–21
basic human, 163–164	embodied cognition and, 20
cellphones and, 287	environment and, 21n88, 22n92
cognitive context and, 155–156	genes and, 20n85, 44, 73
common ground and, 161	homeostasis and, 4, 65, 123, 301
competition and, 164	language and, 31
culture and, 178–180	memes and, 76
dimensions of, 180–181	nervous system and, 15
equal status, 177–178	relationships and, 174
expectations and, 179	signals and, 61, 167
facework and, 16, 166–174	reward systems, 43-44, 109, 167, 213
gossip and, 72, 182	Rinn, W. E., 103
grooming and, 166, 176	Ritchie, L. D., 51n181, 238, 271
groups and, 163–181	Rohde, M., 22n93
homeostasis and, 164–166, 169	Rokeach, M., 262
impoliteness and, 169–170	role play, 212, 215–216, 221
maintenance of, 154	Rosch, E., 2, 21
narrative themes and, 267	Ross, M., 244
norms and, 179	11000, 111, 211
parasocial, 284–285	salience. See Graded Salience Theory
power and, 174–177	Sauter, D., 104
representation and, 178–180	Scarantino, A., 111, 117, 119
reproductive fitness and, 174	scenarios, 94
sexual, 163, 178	scent, 36
signals and, 142, 180	Schachter, S., 107
social, 3, 6	Schank, R. C., 264, 267
social control and, 173–174	schemas. See also scripts
social distance and, 176–177	civility, 168
status and, 174–177	cognitive context and, 147, 151
relevance	humor and, 252
assumption of maximal, 189	knowledge and, 38, 94
cognitive context and, 149, 160–161	metaphors and, 69
communication and, 148	scripts and, 94
context and, 147–149	shared, 151
discourse context and, 189	word activation and, 225
humor and, 251–253	word meaning and, 133
intentionality and, 126	Schnurr, S., 256
Relevance Theory, 98, 161, 252	Schubert, T. W., 243
repairs, conversational, 200	scripts, 94, 147, 151, 154, 157–158. See also
representation, 15–18	schemas
brain and, 110	Seibt, B., 243
cognitive, 15, 55	selective perception, 298
common ground and, 178	self
consciousness and, 15	identity and, 82–83
creativity and, 242	the Other and, 165
culture and, 179	private, 83
embodiment perspective and, 40	representation of, 82
homeostasis and, 23, 99	self-perception, 83, 107, 243
predictive, 37	sense of, 71, 82–83
shared, 204, 223, 290	social, 83
social, 165	semantics
tools, of, 54	connections, 96–97, 240
reproductive fitness	language and, 48, 50
communication and, 57	Latent Semantic Analysis, 96
culture and, 12, 78, 280	semantic association model, 225–226
culture allu, 12, 70, 200	semanue association model, 223–220



semantic priming, 92	response and, 67
semantic web, 49	sexual, 141–142
sensory perception	sign progression theory, 56
exteroceptive senses, 15, 22, 34	signal stream, 57
hearing, 36	vs signs, 14
intentional objects and, 113	simulations and, 71
interoceptive senses, 34, 36	social status, 141
introspective awareness, 34	strategic, and emotion, 111–112
processing, 22, 30, 34–37	symbolic communication, as, 64
scent, 36	symbols and, 57
sensory experience, 113	systems, 4–5
taste, 48	theory of mind and, 58–59, 62
touch, 36	volitional, 131
transparent objects and, 113	word meaning and, 132–134
vision, 34–35	signals, communicative
serotonin, 25	codes, as, 145
setting, 150–153, 202–206, 266–268	common ground and, 67
sexuality, 141–142, 172, 174, 178	computer model and, 28
Seyfarth, R. M., 60, 62, 64	cues and, 64
Shannon, C., 85, 216, 282n1013	emotion and, 118
Shepard, R. N., 88–89	intentionality and, 130
sign languages, 33, 47, 131	needs and, 21
signals, 123–145	rules and, 159
abstract, 66	theory of mind and, 59
ad hoc, 143–144	signals, nonverbal/nonlexical, 12, 48, 66, 130
affiliation, of, 142	142, 144
ambiguity and, 149	signs vs. signals, 14
animals and, 53	simulation-activation process, 70
back-channel, 139	simulations. See perceptual simulations
behavior and, 10, 12	Singer, J., 107
brain and, 33	social context, 111–112, 120, 178
cognition and, 303	social environment
conversation and, 306	communication and, 146
cue-based, 65	embodied cognition and, 20
vs. cues, 14, 126	emotion and, 308
culture-specific, 141	forward projection and, 22
defined, 128, 130, 303	representation and, 165
digital vs. analog, 142–143	reproductive fitness and, 4, 20n87
ecological, 65	social interactions
elaboration of, 65–67	biologically evolved processes of, 4
emblems as, 135–136	bonding, 17, 305
emotional, 117–119, 140–141	communication, 12
expressive, 140–142	determinants of, 174
framing and, 192–193	dominance, 183
grooming and, 53, 67 homeostasis and, 19–44, 61, 302	facework and, 17, 164
illustrators and, 136–137	homeostasis and, 303 humor and, 254–257
information theory and, 51n181	inner dialogue and, 71
intentionality and, 125–132	knowledge and, 60–63
language and, 132, 305	language acquisition and, 50
play and, 203	perception and, 128
politeness and, 66	play and, 207
power and, 141, 175	representation and, 165
relational, 142, 180	signals and, 53
reproductive fitness and, 61, 167	social contagion, 111



#### 348 Index

social interactions (cont.) storytelling social control, 70, 173-174, 305 collaborative, 270-271, 273 social distance, 176-177 collective, 297 social emotions and, 105 context and, 155, 265 conversation and, 268-276 social groups, 5, 288 social realities, 280, 288 conversational, 268-276 social media, 287, 292, 298 forward projection and, 221 social organization, 116, 302, 309 group norms and, 173 social realities, 280, 287-301 incongruity and, 222 social settings, 146, 150-153 jazz performance metaphor, 272 social status, 174-178, 193 norms of, 269 ceremonial conversations and, 154 representation and, 79 gestures and, 141 Strack, F., 109 sense of self and, 304 strategic impoliteness, 172-173, 185n650 signals of, 141 survival circuits, 105-106 somatic marker hypothesis, 116 arousal and, 39, 108 speaker support, 140 emotion and, 108 speech, inner, 66, 71 homeostasis and, 39-40, 110 Sperber, D. interoception and, 105 ambiguity of language, 149 prediction and, 99 cognitive context, 147 reflexive responses and, 109 cognitive environment, 148, 190 stimuli and, 117 intentionality, 144 sweet humor, 246, 253, 263 relevance, 98, 148, 189, 251 symbols Spitz, A., 203, 219, 234 abstract, 11, 52, 70, 99 Spivey, M. J., 89 communication and, 64 emotion and, 111 status competition and, 61 Homo erectus and, 34 equal, 177-178 modal, 11 face-threatening acts and, 193 perceptual, 86-88, 92-93, 100 group identity and, 177 semantic web and, 49 power and, 174-177, 193 signals and, 57 relationships and, 174-177 social, 65 Steen, G., 240 symbolic reference, 64 Stewart, T. C., 242 theory of mind and, 61 stimuli, 39, 111, 117, 129, 131 utterances and, 50 Stivers, T., 198 synapses, 23, 26, 29 story, 264-278. See also narrative syntax character types and, 266-268 development of, 65, 68-69 cognition and, 23 elaboration of, 68-71 language and, 47 defined, 264-266 as evidence, 205 patterns and, 47 identity and, 272, 274, 276-277, 289 perceptual simulations and, 90 layering and, 201, 268 signals and, 132 master-plots and, 266-268 memory and, 267 Tassinary, L. G., 104 metaphor and, 236-241, 270 teasing, 212, 248, 254, 257, 271 moral of the, 237 technology, communication national, 276 audience fragmentation and, 292 setting and, 266-268 discourse and, 280, 299 story index, 265 effects of, 279 story world, 267, 275 forward projection and, 308 tellability of, 274 group homeostasis and, 307 time sequence in, 266 misinformation and, 299 types of, 268 narrative and, 297



television, 285-286, 291	values, 307–308
telic communication, 185–186	Varela, F. J., 2, 21
functions of, 186, 202	Vidmar, N., 262
theories of language and, 72	vision, 34
topic changes and, 192–193	visual experience, simulating, 89–91
uses of language, 66–67	visual images, 281–282
termination, conversational, 192	vocabulary
Tewksbury, D., 95	curiosity and, 68
Thagard, P., 241–242	development of, 67–68
thematic metaphors, 244	homeostasis and, 64
theory of mind. See also mind	imitation and, 64
abstract signaling and, 66	introspective, 68
common ground and, 61, 67	language play and, 17
concepts of time and, 68	limited, problem of, 61
early hominids and, 16	signals and, 132
empathy and, 16	size of, 62
face and, 167	vocalics, 61, 137
first order, 59, 82	volition, signals, and, 131
group-bonding rituals and, 221	
intentionality and, 63	Waldzus, S., 243
language use and, 304	Waletsky, J., 266
moral judgment and, 170–171	Watzlawick, P., 13, 128
natural events and, 67	Weaver, W., 85
religion and, 307	Wernicke's area, 33, 38, 68, 132
second order, 59, 61–64, 82	Williams, L. E., 243
signaling and, 58–59, 62	Wilson, A. E., 244
third order, 66, 82	Wilson, D.
Thompson, E., 2	ambiguity of language, 149
tools, 56	cognitive context, 147
topic changes, conversational,	cognitive environment and, 128n496, 148, 190
192–193	intentionality, 144
touch, 36	relevance, 98, 148, 189, 251
Tracy, K., 95	Woodruff, G., 58
transcategorization, 234	word form, 134–135
triggering event, 112	word meaning, 132–134, 225
Trump, D., 170, 172, 185n650, 261–262, 276,	wordplay, 212–214
287	written language, 70, 214, 282–284, 309
turn-taking, 139, 193–200	V 1 D II 01
conversation and, 65	Yaxley, R. H., 91
cues and, 194	71 G. D. 242
face and, 197, 306	Zhong, C. B., 243
gestures and, 194	Zillmann, D., 108, 247
Tversky, A., 3	Zimbardo, P. G., 107
Twitter, 287, 299	Zwaan, R. A.
50 127 120 155	language use, 99
utterances, 50, 137–138, 155	simulations, 89–92
utterances, sequence of, 189–190	symbols, 11, 93