

Index

- Abduction, 110, 112, 175–176n10.
See also Creativity
- Aesthetic judgment, 113–114
- Agency, 38, 40–41, 46–47, 103, 116, 144–145, 167–168
- Aman, Klaus, 4, 17
- Apprenticeship, 50, 51–53, 58, 62–63, 67, 71, 78, 94, 98, 104–105. *See also* Experiential knowing; Learning newcomers and old-timers, 51–52, 78–79, 110, 113, 173n1
- Architecture, 46
- Art, 46
- Artifact, research, 68–69, 173n8
movement, 69, 74, 90
shearing, 123–124, 137–138, 144
- Audience, 157–158, 168
- Author, 47, 167–168
- Bakhtin, Mikhail, 36
- Barsalou, Lawrence, 163–164
- Barthes, Roland, 39, 167, 171n3
- Beaulieu, Anne, 15, 43–44, 143, 147, 149
- Body, 6–7, 8, 50, 67, 69, 71, 77, 78, 81–82, 83–84, 88–91, 121, 160
as a fluid site of potential, 6
multiple, 68, 83–84, 88–91, 166
as a semiotic mean, 78
- Brain cortex, 29
as a map, 28, 29, 43
- Brain mapping, 28, 125
- Cartwright, Lisa, 4, 7, 64, 125
- Cascades of representations, 99
- Categorization, 64, 125, 145
- Cognitive neuroscience, 5–6, 80, 161–162
and social science, 160–162
- Cognitive science, theories in, 156, 165
- Cognitive semantics, 156, 165
- Complexity, 159. *See also* Conceptual integration/blending theory; Fictive motion
- Conceptual integration/blending theory, 107, 109, 165, 177n
- Conceptual scaling, 156–157
- Connectionism, 31
- Connotation, 39–40
- Constant visibility, 50, 64–65
- Conversation analysis, 7, 10–11, 126–127
transcription, 59, 126–127
- Coordination of interaction and manual work, 121, 126, 131–132, 141, 145
- Coordination of semiotic fields, 105–108, 110, 118–119
- Cortical maps, 30–31, 33, 125
- Creativity, 110, 112, 122, 148, 152, 157–158, 167. *See also* Abduction
- Cultural artifact, 103
- Cyborg visuality/seeing, 2, 35–36, 169n1

- Decade of the brain, 5, 161
- Diagrammatic reasoning, 156, 165
- Digital screens, 142, 144
- interaction with, 3–4, 5, 14, 18, 45–47, 68, 81–82, 93, 107–109, 115, 130, 133
- Distributed
- cognition, 20, 117–118, 165, 176n13
 - systems, 12, 47, 65, 118, 144–145, 169n7
- Doing, Park, 15–16
- Dourish, Paul, 177n5
- Dreyfus, Herbert, 133
- Dumit, Joseph, 166–167, 170n10–11
- Eco, Umberto, 24, 25, 39, 121, 149, 170n12, 172n4
- Effects of similarity, 25, 28, 121, 145
- Embodiment
- in cognitive neuroscience and fMRI, 5–6, 7, 54–55, 56–57, 67–68, 69, 162–163
 - in feminist studies of science and technology, 6–7, 83
 - in postphenomenological studies of science and technology, 6–7
- Environmentally coupled gestures, 143
- Ethnography, 12–14, 15, 17, 20, 53, 148, 160–162
- Ethnomethodology, 7, 10, 13, 20
- Experiential knowing, 51, 61–65, 78–79, 82, 145
- Experimental subject, 1, 52, 53–55, 56–57, 63, 67, 69, 80–82, 89, 90–91.
- See also* Imaged body
- Fauconnier, Gilles, 109, 165, 177n7
- Feeling, 79, 82. *See also* Experiential knowing
- Fictive motion, 132
- Fields for interaction, scientific visuals as, 17–18, 24, 46, 67, 81–82, 93, 103, 105, 110, 118–120, 130, 132–133, 134, 145, 147, 158, 160. *See also* fMRI visuals; Scientific visuals
- fMRI culture, 124, 125–126, 147, 154–155, 157
- fMRI laboratory, 12–14, 174n
- fMRI scanning, 53–55, 70
- fMRI seeing, 2–3, 49, 73, 78, 93, 95, 97–98, 105–106, 110, 113, 115, 116–117, 120, 123, 133–134, 145
- as collaborative, 123, 130
- as cultural, 157
- as multimodal, 49, 71, 78, 95, 98, 105, 113, 115, 116–117, 120
- as practical action, 3, 36, 43, 45–46, 109, 120, 131, 133, 145
- as superseeing, 35–36
- fMRI software, 122–123, 125–126
- fMRI visuals, 1–2, 6, 17–18, 23, 40, 69, 71, 81–82, 91, 93, 100, 105–106, 120, 142, 156, 167–168
- boundaries of, 45–47
- color, 33–34, 109–110, 152–153, 154–155, 175n9
- diagrammatic character of, 42–43, 45, 162
- digitality of, 2–3, 4, 5, 15, 17–18, 24, 26–27, 35–36, 45, 67, 109–110, 121, 125, 130, 133, 139, 142, 145, 156, 160, 175n7
- functional image, 40, 58–59, 123
- as iconic signs, 26–27, 28, 41, 43, 115–116, 121, 145, 167–168
- as images, 44–45, 145, 147, 171n9
- as indexical signs, 23, 147
- labels, 32–33, 37–38, 171–172n12
- localizer scan, 58–59
- as maps, 171n9
- quantitative character of, 43–44, 152, 155–156
- structural image, 33, 40, 58–59, 123
- visual character of, 26–27, 45–46, 142, 147–149, 150, 152, 155–157
- Foucault, Michel, 6, 49–50, 65, 90

- Functional magnetic resonance imaging (fMRI), 1–2, 32, 90–91
vs. electroencephalography (EEG), 32
vs. magnetoencephalography (MEG), 32
- Garfinkel, Harold, 7, 10, 13, 20
- Gesture, 3–4, 8, 9, 77, 79, 100, 126, 131, 142–143
enacting, 77, 79, 100, 130–132, 139, 141
pointing, 93, 100, 107, 110, 112, 118
- Goodwin, Charles, 7, 9, 11, 64, 71, 97, 143, 169n3
- Gross, Alan, 23
- Grosz, Elizabeth, 6, 83
- Haraway, Dona, 7, 15, 18
- Heath, Christian, 7, 8, 10, 100
- Heidegger, Martin, 6, 99, 133
- Hindmarsh, Jon, 7, 8, 10, 100
- Human-technology coupling, 2, 7, 9, 18, 35–36, 47, 62–65, 144
- Hutchins, Edwin, 20, 117–118, 120, 165, 177n7
- Hybrid phenomenal/enacted objects, 121, 131–133, 142, 143–145, 147.
See also Objects of scientific inquiry engaged as physical objects, 121, 131, 133, 139, 141, 144–145
- Icon, sign, 23–24, 41, 77
diagram, 41–42, 172n20, 173n22
image, 41
metaphor, 41
- Iconicity, 24, 25–26, 41, 43, 171n4
- Ihde, Don, 7
- Imaged body, 67–68, 80–82, 165.
See also Experimental subject
- Imagination, 144
- Immutable mobiles, 99–101, 118, 176n
- Infrastructure for seeing/Semiotic infrastructure, 24, 34, 39–41, 152–154
- Interaction between fMRI laboratories, 122–123, 126
- Interpretative semiotics, 18, 23, 119, 173–174n4
- Jefferson, Gayle, 7, 126
- Joyce, Kelly, 15, 44, 166–167, 170n10–11, 176n3, 178n2
- JR, 46
- Knorr-Cetina, Karin, 4, 14–17, 80, 176n13, 178n1
- Kohler, Robert E., 16
- Laboratory studies, 14–17, 19, 166, 170n9
- Lacan, Jacques, 6
- Latour, Bruno, 4, 12, 14, 16–18, 80, 99–101, 118, 122, 174n3, 175n4–5, 178n4
- Lave, Jean, 51, 173n1
- Learning and studies of science and technology, 50
- Learning to see, 39, 105, 113–115
- Learning, 52, 57, 78–79, 91, 105. *See also* Apprenticeship
- Localization of function, 29, 33, 124–125, 154–155
- Local resistances, 36–37, 158
- Local scientific practice and their relationship with the larger social forms, 15–16, 63, 80–81, 99–100, 115, 126, 157–158, 165–167
- Lynch, Michael, 5, 12, 17, 63, 68–69, 79, 100, 121, 125, 169n5, 170n9, 178n5
- Magnetic resonance imaging (MRI), 1
- Map, 41–44, 98, 171n
- Marshall, Helen, 6, 83
- Materiality, 19, 121, 125, 143, 145
- Merleau-Ponty, Maurice, 6

- Mind, thinking, 93, 99–101, 103, 116
 in cognitive science and fMRI, 5–6
 computational/representational, 6, 118
 in practice, 5, 7, 19, 20, 93, 99, 119
 Mindell, David, 5, 15
 Model reader, 39–41, 149
 Modularity of the Mind, 31
 Mol, Annemarie, 7, 13, 19–20, 83–84, 166
 Movement, 69–70, 72–73, 78–79, 90
 Multimodal conversation analysis, 7–8
 Multimodal interaction, 9, 11, 16, 41, 47, 67, 71, 77, 78–79, 83–84, 91, 93, 99–100, 107–108, 110, 119, 139, 142, 162
 transcription of, 11
 Multimodal simulations, 164
 Multimodality, 2, 5, 7–8, 17–18, 49, 53, 54, 64–65, 71, 73, 115, 117, 158, 160, 168
 Multivoicedness, 36, 62–63, 103
 Mutable and local scientific inscriptions, 99–101, 103–105, 118
 Negotiation, 36, 38, 147, 153–157
 Neuroetics, 161
 Neuronal modules, 31
 Objects of scientific inquiry, 17, 19, 121, 126, 131, 145, 147, 164, 167
 as dynamic and multiple, 16–17, 18, 19, 71, 83–84, 165
 as enacted, 81–82, 84, 91, 165, 167
 as hybrid, 19, 121, 145, 147
 as multimodal, 64, 162
 Obligatory points of passage, 122
 Ochs, Elinor, 7, 177n8
 Optimism vs. digitality, 5, 24, 43–45, 121
 Pedagogy, 50, 62, 64, 77, 82
 Peirce, Charles Sanders, 18, 23, 24, 25, 41–43, 51, 116, 119, 121, 167, 170n12, 172n21, 173n22, 173–174n4, 175–176n10, 176n11
 Phase map, 95
 Phrenology, 29, 31
 Power, 99, 105, 143–144
 Prasad, Amit, 15, 169n1
 Present-at-hand (*Vorhandene*) vs. ready-to-hand (*Zuhandene*), 133, 177n5
 Professional vision, 97
 Publishing, 147–150
 Reader, 38–41
 Re-coding, 103, 156
 Reference, 18–19, 26, 81–82, 173–174n4
 Immediate Object, 173–174n4
 Dynamical Object, 173–174n4
 Referentially ambiguous entities, 177n8
 Representation, 46, 99, 118, 120, 133, 145, 147, 158, 162, 164, 165, 176n
 Representational re-description, 156
 Retinotopic mapping, 30–32, 94–95
 Sacks, Harvey, 7, 59
 Scaffolding, 77
 Schegloff, Emanuel, 7, 10–11, 126–127, 131
 Scientific community, 15–16, 36, 44, 82, 90–91, 115, 147, 149
 Scientific visuals, 4, 17, 68, 71, 81–82, 99–101, 158
 Selection, 34, 103, 118, 143
 Semiosis, 119, 170n1
 Semiotic mind, the, 19, 21, 93, 103–105, 107–110, 112, 116, 119, 162, 175n7
 Semiotics and STS, 18
 Sign, 23
 index, 23
 Peirce's typology, 171n2
 symbol, 23
 triadic, 170–171n1, 173–174n4

- Situated action, 8, 115, 118, 165
Skill, 51, 64–65, 91, 95–98, 113, 130
Social constructionism, 6, 18, 68, 82, 165, 167
Social neuroscience, 161
Sound, 49, 51, 57, 61, 63–65
Spatial normalization, 37–38
Standardization, 36–38, 79–80
standard brain/Talairach brain, 37, 172n16
Star, Susan Leigh, 79–80
Streeck, Jürgen, 7, 11
Studies of science and technology and societal phenomena, 15–16, 44
Suchman, Lucy, 7, 8, 20, 100, 144, 161, 177n5
Supervisual, 34–36
Surrogates for perceptual stimuli, 25–26
- Talairach and Tournoux's stereotaxic atlas, 37
Talmy, Leonard, 132
Text, 15, 28, 39, 41, 167–168
Timberlake, James and Steven Kieran, 46
Trading spaces, 103, 156
Turner, Mark, 109, 165, 177n7
- Video, as analytical resource, 8–12, 117, 160
Violi, Patrizia, 163
Visual cortex, 30, 94–95, 122
Visuospatial inscriptions, 93, 100–101, 118
Vygotsky, Lev, 77, 103
- Wenger, Etienne, 51, 173n1
Woolgar, Steve, 4, 14, 17, 18, 80