

Index

Page numbers: **bold** = table, *italics* = figure.

- ability to, 47, 48 *see* whole
- abstract and concrete (dialectics), 20–22
- Ackoff, R. L., 59
- action-level concepts, 18
- activities (Rosch), 38
- activity
 - concepts, 19
 - oriented towards object, 18
 - unit of analysis, 18
- activity areas, 49
- activity in lead (collective concept formation, *qv*), 139
- activity systems, 18, 19, 30, 39
- activity theory, 35
 - most important philosopher (Ilyenkov), 20
- activity theory (four generations), 17–20
 - 1st generation, 18
 - 2nd generation, 18
 - 3rd generation, 18–19
 - 4th generation, 19
- activity-level concepts, 18, 30
- activity-theoretical perspective
 - “situations” versus “activities,” 38
- actual-empirical analysis, 26
- adhocracy: definition, 150
- agency, 16, 71, 78, 109, 114
- Alberta (Canada): homelessness issue, 169
- Amit, R., 35
- Anderson, I., 51
- Anderson-Baron, J. T., 169
- anomalies, 44, 45
 - turned into “categories,” 45
- anticipatory directionality (Fogel), 112
- appropriate spiraling (Cussins), 9, 140
- archetypes, 34
- artifacts, 105, 107, 110, 184
 - planned use, 128
 - use (critical encounters between HCWs and elderly clients), 116–124
 - use (relationship with volitional action), 119
- ascending from abstract to concrete, 20–22, 23, 24, 25, 27, 29, 74, 76, 78
 - Anne case study, 104, 104, 105, 107, 108
 - core of expansive learning, 140
 - dialectical theory, 79, 140
 - embodied germ cell at work, 89
 - Finnish Housing First 2.0, 175–177
 - formation of theoretical concepts, 30
 - formative interventions, 32
 - germ cell, 79–81
 - Herttoniemi Food Cooperative (*qv*) case, 146
 - long haul, 175–177
 - possibilities of innovation, 30
 - spiral-like logic, 154
 - standing up from chair, 6
 - stepwise emergence of theoretical concepts (Davydov), 141
- ascending from abstract to concrete: model implementation (Anne case study), 93–101
 - trail 1: straightening back and gaining better posture, **94**
 - trail 2: taking regular walks, **94**
 - trail 3: using sit-to-stand as diagnostic aid, **97**
 - trail 4: teaching relatives to do mobility exercises, **97**
 - trail 5: setting table, **98**
 - trail 6: being in better mood, taking care of oneself, **98**
- Assertive Community Treatment (ACT) team, 159, 161
- autonomy, 85, 107, 145
- Baker, T., 159
- Bal, A.: in footnote at page →, 66
- Bartunek, J. M., 34
- Bazerman, C., xiii, 57
- Beckett, R. C., 35
- Beghetto, C. A., 154
- Begriff* (German, ‘concept’), 1

- blackboxing, 9
- blood pressure, 97, 119, 122, 126, 127, 128, 135
- Blunden, A.: in footnote, 20
- bodily movements, 79, 80
- boomerang flu, 138
- Bothello, J., 35–36
- boundary crossing (Engeström et al.), 112
- boundary problem, 124
 - definition, 112
- Bowker, G., 2, 43, 44
- Bratus, B. S., 112
- Brock, D. M., 34
- Brook, C., 29
- Brooks, R. A., 37, 41

- capitalism, 20, 27, 28
 - sustainable alternatives, xiv
- care pathways, 50
 - definition (Schrijvers et al.), 50
 - prescriptive and normative, 57
 - thought of as “scripts,” 58
- Carroll, L.: *Hunting of Snark*, 151
- Casas-Cortés, M. I., 36
- categories, 43–49
 - emergence, 44
 - perspectives, 44
- categorization research: challenges (Delmestri et al.), 43
- categorization: prototype theory (Rosch), 38
- category change, category formation: anomalies
 - as generative mechanisms, 44
- causal loop diagramming, 59
- Center for Research on Activity, Development and Learning (CRADLE), xiii
- Chamberlain, C., 51
- change action, 180
 - definition, 112
- Change Laboratories, 32, 181
 - greenhouse vegetable producers, 60–66
 - homelessness (city-level, Tampere 2019), 166–167
 - homelessness (eradication in Finland), 157
 - homelessness action plan (2020), 164–165
 - homelessness pathways, 52–57
 - knotworking in library, 66–76, 150, 180, 182
 - surgical operating unit, 45–49
- Chartres cathedral, 37–38
- chores, *See* daily chores
- Cicourel, A., 2
- Clark, A., 80
- classification, 43–49
 - definition (Bowker and Star), 43
 - definition (*Merriam-Webster*), 43
 - divide, define, fill, 49
 - classification concepts, 6, 57, 183
 - epistemic potential, 41
 - classification systems, 43, 44
 - clinical pathways, 50
 - clock, 17
 - co-configuration, 68, 69, 75
 - co-creation pathways, 57
 - thought of as ‘plans’, 58
 - cognition
 - “culturally situated,” 3
 - radically distributed societal and dialogical nature, 11
 - cognitive objects, 8
 - cognitive trails (Cussins), 8–10, 105, 140
 - emergence of concepts as result of density and stabilization of, 142
 - gaps in theory, 141
 - networks, 9
 - powerful foundation, 141
- Cole, M., 2
- Cole, R. E., 179
- collective activity, 30, 77
- collective concept formation, 32, 34, 114, 184
 - creation dynamics, 140
 - essence, 83
 - evolution versus design, 178–181
 - long process, 139
 - most important challenge, 153
- collective concept formation as creation at work, 138–155
 - concept formation as movement in space (working hypothesis), 140–143
 - concept formation with name in lead, 149–152
 - concept formation with named partial solutions in lead, 146–149
 - concept formation with practice in lead, 152–153
 - food cooperative case, 146–149
 - home care case, 152–153
 - library case, 149–152
 - three cases (contradictions), 143–146
- Collins, D., 169
- commodity: germ cell of capitalism (Marx), 20, 27
- communities, xiii, 13, 24, 36, 44, 159
- community of practice, 13, 44
- concept
 - “concrete abstraction” (Davydov), 21
 - constant movement (Cussins), 10
 - dialectical perspective, 3, 21
 - dual meaning, 1
 - English word related to “conceiving,” 1
 - expressed in movement and action, 21
 - formal-logical understanding, 20
 - nature (collective and evolving), 2, 3

- concept (cont.)
 - origin, 22
 - qualitatively different kinds, 15, 30
 - use in studies of management fashions, 35
 - view of Greeno and van de Sande, 106
- concept formation, xiii, 6, 138
 - Anne case study, 86–108
 - dialectical theory, 105
 - dimensions, 4
 - everyday work, 109–137
 - everyday work (conclusion), 134–137
 - formative interventions, 181
 - four fields, 5
 - historical sociology (Somers), 35
 - horizontal dimension, 15
 - image, 36
 - interplay with double stimulation, 7
 - lengthy process, 141
 - long haul (homelessness), 156–177
 - messy worlds of everyday life, 2, 3
 - new study agenda proposed, 7
 - organizations, 33
 - pedagogical challenge, 22–25
 - reflective, 101
 - transcendent process (Cussins), 10
 - uncertainty, change, and future-orientation, 13
 - work activity (Bay of Bengal fishing boats), 39–42
- Concept Formation and Volition in Collaborative Work (research project), xiii
- concept formation in wild
 - advice for interventionist researchers, 181
 - characteristics, 13
 - collective creation, 5
 - consequences, 178–184
 - educational implications, 183–184
 - first lessons, 14
 - fluid, multifaceted, 36
 - guiding study ideas, 30–31
 - identification as research challenge, 33
 - intertwined with generation of transformative agency, 31
 - movement along two dimensions, 143
 - processes, 7
- Concept Formation in Wild
 - book focus, 5, 22
 - book point of view, 32
 - meaning of “in wild,” 6
- concept formation in wild (locating), 1–7
 - putting concept formation in wild on map, 3–6
 - sources of inspiration and insight, 2–3
- concept formation in wild (theorizing ~)
 - cultural-historical activity theory, 6, 15–32
 - first lessons, 6, 8–14
- concepts formed in wild
 - confrontation, contestation, negotiation, hybridization, 30
 - polyvalent, debated, dynamic, 30
- conceptual blending, 12
- conceptual change, 33, 138
- conceptual combination, 138
- conceptual history, 35
- conceptual instrumentality, 77
- conceptual structure, 11
- conceptualization efforts, 111, 116, 131, 135, 136, 137
 - connected to restrictive and expansive artifact uses, 122
 - definition, 113
 - five key types, 137
 - mobility-oriented, 122
 - relationship with artifact uses, 122
- conceptualization: first task (systems models), 59
- conflict of motives, 17, 27, 71, 89, 98, 103, 111, 113, 114, 125, 126, 129, 131
 - appears in two forms, 110
 - articulation (Anne case study), 90–92
 - articulation data, 90
 - critical encounters, 112
 - surface between key actors in work activity, 109
 - trigger for double stimulation processes, 109
- contradictions, 12, 13, 19, 27, 31, 112, 143–146, 162, 163, 165, 181, 184
- control, 46
- cracks between services, 162, 165, 173
- creativity, 138
 - Big-C versus little-c, 154, 155
 - Pro-c, 154
 - work-related (new angle), 155
- critical auxiliary artifact, 63
- critical encounters
 - conceptual model, 110
 - conflict of motives, 112
 - definition, 111
 - Engeström, 110
 - explanatory potential, 137
 - “not linear events,” 111
 - structure, 111
 - target of two actors, 112, 113, 114
 - use of artifacts (incidental versus planned), 116, 119, 135
 - use of artifacts (restrictive versus expansive), 116, 117, 119, 122, 135
- critical encounters between home care workers and elderly clients, 114–137
 - artifacts (incidental versus planned use), 117
 - artifacts (restrictive and expansive use), 117

- artifact-use (overview), 116–124
- home care visits (five profiles), **116**
- methods of analysis, 115–116
- setting and data, 115
- volitional action connected to restrictive and expansive uses of artifacts, **122**
- critical encounters between home care workers and elderly clients (four case studies), 124–134
 - case (1), 124–126, 135, 136
 - case (2), 126–128, 136
 - case (2) summary of components, 128
 - case (3), 129, 133, 136
 - case (3): taking out trash bag together, 130
 - case (4), 131–134, 136
 - case (4) analysis, 134
 - different ways of using artifacts, 135
 - expansive uses of artifacts (cases 3 and 4), 129–134
 - restrictive uses of artifacts (cases 1 and 2), 124–128
- criticism of past failures, 54
- cultural-historical activity theory, 3, 6, 7, 14, 15–32, 34
 - ascending from abstract to concrete, 20–22
 - concept formation as pedagogical challenge, 22–25
 - double stimulation, 15–17
 - everyday and scientific concepts, 15
 - formative interventions, 31–32
 - four generations of activity theory, 17–20
 - from classroom into wild, 23–27
 - from dichotomy to diversity, 27–32
 - germ cell, 27–29
 - guiding ideas for study of concept formation in wild, 30–31
- culturally-novel concepts, 5, 17, 26
 - collective creation, 5
- Cussins, A., 11, 12, 105, 140–142, 154
 - theory of cognitive trails, 8–10, 140, 142
- daily chores, 82, **87–88, 91**, 131, 132, 145
 - integration of mobility exercises, 81, 83, 103, 107, 114, 122, 131, 133, 146
- Davydov, V. V., 2, 15, 21, 25, 30, 78, 80, 140–142, 141, 154
 - concept formation as pedagogical challenge, 22–25
 - concept formation viewed as vertical process, 141
 - learning activity (ideal sequence), 25, 26
 - powerful foundation for further work, 141
 - theory of formation of theoretical concepts, 30
 - Types of Generalization in Instruction (1990 [1972]), 2, 22, 23
- debate, 141
- decontextualization, 54
- Deerfoot (*Nopsajalka*) mobile homelessness service, 166–177
- Deerfoot* novels (Ellis), 166
- degrowth, *See* expansive degrowth
- Deguine, J. P., 60
- deliberate non-action (Brook), 29
- Delmestri, G., 44
- diagnosis, 66, 76
- Diagnostic and Statistical Manual* (DSM-5), 44
- dialectics, 6, 30, 34
 - abstract and concrete, 20–22
 - concept formation as pedagogical challenge, 22–25
 - concepts as theoretical generalizations, 107
 - germ cell concept, 158
- dialogical triad, 10
- distributed cognition, 13
- “doing for” versus “doing together,” 131
- domesticated mind (Goody), 6
- double stimulation, 15–17, 31, 98, 108, 147
 - construction and functioning (lengthy iterative process), 131, 133, 136
 - formative interventions, 32
 - “idea of central importance,” 16
 - interplay with concept formation, 7
 - phase structure model (Sannino), 16, 109, 110, 114, 131
 - true test, 17
- double stimulation and concept formation in everyday work, 109–137
 - conclusion, 134–137
 - setting and data, 114–115
 - theoretical framework, 111–114
- Duijn, S. van, 165
- Dunlop, T., 157
- Durand, R., 43
- dwelling: apt characterization, 42
- ego-alter-object: dynamic semiotic triangle, 10
- elderly people, 78–108
 - critical encounters with HCWs, 114–137
 - safety versus autonomy, 84
- embedded librarianship concept, 150
- embodied cognition, 8, 79, 80, 140
- embodied germ cell, 78–108
- embodied social interaction, 81, 105
- embodied thinking and acting, 81
- emerging concepts, 75, 137, 142, 146
 - practical enactment but only partial naming and stabilization, 29
 - textual definition versus practical enactment (gap/discrepancy), 139
- empirical concepts, 2, 23, 30, 32

- energy efficiency, 158
 “motherhood concept” (Dunlop), 157
 Engeström, Y., 83, 108, 115, 154, 167
 activity theory (fourth generation), 19
 environmentalism, 35, 36
 evolution as transnational process, 35
 envisioning, 74
 form of transformative agency, 74
 epistemic actions: ideal-typical sequence, 80
 epistemic potential, 33
 classification concepts, 49
 germ cell concepts, 76
 process concepts, 57–58
 prototype concepts, 41–42
 systems concepts, 66
 escorted transfer, 172, 173–177
 elements, 174
 service integration, 173
 Evans, J., 159
 everyday cognition, 5
 everyday concepts, 15, 23
 everyday thinking, 22
 “inconvenient object of logical analysis”
 (Ilyenkov), 22
 everyday work: double stimulation and concept
 formation, 109–137
 evolution and design, 178–181
 fluid interplay and hybridization, 179
 germ cell concepts, 180
 expansive concepts: building -, 78–108
 expansive cycle, 26, 80
 expansive degrowth, 7, 29, 66, 146, 147, 153, 175
 strong evolution, weak design, 179
 expansive learning, 3, 27, 28, 154, 184
 epistemic actions (typical sequence of seven),
 25–26
 expansion of Davydov’s work, 25
 generates tangible solutions, 147
 leads to integrative conceptualizations,
 147
Faces: Stories of Homelessness (Pyyvaara and
 Timonen, 2017), 52
 facial expressions, 103, 105
 falls, 82, 107, 129, 145
 family caregiver (Finnish context), 132
 Fauconnier, G., 37
 fear, 46, 92
FeedNavigator, 69, 70, 71, 74
 Finland, 159
 national program for prevention of
 homelessness (2016–2019), 156
 social welfare services (siloed character), 162, 165
 success in reducing homelessness (2008–),
 156, 161
 Finland: Ministry of Environment, 167
 Finland: Ministry of Social Affairs, 167
 Finland: National Audit Office, 106
 Finnish Housing First (FHF), 160, 162, *See also*
 Housing First
 basic principle, 169
 contradictions between substances and home
 (solution), 165
 germ cell concept, 162–164
 key differences from Pathways Housing First,
 161–162
 principle, 164
 Finnish Housing First 2.0, 7, 181, 183, 184
 ascending from abstract to concrete (long
 haul), 175–177
 germ cell, 167, 173–175
 new contradiction (solution), 173
 new contradiction (to be faced), 168–172
 Finnish Housing First 2.0 (winding road),
 164–168
 foundational principle (germ cell) not yet
 formulated, 165
 key steps, 169
 six sections (36 recommended actions), 165
 first stimulus (mirror data), 71, 113, 114
 Knotworking in Library project, 69
 fishing boats, 6, 39–42
 Fitzpatrick, S., 51
 Fogel, A., 112
 food cooperative, *See* Herttoniemi Food
 Cooperative
 formal concepts (Greeno), 3, 4, 138
 formative interventions, xiv, 7, 31–32, 108
 epistemological and methodological principles,
 32
 in concept formation, 181
 frailty, 84, 94, 108, 145, 181
 biological basis, 82
 clinical features, 82
 Frasergunj (Bay of Bengal), 39, 42
 fishing boats, 40
 functional concepts, 6, 111, 113, 139
 approaches and attempts, 34–37
 basic types (identification), 33
 characteristics, 76
 definition, 33
 formation, 34
 future research, 183
 future-making devices, 183
 Greeno, 3
 interplay, 181–183
 most demanding but most impactful type
 (germ cells), 162
 organized productive activities, 33–77
 pyramid, 182

- functional concepts (types)
 classifications and categories, 43–49
 germ cell concepts, 66–76
 process concepts, 58–74
 prototype concepts, 37–42
 systems concepts, 59–66
- future-orientation, 13, 54, 115, **116**, 139, 184
- germ cell, 21, 24, 30, 140, 146, 153
 ascending from abstract to concrete, 79–81
 characteristics, 27
 core of concept (dialectical perspective), 158
 criteria, 84
 crucial role (ascent from abstract to concrete),
 27, 80
 expansive degrowth (*qv*), 147
 Finnish Housing First, 162–164
 Finnish Housing First 2.0, 167, 173–175
 formation, 89
 formation (Anne case study), 92
 formation data, **93**
 Herttoniemi Food Cooperative, 27–29
 multi-directional expansion, 101
 standing up from chair, 124
 standing up from chair (home care), 81–85
 starting point of theoretical concept, 27
- germ cell concepts, 6, 7, 66–76, 172, 175, 181, 183
 epistemic potential, 76
 evolution and design, 180
- germ cell model
 examination (Anne case study), 92
 examination data, **92**
- German Democratic Republic, 2
- gestures, 80, 89, 103, 105, 115
- Goodwin, Candy, 2
- Goodwin, Chuck, 2
- Goody, J., 6
- Google, 33, 71
- gothic cathedrals, 37–38
- greenhouse vegetable producers (seasonal versus
 year-round –), 60–66
- Greeno, J. G., xiii, 2, 3, 33, 106, 138
 “formal concepts,” 33
- Greenstein, D., 66–67
- Griesemer, J. R., 112
- Gromyko, Y., 24
- Hannan, M. T., 36
- HCWs, *See* home-care workers
- heedful interrelating (Weick and Roberts), 42
- Hegel, G. W. F., 11, 83
- Helsinki, 27, 52, *See also* University of Helsinki
 library
- Helsinki City municipal home care, *See* home
 care
- Helsinki Health Centre Strategy and Balanced
 Score Card document for 2011–2013, 106
- Herttoniemi Food Cooperative, 66, 140,
 143–144, 181
 activity systems (developmental
 contradictions), 144
 concept formation with named partial
 solutions in lead, 146–149, 153
 discrepancy between income and expenditure,
 148
 illustration of “germ cell” idea, 27–30
 limiting number of members, 148, 149
 membership turnover problem, 147
 movement towards expansive degrowth
 concept, 149
- hierarchy, 74, 182
- historical-genetic analysis: purpose, 26
- historicity, 181
- Holzkamp, K.: in footnote, 182
- home care, 6, 110, 140, 145–146, 180, 181
 activity systems (developmental
 contradictions), 146
 concept formation with practice in lead,
 152–153
 cost-efficiency versus long-term effectiveness,
 145
 mobility challenge, 81–85
 paradox, 82
 physical mobility, 78–108
 sustainable mobility concept, 154
- home-care workers (HCWs), 107, 145
 critical encounters with elderly clients, 114–137
 high turnover, 86
 Tina (Anne case study), 89, 90–103, 104, 105,
 106, 108
- homelessness, 7
 concept formation over long haul, 156–177
 permanence versus mobility, 170
 prevalence, 156
 security versus independence, 170
 traditional approach (‘staircase model’), 156,
 163
- homelessness action plan (Finland, 2020),
 164–165
 aim, 165
 “possibility” (keyword), 165
 “together” (keyword), 165
- homelessness pathways, 50–58, 183
 categorization (examples), **51**
 change laboratory, 52–57
 definition (Anderson and Tulloch), 51
 descriptive (rather than normative), 57
 notational template, 53
 representations, 55
 thought of as “stories,” 58

- homelessness work
 new contradiction, 168–172
 permanence versus mobility, 170
- hospice, 90, 92
- Housing First, *See also* Pathways Housing First
 fundamental step, 159
 inception of concept (early 1990s), 156
 “motherhood concept,” 158
- Housing First 2.0, 158
 concept formation process “lengthy and far
 from linear,” 157
 emerging concept, 157
 link, 157
 moving towards stronger design and stronger
 evolution, 180
- Hunter, B., 58
- Hutchins, E., xiii, 2, 8, 12, 80
 Cognition in Wild (1995), 5–6
 evolution and design, 178–179
 material anchors, 11–12, 16
- hybridization, 30, 141, 179
- identity, 18, 46, 47
- ideologies, 10, 50, 141
- idol of stability (Toulmin), 2
- illness, 2, 78, **88, 91**
- Ilyenkov, E. V., 23, 30, 78, 148
 dialectics of abstract and concrete, 20–22
 “general notion” (differentiated from
 “concept”), 20, 23
 “Robinson Crusoe epistemology,” 20
- implementation, 80, 89, 157
- Indigenous Energy Justice (IEJ), 36
- indigenous social movements, 36
- Ingold, T., 42, 105
 in footnote, 8
- institutional paths, 36
 four mechanisms of lateral interaction, 35
- institutions, 1, 5, 6, 10, 68, 141, 178
- integrated pest management (IPM), 6, 60, 66
- interactive physical enactment, 105
- interactive physical environment, 101–103
- interconnected instrumentality, 77
- internet, 64, 67, 71, 72, 73, 90
- interpretive scheme, 34, 35
- interruptions, 44, 45, 171, 174
- intervention research: methodological challenges,
 108
- interventionist researchers, 181
- interventions, 26, 68, 157, 171, 172, *See also*
 formative interventions
- intraventions, 179, 180
- Jensen, U. J., 2
- Johnson, G., **51**
- Johnston, E. R., 44
- Jokinen, E., 167
- Joutsenlahti, S., 170
- Jutel, A., 45
- Jyväskylä, 173, 175, 176
 Nopsajalka model, 167–168, 171–172
 Nopsajalka model (transformation), 172
- Kaakinen, J., 167
- Kajamaa, A., xiii, 115
- Kalevala* (Finnish national epic), 151
- Karppinen, J., 170
- Kaugman, J. C., 154
- knot, 73, 74
 definition (Engeström), 150
 potential germ cell, 151
- knotworking, 6, 7, 149–152, 175, 182
 characteristics, 150
 definition, 68
 germ cell concept (University of Helsinki
 library), 76
 movement towards, 152
 use of term (frequency), **71**
- Knotworking in Library project, 66–76, 150
 weak evolution, strong design, 180
- Kostiainen, E., **51**
- Lave, J., 2
 learning actions, 79
 loops, repetitions, gaps, 26
 sequence of six, 25
- learning laboratories, 59
- learning processes, 25, 28
- learning: central aspect of all activity, 20
- Leont’ev, A. N., 30, 83, 138, 153, 175, 184
 activity theory (second generation), 18
 “motive goal” notion, 18
- Lévi-Strauss, C.: *pensée sauvage*, 6
- Lindgren, A., 138, 139
- linear residential treatment (LRT), 156, 163
- Linell, P., 11
- Lishin, O. V., 112
- Löwy, I.: “strength of loose concepts,” 37
- Marchand, T. H., 42
- Marková, I., xiii, 8, 17
 social representations, 10–11
- Marx, K., 20
- Marxism, 3
- material anchors (Hutchins), 11–12, 16, 80
- Mead, G. H., 177–178, 181
- media, 3, 43, 47
 mediating artifacts, 111, 114, 115, 137
 performance of volitional actions, 113
- medically unexplained symptoms (MUS), 45

- Mehan, B., 2
- Melville, H.: *Moby Dick*, 151
- mental health problems, 156, 163, 166
- mental models (Senge), 59
- Mind, Culture, and Activity (special issue), xiii
- mirror data, 62, 69, 71
- mobility, 126, 127
- dominant cultural images, 81
 - home care, 78–108
- mobility agreement, 78, 86, **88**, 89, 105, 106, 110, 114, 116, 145
- expansive use, 117
 - passim*, 119–136
- mobility challenge: home care, 81–85
- mobility exercise booklet, 83, 117, 122, 124, 132, 133, 136
- mobility exercises, 78, 115, 127, 153, *See also* daily chores
- model consolidation, 26
- model examination, 26, 89
- model implementation, 26
- model-based reasoning (Nersessian), 12–13
- modeling, 26, 30, 80, 89
- modes of collaboration (Engeström et al.), 112
- Moscovici, S., 8
- semiotic triangle, 10, 11
 - social representations, 10–11
- motherhood concept, 157
- notion “too vague,” 158
- Mukhopadhyay, S., xiii, 39
- multimodal concepts: versus single-mode representations, 80
- name in lead (collective concept formation), 139, 149–152
- narratives, 50
- need state (Bratus and Lishin), 112, 137
- negotiated knotworking (Engeström), 174
- Nelson, K., 49
- Nersessian, N. J., xiii, 5, 8
- model-based reasoning, 12–13
 - “source domain concept,” 42
- network of cooperatives, 147
- New York, 158
- homelessness (prevalence), 160
- Nopsajalka* (Deerfoot) mobile homelessness service, 166–177
- elements, 174
- Nummijoki, J., xiii, 78, 83, 115, 180
- researcher (Anne case study), 89, 90–103, 106, 108
- object-orientation, 181
- objects, 1, 2, 11, 20, 21, 32, 49, 80, 145
- objet trouvé, 113
- one-sided expressions of will, 119, 125, 127
- one-way lecturing, 74, 75
- organization studies, 34
- Organization Studies* (special issue, 2020), 43
- organizational activity games (Gromyko), 24
- organizational archetypes, 34
- organizational categorization, 43
- three types of action (Durand et al.), 43
- organizational change effort, 34
- organizational environmentalism, 35
- organizations, 6, 25, 33, 36, 37, 43, 50, 109, 112, 139, 155, 157, 182
- concept formation, 3
- ostensive definition, 41
- Ostrobothnia (Finland), 60
- partial solutions, 146–149
- pathway concepts: three types, 57
- pathway representations, 54–58
- pathways, 50
- Pathways Housing First (PHF), 158–160, 171, *See also* Y-Foundation
- contradictions between substances and home, 163
 - key differences from Finnish Housing First, 161–162
 - original model (New York) of Housing First, 158
 - principles, 158
 - scattered-site housing, 159, 160
- perspective-dependence (PD): key concept (Cussins), 8–10
- perspective-dependence ratio, 8, 9, 140, 154
- perspective-independence, 8
- pest management (whitefly), 60–66
- physical actions, 41, 80, 90, 115, 119, 122, 133
- physical exercises, 81, 83, 105
- plans, 50, 58, 119
- Pleace, N., 52
- possibility knowledge (Engeström), 32, 165
- possibilization, 53, 54
- post-traumatic stress disorder (PTSD), 44
- pragmatic concept: definition, 33
- Prinz, J., 80
- problem-solving, 13, 16, 24, 30, 73, 109
- process concepts, 6, 58–74
- epistemic potential, 57–59
- production: experimental aspect (Davydov), 24
- productive activities (functional concepts), 33–77
- prototype concepts, 6, 37–42, 181, 183
- Chartres cathedral, 38
 - epistemic potential, 41–42
 - primary function, 42
- prototype theory of categorization (Rosch), 38

- prototypes
 definition, 37
 mental experience (Rosch), 38
 Pyyvaara, U., 52
- Querol, M.P., xiii, 60
- questioning, 25, 26, 80, 89
 first learning action (great importance), 27
- Radford, L., 24
- Rantavuori, J., xiii, 28
- Rasmussen, E. B., 45
- real conflict of stimuli, 17, 131
- realized activity, 138, 153, 175
- recontextualization, 54
- reflection, 80, 89, 101
- reflective consciousness, 178, 181
- regularity of movement, 126, 131, 133
- rental agreements, 160, 164
- representational modality, 7, 142
- Research Engagement for Sustainable and Equitable Transformations (RESET), xiii, 157
- research groups, 149, 150, 151
- researchers and research groups (Knotworking in Library project), 68–76
- resource extraction, 36
- responsibility, 46, 47, 49, 62, 66, 73, **87**, **110**
- restaurant script, 50
- RISE (Criminal Sanction Agency), 171
- Rissanen, P., 165
- Roberts, K. H., 42
- Rogalski, J., 33
- Rosch, E., 38
- runaway objects, 19
- Ryle, G., 3
- saattaen vaihdettava, *See* escorted transfer
- safety, 85, 107, 126, 129, 145
- Salles-Djelic, M. L., 35–36
- Sande, C. van de, 106
- Sannino, A., xiii, 16, 17, 108, 109, 112
 activity theory (fourth generation), 19
 change laboratory (homelessness), 52
 leader of RESET research group (Tampere University), 157
 mediating artifacts (dynamic sense), 113
 model (2020) of transformative agency by double stimulation, 16
 professional agency among homelessness workers, 167
 work on TADS, 27
 Sannino's research group (homelessness), 167, 168, 173, 174, 176
- Sawyer, R. K.: *Explaining Creativity* (2012), 138
- school instruction, 32
 Davydov's critique, 23
- Schrijvers, G., 50
 science: "superior form of human cognition," 24
- scientific concepts, 5, 15, 23
- scientific laboratories, 13
- scientific theoretical thought, 22
- scripts, 50–74, 116, **116**, 117, 119, 125, 126
 second stimulus, 7, 63, 66, 71, 73, 75, 98, 110, 113, 114
 function of counting, 128
passim, 125–136
 turned into germ cell, 74
- Segrott, J., 58
- Senge, P. M., 59
- service integration, 165, 173
- service learning, 184
- shared object, 19, 111, 112, 146
- situated cognition, 5
- situations (Rosch), 38
- snirkels, 138, 139, 150
- social housing, 159
- social interaction, 49, 81, 97, *See also* embodied social interaction
- social knowledge theory, 10
- social media, 64
- social movements, xiii, 3, 22
- social representations, 10–11
- somatic anchors (for concepts), 80
- Somers, M. R.: historical sociology of concept formation, 35
- source domains (Nersessian), 42, 113, 124, 137
- stabilization, 7, 11, 140, 142, 151, 153
 definition, 9
 key concept (Cussins), 8, 9–10
- staircase model, *See* linear residential treatment (LRT)
- standing up from chair, 82, 122, 126, 132
 candidate germ cell, 81–85, 103
 data and method, 85–90
 germ cell of sustainable mobility, 6, 103–105, 124, 137, 152, 153, 183
 home-care-visit evidence (2008–2009), **86**
 interactive physical enactment, 101–103, 105
 internally contradictory germ cell of sustainable mobility, 84
 longitudinal follow-up and analysis, 86
 procedure, 84
- standing up from chair: concept formation (Anne case study), 86–108
 1: articulating conflict of motives, 90–92
 2: forming germ cell, 92
 3: examining germ cell model, 92

- 4: implementing model by ascending to concrete, 93–101
- 5: reflecting on process and outcomes, 101
- Jaana Nummijoki (researcher), 89, 90–103, 106, 108
- Tina (home-care worker), 89, 90–103, 104, 105, 106, 108
- Star, S. L., 2, 43, 44, 112
- statistics, 51, 58, 64, 160
- Sterman, J. D., 59
- Stewart, J., 41
- stories, 50, 58
- Strauss, A. L.: in footnote, 66
- substance use, 156, 162, 163, 166, 170
- Suchman, L., 2
- Sunikka, S., 51
- surgical operating unit (university hospital in Finland), 45–49
 - organization chart (new), 48
 - organization chart (old), 46
- sustainability, 35, 36
- sustainable mobility, 7, 107, 131, 137, 154, 175, 176, 183
 - emerging concept, 107, 122
 - expansive concept, 146
 - germ cell, 6
 - standing up from chair “germ cell action,” 124
 - strong design, strong evolution, 180
- Swain, G., 43
- systems concepts, 6, 59–66
- systems concepts: epistemic potential, 66
- Tampere, 157
 - city-level homelessness change laboratory (2019), 166–167
- Tampere Action Program for Halving Homelessness (2020–2022), 166–167
- Tampere University, xiii
- tangible solutions, 146–149
 - generated by expansive learning, 147
- target, **88**, 111, 137
- tensions, 12, 13, 17, 69
 - and conflicts (centrality), 11
- testing, 80, 131, 139, 167
- theoretical concepts, 30, 32
 - dialectical movement from abstract to concrete, 80
 - initial production, 79
- theoretical concepts (Davydov), 2
- theoretical thought: origins (Davydov), 23
- theorizing concept formation in wild (first lessons), 6, 8–14
 - Cussins and cognitive trails, 8–10
 - Hutchins and material anchors, 11–12
 - Moscovici, Marková and social representations, 10–11
 - Nersessian and model-based reasoning, 12–13
 - summary, 13–14
- Timonen, A., 52
- Toulmin, S., 2
- transformations, 10, 26, 30
- transformative action, 114, 180
- transformative agency, 17, 20, 31, 73, 74, 111, 128
 - definition, 112
- transformative agency by double stimulation (TADS), 27
- trust, 89, 166, 170, 172, 176
- Tsemberis, S., 158–163, 171
- Tulloch, D., 51
- Turnbull, D.: on Chartres cathedral, 37
- Turner, M., 37
- unexpected, 49, 70, 165, 177
- United States, 2, 52, 159
 - homelessness (prevalence 2015–2020), 160
- unity in diversity, 21, 30
- university hospital (transformation of surgical operating unit), 45–49
 - change laboratory, 45–49
- University of Helsinki, xiii
- University of Helsinki library, 140, 181
 - activity systems (developmental contradictions), 145
 - chain of actions (germ cell concept formation), 75
 - change laboratory, 66–76
 - collective concept formation with name in lead, 149–152, 153
 - germ cell concept of knotworking, 76
 - movement towards knotworking concept, 152
 - researchers versus academic librarians (emerging gap), 144–145
- Vänninen, I., xiii, 60
- Vasilyuk, F., 112
- Vergne, J. P., 43
- Vidal-Gomel, C., 33
- videotape, 7, 86, 110, 115
- virtuoso representational activity (Cussins), 9, 10
- volitional actions, 16, 17, 111, 114, 116, 125, 127, 128, 130, 132, 136, 137
 - “core of transformative agency,” 112
 - double stimulation (Vygotsky) “foundational mechanism,” 109
 - pave way for conceptualization efforts, 114
 - relationship with artifact use, 119
 - vulnerable and fragile nature, 122
- Vygotsky, 112

- volitional change actions: emergence, 109
- Vulnerability Index, 160
- Vygotsky, L. S., 30, 112, 128
 - activity theory (first generation), 18
 - culturally-mediated action “prime unit of analysis,” 18
 - distinction between scientific and everyday concepts, 15, 22–24
 - double stimulation, 15–17, 109
 - experiment of meaningless situation, 17
 - mediating artifacts (dynamic sense), 113
 - Thinking and Speech (1987[1934]), 15
 - volitional action concept, 112
 - waiting experiment, 17
- waiting list, 47
- Wartofsky, M. W.
 - activity theory (third generation), 18–19
 - “secondary artifacts,” 18
 - “tertiary artifacts,” 18
- wayfaring (Ingold), 105
- Weick, K. E., 42
- whitefly (*T. vaporariorum*), 60–66
 - systemic model, 65
- Wiesel, I., 51
- Wittgenstein, L., 38
- words: as material anchors, 16
- work activities, 3, 22, 109, 112, 133, 135, 136, 137, 139
- work: concept formation, 3
- working hypothesis, 85, 142, 143, 149, 177
- working together, 174
- workplaces, xiii, 24, 25, 31
- World Economic Forum, 156
- Y-Foundation, 167, *See also* Finnish Housing First
- Y-Foundation: Housing First Development Network, 168
- Zinchenko, V. P., 18
- Zott, C., 35