

Bibliography

- Angell, R. B. (1977). Three systems of first degree entailment. *Journal of Symbolic Logic*, 42:147.
- Angell, R. B. (1989). Deducibility, entailment and analytic containment. In Norman, J. and Sylvan, R., editors, *Directions in Relevant Logic*, volume 42, pages 119–143. Kluwer Academic Publishers, Dordrecht.
- Aristotle (2014a). *Complete Works of Aristotle: Volume 1 (revised Oxford translation, edited by J. Barnes)*. Princeton University Press, Princeton.
- Aristotle (2014b). *Complete Works of Aristotle: Volume 2 (revised Oxford translation, edited by J. Barnes)*. Princeton University Press, Princeton.
- Armstrong, D. M. (2004). *Truth and Truthmakers*. Cambridge University Press, Cambridge.
- Barrio, E. A., Rosenblatt, L., and Tajer, D. (2015). The logics of strict-tolerant logic. *Journal of Philosophical Logic*, 44(5):551–571.
- Beall, J. and Murzi, J. (2013). Two flavors of Curry’s paradox. *Journal of Philosophy*, 110(3):143–165.
- Belnap, N. (1962). Tonk, Plonk and Plink. *Analysis*, 22(6):130–134.
- Berto, F. and Restall, G. (2019). Negation on the Australian plan. *Journal of Philosophical Logic*, 48(6):1119–1144.
- Bimbó, K. (2015). *Proof Theory: Sequent Calculi and Related Formalisms*. CRC Press, Boca Raton.
- Brandom, R. B. (1994). *Making It Explicit: Reasoning, Representing, and Discursive Commitment*. Harvard University Press, Cambridge, Mass.
- Brandom, R. B. (2000). *Articulating Reasons: An Introduction to Inferentialism*. Harvard University Press, Cambridge, Mass.
- Brandom, R. B. (2008). *Between Saying and Doing: Towards an Analytic Pragmatism*. Oxford University Press, Oxford.
- Brandom, R. B. (2019). *A Spirit of Trust: A Reading of Hegel’s Phenomenology*. Harvard University Press, Harvard.
- Brower, J. E. and Brower-Toland, S. (2008). Aquinas on mental representation: Concepts and intentionality. *Philosophical Review*, 117(2):193–243.
- Bueno, O. and Shalkowski, S. A. (2013). Logical constants: A modalist approach. *Noûs*, 47(1):1–24.

- Cobrerros, P., Egré, P., Ripley, D., and van Rooij, R. (2012). Tolerant, classical, strict. *Journal of Philosophical Logic*, 41(2):347–385.
- Cobrerros, P., Egré, P., Ripley, D., and van Rooij, R. (2013). Reaching transparent truth. *Mind*, 122(488):841–866.
- Cobrerros, P., Egré, P., Ripley, D., and van Rooij, R. (2020a). Inferences and metainferences in ST. *Journal of Philosophical Logic*, 49(6):1057–1077.
- Cobrerros, P., Rosa, E. L., and Tranchini, L. (2020b). (I can't get no) Antisatisfaction. *Synthese*, 198(9):8251–8265.
- Correia, F. (2016). On the logic of factual equivalence. *Review of Symbolic Logic*, 9(1):103–122.
- Correia, F. and Skiles, A. (2019). Grounding, essence, and identity. *Philosophy and Phenomenological Research*, 98(3):642–670.
- Cross, C. B. (2003). Nonmonotonic inconsistency. *Artificial Intelligence*, 149(2):161–178.
- deRosset, L. and Fine, K. (2022). A semantics for the impure logic of ground. *Journal of Philosophical Logic*, 52:415–493.
- Dicher, B. and Paoli, F. (2019). ST, LP and tolerant metainferences. In Bakent, C. and Ferguson, T. M., editors, *Graham Priest on Dialetheism and Paraconsistency*, pages 383–407. Springer, Cham.
- Dretske, F. (1981). *Knowledge and the Flow of Information*. The MIT Press, Cambridge, Mass.
- Dummett, M. (1973). *Frege: Philosophy of Language*. Harper and Row, New York.
- Elgin, S. Z. (2021). The semantic foundations of philosophical analysis. *Review of Symbolic Logic*, 16(2):603–623.
- Fine, K. (1975). Critical notice of Lewis, Counterfactuals. *Mind*, 84(335):451–458.
- Fine, K. (2014). Truth-maker semantics for intuitionistic logic. *Journal of Philosophical Logic*, 43(2–3):549–577.
- Fine, K. (2016). Angellic content. *Journal of Philosophical Logic*, 45(2):199–226.
- Fine, K. (2017a). A theory of truthmaker content I: Conjunction, disjunction and negation. *Journal of Philosophical Logic*, 46(6):625–674.
- Fine, K. (2017b). A theory of truthmaker content II: Subject-matter, common content, remainder and ground. *Journal of Philosophical Logic*, 46(6):675–702.
- Fine, K. (2017c). Truthmaker semantics. In Hale, B., Wright, C., and Miller, A., editors, *A Companion to the Philosophy of Language*, volume 2, pages 556–577. Wiley Blackwell, New York.
- Fine, K. (2018a). Compliance and command I: Categorical imperatives. *Review of Symbolic Logic*, 11(4):609–633.
- Fine, K. (2018b). Compliance and command II: Imperatives and deontics. *Review of Symbolic Logic*, 11(4):634–664.
- Fine, K. (2018c). Truthmaking and the is-ought gap. *Synthese*, 198(2):887–914.
- Fine, K. (2019). Verisimilitude and truthmaking. *Erkenntnis*, 86(5):1239–1276.
- Fine, K. (2020). Yablo on subject-matter. *Philosophical Studies*, 177(1):129–171.
- Fine, K. and Jago, M. (2019). Logic for exact entailment. *Review of Symbolic Logic*, 12(3):536–556.

- Fitting, M. (2021). A family of strict/tolerant logics. *Journal of Philosophical Logic*, 50(2):363–394.
- Frege, G. (1956). The thought: A logical inquiry. *Mind*, 65(259):289–311.
- Frege, G. (1979). *Posthumous Writings*. Basil Blackwell, Oxford.
- Frege, G. (1998). *Begriffsschrift und andere Aufsätze*. G. Olms, Hildesheim.
- French, R. (2016). Structural reflexivity and the paradoxes of self-reference. *Ergo: An Open Access Journal of Philosophy*, 3:113–131.
- Gabbay, D. M. (1985). Theoretical foundations for nonmonotonic reasoning in expert systems. In Apt, K., editor, *Logics and Models of Concurrent Systems*, pages 439–459. Springer, Berlin and New York.
- Gentzen, G. (1934). Untersuchungen über das logische Schließen: I. *Mathematische Zeitschrift*, 39(2):176–210.
- Girard, J.-Y. (1987). Linear logic. *Theoretical Computer Science*, 50(1):1–101.
- Girard, J.-Y. (2001). Locus solum: From the rules of logic to the logic of rules. *Mathematical Structures in Computer Science*, 11(3):301–506.
- Hale, B. (2020). Exact truthmakers, modality, and essence. In Leech, J., editor, *Essence and Existence: Selected Essays*, pages 124–140. Oxford University Press, Oxford.
- Harman, G. (1984). Logic and reasoning. *Synthese*, 60(1):107–127.
- Harman, G. H. (1986). *Change in View: Principles of Reasoning*. MIT Press, Cambridge, Mass.
- Hempel, C. G. (1963). Implications of Carnap's work for the philosophy of science. In Schilpp, P., editor, *The Philosophy of Rudolf Carnap*, pages 685–709. Open Court, La Salle.
- Hlobil, U. (2016). A nonmonotonic sequent calculus for inferentialist expressivists. In Arazim, P. and Danák, M., editors, *The Logica Yearbook 2015*, pages 87–105. College Publications, London.
- Hlobil, U. (2017). When structural principles hold merely locally. In Arazim, P. and Lávika, T., editors, *The Logica Yearbook 2016*, pages 53–67. College Publications, London.
- Hlobil, U. (2018). Choosing your nonmonotonic logic: A shoppers' guide. In Arazim, P. and Lávika, T., editors, *The Logica Yearbook 2017*, pages 109–123. College Publications, London.
- Hlobil, U. (2020). Expressing validity: Towards a self-sufficient inferentialism. In Blichka, M. and Sedlár, I., editors, *The Logica Yearbook 2019*, pages 67–82. College Publications, London.
- Hlobil, U. (2022a). The laws of thought and the laws of truth as two sides of one coin. *Journal of Philosophical Logic*, 52:313–343.
- Hlobil, U. (2022b). A truth-maker semantics for ST: refusing to climb the strict/tolerant hierarchy. *Synthese*, 200(5):1–23.
- Horty, J. (2007). Defaults with priorities. *Journal of Philosophical Logic*, 36(4):367–413.
- Humberstone, L. (2011). *The Connectives*. MIT Press, Cambridge, Mass.
- Jago, M. (2018). *What Truth Is*. Oxford University Press, Oxford.

- Kant, I. (1992). *Lectures on Logic*. The Cambridge edition of the works of Immanuel Kant. Cambridge University Press, New York.
- Kaplan, D. (2018). A multi-succedent sequent calculus for logical expressivists. In Arazim, P. and Lávička, T., editors, *The Logica Yearbook 2017*, pages 139–153. College Publications, London.
- Kaplan, D. (2022). *Substructural Content*. PhD thesis, University of Pittsburgh, USA; online at: <http://d-scholarship.pitt.edu/42065/>.
- Kraus, S., Lehmann, D., and Magidor, M. (1990). Nonmonotonic reasoning, preferential models and cumulative logics. *Artificial Intelligence*, 44:167–207.
- Lakatos, I. (1976). *Proofs and Refutations: The Logic of Mathematical Discovery*. Cambridge University Press, Cambridge.
- MacFarlane, J. (2014). *Assessment Sensitivity: Relative Truth and its Applications*. Clarendon Press, Oxford.
- McDowell, J. H. (1996). *Mind and World*. Harvard University Press, Cambridge, Mass.
- Moltmann, F. (2020). Truthmaker semantics for natural language: Attitude verbs, modals, and intensional transitive verbs. *Theoretical Linguistics*, 3:159–200.
- Nair, S. (2019). Must good reasoning satisfy cumulative transitivity? *Philosophy and Phenomenological Research*, 98(1):123–146.
- Negri, S., Von Plato, J., and Ranta, A. (2008). *Structural Proof Theory*. Cambridge University Press, Cambridge.
- Pasnau, R. (2004). Form, substance, and mechanism. *Philosophical Review*, 113(1):31–88.
- Price, H. (1990). Why ‘not’? *Mind*, 99(394):221–238.
- Price, H. (2003). Truth as convenient friction. *Journal of Philosophy*, 100(4):167–190.
- Priest, G. (2006). *In Contradiction: A Study of the Transconsistent*. Oxford University Press, Oxford.
- Ré, B. D., Szmuc, D., and Teijeiro, P. (2021). Derivability and metainferential validity. *Journal of Philosophical Logic*, 51(6):1521–1547.
- Reiter, R. (1980). A logic for default reasoning. *Artificial Intelligence*, 13(1–2):81–132.
- Restall, G. (2005). Multiple conclusions. In Hájek, P., Valdés-Villanueva, L., and Westerstaahl, D., editors, *Logic, Methodology and Philosophy of Science*, pages 189–205. College Publications, London.
- Restall, G. (2009). Truth values and proof theory. *Studia Logica*, 92(2):241–264.
- Restall, G. (2013). Assertion, denial and non-classical theories. In Berto, F., Mares, E., Tanaka, K., and Paoli, F., editors, *Paraconsistency: Logic and Applications*, pages 81–99. Springer, Dordrecht.
- Ripley, D. (2012). Conservatively extending classical logic with transparent truth. *Review of Symbolic Logic*, 5(2):354–378.
- Ripley, D. (2013). Paradoxes and failures of Cut. *Australasian Journal of Philosophy*, 91(1):139–164.
- Ripley, D. (2015). Anything goes. *Topoi*, 34(1):25–36.

- Rumfitt, I. (2000). Yes and no. *Mind*, 109(436):781–823.
- Sagi, G. (2018). Logicality and meaning. *Review of Symbolic Logic*, 11(1):133–159.
- Santorio, P. (2018). Alternatives and truthmakers in conditional semantics. *Journal of Philosophy*, 115(10):513–549.
- Sellars, W. (1963). Abstract entities. *Review of Metaphysics*, 16:627–671.
- Sher, G. (1991). *The Bounds of Logic: A Generalized Viewpoint*. MIT Press, Cambridge, Mass.
- Shimamura, S. (2017). A nonmonotonic modal relevant sequent calculus. In Baltag, A., Seligman, J., and Yamada, T., editors, *Logic, Rationality, and Interaction. LORI 2017. Lecture Notes in Computer Science*, pages 570–584. Springer, Berlin.
- Shimamura, S. (2019). A first-order sequent calculus for logical inferentialists and expressivists. In Sedlár, I. and Blicha, M., editors, *The Logica Yearbook 2018*, pages 211–228. College Publications, London.
- Simonelli, R. (2022). Considering the exceptions: On the failure of cumulative transitivity for indicative conditionals. *Synthese*, 200(5):1–21.
- Simonelli, R. (2023). Why must incompatibility be symmetric? *Philosophical Quarterly*, pqad078.
- Smiley, T. (1996). Rejection. *Analysis*, 56(1):1–9.
- Spinoza, B. (2002). *Spinoza: Complete Works*. Hackett Publishing Company, Indianapolis.
- Steinberger, F. (2011). Why conclusions should remain single. *Journal of Philosophical Logic*, 40(3):333–355.
- Takeuti, G. (1987). *Proof Theory*. North-Holland, Amsterdam, 2 edition.
- Tanter, K. (2021). Subatomic inferences: An inferentialist semantics for atomics, predicates, and names. *Review of Symbolic Logic*, 16(3):672–699.
- Tarski, A. (1936). Über den Begriff der logischen Folgerung. In *Actes du Congrès International de Philosophie Scientifique, VII*, pages 1–11. Hermann et Cie, Paris.
- van Heijenoort, J. (1967). *From Frege to Gödel: A Source Book in Mathematical Logic, 1879–1931*. Harvard University Press, Cambridge, Mass.
- Wittgenstein, L. (1953). *Philosophical Investigations*. Blackwell, Oxford.
- Yablo, S. (2014). *Aboutness*. Princeton University Press, Princeton.
- Yablo, S. (2016). Ifs, ands, and buts: An incremental truthmaker semantics for indicative conditionals. *Analytic Philosophy*, 57(1):175–213.
- Zylstra, J. (2019). Making semantics for essence. *Inquiry: An Interdisciplinary Journal of Philosophy*, 62(8):859–876.

Index

- acceptance 30–8, 42–51, 55, 104, 283–7, 292, 321–2; Pragmatically Implicit (PIA) 47; *see also* assertion; practical attitudes; speech acts
- alethic 6–9, 11–12, 165–9, 181, 197–99, 206n13, 290–4, 309, 319–24; impossibility 30–2, 165–6, 170–2, 182–4, 285; necessity 285, 291; noncompossibility 320–21; *see also* impossibility; modality; necessity
- Antecedent-Adjunction (AA) 115, 125, 129, 146, 301
- assertion 3, 10–11, 106, 156n10, 159–70, 180–4, 206n12–13, 210, 306–9, 325n5; as expressing acceptance 6, 37, 42–5, 51–3, 55–7, 284; *see also* acceptance; commitment; denial; speech acts
- axioms: of classical logic 72, 151–2; of NMMS 104–5, 108–10, 112, 118, 134, 136–8, 141, 204, 246–7, 300; *see also* base; sequent calculus
- base 5–7, 12–20, 22–8, 61–71, 75–8, 80–2, 84, 86–7, 92–7, 105, 107–8, 110–121, 126–31, 136–49, 151–7, 190–1, 193–200, 211, 221–2, 224, 227, 231, 235–6, 254, 259, 262, 266–70, 282, 285–6, 288, 294, 297, 300, 302, 304–7; autonomous 26, 105, 107, 111–2, 126, 131, 196; substructural 16–17, 72, 80–1, 89, 96–7, 100, 148–9, 195, 197, 255, 297, 304–5; *see also* expressivism; LX; vocabulary
- Bayesianism 99
- bilateralism 10–12, 24–5, 42–54, 98–9, 196–8, 293, 304–6; normative 32, 47–8, 56–7, 106–7, 182, 192, 221–4; truth-maker 179, 182, 192, 224–8; *see also* bivalence; isomorphism; metavocabulary; Restall
- bivalence 53, 55–6, 143; semantic 29–32, 41; *see also* bilateralism; truth-values
- Brandom, Robert B. 19, 40, 44, 101n2, 101n4, 206n14, 324n1
- Carnap, Rudolf 1, 10, 59
- Cautious Monotonicity (CM) 82–91, 93, 139–42, 148, 296; *see also* closure; explicitation; hypernonmonotonicity
- challenge 6, 37, 43–5, 50–3, 55–6, 72–4, 144–5; *see also* claiming; defense, incompatibility; justification; speech acts
- claimable 3, 8–9, 35–8, 42–6, 56, 61, 77, 83–4, 94, 96, 145, 304; as object of practical attitudes 30–2, 35, 69; *see also* conceptual content; propositions
- claiming 3, 9, 26, 37, 40, 42–4, 182, 196; asserting 6, 68, 172; denying 38, 89, 156n10; as expressing practical attitudes 30–2, 35–8, 44–6, 55–6, 69; *see also* assertion; denial; discursive practices; practical attitudes
- classical logic xi, 17, 23, 30, 65, 72, 75, 80–2, 96, 99, 101n8, 104, 106, 112–15, 118–21, 136–42, 148–9, 151, 153–6, 173–4, 189–90, 193–4,

- 224, 242, 244, 300–3, 305, 307n2;
 axioms of 106, 118–21; classicality
 operator 136–7; and Containment
 17, 82, 96, 112–5, 118–21, 193; and
 NMMS 17, 80–1, 112–15, 151,
 153–6, 224, 300–3; structure of 72,
 80–2, 101n8, 104, 112–5, 118–21,
 242, 305; *see also* logicism;
 NonMonotonic MultiSuccedent
 logic (NMMS)
- closure 16, 23, 60, 70, 72, 76, 78,
 80–2, 85, 87–92, 95–9, 101n8,
 103, 147–9, 160, 173, 182, 296,
 303–5; explicitation 85, 87–92,
 95–9, 103, 296, 303–5; operator 72;
 structural 23, 60, 70, 72, 76, 101n8,
 103, 182, 187, 304–5; topological
 60, 72, 76, 78, 80–2, 103, 296;
see also classical logic; consequence;
 monotonicity; open; reflexivity;
 transitivity
- CM *see* Cautious Monotonicity
- CO *see* Containment
- commitment 8–12, 24, 38, 40, 43–54,
 56–7, 89–90, 92, 101n1, 106,
 124–5, 144, 197, 282, 296, 304,
 306; doxastic 8–12, 43–54, 144,
 197, 282, 296, 304, 306; implicit
 47–8, 56–7, 89–90, 92, 101n1,
 124–5, 296; *see also* acceptance;
 deontic; entitlement; rejection
- completeness 27, 156n11, 189, 200,
 202, 222, 231, 254, 263; expressive
 69, 146
- conceptual connections 68, 249–53,
 279n23
- conceptual content 1–2, 5, 8–9, 18,
 22–4, 26–8, 49, 53, 56–9, 61–4, 70,
 86, 94, 99–100, 105, 145, 157n19,
 164, 199–200, 211, 215–21, 224,
 226–33, 249–50, 276n7–8, 282,
 284–97, 301, 303–7; as functionally
 specified 26, 53, 145, 211, 282; and
 implicational roles 215–17, 226–8,
 281, 285; as inferential role 4, 8–9,
 18, 22–4, 49, 56, 61, 99–100, 145,
 199–200, 211, 281, 294–5, 303–7;
 propositional/of sentences 4–5,
 22–4, 57, 105; *see also* meaning;
 practical attitudes; propositions;
 rational forms; reason relations
- conceptual realism 8–11, 159, 167,
 318; and rational forms 9, 163–7,
 198, 290–2
- conceptual role 4, 17–28, 56, 99, 105,
 199–200, 210–76, 291, 294; *see also*
 implicational role; implication-space
 semantics; rational form; role
 inclusion
- conditional xii, 15–16, 27, 34–6, 63–4,
 67–8, 73–7, 79–80, 100, 123,
 130–1, 139–40, 146, 156n10, 219,
 222–3, 297, 301; expressive role of
 34–6, 63–4, 67–8, 95, 100, 115,
 123, 139–40, 146, 301; and
 implication 63–4, 100, 146;
 subjunctive 34–5, 73–5, 291; *see also*
 Deduction-Detachment; implication;
 logical expressivism; sentential
 connectives
- conic models 242–247, 269–272, 299,
 303
- conjunction 16, 65, 68, 95, 103,
 113–5, 146, 175–6, 185–6, 200,
 207n20, 219, 232–3, 241, 246, 252,
 261, 265–7, 301
- connective rules 14–15, 66, 70, 95,
 144–7, 305; *see also* expressivism;
 sequent calculus; structural rules
- consciousness, rational self- 25, 28, 69,
 122–123, 126, 294, 306–7
- conservativeness 15–17, 64–6, 80–1,
 95–6, 111, 114–5, 118, 139–40,
 148; *see also* elaboration; tonk
- consequence xi, 3–6, 8–11, 16–17,
 24–8, 30, 39, 41–2, 47–8, 52–3,
 57–60, 62–3, 72, 74, 77–98, 101–2,
 104–8, 111–6, 118–21, 127–30,
 132–6, 139–42, 147–9, 154–5,
 178–82, 185–95, 197–8, 202, 204,
 208–9, 210, 220–2, 224–7, 231,
 233, 235–6, 241–6, 254–5, 259–62,
 264, 269, 272–3, 279, 291–3, 296,
 300–3, 305–7; classical (CL) 41–2,
 72, 104–8; logical 16–17, 30, 47–8,
 52–3, 57–60, 220–2, 241–6,
 259–62, 264, 269, 272–3; material
 16, 24–28, 39, 47–8, 62–3;
 Pragmatic-Normative (PN) 10–11,
 46–9, 210; substructural 72, 74,
 77–98, 101–2, 111–6, 118–21,
 132–6, 139–42, 147–9, 154–5;

- Truth-Maker 178–82, 185–95,
197–8, 224–7; *see also* base;
bilateralism; implication;
incompatibility; reason relations;
truth-maker consequence
- Containment (CO) 15, 17, 68, 72,
81–2, 85, 87, 95–6, 108, 110–13,
115, 118–19, 135–7, 143, 147,
151–2, 154, 178, 180, 182, 187–90,
193–4, 201–2, 207, 209, 224, 239,
243–4, 278–9, 298, 300–1, 303,
312, 326; *see also* closure; sequent
calculus; structural rules
- Contraction 96, 105, 110–1, 129–31,
138–9, 142, 148–9, 150, 155n3,
157n25, 207n20, 209n34, 230–2,
254, 262, 279n19, 296, 302–3;
see also idempotence
- contradiction 68, 78, 93, 97, 155n2,
242; *see also* incompatibility;
negation
- contradictory (Aristotelian) 29, 68;
see also incompatibility; negation
- contrariety (Aristotelian) 45, 68;
see also incompatibility; negation;
reasons
- Correia's logic 246–8, 274–5, 280n26,
289, 299–300, 303; *see also*
metaphysics
- Covariant Tracking 163, 168, 209n32,
277n8
- CT *see* Cumulative Transitivity
- Cumulative Transitivity (CT) 79–80,
83–5, 87–91, 97, 101n10–1,
119–120, 139, 141–2, 296; *see also*
closure; Cut; hypernonmonotonicity;
structural rules
- Cut 41, 83, 86, 101n3, 101n11, 137,
146–147, 155n2, 157n26, 180, 182,
187–92, 201–2, 207n15, 235–7,
239, 242, 244–5, 278n16, 279, 298,
303, 305, 307n3; Mixed-Cut 110–1,
116–7, 119, 151–2; PN 182;
soundness of 189; TM 182, 188–9,
192, 201–2; *see also* sequent
calculus; structural rules
- Davidson, Donald 2, 207n16
- DD *see* Deduction-Detachment
- Deduction-Detachment (DD) 67–8,
76–7, 79, 109, 115, 123, 125, 129,
139–40, 146, 219, 222–3, 301;
see also conditional; explicitation;
expressivism
- defeasible/defeasor 72–4, 77–8, 80, 86,
93
- defense 6, 45, 52–3, 55, 74, 144;
see also challenge; claiming;
implication; justification; reasoning;
reasons; reasons relations; speech
acts
- denial 8–11, 30, 32–3, 35, 37–8, 42–5,
50, 52, 55–6, 89–90, 106, 122,
124–5, 159–70, 172, 180–4, 192,
195–6, 206n12–3, 210, 288, 304,
307–11, 323; *see also* negation;
practical attitudes; rejection; speech
acts
- deontic 7, 9–12, 30–2, 291–2;
commitment/entitlement 9–10, 12,
40, 44–6, 52–3, 56, 306; *see also*
commitment; entitlement; modality
- derivability 39, 53, 67, 105, 109–12,
115, 146, 187, 302
- Descartes, René 11, 59
- Dewey, John 2
- discursive practices 2–3, 6–10, 26, 31,
35, 38–40, 45, 52–3, 55–7, 92, 100,
104, 107, 143, 196–9, 285, 290–4,
304, 309–10, 314, 319, 321–2,
325n5; claiming 8, 26, 31, 69, 92,
100, 167, 196, 304, 309; critical
character 3, 35, 45, 52–3, 55, 92,
100, 104, 143, 304, 325n5; *see also*
asserting; challenge; claiming;
defense; justification; pragmatics;
speech acts
- disjunction 16, 65, 68, 103, 113–5,
146, 176–7, 186–7, 200, 207n20,
232–3, 236, 241, 246, 258, 266–7,
301, 307n2
- distinctions: acceptance/rejection 30–5,
45–8, 55–6, 206n13, 285–9, 292–3,
321–2; adjunction/symjunction
216–8, 223, 257, 297–8;
alethic/deontic modality 7–11, 30–2,
291–2, 319–24; assertion/denial
10–11, 52, 55–7, 159–61, 165–8,
181; Australian/American plan for
negation 68; challenge/defense 45,
52–3, 55–6; CM/CT 83–91, 139;
commitment/entitlement 40, 42–52,

- 56–7, 106, 197–8, 304;
 connective/structural rules 128–31,
 147, 184–9, 230–7;
 contractive/noncontractive 146–7,
 230–7, 262–3, 278n12, 302–3;
 expressive/aggregative sentential
 connectives 15, 68;
 expressivism/logicism 57–71, 78–82,
 86–9, 94–5, 104, 121–4, 143;
 explicit/implicit 48–9, 56–7, 64–5,
 83–9, 91–4, 102n14, 121–4;
 extrinsic-explanatory/intrinsic-
 explicative metavocabularies 12–13,
 17, 24, 27–8, 199–200, 281–2, 286,
 304–5; form/matter 163–7, 169,
 205n9, 210, 290–4, 311–2;
 implication/incompatibility 4–9,
 12–16, 25–6, 37–43, 46–50, 53–4,
 55–6, 66–7, 77–8, 97–8, 196–8,
 276n2, 282–3, 285;
 inferentialism/representationalism
 18–9, 22–5, 255, 294, 304–5; model
 theory/proof theory 18, 23–5,
 107–15, 180–4, 221–4, 235–7, 298;
 nonmonotonic/hypernonmonotonic
 85, 95–6; open/closed structure
 72–3, 89, 91, 187, 296, 304–5;
 reasons for/against 3–6, 26, 35–40,
 42–3, 55–6, 74, 145, 293; *salva*
veritate/salva consequentia 101n6,
 215–6; semantics/pragmatics 2–4,
 29–32, 195–7
- Downward-Closure 177, 192–4,
 208n23; and soundness of
 Weakening 188–9, 201; *see also*
 truth-maker semantics; Weakening
 Dummett, Michael 2, 57–8
- elaboration 14–17, 64, 66–7, 70–1,
 94–6, 107, 144–5, 300, 302
- entitlement 9, 40, 44–53, 56, 106,
 196–7, 304; default 45, 53, 56;
 preclusion of 9, 11, 47–8, 50, 56–7,
 106, 282, 306
- equivalence class: and implicational
 roles 215, 226, 295; of sentences 33,
 34, 218
- equivalence relation 27, 98; among
 implicational roles 212–4, 276n1,
 276n6, 277n8, 286
- essence 173, 247–8, 255–6, 272, 274,
 300; *see also* grounding
- ex contradictione quodlibet* 4, 25, 78,
 97, 102n15, 242, 244; *see also*
 implicational roles; negation
- exclusion 284–5, 288–9, 323; logical
 211, 221, 228; mathematical 310;
 modal 195, 294; normative 291,
 312, 321; rational 4, 25, 30, 56;
see also incompatibility
- Exclusivity 177, 180, 183, 188–91,
 194, 201–2, 204, 209n34, 209n40,
 298; *see also* Containment; Strong
 Kleene Logic (K3)
- Exhaustivity 177, 180, 182, 188–94,
 201–2; and soundness of Cut 189,
 201; *see also* Cut; Strong Kleene
 Logic (K3)
- explicitation/explication xi, 69, 84–93,
 98, 101n12, 102n15, 121–9, 139,
 145–6, 296; by implication 84–93,
 121–9, 131, 145–6, 152; of implicit
 content 84–93, 98, 102n15; of
 reason relations 121–9; by sequents
 69, 126–9; *see also* inference; logical
 expressivism; logical
 metavocabulary; logical vocabulary;
 logicism, LX
- explosion *see ex contradictione*
quodlibet
- expressivism xi, 17, 55, 60–4, 69–70,
 80, 86, 94, 101, 103–5, 107, 111,
 114, 121–3, 126, 128, 131, 133,
 139–41, 143–5, 147–8, 199, 235,
 282, 294, 301–2, 304; *see also*
 elaboration; explicitation; logicism;
 LX; NonMonotonic MultiSuccedent
 logic (NMMS)
- extension 14, 64, 81, 97, 118, 121,
 141–2, 151, 170, 190, 288;
 conservative 23, 114, 139, 148, 297
- fact 9, 34–5, 160–1, 163, 168, 171,
 206–7, 234–5, 247–8, 252, 255,
 264–5, 272, 274, 289–90, 297, 299,
 311
- falsifier *see* falsity-maker
- falsity 11, 29–32, 35, 53, 55, 159–63,
 165–6, 168–9, 172, 174–81, 184–9,
 191, 195, 203, 205–7, 210, 225–6,
 245, 248, 252, 260, 272–5, 284–5,
 287, 289, 293–4, 309, 311, 317–18,
 321–2, 325–6; *see also* bivalence;
 truth; truth-values

- falsity-maker 160–3, 165–6, 168–9, 174–81, 184–9, 191, 195, 203, 205–7, 210, 225–6, 245, 248, 252, 260, 272–5, 284–5, 287, 293–4, 309, 311, 321–2; *see also* representation; truth conditions; truth-maker; truth-maker semantics
- Fine, Kit 1–2, 10, 19–21, 32, 161, 173–4, 177–8, 182, 189, 205n8, 207n17, 207n19, 208n22, 208n23, 208n25 246, 307n2; *see also* truth-maker semantics
- form *see* rational form; hylomorphism
- Frege, Gottlob 1, 9, 20, 27–9, 34, 57–62, 70–1, 143–4, 149, 307
- functionalism 9, 11–12, 26, 28, 281, 285; metaconceptual 290, 307; metalinguistic 9, 26, 28, 285, 290; meta-rational 200; in philosophy of mind 93; about rational forms 164–167, 170, 313; about reasons 98; about reason relations 99, 290
- fusion 7, 11, 24, 174–6, 178–9, 180–1, 185–9, 194, 197–8, 225, 306
- Gentzen, Gerhard 13, 18, 25, 41–2, 50, 72, 83, 87–8, 95–7, 102n14, 105–106, 145–6, 149, 151–2; *see also* Cut; sequent calculus
- Girard, Jean-Yves xi, 96, 234–5, 276n1, 278n14, 283, 297, 307n2
- grounding 173, 255–6, 272, 300; strict full 248, 275; *see also* essence; metaphysics
- Harman, Gilbert 36–38, 43, 46, 48–9, 89–90, 104
- Heidegger, Martin 2
- Hempel, Carl G. 60
- hylomorphism 9, 163–5, 167, 291; compounds 163, 165, 167; matter 163–7, 169, 205n9, 210, 253, 285–7, 290–4, 311–2, 318, 324
- hypernonmonotonicity 85, 90, 93–6, 148, 200, 305
- hysteresis 52, 91–3, 296; *see also* closure
- idempotence 72, 208n20, 278n12; *see also* closure; Contraction
- identity 27, 228–9, 318; generalized 173, 246–9, 275
- implication xi, 4–6, 8, 10, 12–28, 36–43, 46–50, 52–3, 55–6, 58–9, 61–7, 70–2, 75–102, 103–7, 113–49, 157, 172, 179–80, 192–3, 196–200, 210–56, 281–3, 285–91, 293–307, 308, 310–14, 323–4; defeasible 21, 72–86, 93–5, 104, 114, 116–20, 132–3, 136, 193–4, 213, 239; definitions of 46–9, 52–3, 56, 106–7, 110, 179–80, 220; explicitation by 124–6; logical 58–9, 70–2, 103–31, 180, 224; material 12–28, 36–9, 46–50, 75–102, 104, 121, 143, 192, 243, 253, 300, 303, 305; *see also* consequence; implication-space semantics; incompatibility; reason relations
- implication frame 212, 217, 220–1, 224–7, 229, 234, 239, 253–4, 259, 264, 266, 269, 276n7, 277n8; *see also* implicational roles; implication-space semantics
- implicational role inclusion *see* role inclusion
- implicational role 19, 56, 99, 210–76, 214, 221, 295–300, 310, 314; as abstractions 211–215; adjunction of 216–7, 223; bearers of 212, 230, 239; and conceptual content 215; entailment 216; implication equivalence 214; inclusion 237–53; of logically complex sentences 218, 231–2; premisory/conclusory role 23–4, 213–5; symjunction of 217–9, 223; *see also* implication-space semantics; rational forms; role inclusion
- implication space xi, 18–19, 20, 22–5, 27–8, 86, 97, 199, 200, 211–12, 218, 225–9, 230–7, 290, 302, 304–6; candidate implications 19, 20, 212–4, 216–7, 228–9, 234, 242, 254, 295, 310; conclusion set 239, 242, 306; implication 53, 56, 216, 227, 253–4; implication frame of 224–6, 254, 299; premise set 239, 242, 306; *see also* implication-space semantics
- implication-space semantics 19–20, 22, 24–5, 53, 56, 199–200, 210–76, 283, 286–7, 289, 293–8, 300–1, 309, 313; conceptual content in 215, 241; conic models of 242–4, 247, 299; consequence in 212, 216, 220; implicational roles 214, 222, 227; and truth-maker semantics 224–8;

- see also* conceptual content;
 implicational roles; rational forms
 implicit 3, 47–9, 56, 65, 76, 83–9,
 91–6, 98, 102, 147, 155, 197, 314,
 323–4; *see also*
 explication/explication
 impossibility 6–8, 29–31, 40, 285, 288,
 291, 310, 320; as noncompossibility
 6, 321; normative 164–6, 172; of
 states 10–12, 19, 24, 160–1, 164–6,
 172, 174, 177–88, 191–4, 196–8,
 224–6, 306; *see also* alethic;
 incompatibility, modality;
 truth-maker semantics
 inclusion 4; content 237, 240–1; for
 implicational roles 238–9, 240, 243,
 246, 249, 250–1, 254, 289, 299;
 logical 246–7, 299, 300, 303; modal
 289; normative 249; rational 25, 56;
 role 237–46, 252; *see also*
 implication
 incoherence 41, 94, 146, 193;
 defeasible 77, 155n2; persistent 93;
 of premise sets 77–8, 93, 115–6;
see also incompatibility
 Incoherence-Incompatibility (II) 67–68,
 146, 223, 301; *see also* negation
 incompatibility 3–9, 11–18, 20, 23–7,
 31, 36–43, 45–53, 55–8, 60–4,
 66–81, 84–7, 92–102, 103–5, 107,
 115–6, 118, 122, 142–9, 155, 163,
 165–72, 184, 193–4, 196–9, 206,
 219, 244, 249, 276, 281–3, 285–91,
 300–7, 309, 312–5, 318–26; logical
 16, 38, 58, 63–4, 67–9, 70, 86, 92,
 103–5, 115, 144, 146–9; material
 3–9, 11–18, 20, 23–7, 36–43, 60–4,
 66–81, 249, 285–91, 300–7,
 312–15, 318–26; monotonicity of
 78, 84–6, 104, 115–18, 146–9, 155,
 193–4; symmetry of 39–42, 45,
 50–53; *see also* inconsistency;
 negation; reason relations
 inconsistency 16, 25, 36, 41, 52–3,
 58–9, 62–3, 68, 75, 94–5,
 97, 101n8, 149; *see also*
 incompatibility
 indefeasible *see* persistence
 inference 31, 46, 61, 65, 85–88, 106,
 119, 140, 268, 288, 296; as
 acknowledgment of implicit
 commitments 89, 92, 119, 296;
 defeasible 86, 236; *see also*
 commitment; inferentialism
 inference rules *see* operational rules;
 structural rules/principles
 inferentialism 18–19, 22–4, 56–7,
 61–2, 105, 123, 145, 255, 281,
 294–5, 304–5; compositionality of
 255, 291; holism of 255, 291–2; and
 implicational roles 22, 56–7, 105,
 145, 295; and implication-space
 semantics 22–4, 199, 255, 291; as
 theory of meaning 53, 281; *see also*
 implication-space semantics;
 inference; meaning; reason relations
 interpretation 12, 19, 22, 47, 107, 295,
 305, 322; for conditionals 219; in
 implication-space semantics 218–20,
 225–6, 230, 232, 235, 241; for
 linear logic 232; noncontractive 230;
 in truth-maker semantics 175, 179,
 181, 191, 192
 isomorphism 180–9; between
 consequence relations 17, 158, 166,
 170, 172–173, 178, 299; as defining
 higher-order representational norms
 198; and metavocabularies 10, 11,
 24, 27, 32, 99, 181, 197, 199, 293,
 305–306; between modal relations
 162, 181, 184; between theories 181,
 191, 195, 322; *see also* rational
 forms
 James, William 2
 justification 3–4, 35–7, 44–5, 72–3,
 325n5; *see also* challenge; defense;
 entitlement; pragmatics
 K3 *see* Strong Kleene Logic (K3)
 Kant, Immanuel 83, 306–9
 Kaplan, Daniel S. xi, 17–19, 23, 156n9,
 276n1, 278n14, 278n17, 307n3
 Kripke, Saul 1, 10, 54n2, 208, 241,
 279n21
 Lewis, David 1–2, 10
 language 1–8, 11–12, 16, 26–7, 60–3,
 65–6, 97–8, 103–4, 108, 110–12,
 121–2, 126–7, 134–7, 142, 146,
 154, 156–7, 169–71, 173, 175, 177,
 191–3, 195–7, 217–21, 225–7,
 230–2, 241–2, 250, 253–4, 266–8,

- 277–8, 282–9, 291–2, 302–3, 306;
see also base; discursive practices;
 sentences; vocabulary
- lexicon 5–7, 13–15, 19, 66, 225;
 extended 14–15, 27, 108, 126;
see also vocabulary
- liar sentence 190–2
- Linear Logic 96, 113, 232–7, 263–6,
 289, 297; connectives 236;
 interpretation function 232;
 multiplicative additive (MALL)
 232–237, 263–264, 289; and
 phase-space semantics 234–235,
 237; *see also* implication-space
 semantics
- linguistic rationalism 3–4, 12;
 pragmatic 55; *see also* metalinguistic
 rationalism
- logic *see* strict-tolerant logic (ST)
- Logic of Paradox (LP) 23, 72, 209n40,
 241–7, 270–2, 299; *see also* role
 inclusion
- logical expressivism 17, 60, 60–71,
 104–5, 107, 121–4, 126, 128,
 139–41, 144, 147, 235, 282, 301;
 role of logical vocabulary 104, 122,
 131, 145, 282, 301–2; *see also*
 conditional; expressivism; logical
 vocabulary; LX; negation; sentential
 connectives
- logical vocabulary 2, 12, 18, 41, 52–4,
 60–71, 76, 84–6, 91, 107–12,
 120–24, 142, 147–9, 175–6, 184,
 193–5, 199–200, 217–9, 223, 230,
 236, 249, 253, 300, 304, 306;
 expressive role of 13–15, 60–71, 75,
 80, 88, 94–5, 121–3, 144, 281–9,
 301–2; introduction of 13–15, 97,
 103–5, 107–115; as universally LX
 16–17, 23, 67, 70–1, 94, 105, 107,
 111–12, 121–8, 130–1, 144–7,
 156n12, 199, 282, 288, 302; *see also*
 metavocabulary; vocabulary
- logicism 57–59, 69, 86; and closure 60,
 80, 85–91; and pure logic 63–64,
 143; about reasons 59–60, 66, 69,
 80, 82, 94, 104, 116; structural 78,
 80, 82, 84–90, 92, 94, 97; *see also*
 logical expressivism
- LX (elaborated from/explicitating of)
 16–17, 64, 66, 69, 82, 96, 197;
 universality of 16–17, 23, 67, 70–1,
 94, 105, 107, 111–2, 121, 126, 128,
 130–1, 144–7, 199, 288, 302;
see also explicitation; logical
 expressivism
- MALL *see* Multiplicative-Additive
 Linear Logic
- matter *see* hylomorphism; rational form
- McDowell, John H. 9
- meaning 2–4, 6–7, 9, 11, 19–20, 22,
 25–6, 29–30, 53–4, 195–7, 249–50,
 283–4, 292, 295, 303–4;
 inferentialist 53, 56, 250; *see also*
 conceptual content; inferentialism;
 propositions; rational forms;
 representationalism; semantics
- mereology 10, 12, 18, 196
- metainference 13–14, 17, 23, 242; and
 conceptual roles 23, 299; validity of
 242, 270–2, 299–300; *see also*
 validity
- metalanguage 3, 98, 122, 134–5, 253;
 logical 65, 83, 146; mathematical 1;
 pragmatic 3, 26, 283; semantic 1, 3,
 283
- metalinguistic rationalism 4, 8, 54,
 289–90, 307; *see also* linguistic
 rationalism
- metaphysics 173, 197, 246–9, 255,
 272, 291; *see also* grounding;
 identity
- metavocabulary 3–28, 158, 195, 198,
 200, 210–11, 281–94, 305–6, 319;
 extrinsic-explanatory 13, 199–200,
 211, 281, 286–8; implication-space
 18, 23–4, 27, 294, 304–5;
 intrinsic-explicative 13, 15, 23, 56,
 199–200, 210, 228, 281, 286–8,
 294, 299; logical 2, 18, 63, 99–100,
 145, 288; pragmatic 2, 6–11, 34, 40,
 49, 53, 55–6, 98, 158, 172, 196,
 198, 281, 283–90, 302–6, 308, 319,
 323; rational 6–11, 28, 53, 196,
 199–200, 288, 303–6;
 representational 10, 210, 253, 283;
 semantic 2, 6–11, 34, 53, 86,
 99–100, 158, 196–200, 281,
 283–90, 294, 297, 304–6, 308, 323;
see also metalanguage; vocabulary

- modality 9, 30, 167, 287, 290–1, 310, 312; alethic 1, 6–7, 9, 11, 30, 167–9, 172, 181, 184, 197, 199, 228, 285, 290–4, 309, 319–4; deontic 1, 9, 11–12, 30–2, 168–9, 173, 181, 291, 309, 319, 323–4; necessity 8, 135, 148; *see also* alethic; deontic; necessity; possibility
- model theory 227; Tarskian 1–2, 10, 13; *see also* implication-space semantics; model; truth-maker semantics
- monoid 24, 211, 228–230, 234, 263, 294–5; elements of 228, 254, 295, 297, 309–10; idempotence 278n12; and implication frames 212, 230, 234, 254; and reason relations 228, 310
- Monotonicity (MO) xii, 78–9, 82, 87–8, 101n13, 183; Cautious (CM) 82–91, 139–41; failure of xii, 72, 74, 78, 81, 85, 89–90, 93, 104, 109–11, 116–20, 131–2, 147–8, 188, 192–4; global 16, 25, 69, 76–7, 86–91, 96–9, 139–42, 147–9, 160, 182; local 76–7, 132–6; Monotonicity Box 135–136; *see also* classical logic; nonmonotonicity; weakening
- Multiplicative-Additive Linear Logic 232–4, 263–4, 298
- multisets 106–7, 129, 150, 155n3, 229–30, 279n19
- multisuccedent 10, 22, 28, 46–7, 52, 69, 99, 145, 306; *see also* bilateralism; NonMonotonic MultiSuccedent logic (NMMS)
- necessity 8–9, 135–6, 148; Persistence-Codifying Modal Operator 76, 135; *see also* implication; modality
- negation 32, 67–8, 74, 116, 146, 179, 297; expressive role of 68, 76, 124–5, 233, 297; and incompatibility 64, 67–8, 74, 100, 219; *see also* Incoherence-Incompatibility; incompatibility; logical vocabulary; sentential connectives
- NMMS *see* NonMonotonic MultiSuccedent logic
- nonmonotonicity 17, 28, 42, 73–85, 93, 95–6, 101n8, 104, 113, 116, 118, 139, 148–9, 192–4, 213, 223, 236, 289, 293, 305; hypernonmonotonicity 85, 90, 93–6, 148, 200, 305; of incompatibilities 104, 116, 193; *see also* monotonicity
- NonMonotonic MultiSuccedent logic (NMMS) 17, 81–2, 92, 105, 108–115, 119–31, 134–8, 146–9, 173, 185–7, 190, 192–5, 221–4, 227–8, 236, 253–4, 292, 300–6; axioms of 108–9, 118; and implication-space semantics 221–4; rules of 109; *see also* sequent calculus
- Normative Governance 159–161; *see also* representation
- normative metavocabulary *see* metavocabulary
- norms 38–9, 121–2, 320; for reasoning 3, 38–9, 122, 142–3, 158–9, 281–5, 288, 325n5; and representation 162–3, 167–8, 173, 184, 195–9, 209n32, 306; *see also* bilateralism; commitment; deontic; discursive practices; entitlement; pragmatics; social practices
- open 90–1, 103–5, 116, 126, 147, 173, 210, 237, 255, 281, 283, 293–4, 296–7, 300–1, 303; and structure of reason relations 72, 81–2, 85, 89, 91, 96–9, 100, 148–9, 187, 189, 195, 210, 212, 305; substructurality 85, 89, 113, 120, 195; *see also* closure; reason relations
- operational rules 109, 129, 183–7, 194, 201, 228; deeming impossible 184; left-rules 135, 180, 219, 222–3, 298; PN 181–3; right-rules 84, 135, 180, 219, 222, 236, 298; soundness of 136, 185, 187–9; and truth-maker consequence 178, 180–9, 191; validity of 112–3, 120, 185–7; *see also* sequent calculus
- order of explanation *see* semantics-first
- pragmatics-first; semantics-first
- out of bounds 7, 10–12, 47–52, 106–7, 124–5, 156n10, 172, 181, 310, 325n7; *see also* bilateralism; norms

- partition 19–20, 228–30, 254, 267–8, 270, 295, 297, 310, 312, 315;
see also monoid
- Peirce, Charles Sanders 2
- Permutation 42, 110, 157n25; *see also* sequent calculus
- persistence 75–8, 93–4, 97–8, 102n15, 119, 133–6, 148, 155n2, 240, 243;
see also Monotonicity
- practical attitudes 7–9, 30, 33, 53, 55;
 acceptance 30–38, 42–45, 55;
 doxastic 56, 196; expression of 8, 9, 30; rejection 30–8, 42–45; *see also* assertion; claiming; commitment; denial; speech acts
- pragmatic metavocabulary *see* metavocabulary
- pragmatics 2, 6–9, 30–5, 40, 99, 103, 181, 195–99, 210–11, 253, 281, 304, 307, 319; affirmation/denial and commitment/entitlement 10–11, 24, 33–5, 40–3, 46, 55–6, 99, 103, 181–4, 290, 294; discursive 2–3, 7–10, 26–40, 52, 55–57;
 pragmatic/semantic distinction 2–6, 24, 30, 283–89, 319; understanding 6, 10, 47–8; *see also* language; use
- pragmatics-first 3, 31–2, 40–41, 55, 100, 103–4, 142–3, 158, 173, 180–1, 207n19, 304, 308–9, 319;
see also order of explanation
- Price, Huw 2, 38, 325n5
- proof-search 150–1, 202, 204, 259, 263; *see also* sequent calculus
- proof theory 4, 18, 24–5, 65, 103, 278n13, 293, 298, 305–6; *see also* sequent calculus
- propositions 5, 18, 42–3, 69, 100, 199, 281–3, 290–3, 309, 317; worldly 161–72, 175, 177, 179, 181–4, 195, 197, 205n3, 205n8, 210–12, 224–7, 252–3, 287, 309, 311; *see also* conceptual content; conceptual role; rational forms; representation
- Putnam, Hilary 2, 207n16
- Quine, Willard Van Orman 1–2, 33, 70–1, 144, 149, 207n16, 277n8
- Ramsey Condition 67, 77, 79; *see also* conditional; Deduction-Detachment; explicitation; expressivism
- range of subjunctive robustness 20–2, 76, 132–3, 135, 213–5, 217–9, 222–3, 229–30, 233, 235–9, 254, 257, 264, 286, 295–9; *see also* implicational roles; subjunctive robustness
- rational forms 9, 12, 17, 24, 28, 159, 162–7, 181, 211, 221, 228, 253–5, 290–294, 308–324; bearers of 165, 291–2, 309–10, 314; sharing of 166, 168, 181; *see also* conceptual content; conceptual realism
- rational metavocabulary 6–7, 12, 25–8, 53, 196, 284–5, 288, 290, 303–4, 306–7; extrinsic-explanatory 13, 24, 27, 199–200, 286; intrinsic-explicative 13, 15, 17–18, 23, 27, 199–200, 286, 299; *see also* metavocabulary
- reasoning 2–3, 9, 26, 33, 36, 59–60, 70, 72–3, 78, 80, 82–4, 86, 90, 92, 99, 197, 303; versus reason relations 35–7, 43, 48–9; *see also* discursive practices; norms; reason relations
- reason relations 3, 4–11, 33–52, 121–131, 189–195, 228–230, 283–290, 293–303; *see also* consequence; implication; incompatibility
- reasons 1–6, 26, 33–46, 57–64, 69, 98–9, 101n1, 108, 125, 142–5, 172, 196, 199, 281–2, 295–6, 303–4, 322; defeasibility of 21, 72–4; for/against 21–2, 55–6, 69, 75, 100, 103, 106–7, 116, 122, 193, 289, 293; logicism 59–60, 66, 69, 78, 80–2, 87, 94–5, 104, 116, 143; material 36, 39, 52, 62–3, 66, 69, 75, 78, 80–2, 84–90, 92, 94–100, 119, 121, 180, 192–4, 291, 299, 303; question 57–9, 69; *see also* challenge; defense; inferentialism; logicism; reason relations
- reasons question about logic 57–59, 69, 90; *see also* logicism
- Reflexivity (RE) 82, 85, 96, 110–1, 242–3, 267, 278n18, 296, 303;
see also Containment
- rejection 30–9, 42–6, 55–6, 104, 124–5, 206n13, 283–7, 292–4, 321–2; Pragmatically Implicit (PIR)

- 47–8; *see also* denial; practical attitudes; speech acts
- representation 7–8, 10–12, 18–20, 24–8, 31–2, 143–4, 158–71, 175, 183–4, 195–8, 210, 252–3, 283–7, 291–4, 302–7, 318, 322; and explicitation 129–31, 147, 231; factive/non-factive 161, 163, 171; and isomorphism 158–9, 168–9, 172; misrepresentation 168, 171, 209n32; and rational forms 159, 162–168, 181, 184, 195; *see also* Covariant Tracking; isomorphism; Normative Governance; rational forms
- representationalism 18–19, 172, 178, 195, 210–1, 253, 281, 284–7, 304–5; *see also* inferentialism; meaning; representation
- Restall, Greg 10–11, 32, 46–8, 50, 68, 106–7, 283, 293, 325n7
- Ripley, David 10–11, 32, 46–8, 50, 101n3, 190–1, 202, 209n38, 241
- role inclusion 237–55, 299–300, 303; definition of 238–9; and strong Kleene scheme 214–46; and metaphysics 246–9; nonlogical 249–53; *see also* implicational role; Logic of Paradox (LP); strict-tolerant logic (ST); Strong Kleene Logic (K3); tolerant-strict logic (TS)
- Rorty, Richard 2
- Russell, Bertrand 1, 58–60
- self-consciousness, rational 25, 28, 69, 122–123, 126, 294, 306–307; conceptual 28, 69, 122, 126, 306–7; and logical vocabulary 69, 122–3; *see also* consciousness; metavocabulary
- Sellars, Wilfrid 2, 36, 62, 100, 164, 287; *see also* inferentialism
- semantic metavocabulary *see* metavocabulary
- semantics 1–4, 30–2, 39, 43, 83, 99, 143, 190, 195, 206n10, 233, 255, 305; hyperintensional 2, 173; inferentialist 18, 22–4, 53, 255, 294–5; intensional 2, 10, 35, 76–7; intrinsic 19, 22, 24; possible worlds 2, 174, 216, 326; representationalist 24, 294; *see also* implication-space semantics; truth-maker semantics
- semantics-first 3, 158–62, 172–3, 308–9, 319; *see also* order of explanation
- sentential connectives 14–17, 63–70, 76, 81, 103, 129, 145–9, 218, 228, 231–3, 236–7, 255, 298; *see also* conditional; conjunction; disjunction; negation
- sequent 105, 107–12; *see also* sequent calculus
- sequent calculus 13–18, 22–4, 41, 68–9, 103–12, 134–5, 141–9, 173, 178, 180–1, 185, 189–90, 194, 211, 221–3, 227, 230–1, 236, 249, 288–9, 298, 300–1, 304–5; axioms of 104–5, 108–9, 118, 300; reduction trees 202; rules of 106–12, 181–9, 222–3, 231, 250–2, 298; *see also* inferentialism; logical expressivism; operational rules
- Sharing Rational Forms 166, 181
- sign design 5, 100, 164, 167
- Simonelli, Ryan xii, 46–7, 50, 53, 79, 156n17
- social practices 1–2, 197; *see also* discursive practices; language
- speech acts 3, 9, 30, 52, 55–6, 196; *see also* assertion; denial; metavocabulary; practical attitudes
- Spinoza, Baruch 11, 59, 291
- ST *see* strict-tolerant logic (ST)
- Stalnaker, Robert 2
- state of affairs 6, 160; *see also* fact; worldly state
- Strong Kleene Logic (K3) 23, 72, 209n40, 241–4, 246–7, 270–2, 299; *see also* Logic of Paradox (LP); role inclusion; strict-tolerant logic (ST); tolerant-strict logic (TS)
- strict-tolerant logic (ST) 23, 86, 190–2, 241–3, 255, 279n22, 289, 299
- structural rules/principles 15, 41, 78, 83, 87, 89, 110–3, 157n25, 298, 326n7; and NMMS 110–3, 116, 131–2, 139–40, 142–3, 147–8, 149; and truth-maker consequence 178, 180, 182, 187–9; and implication-space semantics 239, 278–9; *see also* Containment; Cut;

- NonMonotonic MultiSuccedent logic (NMMS); sequent calculus; Weakening
 structure *see* structural rules
 subjunctive conditionals 34–5, 73–4, 291; *see also* subjunctive robustness
 subjunctive robustness 9, 98, 292; *see also* range of subjunctive robustness
 succedent 10, 17, 20, 39, 46–7, 52, 96, 108, 115; *see also* sequent calculus
 Succedent-Summation (SS) 115, 146, 223, 301
 symmetry 39–41, 45, 49–50, 168, 171, 225–6; *see also* incompatibility

 Tarski, Alfred 1–2, 10, 25, 41, 47, 72, 81, 83, 87–8, 97, 101n6, 102n14, 149, 305
 theorems 81, 86, 118–20, 136, 247
 tolerant-strict logic (TS) 23, 209n40, 241–3, 246, 255, 270–2, 299
 tonk 65
Tractatus Logico-Philosophicus 1, 59
 transitivity 16–17, 23, 70, 78–85, 95–8, 113, 116, 147, 187, 190–2, 293, 296, 305; local 139–42; *see also* closure; Cumulative Transitivity (CT); Cut
 Travis, Charles 2
 truth 19, 29–35, 53, 55, 57–8, 77, 116, 159–64, 173–4, 190–2, 220, 292–5, 317–19, 325n5–7; *see also* truth-makers; truth-values
 truth conditions 20–1, 34–5, 66, 173, 207n16, 295; *see also* truth-maker; worldly states
 truth-maker 159–62, 173–176, 225–6; of sets 176
 truth-maker semantics 24, 53, 187, 192, 194, 197, 293–4, 306; Consequence 179–80, 184–9; Containment 178, 187–9; Downward-Closure 177, 187–9; Entailment 178; Exclusivity 177, 187–9; Exhaustivity 177, 187–9; fusion 174; and implication-space semantics 224–8; and logical consequence 180; logical vocabulary 175–6; modalized state space 174; models of 175; null state 175; parallel models 226, 259; Propositional Implication 179
 truth-predicate 190–1, 195, 209n36, 242
 truth-values 19–20, 29–35, 42, 173, 241–2, 244–5, 325n7; *see also* bivalence; falsity; truth; truth-maker semantics
 turnstile 10, 39, 43, 46–7, 50, 76–7, 84, 87–9, 139, 146, 156n16; *see also* implication

 use 2–4, 7–8, 26–27, 30, 52–54, 63–64, 94, 111–12, 123, 195–8, 283–4, 292; and representation 8, 11–12, 32, 143, 158–9, 162–4, 168–70, 173, 197–198, 209n32, 287, 306; *see also* assertion; denial; norms; pragmatics; speech acts

 validity 58, 69, 84, 94, 131, 157n21, 178, 180, 184–9, 201–4, 208n26, 242; classical 112–5, 119–20, 194; metainferential 270–2, 299–300; *see also* consequence
 vocabulary 5–28, 103–5; autonomous 26, 105–112, 126, 131, 196; base 5–28, 61–71, 75–6, 81–2, 92–7, 107–14, 126–31, 135, 144–9, 193–6, 199–200, 221–2, 231, 286, 300–5; logical 12, 41, 60–71, 107–12, 121–24, 175–6, 218–9; logically extended 14–17, 27, 63–6, 75–6, 81, 95–8, 107–13, 118–21, 126–31, 137, 144–9, 222, 231, 300–2; nonlogical 13–16, 39, 58–9, 62–8, 70–1, 92–5, 105, 108, 128, 144, 149, 300; *see also* lexicon; metavocabulary; reason relations; sentences

 Weakening 79, 110–1, 119, 133–4, 151, 183, 187–9, 201, 298; *see also* closure; Monotonicity; sequent calculus; structural rules
 Whitehead, Alfred N. 60
 Wittgenstein, Ludwig 1–2, 9, 59, 100, 160–1
 worldly states 9, 24–5, 32–4, 164–7, 196–9, 228, 253, 283–8, 290–5, 308–10, 322; *see also* fact; fusion