

- JUAN C. AGUDELO-AGUDELO, *Semilattice semantics for logics of evidence and truth*.

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Urquhart's *semilattice semantics* [1] provides a model for interpreting logical systems by means of the structure of a join-semilattice. The elements of the semilattice represent *pieces of information*, and the join operation represents the combination of pieces of information. In this semantics, a valuation function assigns to each propositional variable p a set of pieces of information: those for which the truth of p can be accepted. This valuation is then inductively extended to all formulas.

The *logics of evidence and truth* (LETs) are a family of logical systems originally conceived to provide an epistemic interpretation of paraconsistent and paracomplete logics. Evidence for a proposition A is understood as reasons to accept the truth of A . Contradictions are associated with the existence of conflicting pieces of evidence, which do not necessarily correspond to 'real contradictions' and should therefore not lead to deductive collapse, which justifies the paraconsistency. The paracompleteness is explained by the possible lack of evidence either to accept or to reject a given proposition. Some LETs are BLE, LET_J (cf. [2]), and LET_C (cf. [3]).

Although the LETs are provided of bivalued semantics and Kripke-style semantics, in both semantics valuations assign truth values to formulas without explicitly representing evidence. This work provides semilattice semantics for BLE, LET_J and LET_C. As pieces of information can naturally be considered as evidence, the semilattice semantics can reasonably be viewed as an *evidence semantics*.

[1] ALASDAIR URQUHART, *Semantics for relevant logics*, *The Journal of Symbolic Logic*, vol. 37 (1972), no. 1, pp. 159–169.

[2] WALTER CARNIELLI AND ABILIO RODRIGUES, *An epistemic approach to paraconsistency: A logic of evidence and truth*, *Synthese*, vol. 196 (2019), pp. 3789–3813.

[3] JUAN C. AGUDELO-AGUDELO AND WALTER CARNIELLI, *A formalization of constructive evidence-based reasoning: Constructing justifications*, *The Bulletin of Symbolic Logic*, (2025), pp. 1–26 (Published online).