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What Should Count as a Research Result in our Area?

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I want to focus on Leora's first issue - criteria for the evaluation of theories, and I think the first thing to discuss is what could or should reasonably count as a *research result* in our area, that is, what things ought to be citable in the literature. "Citable" means that they are crisp, have a lasting value, that later researchers can build on earlier results, etc. Then, presumably, some of the respectable research results are those which tell us something about the qualities of a particular theory/approach/formalization/...

Research results presumably come in several colors and shapes; I am thinking of categories such as the following:

- a formalism (sitcalc, Allen interval algebra, Yoav's explicit time logic; the A language, GOLOG, and so on)
- a semantics for a formalism (maybe formalisms without semantics shouldn't count, but then there may be multiple semantics for the same formalism, so I put this as a separate category)
- a nonmonotonic entailment method (using my own term), for example chronological minimization of change, chron min of ignorance, causal minimization
- a theorem (with proof) about the validity or range of applicability of an entailment method. This kind of result of course is obtained relative to a validation criterium, and for that we need ontologies (next panel)
- a disqualification of a proposed formalism/semantics combination in terms of counterexample(s), e.g. the original Hanks-McDermott paper
- equivalence results in various dimensions (reexpressibility of one formalism/semantics in another one, for example)
- a metastructure, such as a classification scheme, an impossibility result (do we have any of those?)

- a computational property of an algorithm, e.g., a complexity result

To the extent that we have this kind of solid results, we can evaluate proposed theories (= formalism + semantics + entailment method ??) with respect to their range of applicability and their computational properties.

With respect to David's distinction between knowledge representations that are modelling languages and those that are intended for repositories of common-sense facts, my heart is with the former kind. Among the above categories of results, those that concern or make use of a formal semantics probably only make sense in the context of a modelling language, since the notion of common sense is so vague and inherently difficult to capture.