Review of: "Reification, Curry-Howard Correspondence, and Didactical Consequences"

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A nice and instructive paper, useful to see the general idea and far-reaching meaning of the Curry-Howard Correspondence.

I am, however, surprised that in Table 1, Brouwer's intuitionism is put at (the bottom of) the left column under the heading “Language is pivotal,” while Hilbert's formalism is placed at (the bottom of) the right column under the heading “Objects are pivotal.” It was Brouwer himself who claimed that mathematical objects are mental constructions and that mathematics essentially is a language-less activity; language is only helpful to remember your own constructions or as a means to invite other mathematicians to make similar constructions. So, I would put Brouwer's intuitionism in the right column. At the same time, I would put Hilbert's formalism in the left column because for Hilbert only formal systems are important as long as they are consistent; the meaning of the symbols in the formal system does not matter or is at least less relevant.

My second substantive comment concerns the sentence at the top of page 10, saying that the main drawback of intuitionistic logic is that the law of excluded middle is not true. Why call this a drawback? I think intuitionistic logic is far closer to real life than classical logic. Also, in intuitionism, one may assume - without knowing - that a proposition A is true, and when one sooner or later discovers that this assumption yields a contradiction, then one knows that not-A is true, since one has a proof that A implies a contradiction.

At page 5, the author says that, given lambda expressions for 3 and 4, 3 + 4 yields the lambda expression for 7. I am not familiar with the programming language Scheme, so it would help me when the author works this, or a more simple example like 1 + 2, out. This will also help to understand the other programs in the paper.

Finally, I'd like to mention a few typing errors:

page 6, first line under 4: A tuple of two objects (a, b) [insert space after “objects”]

page 9, line 9: Assume A -→ B [insert space after "Assume"]

page 9, second line from bottom: one need a proof of A and a proof of B.

page 10, second line: is not true: A v - A [insert space after “true:”]

page 10, fifth line under 7: to mean that A(x) holds [insert space after “that”]

page 11, line 7: the type of expressions E [insert space after “expressions”]

page 11, fifth line from bottom: teachers and students should have