Errata for On Feasibility of Declarative Diagnosis W. Drabent

to appear in Technical Communication Proceedings of ICLP 2023 (The 39th International Conference on Logic Programming)

July 26, 2023

An issue was neglected in Section 4, when discussing extracting the DD search tree for incompleteness diagnosis for programs with coroutining. Namely the discussion is focused on the fact that, for some procedure calls appearing in the computation, the corresponding computed answers may actually not be computed. However, roughly speaking, some procedure calls relevant for incompleteness diagnosis may actually not be performed.

For instance consider a program fragment

$$p(X,Y) \leftarrow X = a, q(Y).$$

and assume that the specification for completeness S contains p(a,b) and q(b). Suppose that the program contains no clause defining q, and no other clause defining p. Assume that during the computation p(A,B) was invoked, and then binding X to a resulted in unblocking some sub-query which then fails. Then q(Y) is never invoked, and a DD-query involving q(Y) is never posed. (Section 4 implicitly suggests that each DD-query involves a procedure call that appeared in the computation.) As a result, procedure p may be incorrectly located as erroneous.