

We analyze the Russell-Prawitz encoding of intuitionistic disjunction by means of second-order quantification. At the level of proofs, the translation, in its simplest form, employs unrestricted universal instantiation. In recent years, attention has been devoted to alternatives which employ instantiation with atomic formulas only. We compare the various alternatives with the help of an auxiliary conversion that eliminates certain patterns of non-atomic instantiation. In the comparison, the telling case is the translation of commutative conversions: if one wants a strict simulation, then one needs the possibility of converting "at run time" a unrestricted universal instantiation - instead of having all universal instantiations employed in the translation forced to be atomic "at compile time". Joint work with Gilda Ferreira.