7.6.s. Summary

While the logical properties of an unrestricted universal may be tied to those of its instances, in the case of a restricted universal, we use the idea of a conditioned instance, an application of the quantified predicate to a term made conditional on an application of the restricting predicate to the same term. Laws for restricted universals then combine the ideas used to capture the role of unrestricted universals with ideas used to capture the role of conditionals. The law for the restricted universal as a conclusion requires that we conclude an instance for a parameter but allows us to add a supposition that applies the restricting predicate of the universal to the parameter. For restricted universal resources, we have two detachment arguments, singular *Barbara* and singular *Camestres*, named after similar syllogistic patterns. These principles are analogous to uses of *modus ponens* and *modus tollens* for a conditioned instance of the universal and the first amounts to a sort of restricted universal instantiation. There is also a principle for the restricted universal as a premise in *reductio* arguments that again reflects the role of its conditioned instances.

The most characteristic derivation rules for restricted universals —Restricted Universal Generalization (RUG), Singular Barbara (SB), Singular Camestres (SC), and Making a Counterexample for *Reductio* (MCR) —are rules that implement these principles. But it is also possible to capture the properties of restricted universals by rules, Restricted Universal Premise (RUP) and Restricted Universal Conclusion (RUC), that support restating restricted universal resources and goals using the unrestricted universal so that rules for that quantifier and conditionals may be applied.

Glen Helman 01 Aug 2004