

Logics, Humanly Spoken

I Introduction

1. Write faithful humanly spoken interpretations of all the logics in [c17]. Analyse when this is not possible and why: unnatural case not historically needed, hence no language equivalent.

2. <https://en.wikipedia.org/wiki/Language>

3. Upon reading [c17, p.282,283], we have unearth a (engraved in the sense that it should be said explicitly in the author but it is not) fundamental idea. Once we learn how to read the connectives of a certain logic (a certain semantic interpretation), there is an easy (humanly intuitive) way to guess what will and will not be a tautology. The idea is that a given interpretation fixes everything except the contents of the propositions, which remain black boxes. Per example, in the topologic real line interpretation, the propositions are sets, they valuate to true if they are open. The point now is that tautologies are the (compound) propositions that are expected to be true invariantly to the content of the propositions. This seems trivial, but it humanly means that the tautologies are the ones expected to be true irrespective, independently of the 'things' assigned to propositions. Invariance with respect to semantic content, invariance with respect to semantically-interpreted-non-grammar. Semantic grammar? how can that be? This is simple, the interpretation turns the syntactic grammar into a 'semantic grammar', and that, projectively (homomorphically, in a structure preserving manner [c17, p.238 (c.ii and note 2)]). The idea is important especially for schematic tautologies and the author's topic of relevance and variable sharing (e.g [c17, 10.10]).

4. The page [c17, p.238] is key, and teaches us an important lesson about projection (homomorphism), required to exist under functional interpretation. For a counter-example see the illuminating example [c17, 7.7].

Bibliography

Schechter, Eric. 2005. *Classical and Nonclassical Logics: An Introduction to the Mathematics of Propositions*. Princeton, NJ, USA: Princeton University Press.