Philosophy 31 : symbolic logic, natural logic

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Course description:

The emergence of predicate logic in the 19th century (due to the efforts of Boole, Peirce, Frege, and Schröder) is often described by scholars as a 'discovery'. Evidently, the aptness of such a description is predicated upon the assumption that certain logics can be said to describe 'natural' objects, and that a logician working from the comforts of their home can somehow discover the rules of logic in much the same ways that a physicist might discover the laws of physics. **In this course we will examine the extent to which the system of classical (first-order) predicate logic can be said to constitute a natural logic that is native to the human mind.** Practically, our task is split into two (unequal) parts. We will begin (in weeks I~IV) by familiarizing ourselves with the formal aspects of first-order predicate logic (e.g., its language, deductive system, & semantics). After attaining a certain degree of technical fluency with predicate logic itself, we will (in week V~VI) look at why certain (Generative) linguists think that such a logic must be native to the Human Language Faculty (HLF).

Evaluation scheme:

NO exams for this course; instead you will have:

- SIX weekly assignments (each worth 20% of total grade; ***lowest score dropped***)

  [LOGIC_2010] 4/6 of the weekly assignments will be completed & evaluated via the LOGIC_2010 software. The software is entirely free and can be accessed via https://logiclx.humnet.ucla.edu (the installation for macOS can be a little finicky, but don't worry because we will sort it out in class).

  [Late Work Policy] you should submit your assignments on time, but late assignments submitted *within a week of the initial deadline* can still receive (max) 85% partial credit. In general, extensions (max 3 days) are possible, but you must email the TA (or me) ***at least 24 hours prior to the assigned deadline***.

Required text:

Our main textbook for logic (as well as LOGIC_2010):

- Parsons, Terence. *An Introduction to Symbolic Logic*. (dubbed 'Terry Text')
  https://logiclx.humnet.ucla.edu/Logic/Documents/CORE/Text0.pdf

note in the later weeks we will also read some research articles; those will be posted on canvas.

Tentative schedule:

Week I	08.03	argument; validity vs. soundness; logical form Terry Text, ch. 0 (entirety)
	08.05	formal language for prop. logic; symbolic translation Terry Text, ch. 1 & 2 (selections)
Week II	08.10	truth tables & the 'meaning' of logical connectives Terry Text, ch. 1 & 2 (selections)
	08.12	deductive system; prop. logic derivations Terry Text, ch. 1 & 2 (selections)
Week III	08.17	the language of predicate logic Terry Text, ch. 3 (selections)
	08.19	translation in pred. logic Terry Text, ch. 3 (selections)
Week IV	08.24	pred. logic derivations Terry Text, ch. 3 (selections)
	08.26	'model-theoretic' (denotational) semantics Sider, *Logic for Philosophers* ch. 4 (selections)
Week V	08.31	the human language faculty; semantic module TBD (looking for a suitable reading)
	09.02	grammaticality; negative polarity items Homer, 'Negative Polarity', sect. 1.1-3
Week VI	09.07	NO CLASS
	09.09	logical skeletons; non-classical logics Gajewski, 'On Analyticity in Natural Language'

Academic Integrity:

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