LINGUISTIC THEORY AND ITS FOUNDATIONS
Winter 2020
(last revised: January 5, 2020)

	INSTRUCTOR	COURSE
NAME:	Brendan S. Gillon	LING 419
LOCATION:	1085 Docteur-Penfield rm. 119	1085 Docteur-Penfield rm. 117
TIME:	OFFICE HOURS Mn Wd: 9h35–10h25 and by appointment	CLASS HOURS: Mn Wd Fr: 118h35–12h25
CONTACT:	tel. no.: 514 398 4868	

EVALUATION:
Students will be evaluated according to the following:

- problem sets (25%);

- class participation (5%);

- class presentations (20%);

- final paper (50%).

All written work may be submitted either in English or in French.

AIM OF THE COURSE:

At the end of the 1950's, linguistics underwent three fundamental and related changes: the introduction of tree notation, a change in its methodological allegiance and a change in its conception of human psychology.

Although some American structuralist linguists (Zellig Harris, Charles Hockett, Rulon Wells) had used some mathematics in their work, the use of trees, introduced in 1956 in Noam Chomsky's technical article, 'Three models

for the description of language', and made widely known through his widely received book, *Syntactic Structures*, became virtually ubiquitous within a few years.

Like their colleagues in the social science, linguists have always worried about the scientific status of their discipline. However, under Chomsky's influence, American structualist linguists came to abandon the framing of their work in accordance with methodological strictures of logical positivism and operationalism and took up instead the logical empiricist view of science as hypothesis testing.

Finally, though the linguist Leonard Bloomfield had popularized among American linguists the view that linguistics is intimately connected with human psychology, it was Noam Chomsky who, through his publication in 1958 of Chomsky's review of B. F. Skinner's *Verbal Behavior*, got American linguists to abandon the behaviorist view of psychology and adopt a what now we would call a cognitivist view, a view which he championed throughout his academic career (see, for example, *Aspects of the theory of syntax* and *Rules and representations*) and one which continues to dominate in contemporary linguistics.

In lieu of behaviorism, Chomsky has advocated what he calls mentalism, embracing so-called mental representations. Talk of representations is not only pervasive in linguistics, it is wide spread across the various disciplines encompassed under the umbrella of cognitive science. The questions which this course aims to ask are these: What are mental representations? And what role do they play in linguistic theory? Do they have any scientific legitimacy?

Two thirds of the course is devoted to learning about the philosophy of science and about the history of the beginnings of some particular science, such as astronomy, biology, chemistry, geology or physics. (This year the science is astronomy.) In the last third, we turn our attention to the question of the role of linguistic representations in contemporary linguistic theory.

No background in linguistics is required. However, some facility with notation, as for example the facility one acquires from PHIL 210, is expected. Students interested in the course with no background in linguistics should contact the instructor, Brendan Gillon, to arrange to enroll.

SCHEDULE:

HISTORY OF SCIENCE:

WEEK 1 (6 Jan):	introduction universe of spheres	no preparation Kuhn 1957 ch. 1 Kuhn 1957 ch. 2, pp. 45–58
WEEK 2 (13 Jan):	Aristotle's physics	Kuhn 1957 ch. 3 Cohen 1960 chs. 1–2
	universe of circles Ptolemy and predecessors	Kuhn 1957 ch. 2, pp. 59–73 Cohen 1960 ch. 3. pp. 24–35
WEEK 3 (20 Jan):	Middle ages Nicolas Copernicus	Kuhn 1957 ch. 4 Kuhn 1957 ch. 5 Cohen 1960 ch. 3. pp. 35–52
WEEK 4 (27 Jan):	Tycho Brahe Galileo and astronomy	Kuhn 1957 ch. 6, pp. 185–209 Kuhn 1957 ch. 6, pp. 219–228 Cohen 1960 ch. 4, supp. 1–2
WEEK 5 (3 Feb):	Galileo and physics Johannes Kepler	Cohen 1960 ch. 5 Cohen 1960 supp. 3–5, 7, 9, 10 Kuhn 1957 ch. 6, pp. 209–219 Cohen 1960 ch. 6 supp. 8
WEEK 6 (10 Feb):	Newton's three laws	Kuhn 1957 ch. 7 Cohen 1960 ch. 7, supp. 11–16

PHILOSOPHY OF SCIENCE:

WEEK 7 (17 Feb):	introduction logical empiricism induction	Godfrey-Smith 2003 ch. 1 Godfrey-Smith 2003 ch. 2 Godfrey-Smith 2003 ch. 3
WEEK 8 (24 Feb):	normal science revolutions Social factors	Godfrey-Smith 2003 chs. 4–5 Godfrey-Smith 2003 chs. 6–7 Godfrey-Smith 2003 chs. 8–9
WEEK 9 (02 Mar):	READING WEEK	
WEEK 10 (09 Mar):	naturalism explanation evidence	Godfrey-Smith 2003 chs. 10–11 Godfrey-Smith 2003 chs. 12–13 Godfrey-Smith 2003 chs. 14–15

Psychology and Grammar

week 11 (16 Mar):	computation and mind	Cummins 1989 chs. 1–2
		Cummins 1989 chs. 3–4
		Cummins 1989 chs. 5–7
week 12 (23 Mar):	computation and mind	Cummins 1989 ch. 8
		Cummins 1989 chs. 9–10
		Cummins 1989 ch. 11
week 13 (30 Mar):	computation and grammar	Chomsky 1965
		Chomsky 1980
		Chomsky 1980
week 14 (6 Apr):	computation and grammar	Stabler 1983
		tba
		tba
week 15 (13 Apr):	discussion	

Partial bibliography:

Chomsky, Noam 1965 *Aspects of a theory of syntax.* Cambridge, Massachusetts: The MIT Press. Chapter 1.

Chomsky, Noam 1980 Rules and representations. *Behavioral and Brain Sciences*: v. 3, pp. 1–61.

Chomsky, Noam 1980 *Rules and representations.* New York, New York: Columbia University Press.

Cohen, I. Bernard 1960 *The birth of a new physics.* New York, New York: W.W. Norton (revised and updated) 1985.

Cummins, Robert 1989 *Meaning and mental representation.* Cambridge, Massachusetts: MIT Press.

Godfrey-Smith, Peter 2003 *Theory and reality : an introduction to the philosophy of science.* Chicago, Illinois: University of Chicago Press.

Harnish, Robert M. 2002 *Minds, brains, computers*: *an historical introduction to the foundations of cognitive science.* Oxford, England: Blackwell Publishers.

Haugeland, John 1985 *Artificial intelligence*: *the very idea.* Cambridge, Mas-

sachusets: MIT Press.

Kuhn, Thomas S. 1957 *The Copernican revolution* : *planetary astronomy in the development of Western thought.* Cambridge, Massachusetts: Harvard University Press.

Stabler, Edward 1983 How are grammars represented? *Behavioral and Brain Sciences*: v. 6, pp. 391–421.