

Teaching history of linguistics in the 21st century

North American Association for the History of the Language Sciences (NAAHoLS)

5 January 2024

LSA Annual Meeting, New York

- **Stephen Anderson** *(Yale University)*
- **Stanley Dubinsky** *(University of South Carolina)*
- **John Goldsmith** *(University of Chicago)*
- **John E. Joseph** *(University of Edinburgh)*
- **Heather Newell** *(L'Université du Québec à Montréal)*
- **Samuel Rosenthal** *(Oakland University)*
- **Margaret Thomas** *(Boston College)*

Teaching history of linguistics in the 21st century

- History of linguistics as a path to dissertation progress and contextualization of research – Stanley Dubinsky
- Bringing the dead back to life: Using graphical representations of cast of characters in the history of linguistics – John Goldsmith
- Presentist, trajectorial and heliocentric approaches to teaching the history of linguistics – John E. Joseph
- Goals for teaching history of linguistics – Sam Rosenthal
- The history of linguistics in American college textbooks, 1950–2023 – Margaret Thomas
- Discussion – Stephen Anderson and Heather Newell
- Audience Q&A

History of linguistics as a path to dissertation progress and contextualization of research

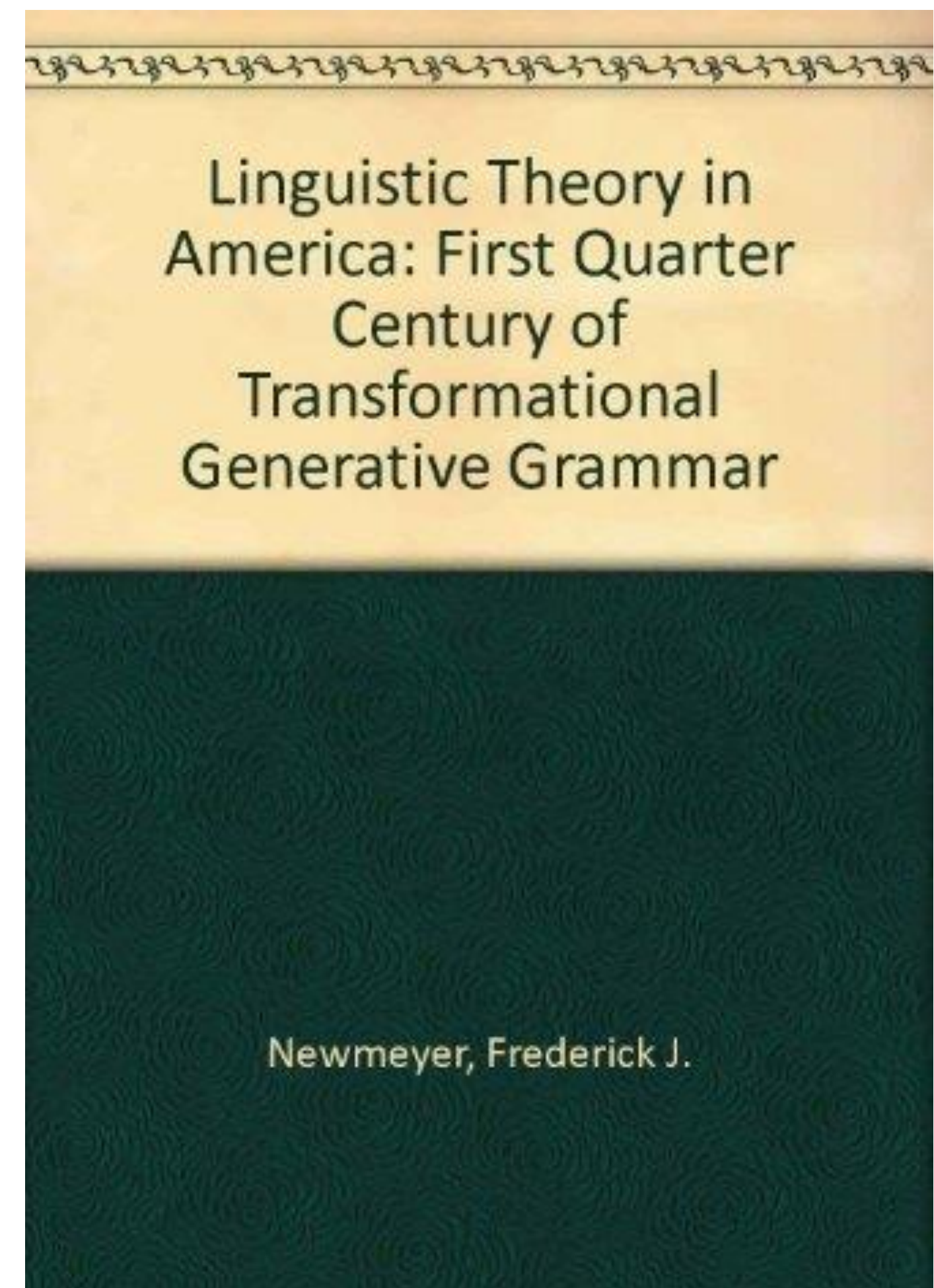
Stanley Dubinsky
University of South Carolina

History of linguistics – a first take

Linguistic theory in America:

First quarter century of Transformational Generative Grammar

by Newmeyer, F. J [1980]



History of linguistics – called up to service (2001)

2001

LING 739–History and Methodology of Linguistics. (3)

(Prereq: LING 600, 710, 720) Introduces basic resources of discipline and focuses on the development of linguistics in terms of dominant issues and analytical methodology with emphasis on "paradigm shifts."

~2012

LING 739 - The Evolution of Linguistic Theory, Practice, and Methods (3)

Introduces basic resources of discipline and focuses on the development of linguistics in terms of dominant issues and analytical methodology with emphasis on paradigm shifts. **Prerequisites:** [LING 600](#), LING 610, LING 620.

History of linguistics – called up to service (2001)

Planning a course in the dark, I reached out to ...

Donald Cooper

(1971 Harvard Dissertation:

Studies on possessive adjectives in Old Church Slavonic)

Fritz Newmeyer

Cooper's semester-long course started with Pāṇini and ended with Sapir.

Newmeyer's semester-long course started with Sapir and ended with LGB.

Sifting half a semester out of each yielded ...

History and Methodology of Linguistics

- History of Science and Linguistics
- Panini and Indian Linguistics
- Classical and Medieval Linguistics
- 17-18th c. Linguistics
- 19th c. Linguistics
- Saussure
- The Prague School and the Copenhagen School
- Firth and the London School
- American Structural Linguistics
- The Eve of Generative Grammar
- Early Generative Grammar
- Generative Semantics and the Linguistic Wars
- The Further Development of Generative Grammar
- Current Issues I: Optimality Theory
- Current Issues II: Functionalism vs. Formalism
- Current Issues III: The Minimalist Program

Making History of Linguistics relevant

Research project (40% total):

Students will be required to write a term paper as a final project. This paper, ideally, should be something which will ultimately turn into the literature review chapter of your dissertation. Or you may write on any aspect of the history of linguistics. During the eighth week of class, the first draft of your abstract will be due. This abstract will undergo at least one revision. Students should get topics approved in advance. During the final week of class, each student will present their paper to the class. The presentation is 10% of the class grade. Papers should be 3000-5000 words.

Making History of Linguistics relevant

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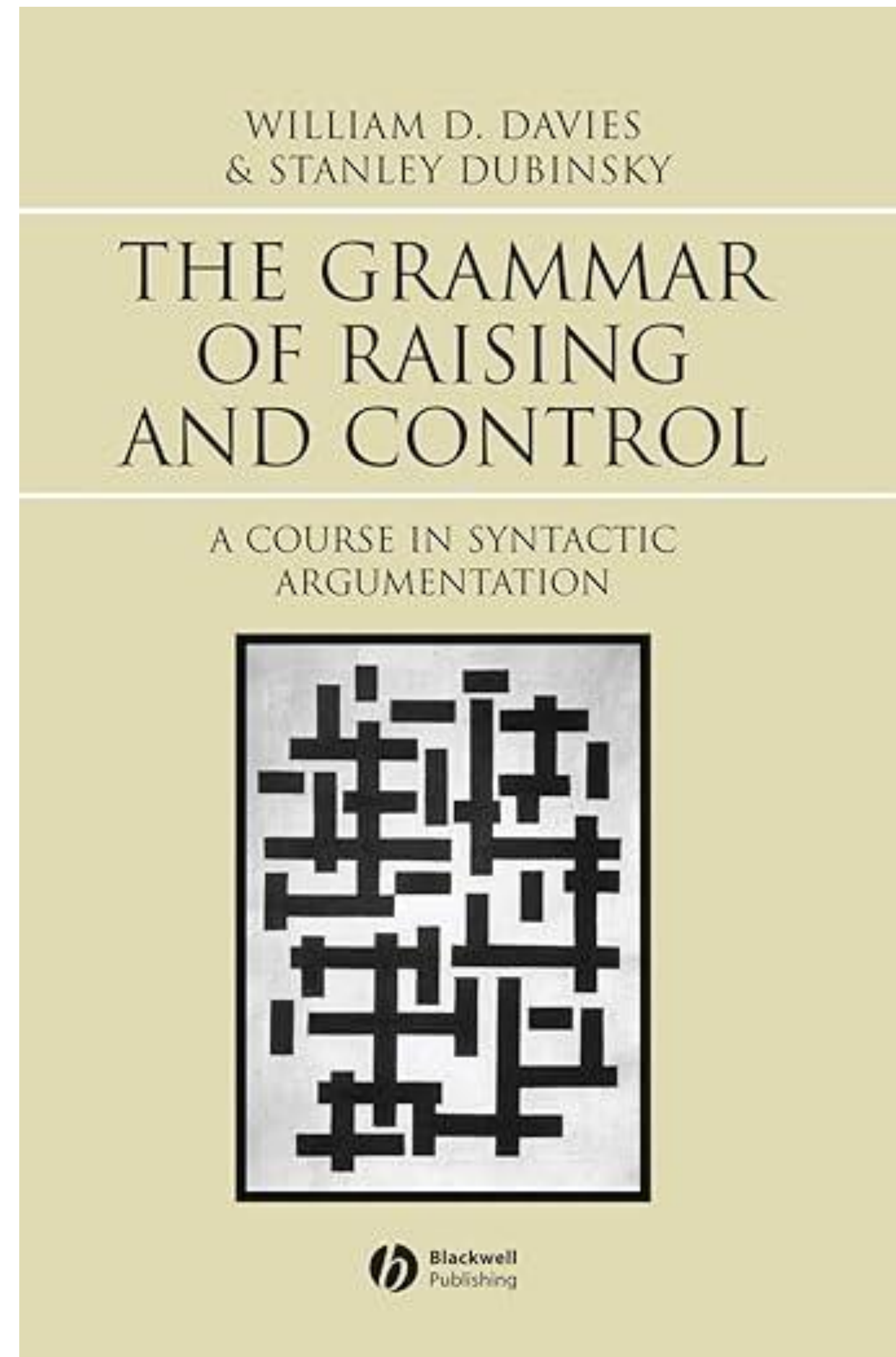
Prerequisites for teaching history of Linguistics

- **Breadth of training:** a phonologist should be able to teach basic phonetics, a syntactician should be able to teach basic semantics.
- **Experience:** Not a course to be offers in one's 1st year teaching
- **Mentoring and guidance:** Not a course that most people can devise on their own.
- **Purpose:** The course needs to fill a need beyond its own specific content.

Alternative: History of linguistics woven into a course

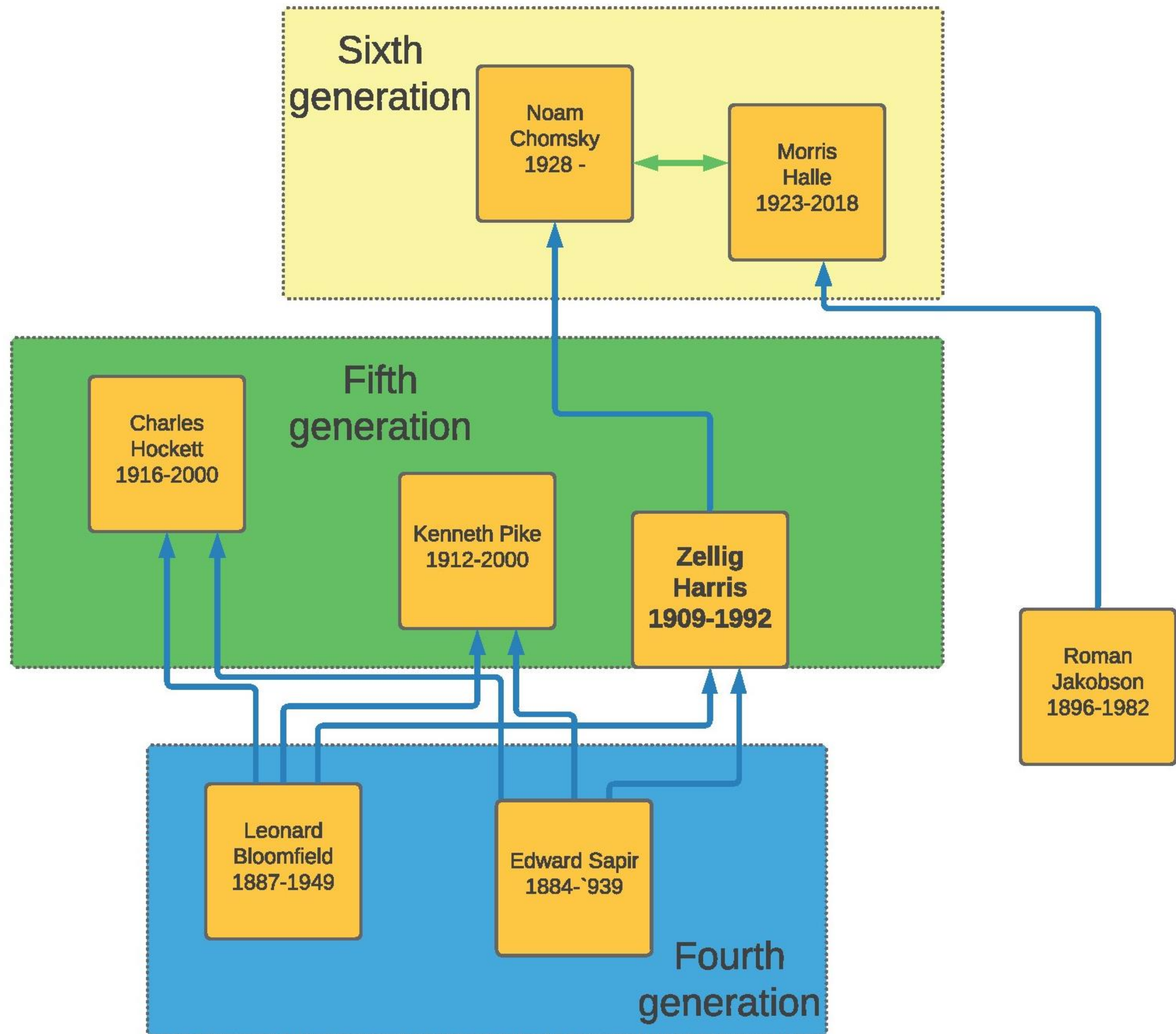
The Grammar of Raising and Control: A Course in Syntactic Argumentation

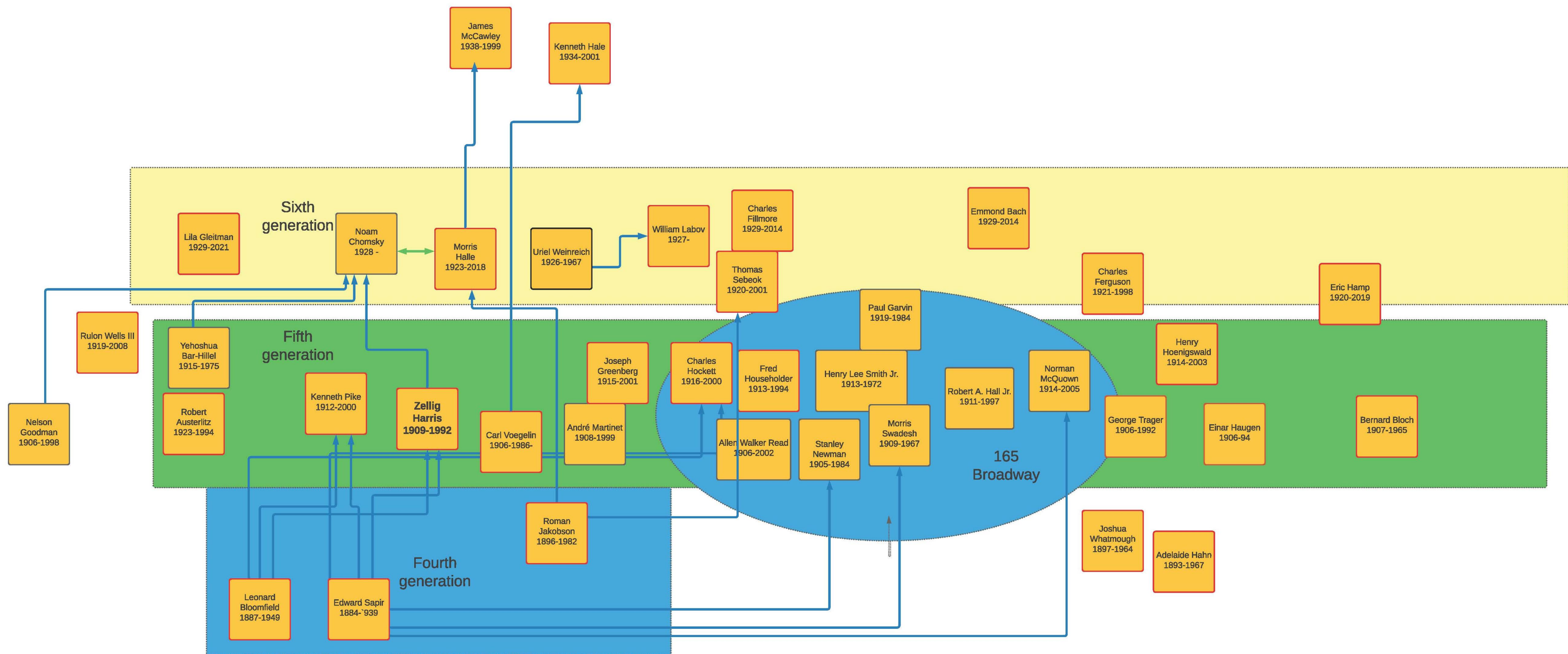
- **Transformational Grammar/TG**
Postal. 1974.
“On Raising”
- **Extended Standard Theory/EST**
Chomsky. 1973.
“Conditions on Transformations”
- **Relational Grammar**
Perlmutter & Postal. 1972.
“The Relational Succession Law”
- **Revised Extended Standard Theory/REST**
Chomsky & Lasnik. 1977.
“Filters and Control”
- **Government and Binding/GB**
Cole & Hermon. 1981.
“Subjecthood and Islandhood”
- **Minimalism**
Lasnik & Saito. 1991.
“On the Subject of Infinitives”



**Bringing the dead back to life:
Using graphical representations of
cast of characters in the history of linguistics**

John Goldsmith
University of Chicago





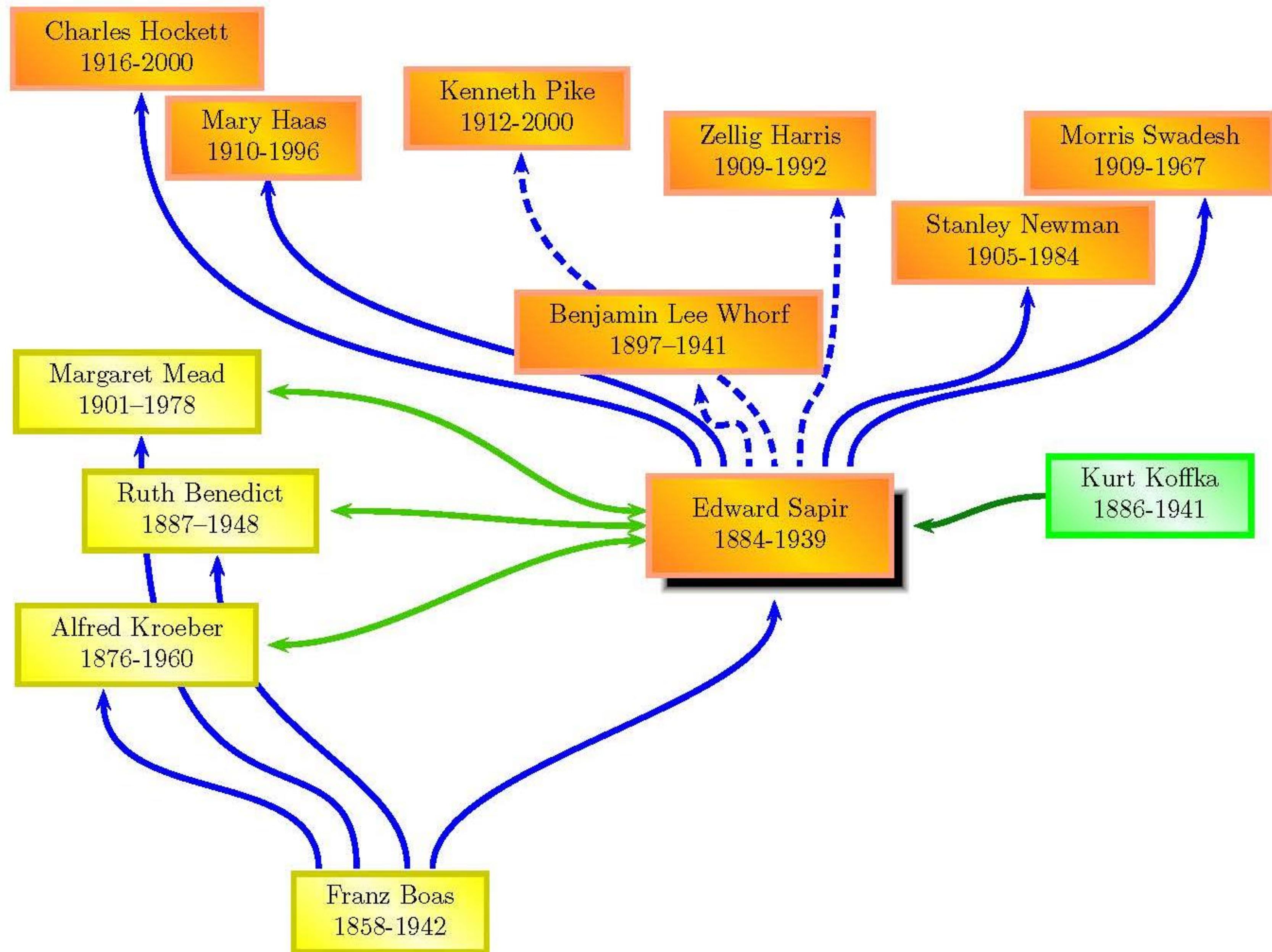
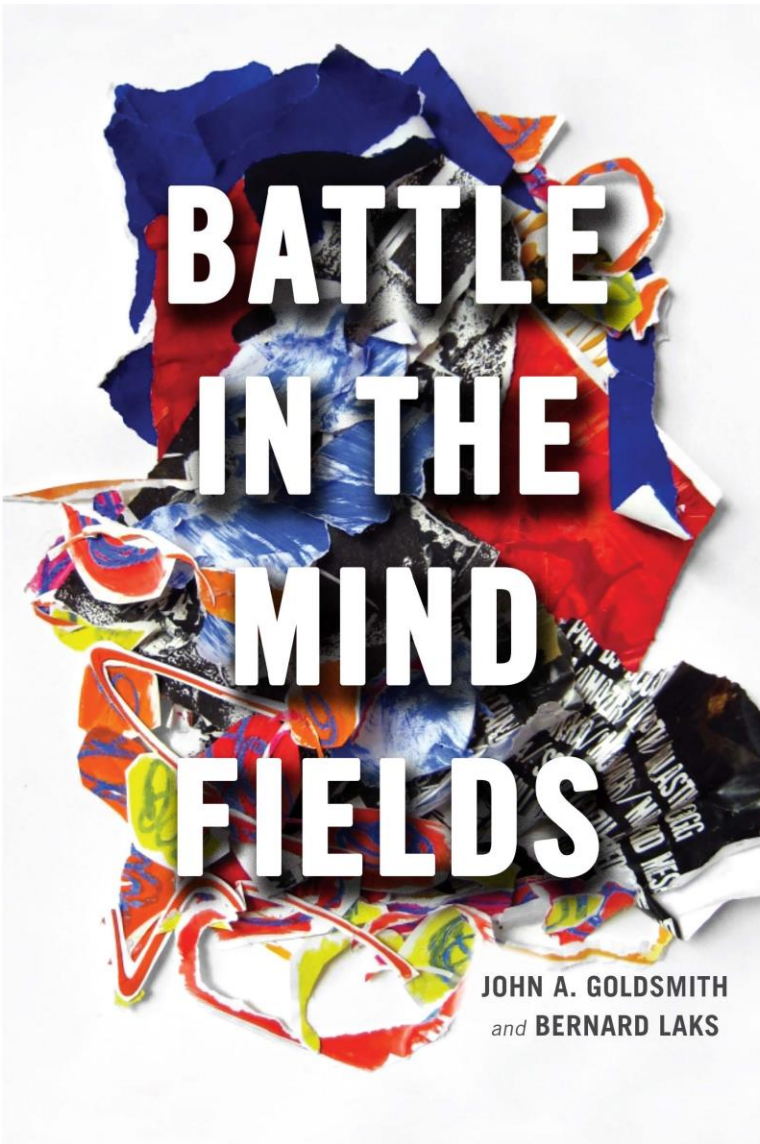


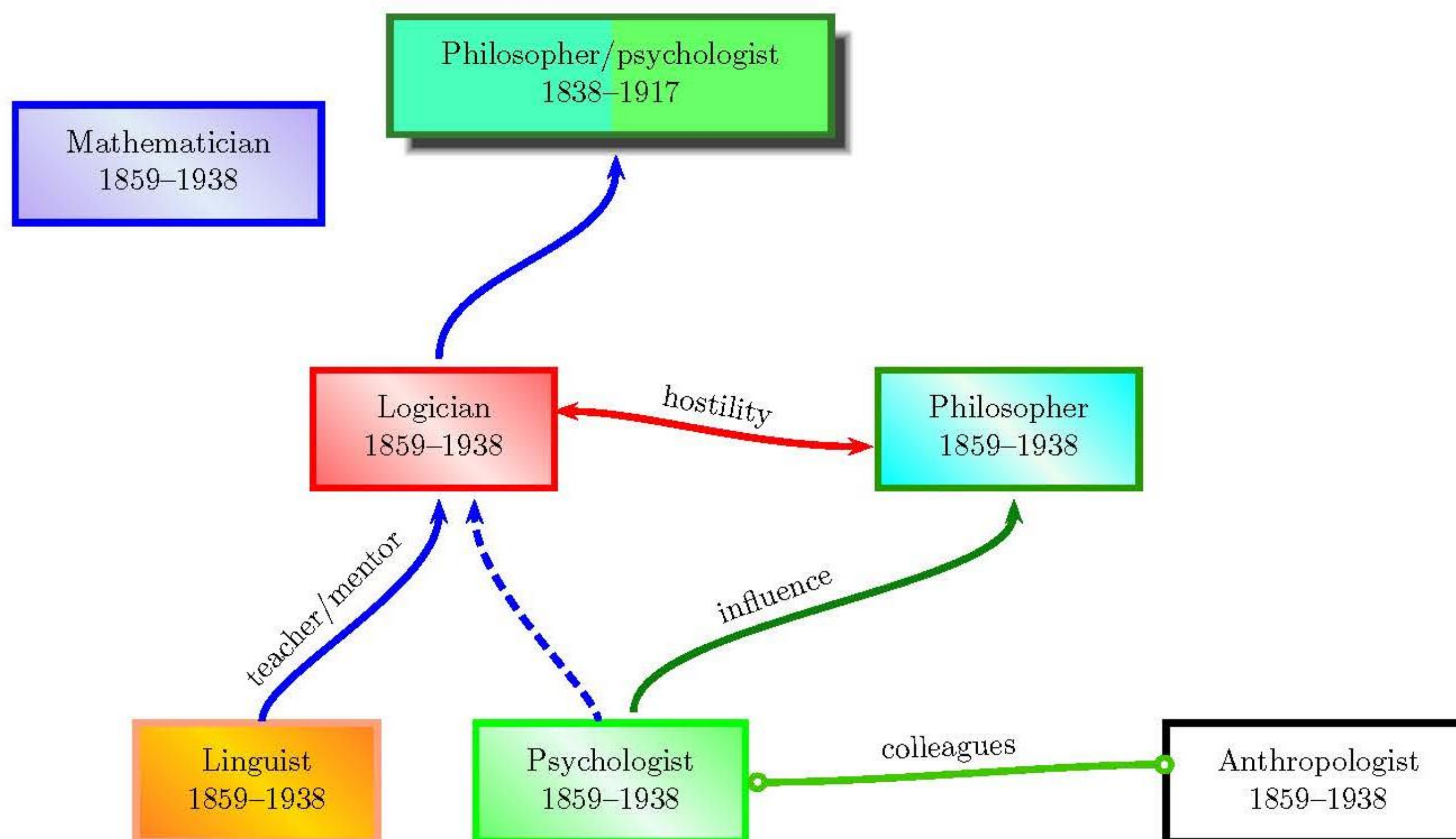
Figure 18: 6.2 Edward Sapir



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There are some guidelines needed to understand our figures. The information contained here is intended to serve as a visual reminder of who is who, and what they did. In all cases, a simplification is needed to do this, and the reader must bear in mind that the categorization here is in *every* instance a simplification of what we describe in the text. The decisions we have made here are simply what seems to us the most helpful and the least inaccurate. The vertical position is determined by date of birth—strictly, in most cases, with a very small amount of adjustment made for clarity. The colors of the individual boxes reflects the disciplines of the actors, but in most cases, some real simplification was needed. Quite a number of people are assigned to two categories, with two colors. The colors of the arrows connecting the boxes correspond to four kinds of relations: mentor (or teacher), colleague, influence, hostility. In many cases, it is hard to determine the relative importance of various teachers, and (as elsewhere) our choices represent an interpretation on our parts.



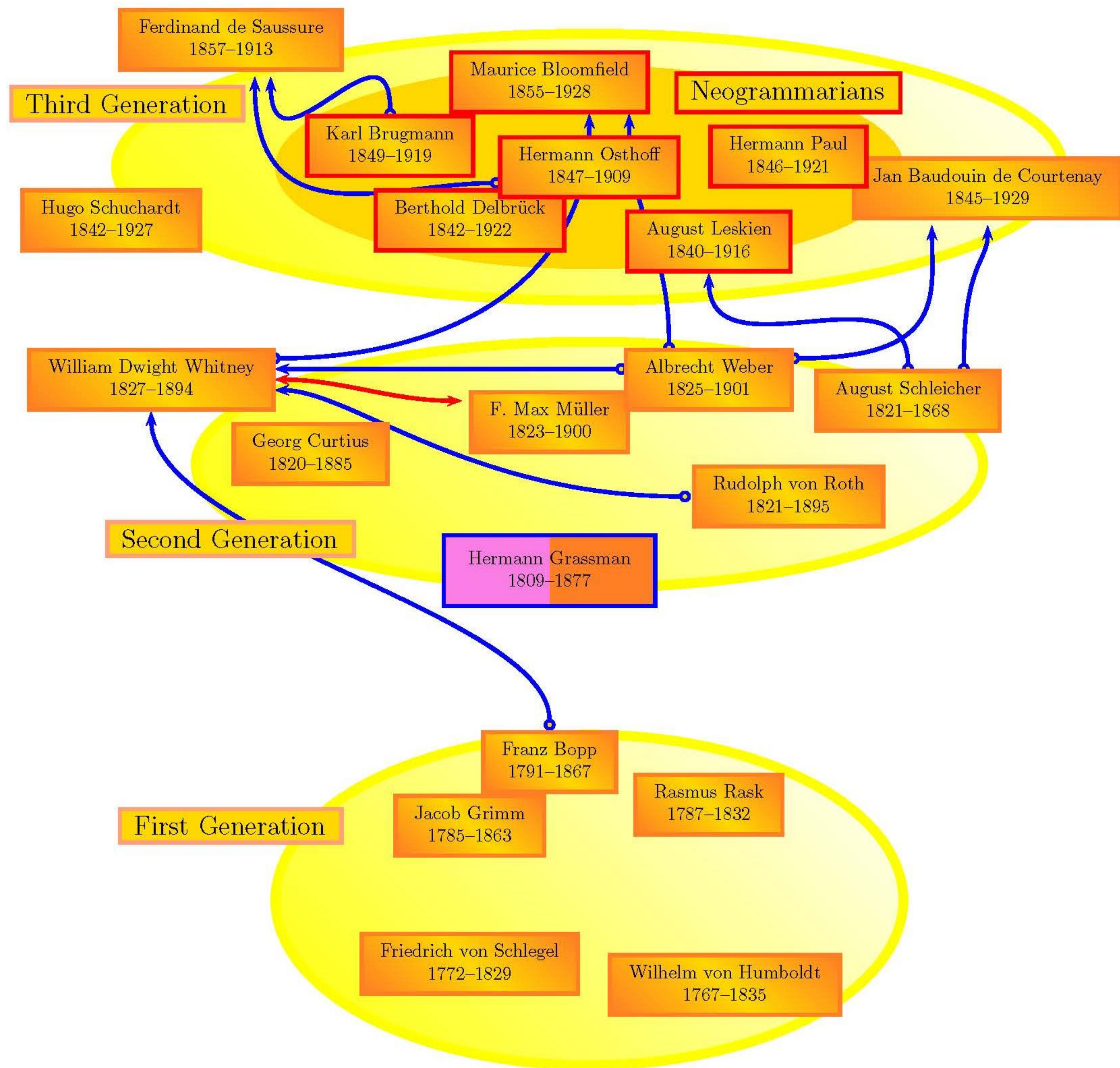


Figure 1: 2.1 First three generations of linguists

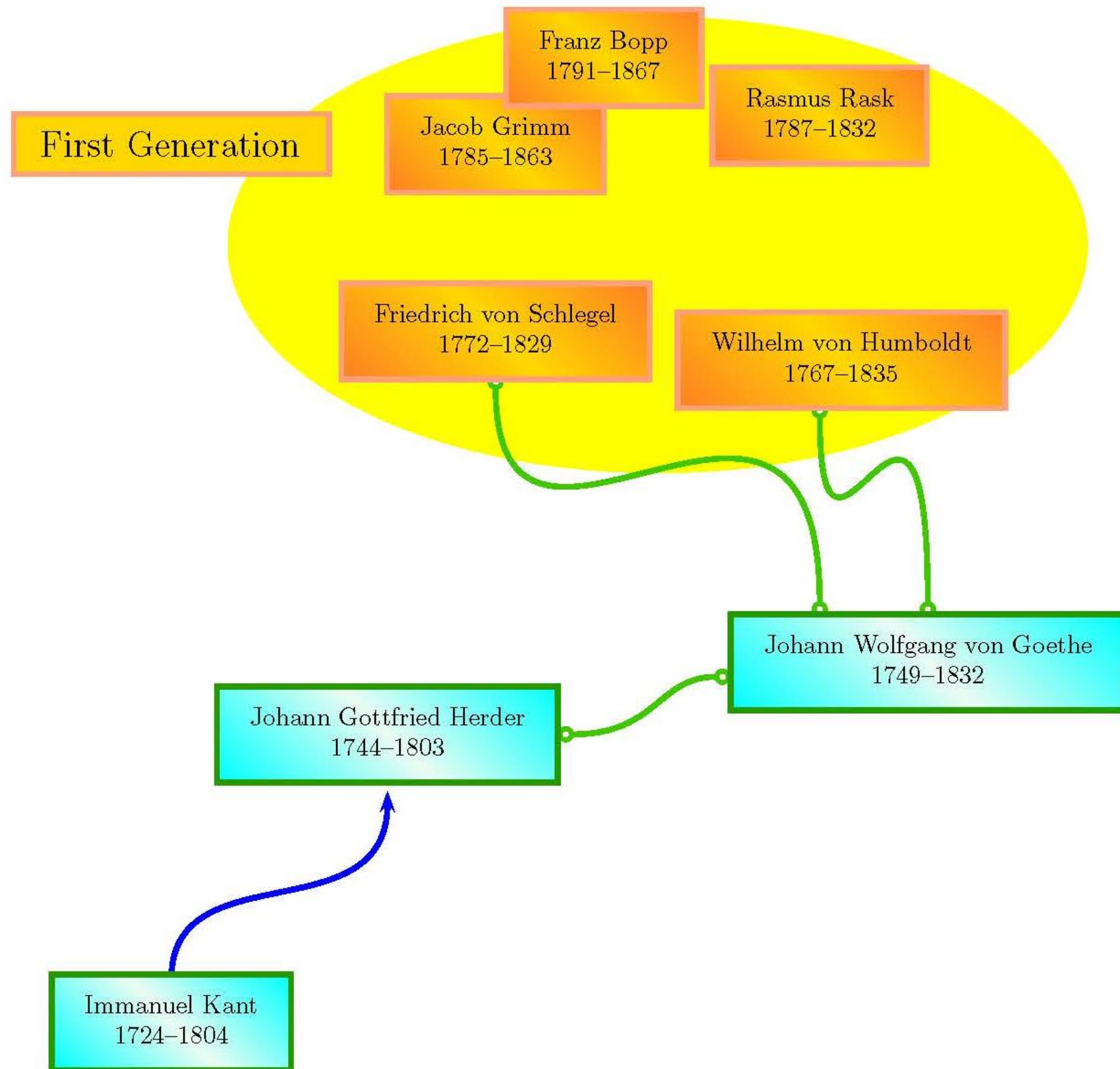


Figure 2: 2.2 First generation of linguists

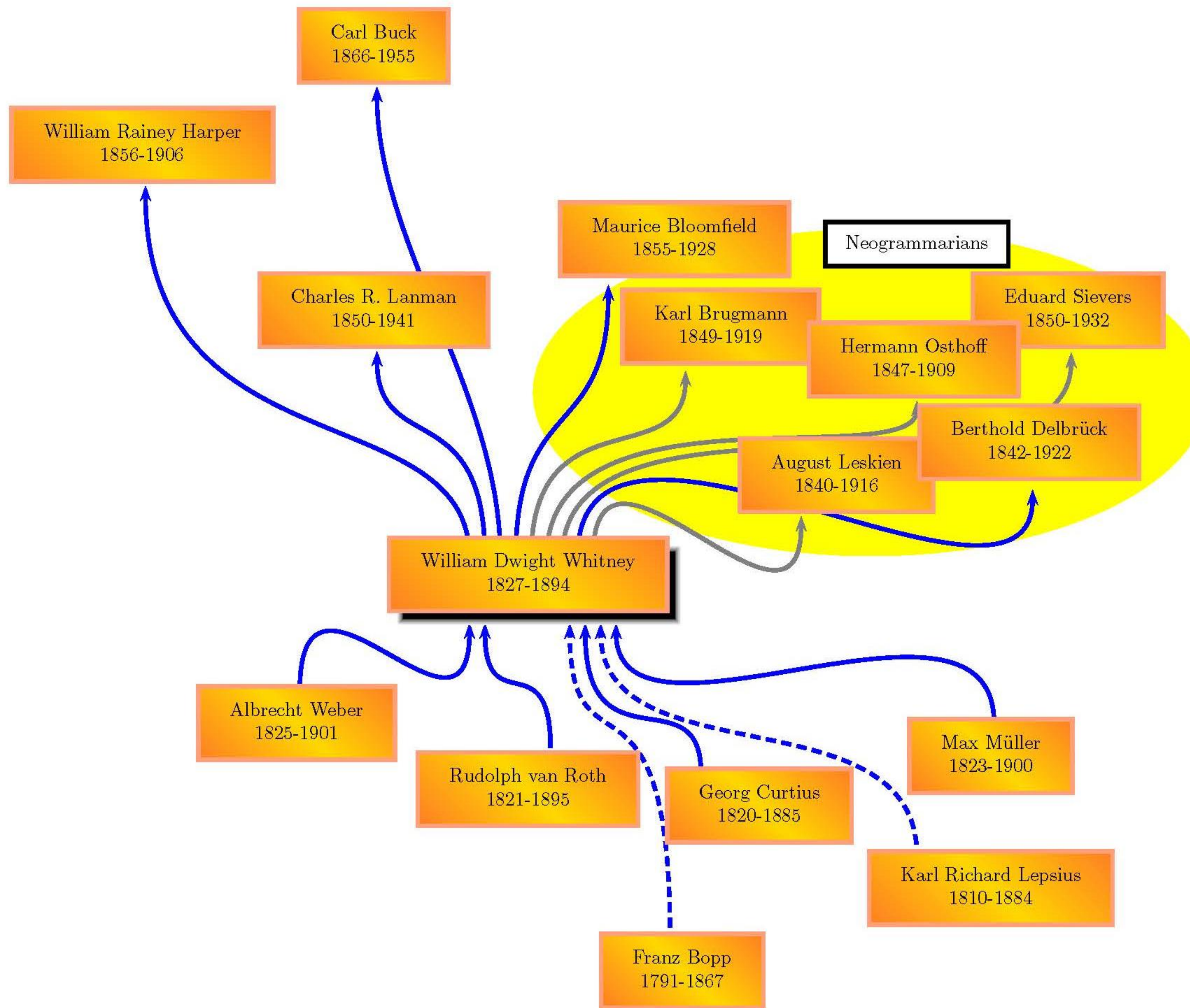


Figure 3: 2.3 William Dwight Whitney

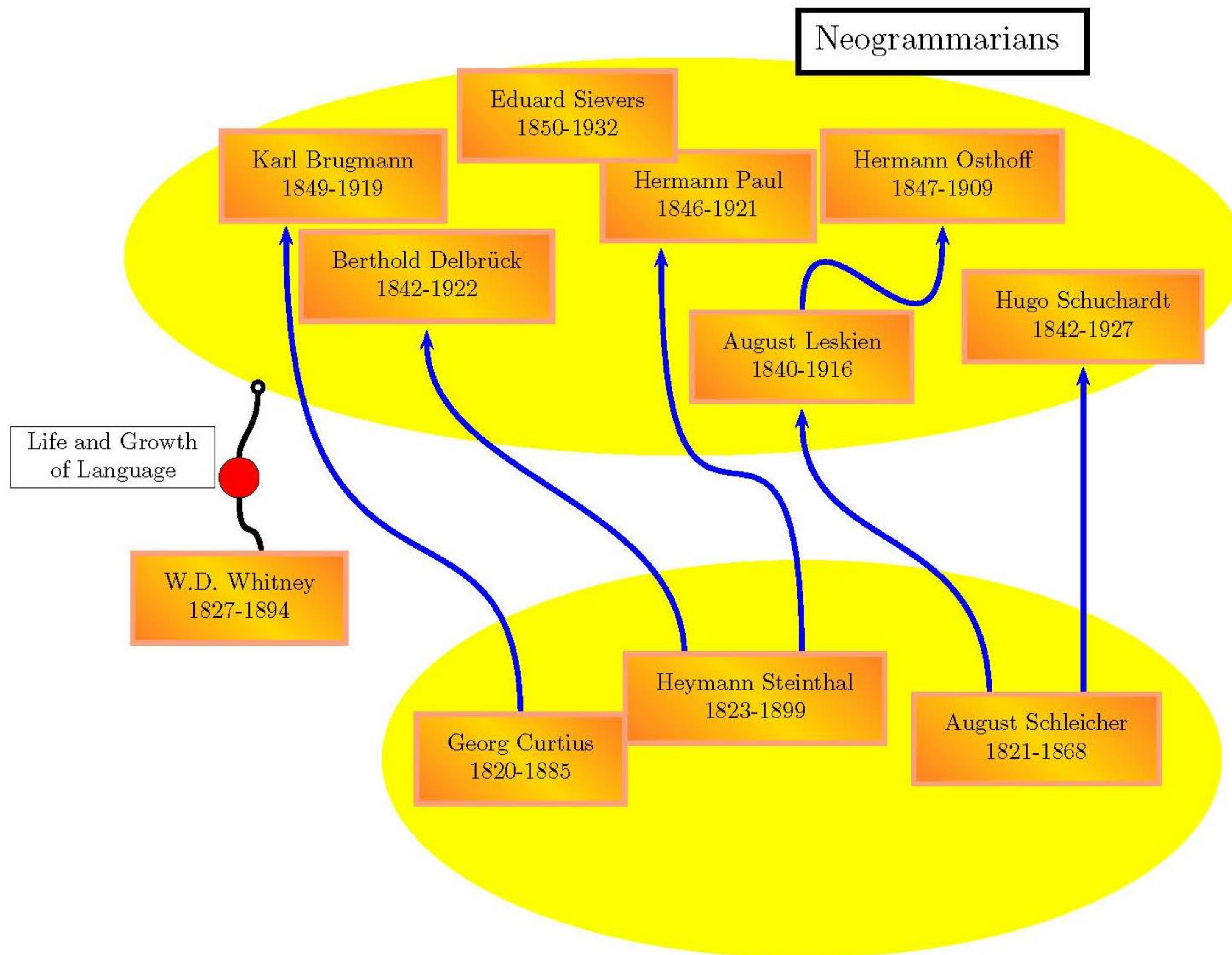


Figure 4: 2.4 Neogrammarians

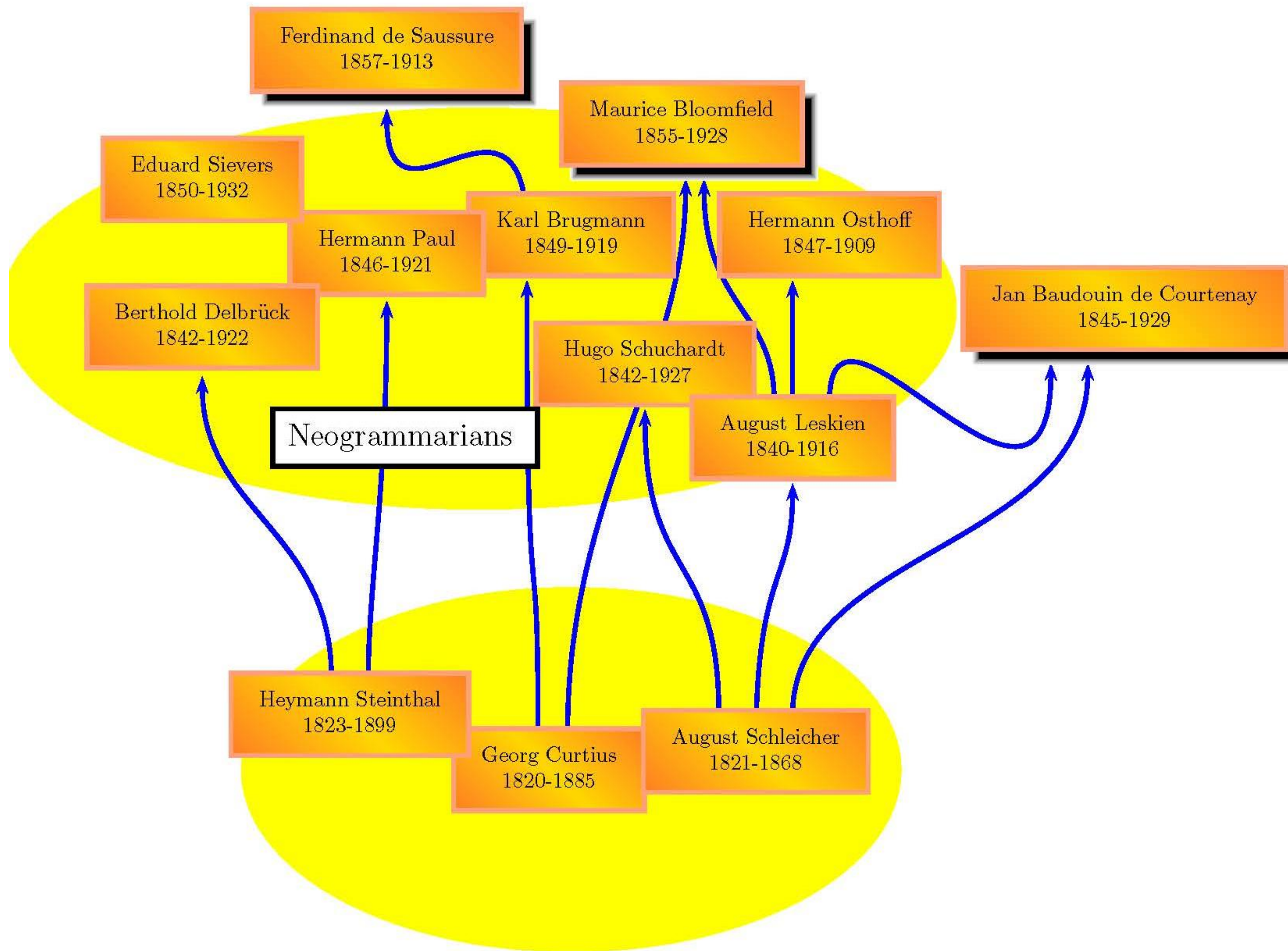


Figure 5: 2.5 Baudouin de Courtenay, Saussure, and M. Bloomfield

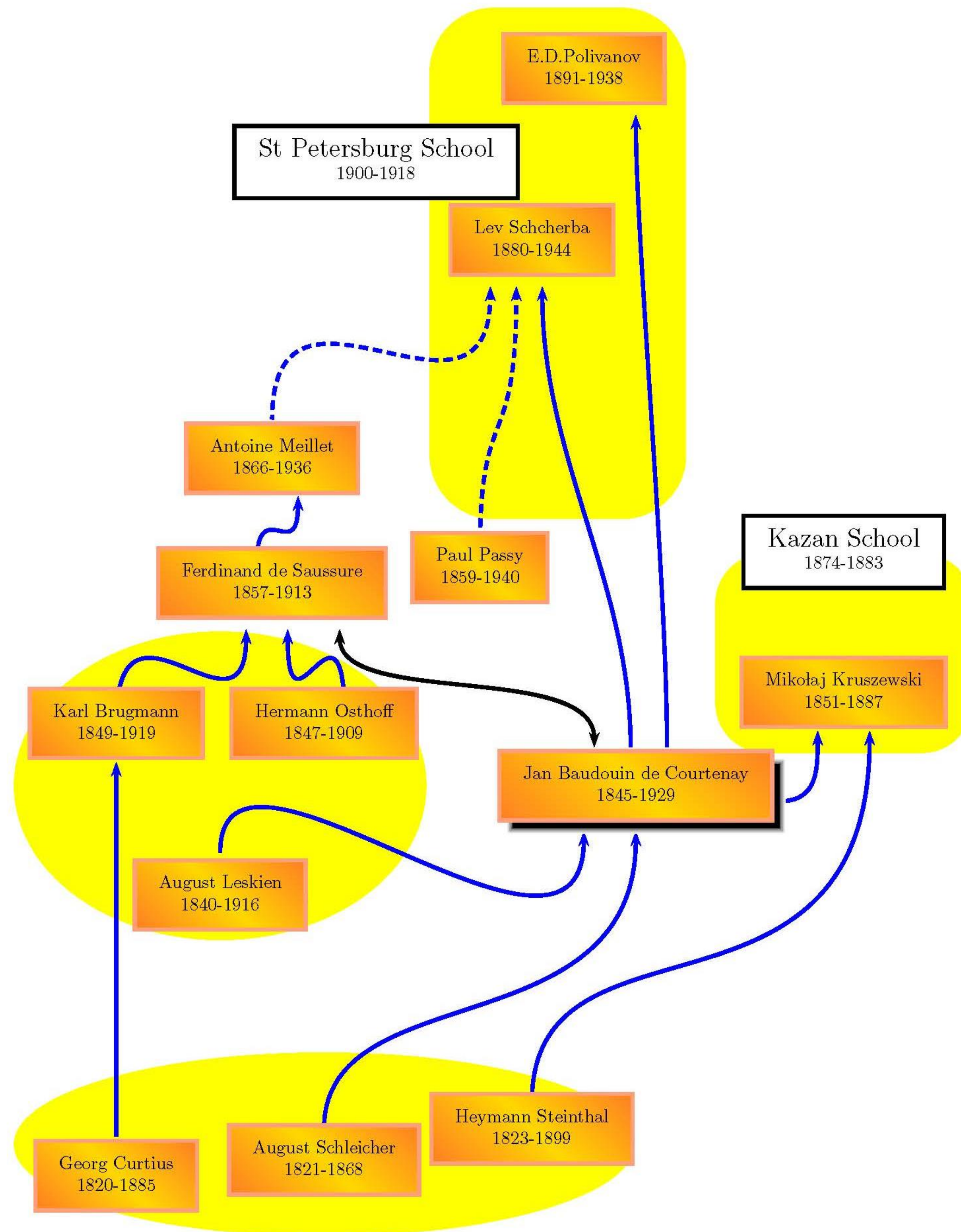


Figure 6: 2.6 Jan Baudouin de Courtenay

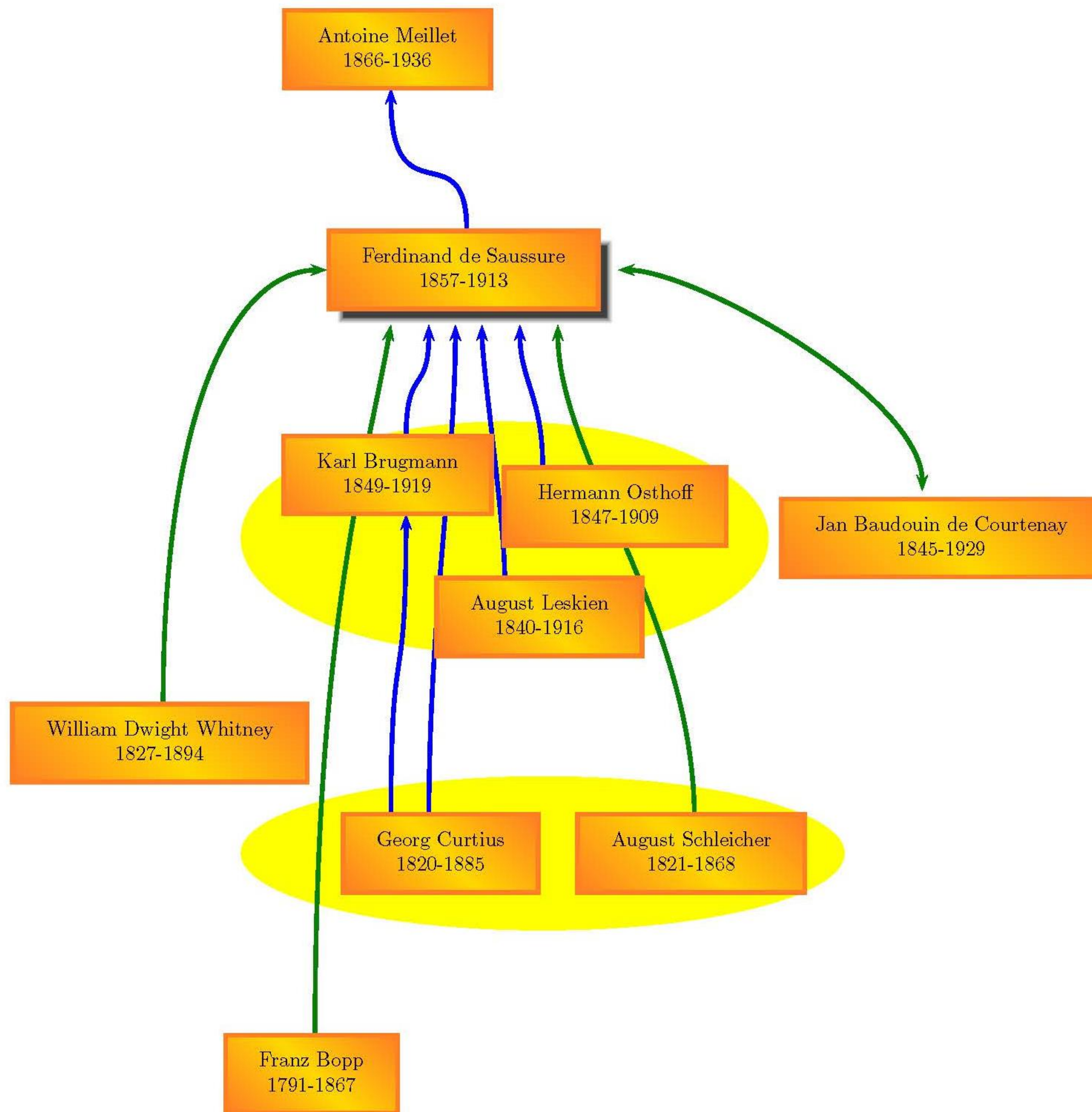


Figure 7: 2.7 Ferdinand de Saussure

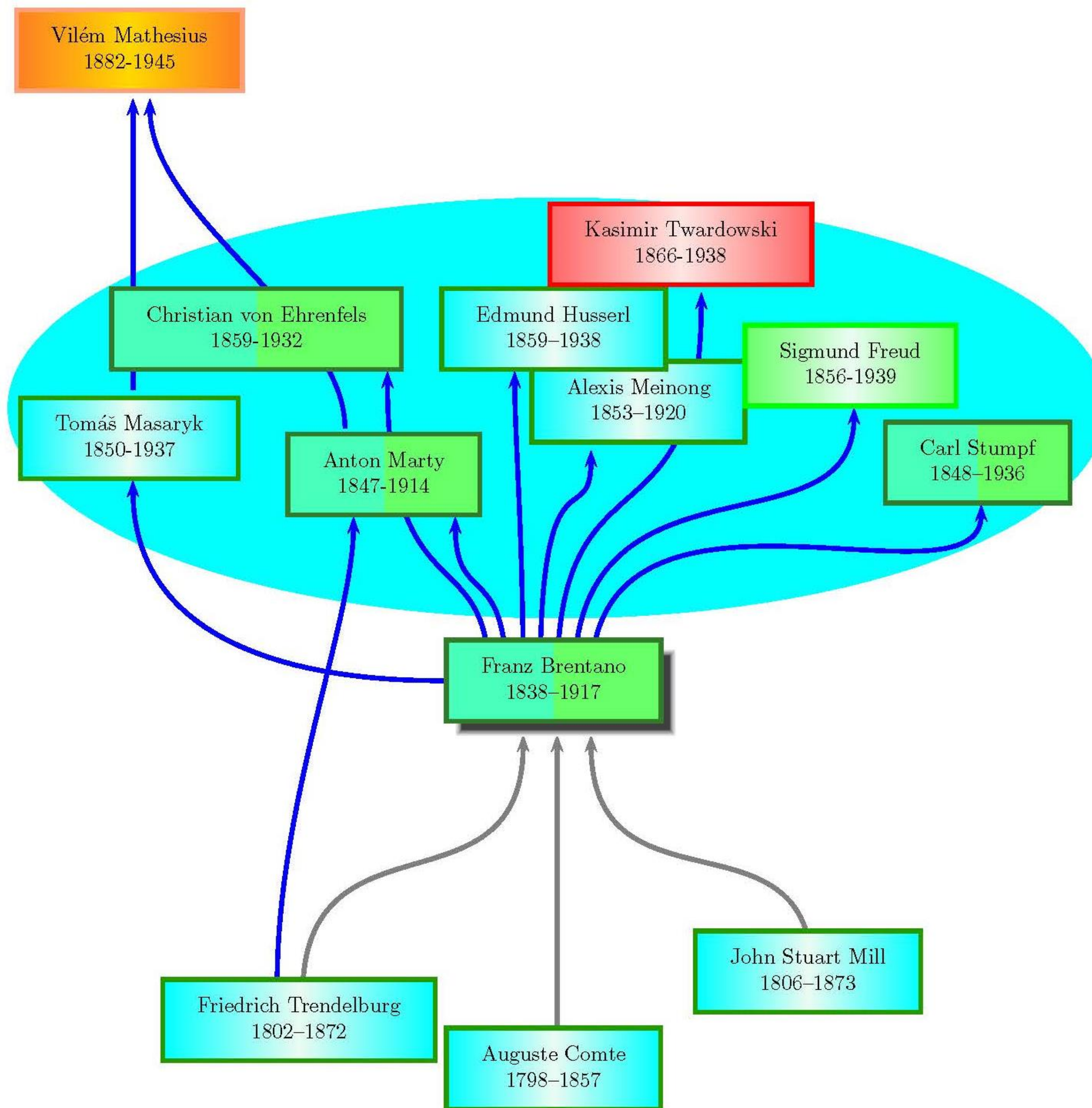


Figure 8: 3.1 Franz Brentano

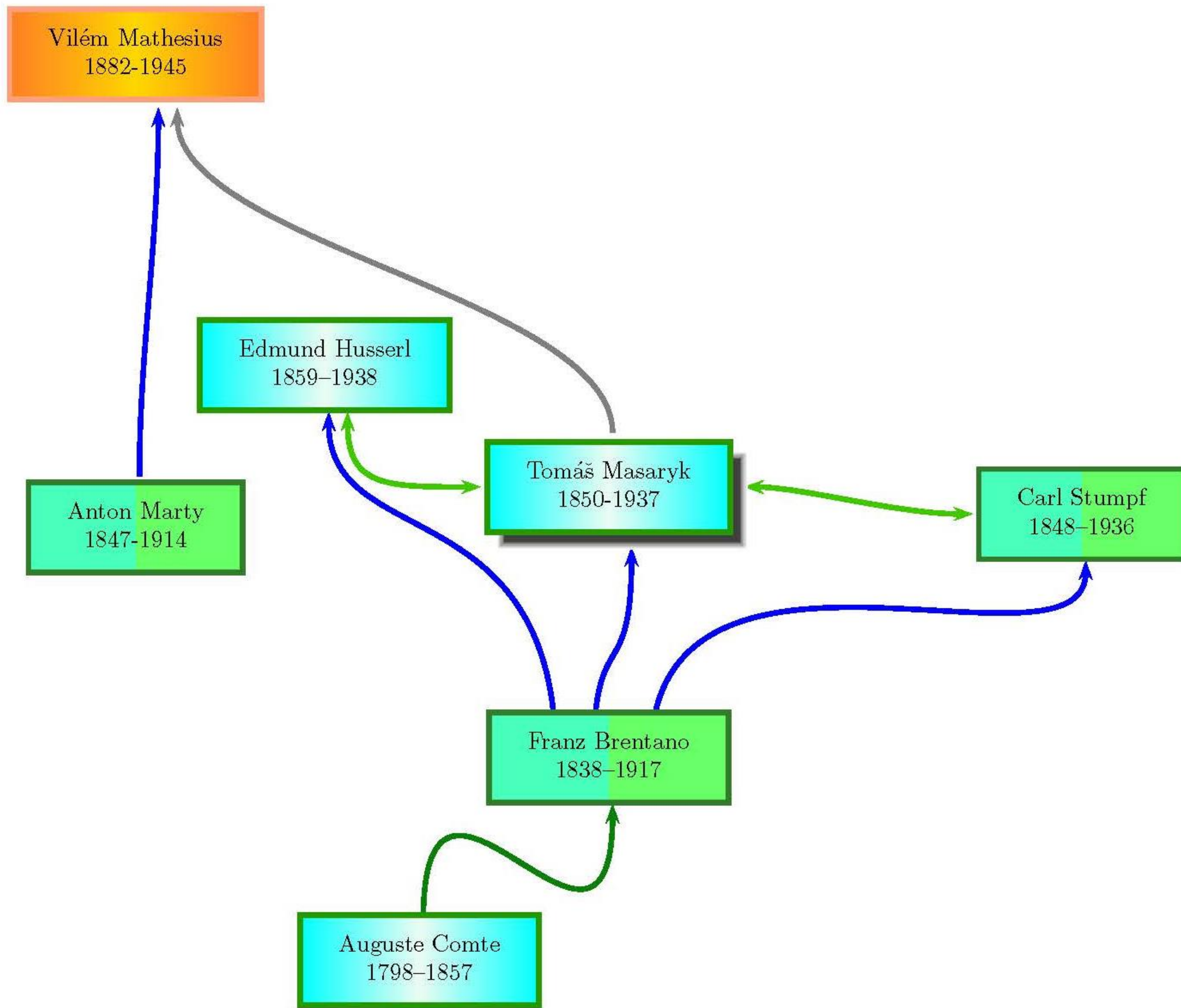


Figure 9: 3.2 Tomáš Masaryk

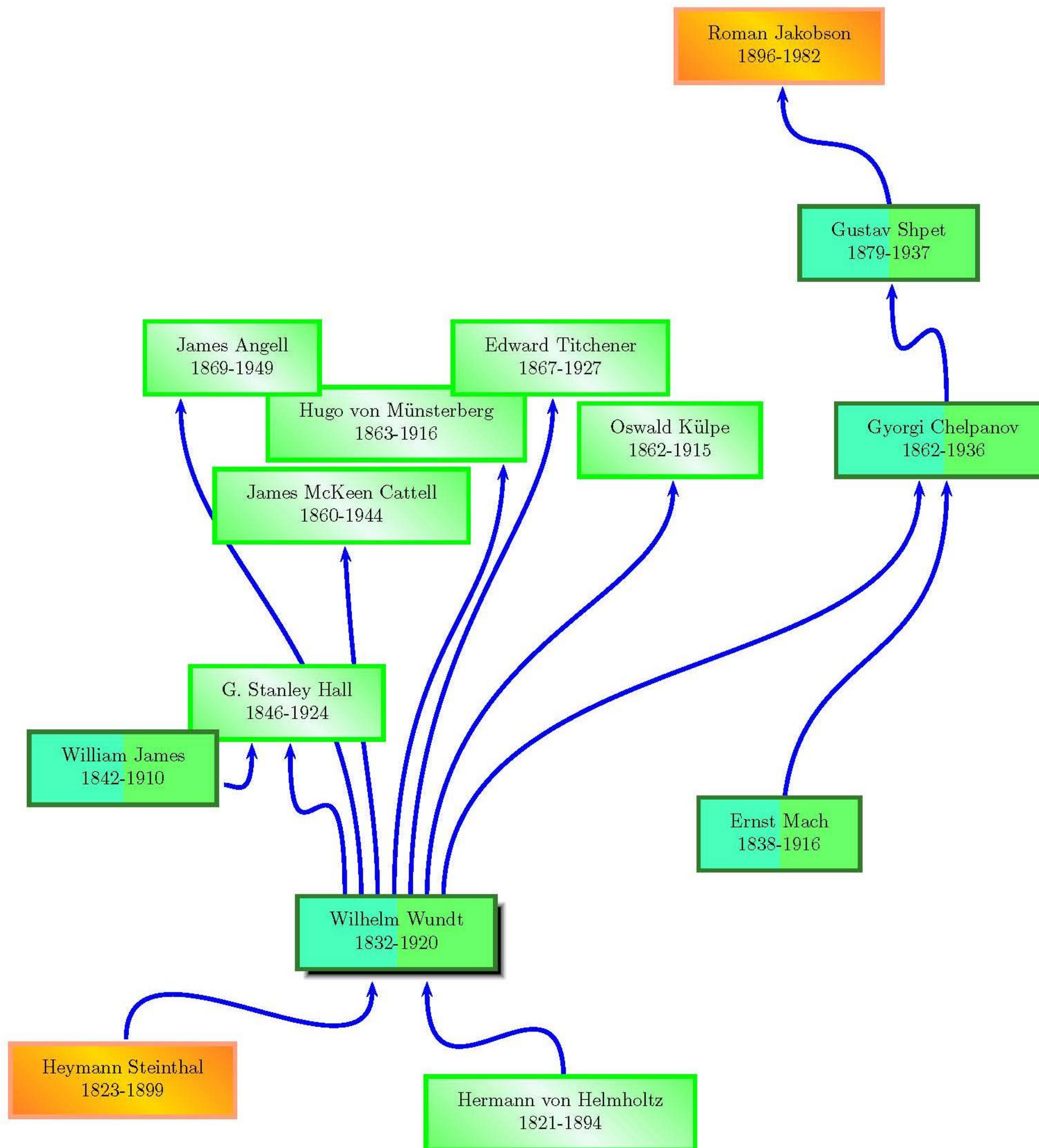


Figure 10: 4.1 Wilhelm Wundt

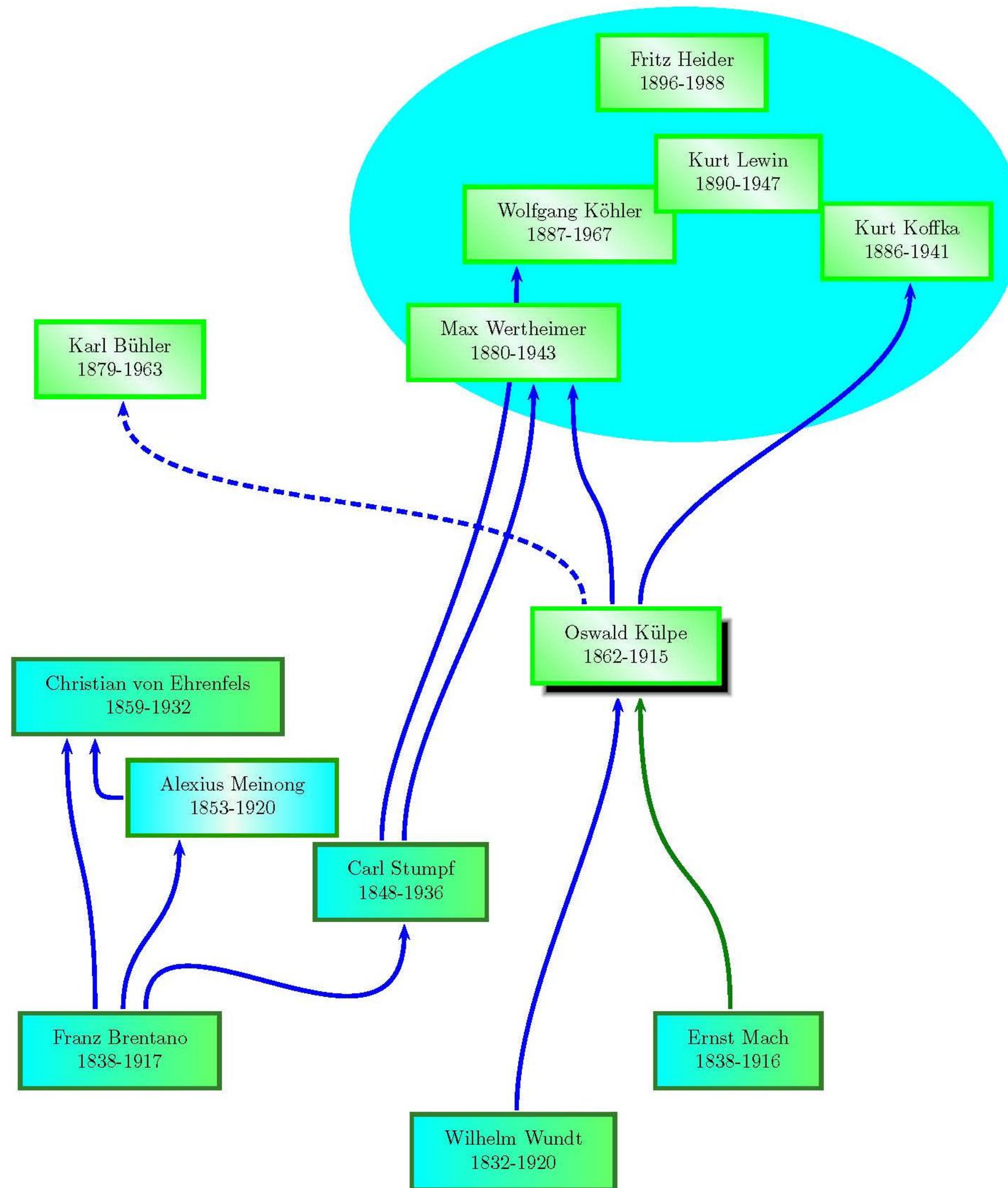


Figure 11: 4.2 Oswald Külpe

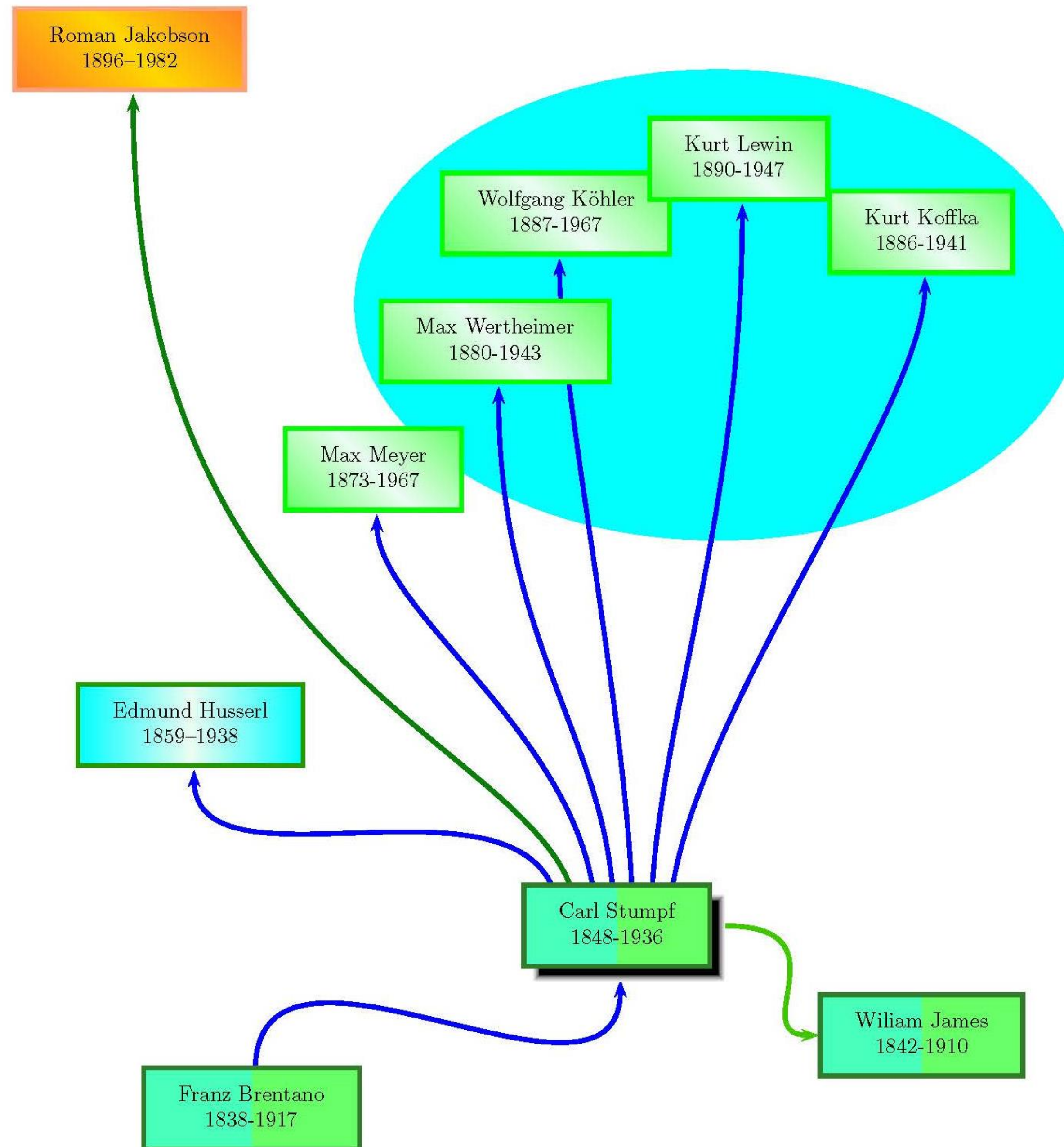


Figure 12: 4.3 Carl Stumpf

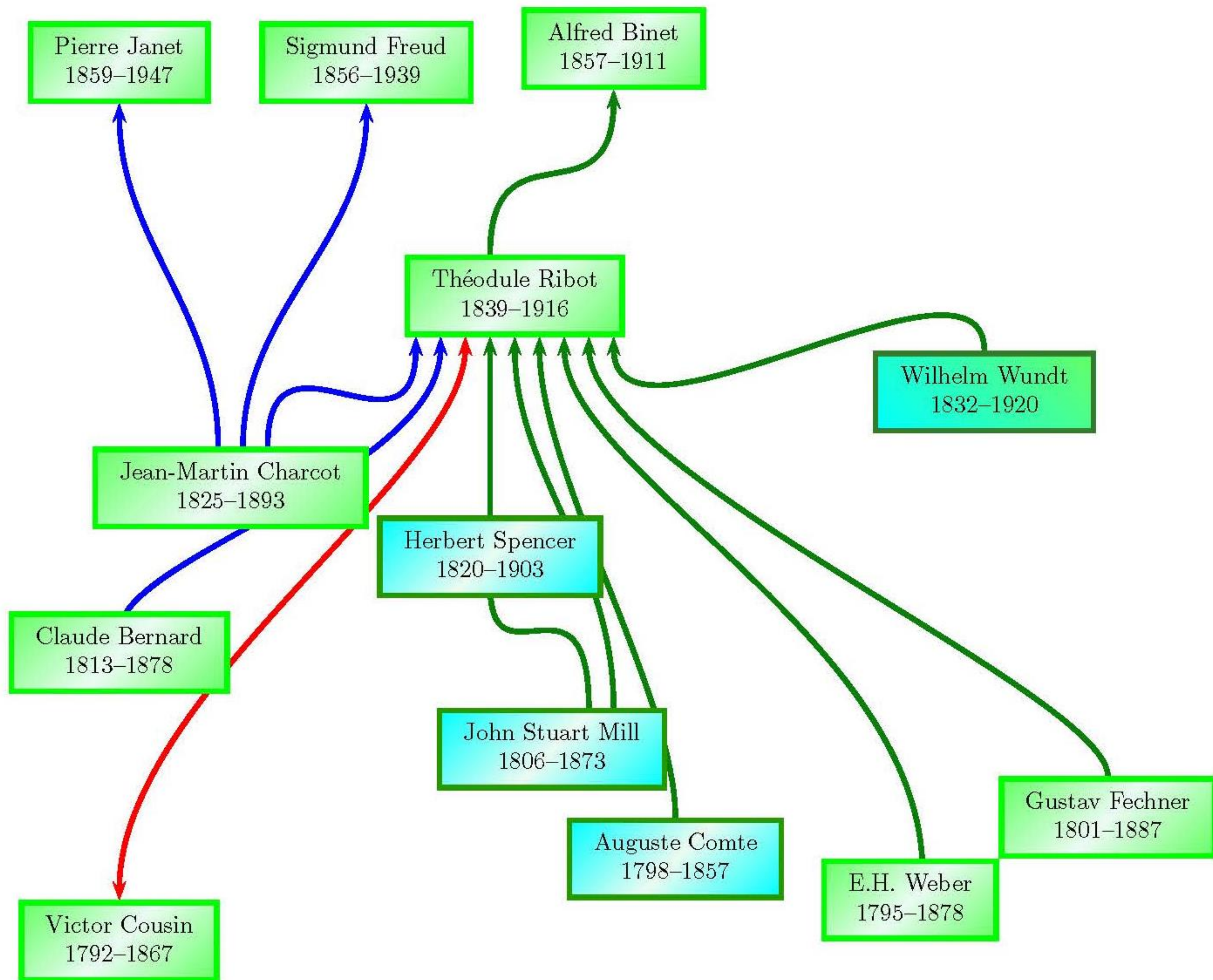


Figure 13: 4.4 French psychology

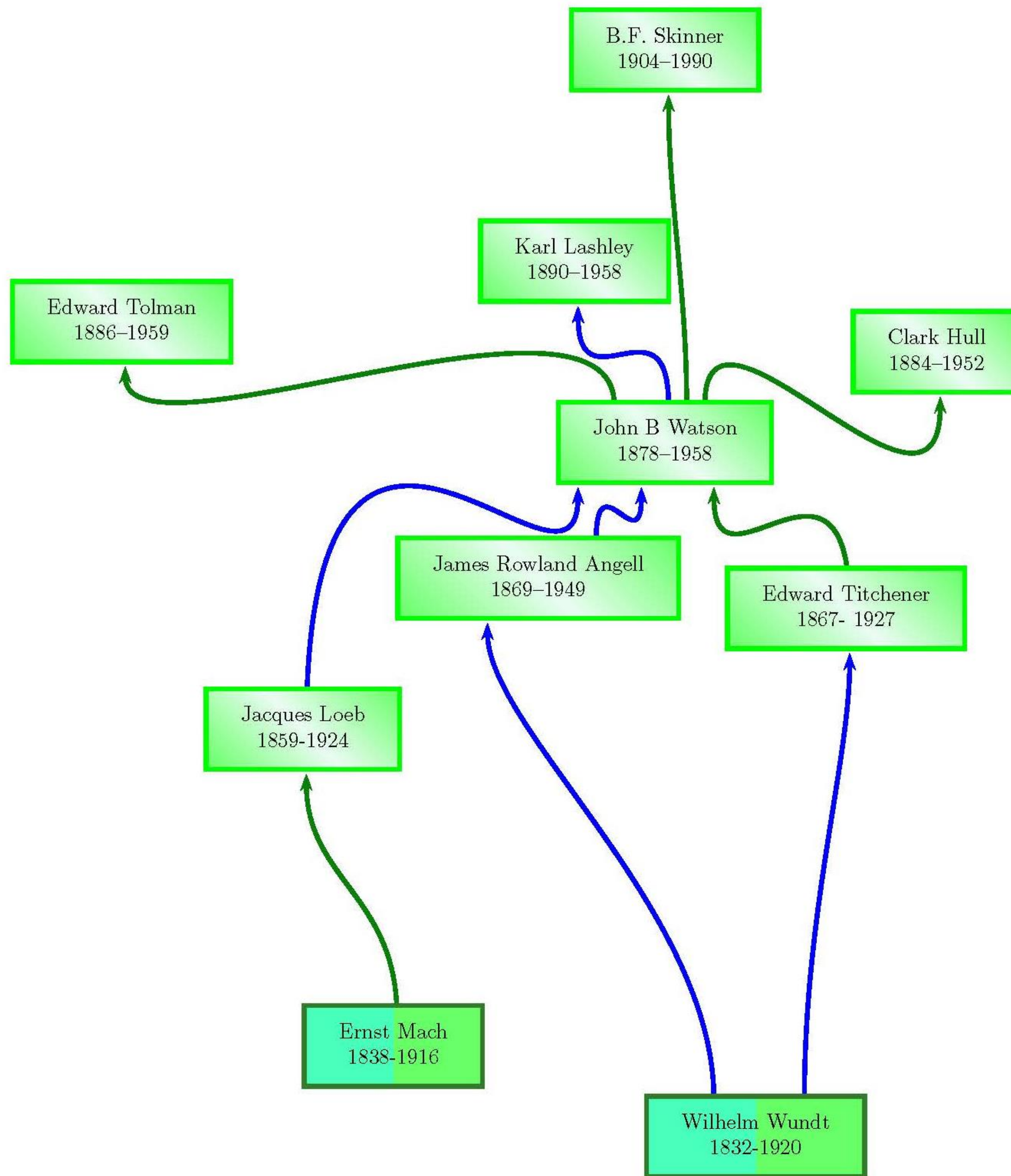


Figure 14: 5.1 Behaviorism

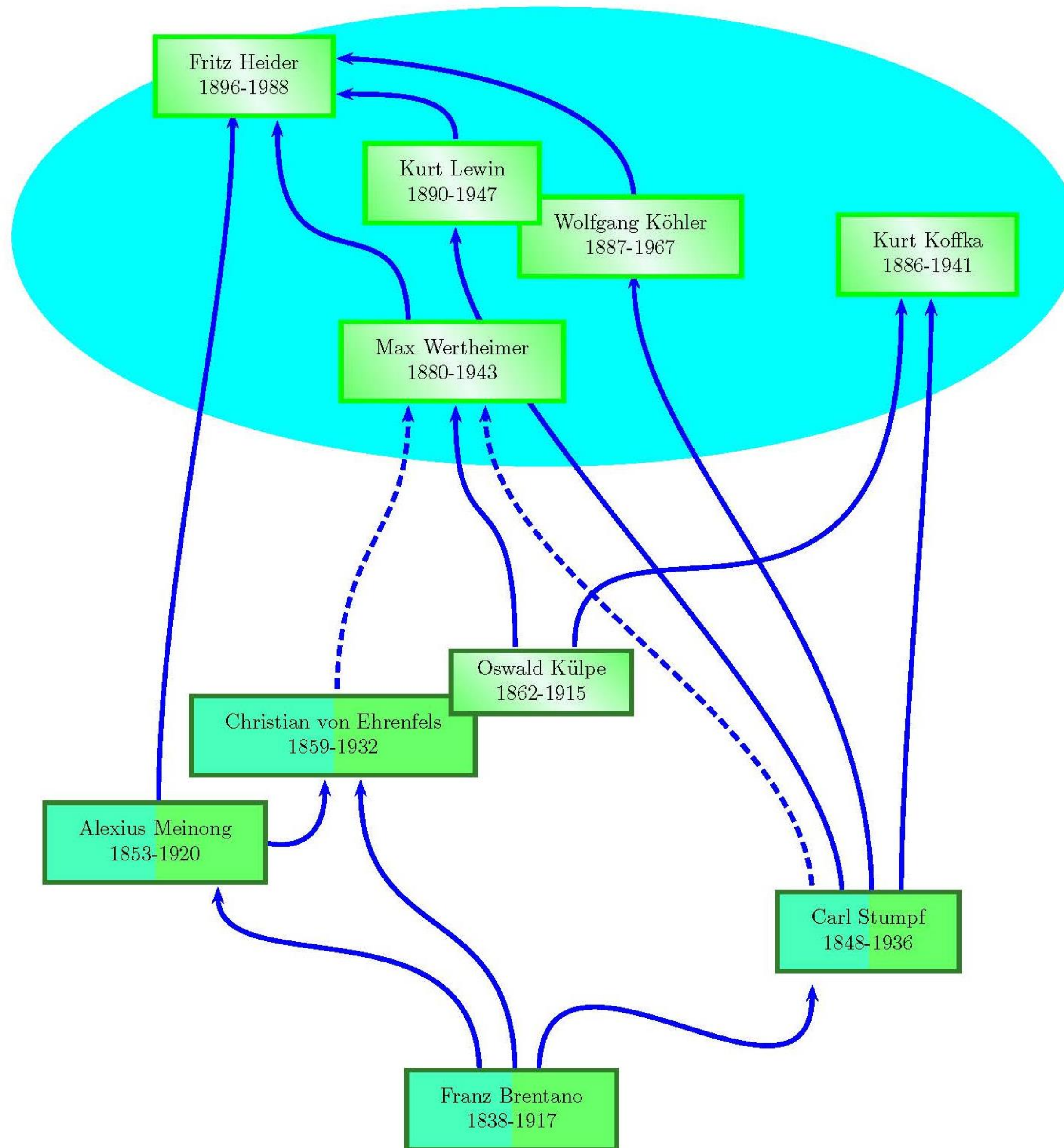
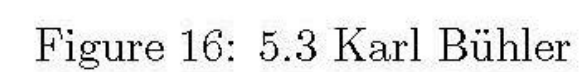


Figure 15: 5.2 Berlin Gestalt psychology



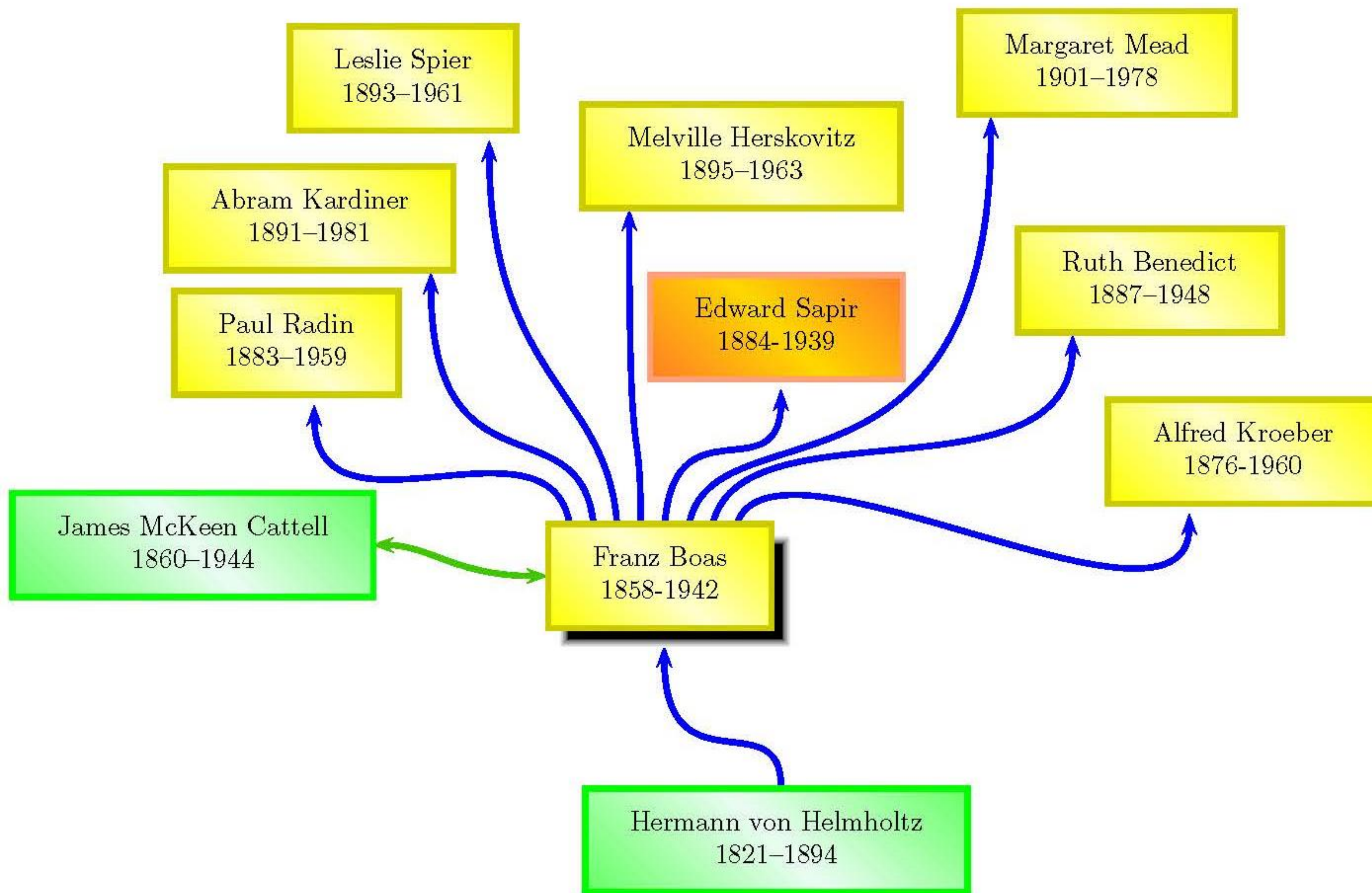


Figure 17: 6.1 Franz Boas

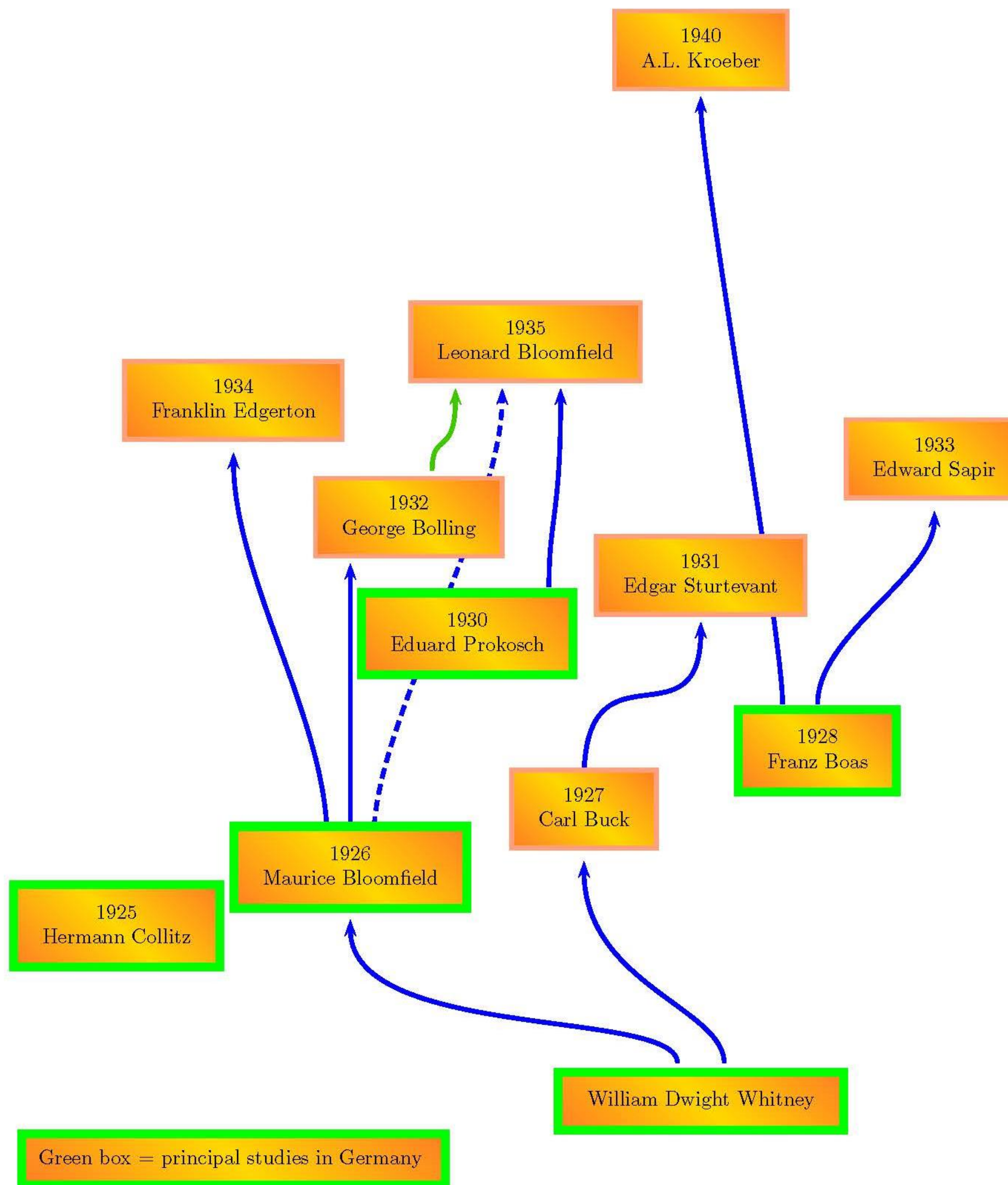


Figure 19: 6.3 Whitney, Germany, and the early presidents of the LSA

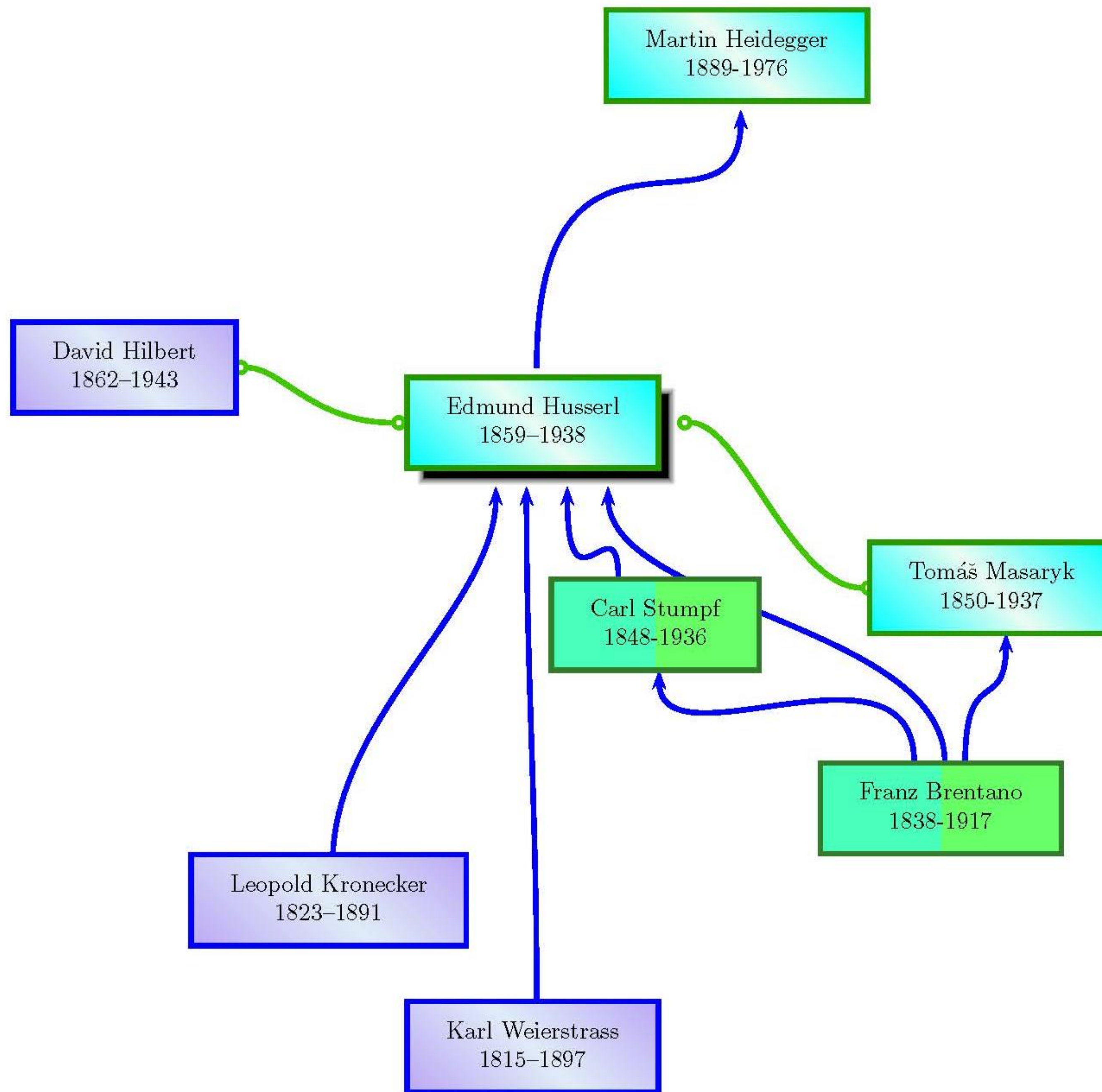
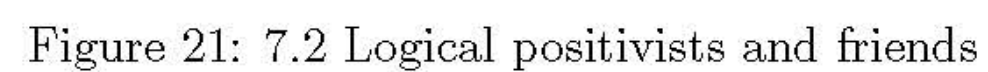


Figure 20: 7.1 Edmund Husserl



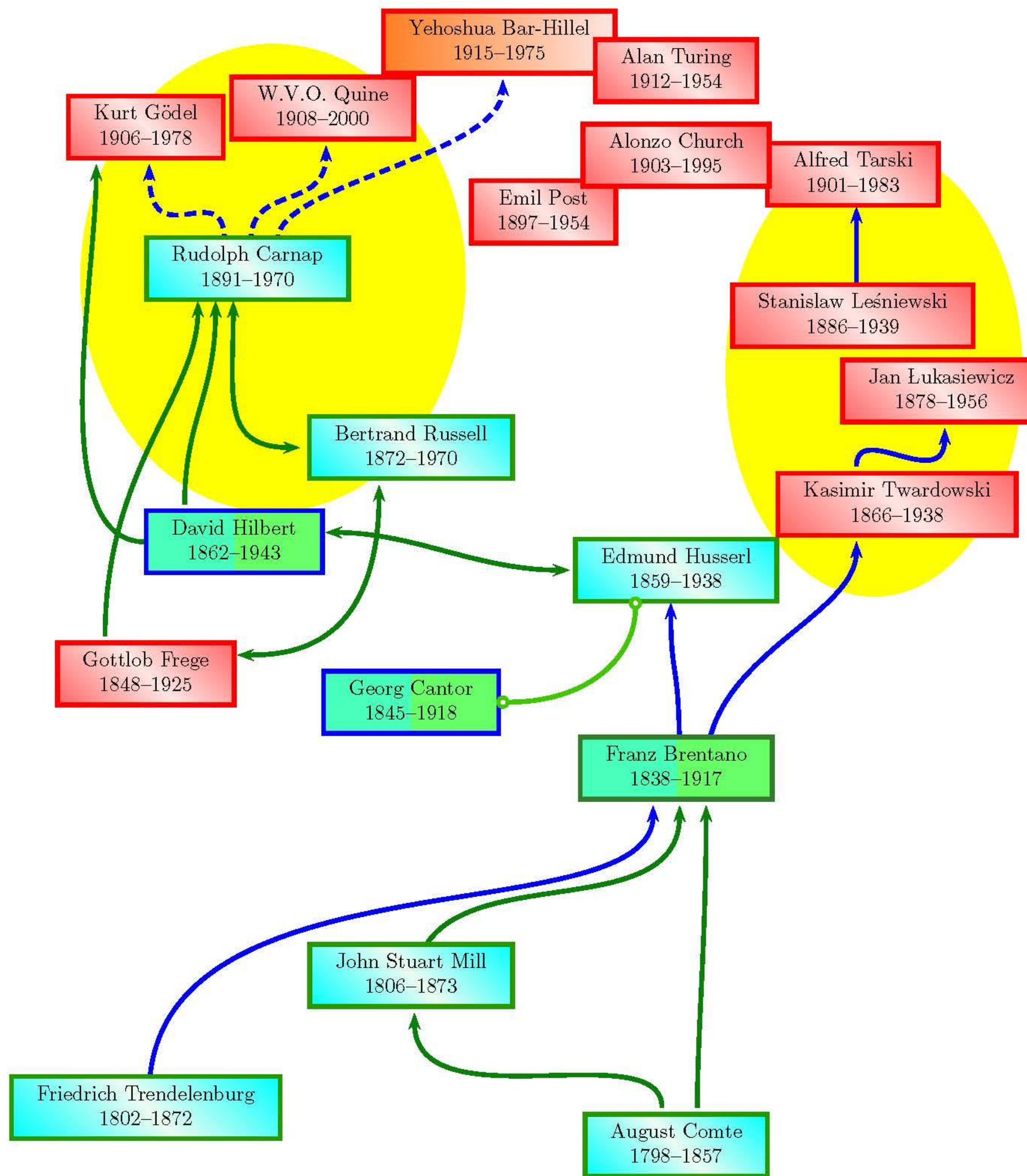


Figure 22: 8.1 Logicians

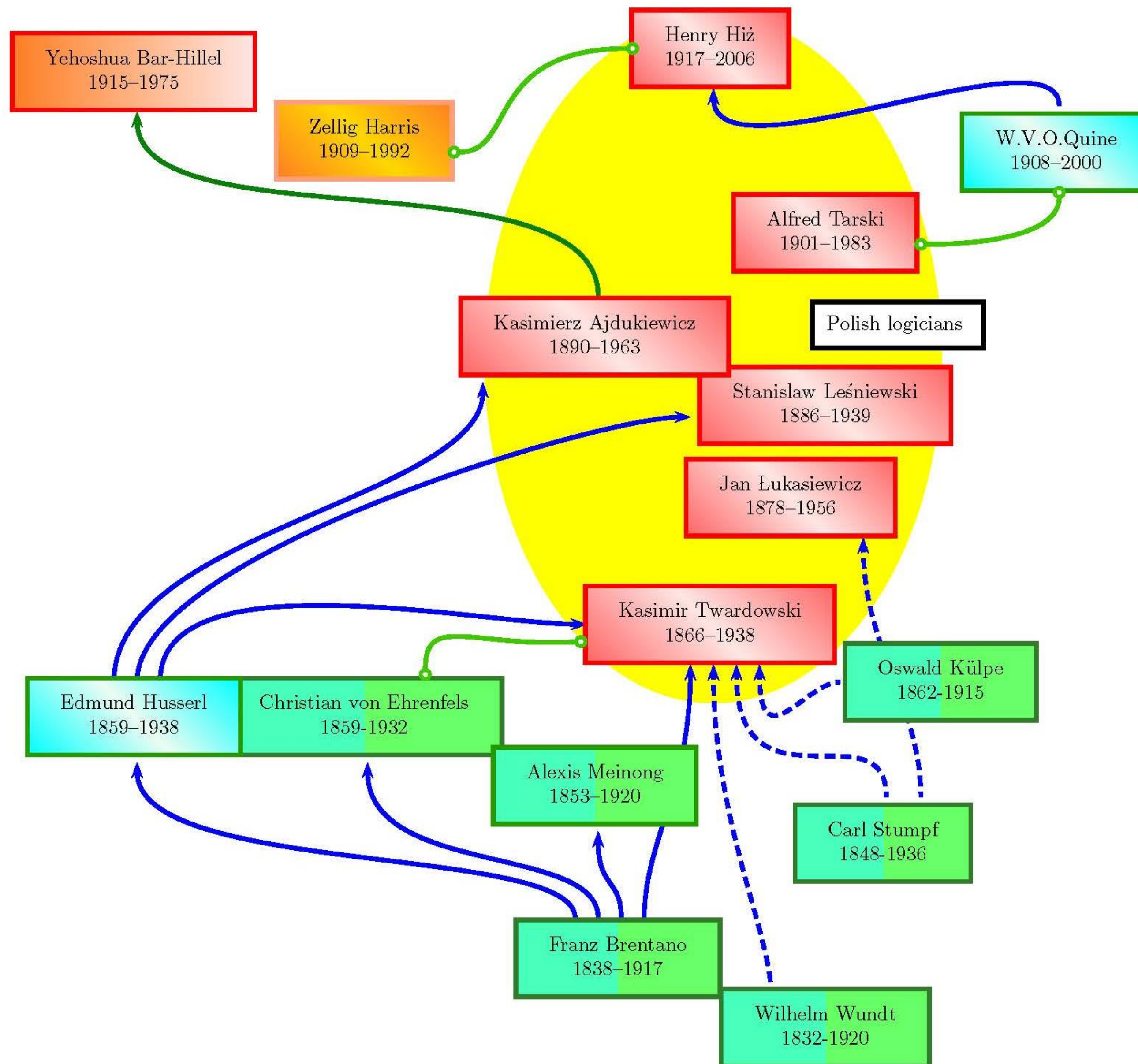


Figure 23: 8.2 Polish logicians

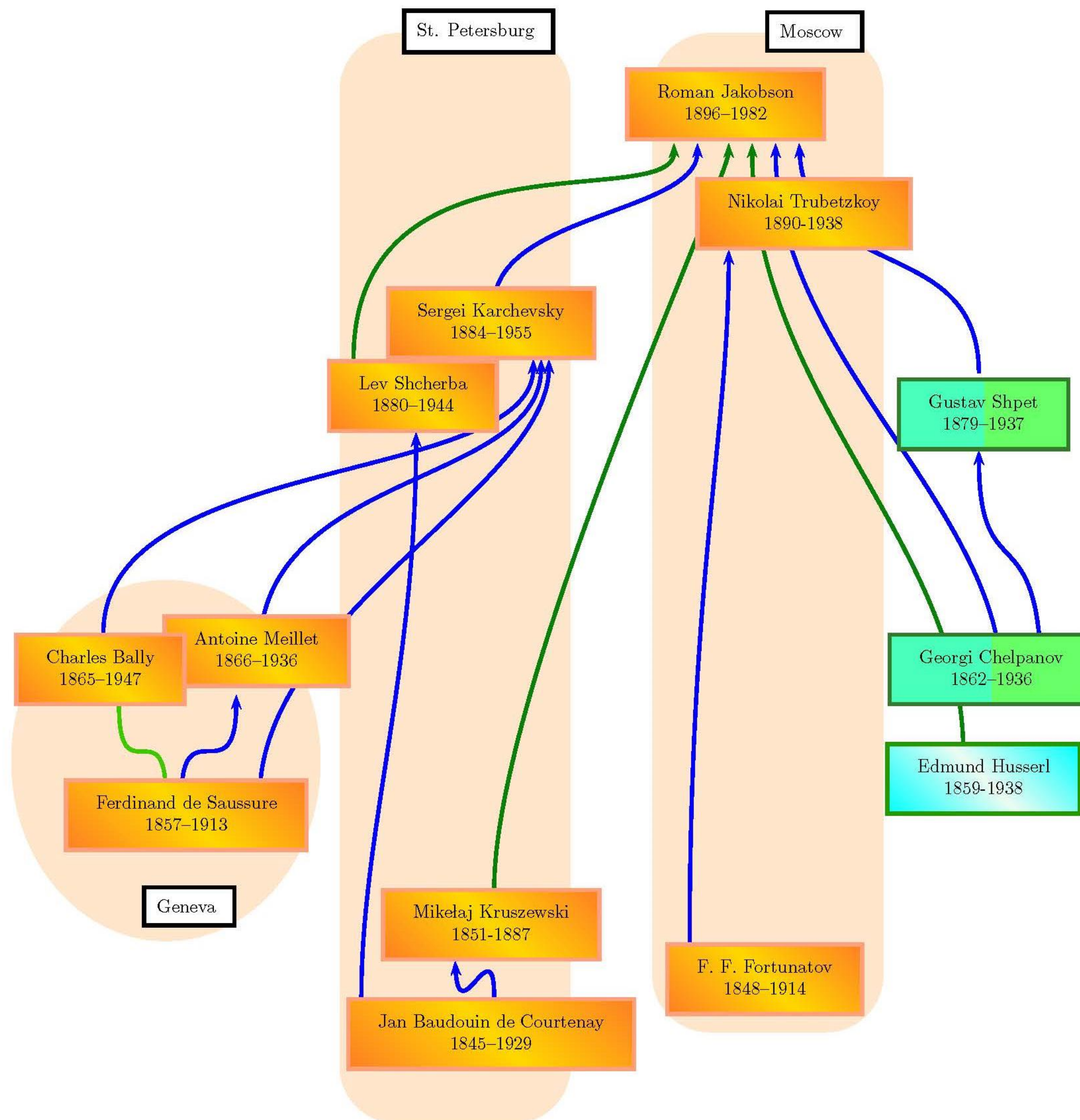


Figure 24: 9.1 Trubetzkoy and Jakobson: early days

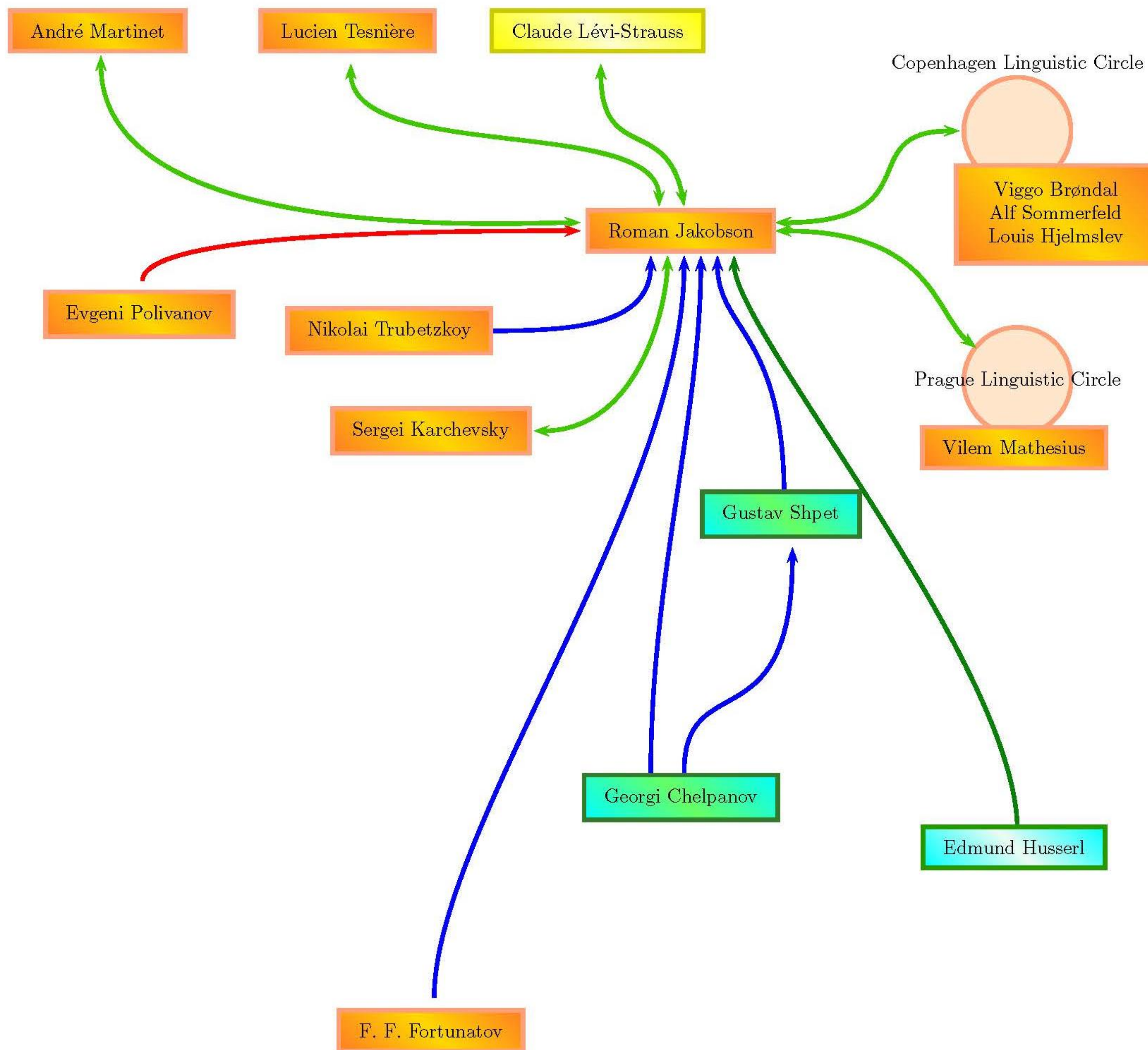


Figure 25: 9.2 Roman Jakobson

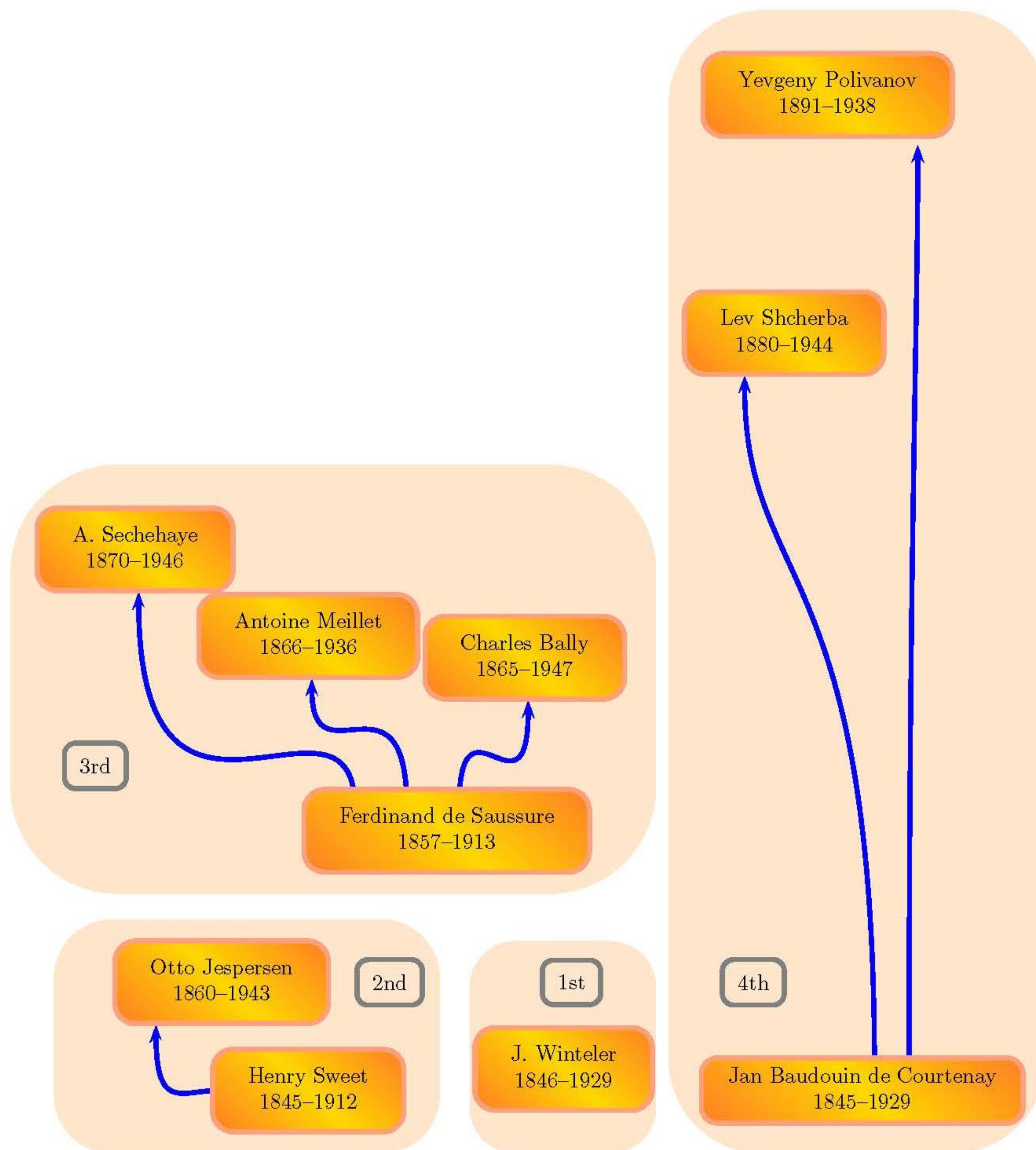


Figure 26: 9.3 Trubetzkoy's versions of the phoneme

Presentist, trajectorial and heliocentric approaches to teaching the history of linguistics

John E. Joseph
University of Edinburgh

Typology of approaches to teaching HoL*

1. start from the current state of the field, and construct a narrative of how we got here
 - 1a. base the syllabus on the burning conceptual and methodological issues of the day, reconstructing their genesis and evolution
→ *PRESENTIST*
 - 1b. focus on the trajectory, rather than its end points
→ *TRAJECTORIAL*
2. take some decisive historical moment between antiquity and the recent past as the fulcrum of the account of the field's development
→ *HELIOCENTRIC*
3. *ANTIQUARIAN*

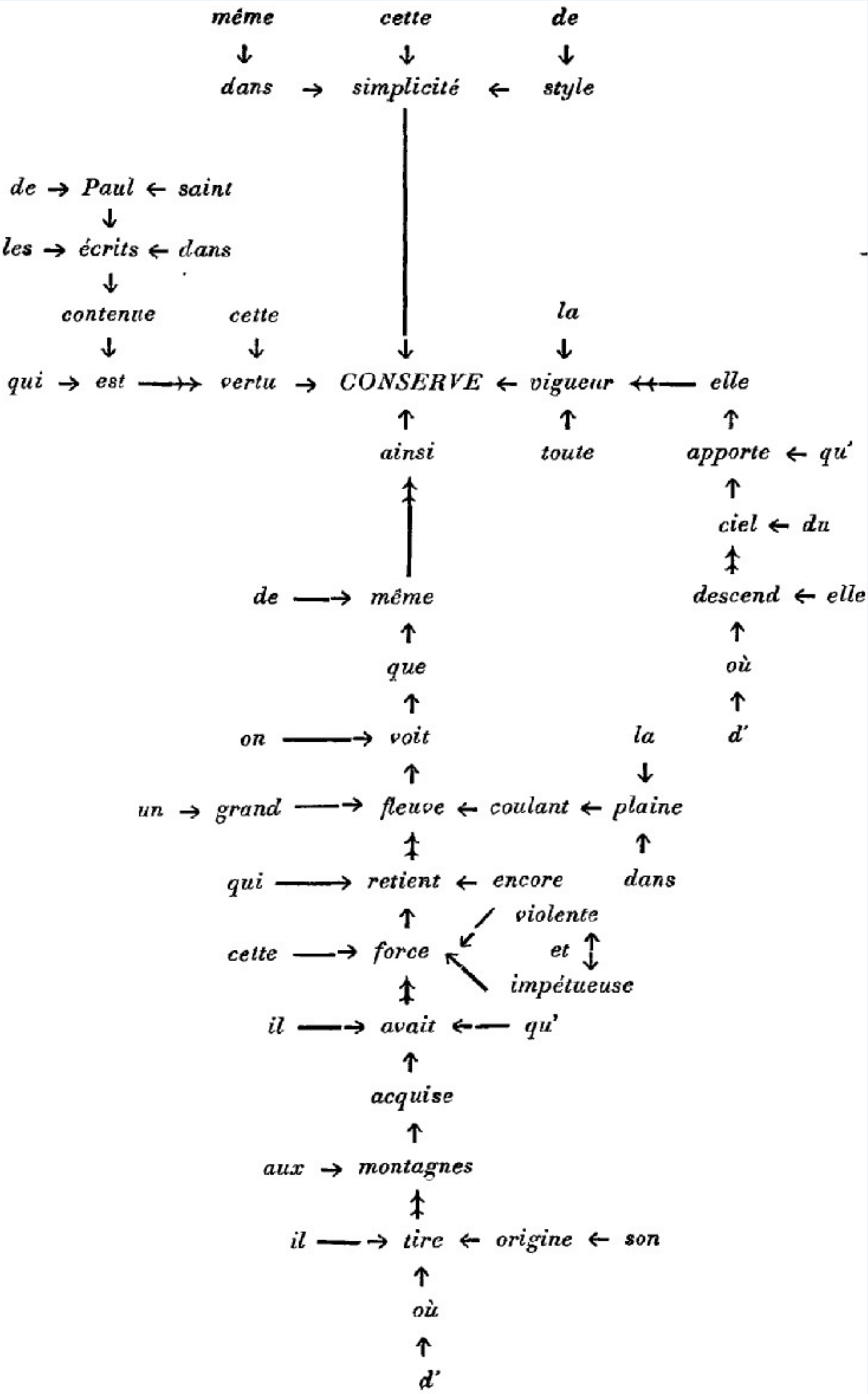
*It has been historically proven that proposing a typology is the fastest way to get linguists to argue.

Lucien Tesnière,
 ‘Comment
 construire une
 syntaxe’, *Bulletin de
 la Faculté des
 Lettres de
 Strasbourg* (1933),
 219-229, p 224.



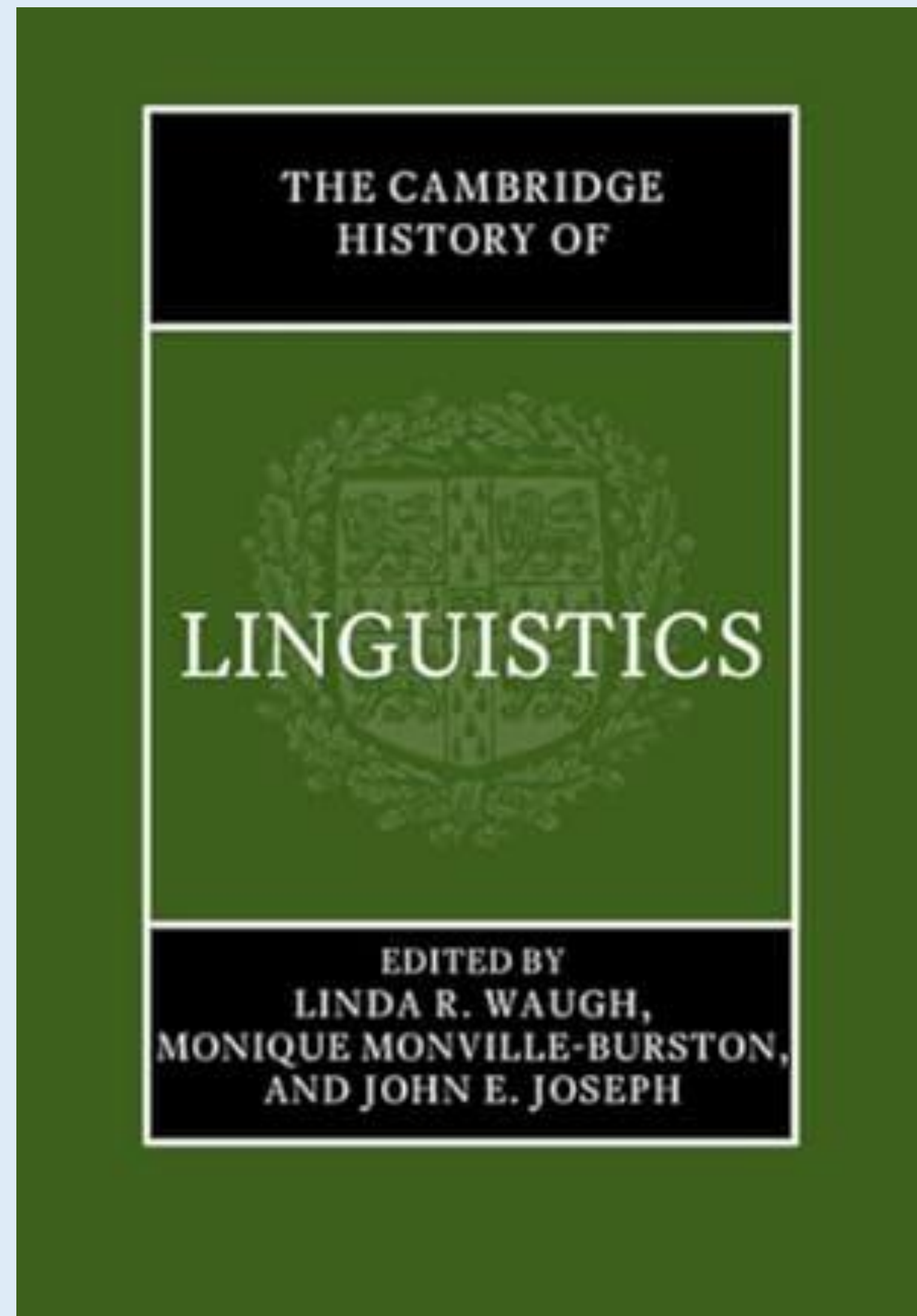
Lucien Tesnière (1893-1954)

De même qu’on voit un
 grand fleuve qui retient
 encore, coulant dans la
 plaine, cette force
 violente et impétueuse
 qu’il avait acquise aux
 montagnes d’où il tire
 son origine : ainsi cette
 vertu céleste, qui est
 contenue dans les écrits
 de saint Paul, même
 dans cette simplicité de
 style **CONSERVE** toute la
 vigueur qu’elle apporte
 du ciel, d’où elle
 descend. (Bossuet,
*Panégryrique de saint
 Paul*).



- Ferdinand de Saussure (1857-1913)
- Franz Bopp (1791-1867)
- Sir William Jones (1746-1794)
- Jacob Grimm (1785-1863)
- Paul Broca (1824-1880)
- Carl Wernicke (1848-1905)
- Friedrich Max Müller (1823-1900)
- Georg Curtius (1820-1885)
- August Schleicher (1821-1868)
- William Dwight Whitney (1827-1894)
- Hermann Osthoff (1847-1909)
- Karl Brugmann (1849-1919)
- Rasmus Rask (1787-1932)
- Eugène Burnouf (1801-1852)
- Graziado Ascoli (1829-1907)

- Wilhelm von Humboldt (1767-1836)
- Port Royal Grammarians: Claude Lancelot (1615-1695) & Antoine Arnauld (1612-1694)
- Plato of Athens (4th c. BC)
- Antoine Meillet (1866-1936)
- Emile Benveniste (1902-1976)
- Roman Jakobson (1896-1982)



Goals for teaching history of linguistics

Sam Rosenthal
Oakland University

The Nature of Linguistics

- 1) A science of language is possible, but it cannot answer all questions pertaining to language.
- 2) Linguistics is empirically and logically based but it also involves imagination and inventive explanations.
- 3) Linguistics should be understood in its philosophical context and its connections to other disciplines.

Adapted from the *Nature of Science*

Science for all Americans (AAAS 1990) cited in

F. Abd-El-Khalick & N. Lederman (2000) *Int. J. Sci. Educ.*, 7, 665-701.

7) Note The syllabus is subject to change based on student interests and time.

Week	Monday		Wednesday		Friday
1					6 Introduction
2	9 Greek & Medieval Theory		11 Neo- grammarians <i>Seuren 89-103</i>		13 Neo- grammarians
3	16 NO CLASS		18 Saussure <i>Seuren 14-156</i>		20 Saussure
4	23 Am. Structural <i>Seuren 178-182</i>		25 Sapir <i>Sound Patterns</i>		27 Sapir <i>Psycho. Reality</i>
5	30 Linguistic Relativism		Feb. 1 Whorf		3 <i>The Language Hoax</i>
6	6 <i>The Language Hoax</i>		8 Bloomfield <i>Postulates</i> <i>Seuren 190-206</i>		10 American Structuralism
7	13 Am. Structural Phonology <i>Menomini</i>		15 Euro. Structural <i>JF&H</i>		17 Halle: <i>Gen. Phonology</i>
8	20 Chomsky & Halle		23 Chomsky & Halle		24 <u>MidTerm</u>
9	27 WINTER BREAK		March 1 WINTER BREAK		3 WINTER BREAK
10	6 Mathematical Linguistics		8 Mathematical Linguistics		10 Mathematical Linguistics
11	13 Chomsky: TGG <i>Seuren 227-252</i>		15 Chomsky: TGG		17 Chomsky: TGG
12	20 Chomsky <i>Aspects</i>		22 Chomsky <i>Aspects</i>		24 Chomsky: TGG in the 60s & 70s
13	27 Behaviorism /		29 Chomsky <i>Review of Skinner</i>		31 Universal Grammar <i>A&L</i>
14	3 Universal Grammar		5 Mod. of Mind <i>Coltheart</i>		7 Connectionism <i>R&M</i>
15	10 Connectionism		12 <i>Pinker & Prince</i>		14 <i>Pinker & Prince</i>
	17 Optimality Theory				
	April 24 Second Test 3:30				

Reading List

Anderson, Stephen and David Lightfoot. 1999. The Human Language Faculty as an Organ. Annual Review of Physiology 62.

Bloomfield, Leonard. 1939 [1970]. Menomini Morphophonemics. Reprinted in A Leonard Bloomfield Anthology. Ed. by Charles Hockett. Indiana University Press, Bloomington.

Bloomfield, Leonard. 1926. A Set of Postulates for the Science of Language. Language 2, 153-164.

Chomsky, Noam. 1959. Review of B. F. Skinner Verbal Behavior. Language 35, 547-578.

Chomsky, Noam. 1965. Aspects of the Theory of Syntax. MIT Press, Cambridge.

Chomsky, Noam and Morris Halle. 1968. The Sound Pattern of English. Harper and Row, New York.

Coltheart, Max. 1999. Modularity and Cognition. Trends in Cognitive Science 3, 115-120.

Halle, Morris. 1962. Phonology in Generative Grammar. Word 18, 54-72. Reprinted in The Structure of Language. Ed. by J. A. Fodor and J. J. Katz 334-352. Prentice-Hall, Englewood Cliffs 1964.

Jakobson, Roman, Gunnar Fant, and Morris Halle. 1952. Preliminaries to Speech Analysis. MIT Press, Cambridge.

Prince, Alan & Paul Smolensky. 2006. Optimality: From Neural Networks to Universal Grammar. In The Harmonic Mind vol 1. Ed. by Paul Smolensky, and Geraldine Legendre. MIT Press, Cambridge.

Rumelhart, D. E. and J. L. McClelland. 1986. On Learning the Past Tenses of English Verbs. In Parallel Distributed Processing: Explorations in the Microstructure of Cognition vol. 2. Ed. by James L. McClelland, David Rumelhart, and the PDP Research Group. MIT Press, Cambridge.

Pinker, Steven and Alan Prince. On Language and Connectionism: Analysis of a Parallel Distributed Processing Model of Language Acquisition. Cognition 28, 73-193.

Sapir, Edward. 1925. Sound Patterns in Language. Language 1, 37-51.

Sapir, Edward. 1933 [1949]. The Psychological Reality of Phonemes. In Selected Writings of Edward Sapir. Ed. by David Mandelbaum. University of California Press, Berkeley.

Seuren, Pieter A. M. 1998. Western Linguistics: An Historical Introduction. Blackwell, Malden MA.

Some Handouts

SOME TRENDS IN ANCIENT STUDIES OF LANGUAGE

Pāṇini (Northwest India, c.360BCE)

- The *Aṣṭādhyāyī* (a system of approximately 4000 *sūtras* (rules)) provides a complete and theoretically consistent analysis of Sanskrit. “One of the greatest monuments of human intelligence.” Leonard Bloomfield
- Western grammatical theory has been influenced by it at every stage of development, from the comparativists in the 19th century to American Structuralism in the 1940s.
- It includes an inventory of phonological segments (*sivasūtras*) partitioned by class markers to allow for classes, 2000 verb roots with subclassifications and diacritics (*dhātupāṭha*) to encode morphological and syntactic properties, and rules for idiosyncratic lexical items (*gaṇapāṭha*).
- It has many hallmarks of a generative grammar. It presents Sanskrit as a derivational system with numerous substitution and replacement rules.
- It also has a system of extrinsic rule ordering and rules that follow bracketing conventions. Rules are organized into a hierarchy of generality.
In [[X]Y]: rules apply to X before applying to XY.

Plato (Greek, c.427BCE- c.347BCE)

- The dialogue *Cratylus* concerns the nature and origins of names (and words).
Cratylus: believes names are not mere conventions. Each thing has a true and correct name irrespective of any language. Names reveal something about their nature.
Hermogenes: believes names are simply conventions.
Socrates: helps explore the issues.
- Cratylus believes names have divine origins but have been corrupted over time so we need to study the origins of names to reveal the connection to its nature. Cratylus was a Sophist and was concerned with etymology.
- At first Socrates defends Cratylus by invoking some crazy etymologies, which some interpreters believe should not be taken seriously. He implies that there must have been a divine name-giver but concedes there is no way to know the original name given changes over time. Towards the end of the dialogue he attacks Cratylus’ position.
- Socrates ends by saying we can’t learn anything about objects by studying names and that we are better off studying the objects themselves.
- Socrates: “Our fine modern language has obliterated the true meaning of these names by so twisting them around that they now mean the opposite of what they used to, whereas the ancient language expresses clearly what they mean.” (418d)

Aristotle (Greek, 384_{BCE}-322_{BCE})

- He strongly believed that we can only understand the world by analyzing it into its component parts. He approached language the same way.
- He produced a number of works concerning language. In *Categories* he discusses the use of language in categorizing reality. In *On Interpretation* he discusses semantic relations between terms used in naming things. Other works discuss logic, e.g., forming propositions, inferences from premises, and the effects of negation over universals and particulars. He also wrote about poetics and rhetoric.
- Aristotle believed language was conventional, but the mental experiences are universal: “Spoken words are the symbols of mental experiences. Just as all men do not have the same orthography, so all men do not have the same speech sounds; but the mental experiences, which these directly symbolize, are the same for all, as also are those things of which our experiences are images.” (Int 16th3)

Dionysius Thrax (Greek, 170-90_{BCE})

- Dionysius wrote the *Téchne grammatikē* (*Téhnē grammatikē*) which is the first grammar of Greek. It is mostly about morphology.

Arabic Linguistic Tradition

- al-Khalīl (d. 791) and his student Sībawayh (d. 804) wrote *Kitāb* which is a detailed description of the Arabic of the Qu’rān and poetry. It is a synchronic grammar based on a super-dialectal form using data elicited from speakers.
- Anbāri (d. 1181) “[grammar is] knowledge of the analogical patterns which are extracted from the speech of the Arabs by means of induction.” Analogical patterns are very similar to rules.

- Syntax (*naḥw*)

Principle of governance (*ʿamal*) to account for inflectional morphemes.

The governing entity (*ʿamil*)

The governed entity (*maʾmūl bihi*)

The effect (*ʿamal*)

ḍaraba Muḥammad-un ʿAliyy-an

hit Muhammad-nom Ali-acc

Muhammad hit Ali

al-walad-u nashīṭu-un

the boy-nom industrious

The boy is industrious.

- *ḍaraba* is the governing entity and the nouns are the governed entities.

- the subject *al-walad-u* is nominative because it is initial. The governing entity is *topicalization (ibtidāʾ)* which governs the subject.

Conditions on Governance:

- a. The governing entity precedes the entity it governs.
- b. No entity can be governed by more than one governing entity.

Medieval Speculative (Modistic) Grammarians (c13 - c14)

- There are two camps of grammatical interests:
 1. Pedagogical grammarians (prescriptivists)
 2. Philosophical grammarians who adopted Aristotle's view expressed in the quotation above. The goal was to explore the mind (modes) of the speaker and how it is reflected in their speech.

"Grammatica una et eadem est secundum substantiam in omnibus Unguis, licet accidentaliter varietur." In substance grammar is the same in all languages, though it may vary in accidental ways. Roger Bacon (*Summa Grammatica* 1267)

- They opposed *nominalism* and believed grammar was metaphysically important, i.e., understanding questions of existence, properties of objects, etc.
- These grammarians were influenced by Aristotle's tripartite theory of meaning:
words represent *concepts* which represent *objects*.

modi essendi: modes of being

objectively existent qualities in an object of understanding

modi intelligendi: modes of understanding

the understanding's means of representing the *modi essendi*

modi significandi: modes of signifying

the grammar's means of representing the *modi intelligendi* in language

- The objective was to turn grammar into rules that must underlie all languages.

Early Modern Grammarians

Port-Royal Grammarians

- Named after the Port-Royal abbey in Paris. In the tradition of the Modists, they concentrated on understanding language for its own sake rather than for prescriptive purposes. They were also very active philosophically; Antoine Arnauld corresponded extensively with Descartes. They had a rationalist approach to grammar, probably influenced by Descartes' Rationalist philosophy.
- In *Grammaire Générale et Raisonnée* (1660), Arnauld and Lancelot attempted to describe principles of language that would be independent of time and place. They believed these could be found by studying many different languages. Their intention was not to describe different languages but to use them to shed light on the characteristics shared by all languages. This is not universal grammar; they were interested in Aristotelian issues of modalities of thought and the connection between formation of propositions and the operations of the mind, namely, judgment.

Rationalism and Empiricism

René Descartes (1595-1650)

- He is considered the first modern philosopher. Medieval philosophy tended to be commentaries on other work and it was influenced by theology. They were mostly interested in final causality.
- Descartes was modern in the sense that he was interested in efficient causality (mathematically-determined causes) and wanted to study humans and nature without theology. He believed that medieval philosophers only expounded truths that were known. It couldn't be used to discover new truths. He was very influenced by developments in Renaissance science and believed philosophy should be a "Science of Humans".
- Descartes believed all living bodies are machines. Yet humans have a spirit as well. Hence, **mind/body dualism**. These entities, mind and body, must interact with each other. Many see Descartes' explanation of the interaction as the weakest part of his philosophy. The study of mind/body dualism is called Philosophy of Mind.
- An important trend in Renaissance philosophy was **skepticism**. Montaigne (1533-1592) revived ideas about the unreliable character of experiences.
- Descartes refuted skepticism by demonstrating certain types of knowledge are not learned by induction and do not need empirical confirmation.
- **Rationalism**: There are innate truths or certain truths are known *a priori*. "Experience provides no more than the occasion on which the mind by its own light perceives their truth." Rationalism attempts to deduce from principles a system of truths which can give information about reality in a way analogous to mathematics.
- For Descartes there are three *a priori* truths:
 1. *cogito ergo sum* "I think therefore I am".
 2. knowledge of mathematics.
 3. existence of God.
- Descartes on language: "It is a very remarkable fact that there are none so depraved and stupid, without even excepting idiots, that they cannot arrange different words together, forming of them a statement by which they make their thoughts; while on the other hand there is no animal, however perfect and fortunately circumstanced it may be, which can do the same." *Discourse on Method*

John Locke (1632-1704)

- Locke argued against innate ideas. His main argument is that these Cartesian ideas are not shared by all humans. He argues that humans are born *tabula rasa*, blank slates.
- **Empiricism:** all our ideas derive from experience. Experience is derived from sensation and reflection, i.e., perceiving, thinking, doubting, believing, and willing. Humans are born with these abilities, but they are not triggered until the mind receives ideas from sensations.
- The mind passively acquires simple ideas, but it is active in creating complex ones, which arise from compounding and comparing simple ideas. Complex ideas can also be formed by combining other complex ideas. This also can work in reverse: all complex ideas can be ultimately broken down into simple ideas.
- Knowledge is the perception of the relations between ideas. There are a number of possible relations, according to Locke. However, since knowledge relies on ideas, which are abstractions from experience, then we cannot be sure our ideas are reliably connected to the external world. This question has occupied many philosophers for centuries.
- Locke believes there are limits to human knowledge and this can help us determine the range of our philosophical questions.
- Language is an important part of Locke's philosophy because complex ideas can have different meaning for different people since all minds are different. Words are conventional signs and signify ideas. "Words in their primary or immediate signification stand for nothing, but the ideas in the mind that uses them." When I say "carrot" I am referring to the idea of a carrot. We make the assumption that another person understands what we mean and that it has some reference to the actual object.

Formal Languages

- Alphabet: any finite set of symbols.
- String: a finite sequence of zero or more symbols.
- ϵ = string of zero length.
- Concatenation: string x followed by string y means all symbols in x in order are followed by all symbols in y in order.
- Language (Σ): the set of strings over some fixed alphabet. The set of all strings is a Kleene Closure (Σ^*).

Examples:

$\{a, b\}^*$ is the set of all strings of zero or more $\{\epsilon, a, b, ab, ba, aa, bb, aaa, \dots\}$.

-We can put restrictions on the language and formalize its description as follows:

$$\{x \in \{a,b\}^* \mid |x| \leq 2\} = \{\epsilon, a, b, aa, bb, ab, ba\}$$

x is an element of $\{a, b\}^*$ such that its length is two symbols or less.

- **Deterministic Finite Automata (DFA):** This is an abstract computer that takes a string as an input and produces a yes/no answer. The language defined by the machine is the set of strings for which the answer is “yes”. In other words, it is a machine that determines the set of ‘grammatical’ strings.

Deterministic: each of its transitions is uniquely determined by its source state and input symbol, and reading an input symbol is required for each state transition.

Finite: produces a unique output for any given input.

- **Regular language:** A language recognized by a DFA.

Definition of a Grammar:

A grammar is a 4-tuple $G = (V, \Sigma, S, P)$ where

V is the non-terminal alphabet $\{A, B, C \dots\}$

Σ is the terminal alphabet $\{a, b, c, \dots\}$ disjoint from V

$S \in V$ is the start symbol

P is a finite set of rules of the form $x \rightarrow y$, where x and y are strings over $\Sigma \cup V$.

All regular languages can be defined by **Linear Grammars**:

Right Linear Grammar: if and only if all production rules are $X \rightarrow z(Y)$.

Left Linear Grammar: if and only if all production rules are $X \rightarrow (Y)z$.

Non-regular languages can be defined by **Context-free Grammars**:

Context-Free Grammar: if and only if every production rule is of the form $X \rightarrow z$

(where $X \in V$ and $Z \in V \cup \Sigma$).

It is called a context-free grammar because the non-terminal element is replaced regardless of the context. Notice that the grammars for regular languages also have a non-terminal symbol on the lefthand side. This means that regular languages are also written with context-free grammars. Every regular language is a CFL language but not all CFL are regular. Regular languages form a subset of CFL languages. Every context free grammar can be represented by a PDA.

- **Chomsky Hierarchy of Grammars**

<i>Name</i>	<i>Language</i>	<i>Grammar</i>	<i>Machine</i>
Type 3	Regular Language	Linear Grammar	DFA
Type 2	Non-regular $a^n b^n$	Context-free Grammar	PDA
Type 1	Recursive $a^n b^n c^n$	Context-sensitive Grammar	Turing Machine
Type 0	Recursive enumerable	unrestricted	Turing Machine

- **Recursive:** A formal language requires that the Turing Machine halts in all cases.

Recursively Enumerable: A formal language for which there is a Turing Machine that will halt and accept when presented with any string in the language as input but may either halt and reject or loop forever when presented with a string not in the language.

Decided: A language for which the machine accepts L and there are no infinite loops.

The history of linguistics in American college textbooks, 1950–2023

Margaret Thomas
Boston College

(2) Twenty-five US-published introductory textbooks in linguistics, c. 1947–2021

1st pub.	Author	Title	Addit'l eds.	No. copies in libraries
1947	Sturtevant, E. H.	<i>Introduction to linguistic science</i>		1055
1955	Gleason, H. A.	<i>An introduction to descriptive linguistics</i>	2eds	1418
1958	Hockett, C. F.	<i>A course in modern linguistics</i>		1182
1962	Hughes, J. P.	<i>The science of language...</i>		919
1964	Hall, R. A.	<i>Introductory linguistics</i>		570
1966	Fries, C. C.	<i>Linguistics: The study of language</i>		344
1967	Dinneen, F. P.	<i>An introduction to general linguistics</i>		966
1967	Langacker, R. W.	<i>Language and its structure...</i>	2eds	1222
1968	Bolinger, D.	<i>Aspects of language</i>	3eds	1332
1972	Trager, G. A.	<i>Introductory linguistics</i>		461
1972	Wardhaugh, R.	<i>Introduction to linguistics</i>	2eds	596
1974	Fromkin, V.; Rodman, R.	<i>An introduction to language</i>	10eds	1334
1977	Greenberg, J.	<i>A new invitation to linguistics</i>		503
1979	Akmajian, A. et al.	<i>Linguistics: Intro. to lang. & communication</i>	6eds	1305
1985	Yule, G.	<i>The study of language</i>	5eds	1184
1989	Finegan, E.	<i>Language: Its structure & use</i>	7eds	533
1989	O'Grady, W. et al.	<i>Contemporary linguistics: An introduction</i>	6eds	643
1996	Napoli, D. J.	<i>Linguistics: An introduction</i>		303
1999	Hudson, G.	<i>Essential introductory linguistics</i>		257
2000	Fromkin, V. (ed.)	<i>Linguistics: An intro. to linguistic theory</i>		292
2006	Fasold, R. (ed.)	<i>An introduction to language & linguistics</i>	2eds	271
2009	McGregor, W. B.	<i>Linguistics: An introduction</i>	3eds	410
2015	Rowe, B. M.; Levine, D. P.	<i>Concise introduction to language</i>	6eds	485
2014	Hazen, K.	<i>An Introduction to Language</i>		702
2021	Bruhn de Garavito, J.; Schwieter, J. W. (eds.)	<i>Introducing linguistics: Theoretical & applied approaches</i>		91

4 general conventions for representing the history of linguistics (HoL) emerged in this sample

- (ALMOST) NO REFERENCE TO HoL, $n = 7$

1955 Gleason	
1958 Hockett	Present terms & concepts as independent of historical context
1972 Trager	Downplay debates or controversies
1974 Wardhaugh	Represent the field at the moment of writing as essentially static,
1989 Finegan	by implying that present-day linguistic tools & concepts
1996 Napoli	have always been / will always be available & sufficient
2014 Hazen	

- SCATTERED REFERENCES (SPARSE OR PROLIFIC) TO HoL, $n = 10$

1947 Sturtevant	
1964 Hall	Historical content is represented in ornamental epigraphs,
1974 Fromkin / Rodman	boxed marginal comments, or 'sidebars', which are marked
1977 Greenberg	visually as unintegrated into text
1979 Akmajian <i>et al.</i>	Little attention to historical narrative or to (dis)continuity of
1985 Yule	issues across time & context
1989 O'Grady <i>et al.</i>	2 apparent (opposite) goals in introducing historical content:
2006 Fasold (ed.)	Establish <i>precedent</i> for modern ideas / approaches
2015 Rowe / Levine	Claim <i>novelty</i> of modern ideas / approaches
2021 Bruhn de Garavito/Schwieter (eds.)	

- SEPARATE SECTION DEDICATED TO HoL, $n = 6$

1962 Hughes	Vary in extent of coverage of HoL
1967 Langacker	Adopt teleological stance
1968 Bolinger (1ed ONLY)	Reveal influence of <i>Cartesian linguistics</i> from 1967
1999 Hudson	Sometimes undercut stature or relevance of HoL, <i>e.g.</i> by
2000 Fromkin (Ed.)	suggesting that readers could omit HoL section, or by
2009 McGregor	backgrounding historical material into companion website

- HoL AS ORGANIZING PRINCIPLE OF EXPOSITION, $n = 2$

1963 Fries (?)	Presuppose that historical material has value & relevance
1968 Dinneen	to beginners

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Note: For full publication details of the 25 textbooks analyzed above, contact me at thomasm@bc.edu

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Discussion

Heather Newell

L'Université du Québec à Montréal

A stack of several books with various colored spines (red, blue, green, brown) is shown on the left side of the image. A white, torn paper-like vertical line separates the books from the black background on the right.

Who do we have to convince of the purpose and utility of History of Linguistics courses in the curriculum?

Heather Newell

Université du Québec à Montréal

Teaching History of Linguistics in the 21st Century

NAAHoLS / LSA

Jan. 2024

History of Linguistics Courses – Some points from the presenters

Purpose and utility in the curriculum

- Rosenthal
 - “One goal for me in a history course is to expose the students to the larger goals of linguistic theory.”
- Thomas
 - “Exposing students to discontinuity and complexity in the history of linguistics would predispose them to better tolerate ambiguity, and to accept their own struggles to do meaningful and creative work.”

Student preparation for taking them

- Thomas
 - Does the lack of HoL in introductory textbooks lead students to see HoL courses as superfluous?

Challenges in teaching them

- Joseph
 - Should a HoL course be ‘presentist’ or ‘trajectorial’?
- Goldsmith
 - “Teaching the history of linguistics always brings with it a cast of characters that are not familiar to the student or the reader. This is a challenge for the student..”

Purpose and utility in the curriculum

The state of HoL courses in Canada

6 Universities in Canada have a HoL course (of 22 universities with linguistics programs of the appropriate type):

- Among them only the francophone universities require their HoL course.
- McGill, UQAM and Laval have graduate programs, but their undergraduate HoL courses cannot be credited in them.

Canadian Universities with HoL courses:

- McGill University, Concordia University, Université du Québec à Montréal, Université Laval, Saint Mary's University, University of Calgary
- All undergraduate courses with Intro to Ling or Phon/Syn as prerequisites.

Why are there so few?

- My generation did not have easy access to these courses either.
- UQAM's might be on the chopping block

This is a sad state of affairs for the field if it generalizes.

- A population that loses its history is poorer, more divided, and prone to unnecessary mistakes.
- I (we) need help boosting the popularity of HoL courses.

Finding ways to
wedge History of
Linguistics in
among all the
other
requirements
needed for
doctoral training
in Linguistics

- **What to do?**
 - Maybe all textbooks at all levels should contain more HoL?
 - But that would take a grand movement in the field to implement.
 - Maybe we need some good HoL *textbooks*?
 - We know here there *are* good HoL books, articles, chapters.
 - Perhaps we need to build a/some course-book(s)/package(s) for those of us (the majority?) for whom it is a feat to build an HoL course.
- I don't think the primary challenge is convincing students to take HoL courses, but rather it is convincing departments to offer HoL courses.

What to teach when we do get to teach HoL

In addition to the concerns already brought up:

- Genealogy of scientific frameworks.
- History and emergence of linguistic concepts.
- 'Battles' and philosophical disagreements.
- Placing linguistics within the larger scientific community.

We need to deal with the following (among other things):

- The place of Women and BPoC, and the intersectionality of exclusion in science (and in history in general)
- Departments where the faculty are on different sides of a 'battle' and how to present frameworks (Even time? Should the prof. show their cards?)
- How to teach to students in non-anglophone settings (luckily for me, there is a lot of material in French, but, as is the case in other sub-fields, finding a single, appropriate, textbook for any course is nearly impossible).

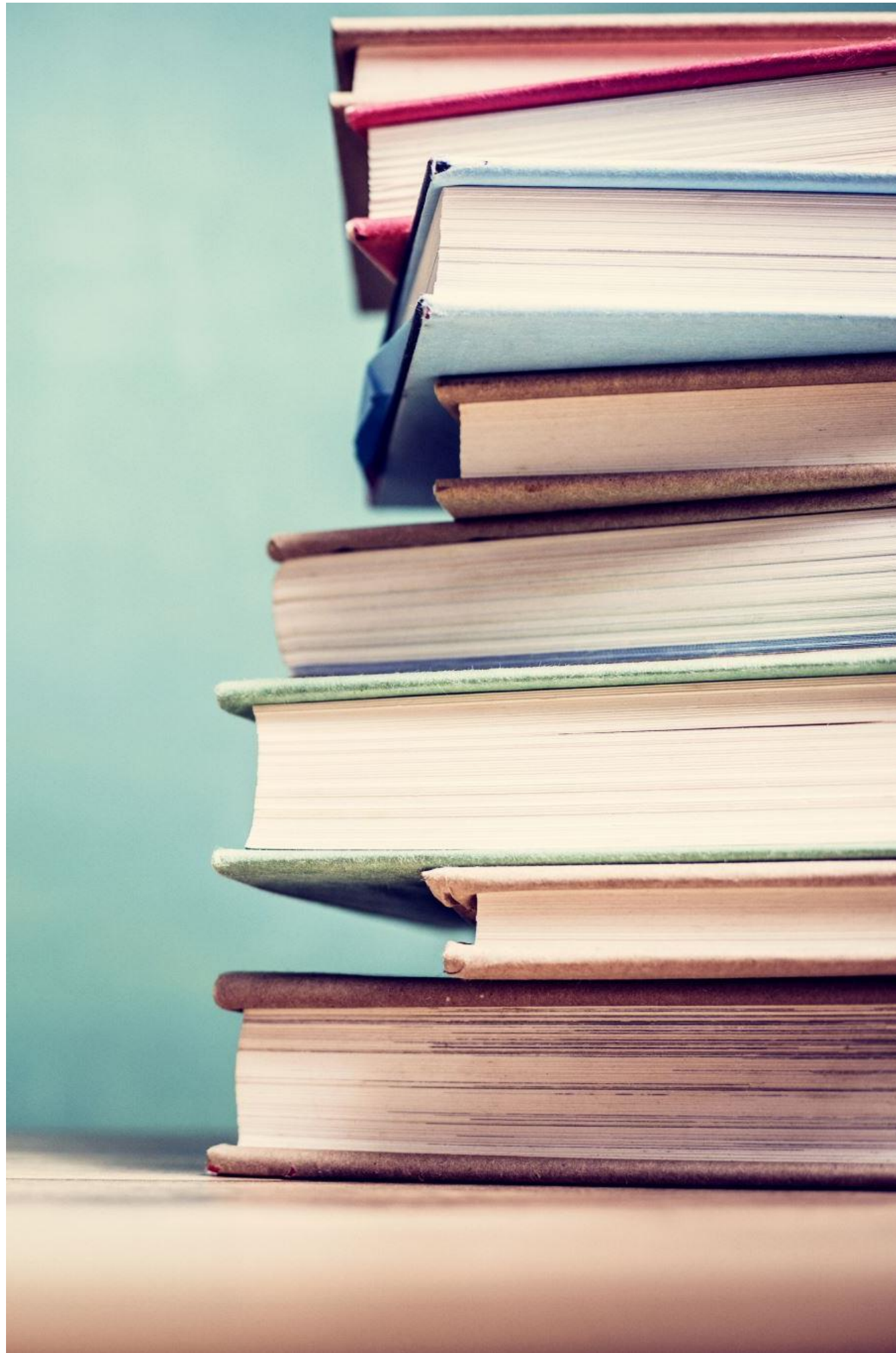
Two current challenges for teaching HoL courses

Promoting its purpose and utility in the curriculum

- How to maintain HoL courses (and augmenting their numbers).
 - Should we be campaigning?
 - Should we be targeting Summer Schools?
 - Should we be targeting current professors? Current graduate students?

Populations of linguists as ‘presentist’ or ‘trajectorial’

- How to present the HoL in a way that highlights Women and BPoC.
- Representation matters for an increasingly diverse student body.
 - In my class (with R. Compton) we focused our final class project on this, but it felt tokenizing.



Discussion

Stephen Anderson
Yale University



Goals in the teaching of the History of Linguistics

Stephen R. Anderson
Yale University (Emeritus)



My Experience of HoL Courses

- Structuralist: read Sapir's *Language*, Bloomfield's *Language*, Saussure's *Cours*, Trubetzkoy's *Grundzüge*, Hoenigswald on historical, Hjelmslev's *Prolegomena*.
- 1966 Linguistic Institute: John Lyons, from the Greeks to Chomsky.
- 1967, MIT: "Bad Guys" as taught by Paul Kiparsky. From Sapir through Bloomfield, Trubetzkoy and Jakobson to Harris and early Chomsky. Mostly phonology.



Previous scholars on modern issues

- Cases where asymmetry of contrast in the output of phonological processes poses a problem for phonemics.
 - Ułaszyn, Ščerba, Bloomfield, Bloch, Hamp
 - Halle
- Analysis of phenomena defying a purely segmental analysis
 - Firth and the British Prosodic Analysts
 - Goldsmith et al. and Autosegmental Phonology



Concepts taken over without examination

- The Structuralist morpheme, modeled on the phoneme
 - Units of content, concatenated to form words — parallel to units of contrast, concatenated to form utterances.
 - Allomorphy and morphotactics, parallel to allophony and phonotactics
- Jakobson's replacement of Trubetzkoy's notion of a variety of types of opposition with a requirement that features be strictly binary, based on his fascination with Information Theory.



Phonology in the Twentieth Century (2nd edition)

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press.org/catalog/book/327](https://langsci-press.org/catalog/book/327)

Phonology in the Twentieth Century

Second edition, revised and
expanded

Stephen R. Anderson

History and Philosophy of the Language
Sciences 5

