Outline of Linguistics
February 4, 2012

Contents

Note: To look up references, see the Consciousness Bibliography, listing 10,000 books and articles, with full journal and author names, available in text and PDF file formats at
http://www.outline-of-knowledge.info/Consciousness_Bibliography/index.html.

SOCI>Linguistics

linguistics

Social science {linguistics} can be about grammar, symbolism, writing systems, and language families. Linguistic levels are phonetics, phonology, morphology, syntax, semantics, and discourse representation theory. Basic linguistic units are sounds, letters, hand signals, or electronic waves. Higher units are syllables, words, and sentences.

contextualism

Language meaning, truth, or use depends on context {contextualism} {token-reflexiveness} {externalism, linguistics}.

SOCI>Linguistics>Kinds

comparative linguistics

Language dialects and nearby languages vary continuously with distance {comparative linguistics}.

descriptive linguistics

Linguistics is descriptive {descriptive linguistics}, because no language is pure, correct, or unchanging. Languages have patterns.

interlinguistics

Languages have common elements {interlinguistics}. Language classes can use structural features {linguistic typology} or evolutionary features. Different languages have different grammars. All peoples have complex spoken language. Languages tend to maximize efficiency and clarity.

SOCI>Linguistics>Communication

communication in linguistics

Communicating {communication, linguistics} can be verbal or non-verbal.

verbal

Verbal communication involves volume, intonation, enunciation, pace, stress, and tone.

non-verbal

Non-verbal communication involves eye contact; smiling, frowning, and other facial expressions; body language; gestures; and speaker-listener proximity.

purposes

Communication conveys information, along channels, from one system part to another, to trigger receiving-part action based on sending-part state. Communication can induce behavior, facilitate behavior, imitate, monitor, organize, recognize, announce status, beg for food, offer food, conciliate, bond, groom, invite to groom, alarm, signal distress, assemble, recruit, lead, incite to hunt, synchronize hatching, initiate migration, invite to play, initiate work, threaten, submit, appease, relieve sentinel, advertise for sex, court, sexual bond, copulate, announce post-copulation, inhibit reproduction, and inhibit castes.

signals

Society members continually communicate using signals. Signals are specific information, do not change meaning, and are about immediate events. Signals are reflex responses to stimuli. Signals are not symbols.

symbols

Mammals and birds have 10 to 40 different signals, such as danger and location calls, courtship rituals and displays, grooming, group or family signals, and personal communication between individuals. Primates and humans have 150 to 200 non-linguistic symbols, such as facial expressions. Animal communications repeat. Behavior, display, and signal redundancy and ritualization increase communication efficiency. Animals can use opposite signals, such as high or low and loud or soft, for opposite intentions or behavior. Animals can modify signals in different contexts. Only humans deliberately rearrange signals.

animals

Bird and mammal vocalizations indicate language phylogeny and ontogeny, some homologous and some analogous {homoplastic}. Bird and mammal vocalizations are for anti-predator behavior for groups. Animal languages seem to be involuntary responses. Groups can pay attention to same object or event, such as predators, and tune responses.

Parrots can mimic but respond to objects only by association. Mammals have communication systems, but they have limited grammar and meaning [Mithen, 1996]. Apes know only associations, not word meanings. Apes cannot make sentences or word phrases and cannot understand spoken phrases or sentences. The bonobo Kanzi used and understood 150 words, typically to express desires or refer to present objects. Its word learning was instrumental association, with

no grammar. Perhaps, it was not referential [Savage-Rumbaugh, 1986]. All primate societies have vocal signals. For example, gibbons have 12 standardized, meaningful calls [Premack, 1986] [Premack and Premack, 2003].

evolution

Language evolved separately from culture, cognition, and thought, because language does not explain most mental functions. Cognitive and reflex functions build together. Brain modules mix functions.

errors

Speech errors typically substitute one phonological distinctive feature for another.

mental state expression

Faces and bodies can express information about feelings and thoughts {mental state expression}. All mental states are complex, regardless of expression complexity.

phattic communication

Languages have stock phrases and expressions {phattic communication, linguistics}, to further social relations and politeness.

play signal

Playful animals send signals {play signal} that indicate intention to play.

reference in communication

Vocalizations can refer to object or event categories {reference, communication}. Signals can imitate referents {mimetic reference, communication}. Signs or signals, such as alarm calls, can indicate referents {proxy reference, communication}. Signals, such as category words, can bring referents to mind without causing responses {conceptual reference, communication}.

speech community

Speaker communities {speech community} use same communication system.

spoonerism

Sentence sounds can interchange {spoonerism}|.

SOCI>Linguistics>Communication>Physical

body language

Using body angles and movements {body language} can synchronize with words spoken or heard. Body language does not use visual imitation. Synchronization is the same for friends and strangers.

pasimology

People can communicate by gestures {pasimology}.

proximity in speaking

Speakers can alter distance to listeners {proximity}.

SOCI>Linguistics>Communication>Verbal

enunciation speaking

Verbal communication involves speech clarity {enunciation, speaking}.

intonation speaking

Verbal communication involves pitch range {intonation, speaking}.

pace speaking

Verbal communication involves voice speed {pace, speaking}.

stress

Verbal communication involves voice emphasis {stress, speaking}.

tone

Verbal communication involves voice emotion {tone, speaking}.

volume

Verbal communication involves voice loudness {volume, speaking}.

SOCI>Linguistics>Structure

langue

Languages have pattern or syntax sets {langue}.

parole in language

Languages have actual word expression {parole, speech}.

pragmatics

Language is for social situations and can persuade, question, declare, and order {pragmatics, linguistics}|. Social situations determine sentence forms. Narrations use phrase sequences. Relations use nested and inverted phrases. Metaphors and models relate relations.

Zipf law

The most-common words are shortest. Logarithm of word frequency versus word length is a straight line with slope one {Zipf's law} {Zipf law}.

SOCI>Linguistics>Language

language in linguistics

Speaking, listening, reading, and writing {language}| use grammar and convey meaning. Language relates to mind, meaning, implications {implicature}, purposes, contexts, rules, social situations {pragmatics, language}, and physical world. Language syntactic and logical structures differ from generating and understanding language. Language has motives or intentions, carries information in a stable semantic system, and uses phonemic/phonetic/phonological, lexical, and syntactic codes. Reciprocal communications aid cooperation and define societies. Communication is necessary for social behavior. Communication changes behavior probabilities in other species members, in adaptive ways. Languages and tools have subtask hierarchies.

grammar and semantics

Language involves following rules and thinking rationally. Societies have common languages and thinking. Linguistic units have contexts and rules. Rules differ at phonological, syntactical, grammatical, and meaning levels. Semantic relations are more important than grammatical, which are more important than phonological.

primary language

Spoken language {primary language} always comes before written language. Writing systems depend on spoken-language units. Written language typically does not affect spoken language.

aspects

Externalized language {E-Language} is actual spoken words about concepts. Internalized language {I-Language} is coded brain information for concepts.

number of languages

There have been 4500 to 7000 languages, with many in Africa. Jungles have isolated regions and so many languages.

purposes

Language refers to objects and events, expresses human emotions, commands action, uses metaphors in poetry and for sacred and mysterious, has stock phrases and expressions to further social relations and politeness {phattic communication, society}, and has meta-linguistic meanings.

Speech has situations with speakers and listeners. Speech happens only if speaker intends to affect audience. Speakers and listeners use information about what they believe and want in current context.

purposes: assistance

Speech often involves asking for help or information. People ask themselves questions and get answers.

purposes: information

Language can access declarative information. Humans talk to themselves, both sotte voce and silently, as well as others. However, talking is sequential and slow compared to unconscious cognition. Talking depends on current thoughts.

purposes: survival

Language can aid group survival, but it also can cause instability or not be important.

brain

Broca's area, left inferoparietal, left parieto-occipital, left posterior hemisphere, planum temporale, right hemisphere, and Wernicke's area relate to language.

posture

Speech depends on upright posture, which allows tongue position shifts and pharyngeal-tract lengthening.

handedness

Humans starting 300,000 years ago probably had cerebral dominance, because skulls are asymmetric and people inherit brain and skull shape. Human skulls mold to brain. Right-handedness first appeared in Lower Old Stone Age, when tool making became common [Jaynes, 1976]. Language is typically in left hemisphere.

memory

Memory may require language. Language production and comprehension require short-term memory. Memory involves sense of self and change {extended consciousness}. Self depends on sense qualities, proprioception, and sympathetic and parasympathetic nervous systems [Damasio, 1999].

consciousness

Using language requires sensation and perception for feedback. Automatic speech does not require awareness. People without language ability can still be conscious, so consciousness does not need symbols, syntax, and grammar. Image creation does not need language, memory, or reasoning [Damasio, 1999].

self-consciousness

Only humans are self-conscious and have feelings, because only they have language [Macphail, 1999] [Quine, 1953] [Quine, 1974] [Quine, 1990].

nomenclature

Subjects use words {nomenclature}|.

translation in language

Translations {translation, language} can be word for word {literal translation}. Translations {free translation} can emphasize meaning, not detail.

American Sign Language

Languages {American Sign Language} (ASL) can use signs that stand for whole words and phrases, unlike spoken or written languages.

phonology

Sign language has phonology, because signs have components: hand shapes, body locations, hand and arm movements, and hand orientation.

morphology

Sign language has morphology, because tense has distinct spatial patterns.

syntax

Sign language has syntax of word orders, space locations, and movement directions. Sign order is not important in American Sign Language. Different objects are in different space regions to distinguish them. Signs can have different directions to show relations. Spatial processing in sign language is separate from other visual-spatial brain abilities.

biology

Deaf children who see sign language from birth first sign at five or six months old. Sign language production and comprehension use same brain regions as spoken language. Left hemisphere is dominant. Brain-region damage leaves similar production and comprehension deficits.

SOCI>Linguistics>Language>Kinds

finite-form language

Indo-European, Semitic, Finno-Ugric, and most languages {finite-form language} use definite or indefinite subjects. Other languages {infinite-form language} use no person distinction.

formal language

In computer languages {formal language, grammar}, signs have unique meanings, references, and senses. Languages that contain demonstratives, such as "that", allow signs to have different senses and so cannot be formal languages.

logical language

Fundamental vocabulary {logical language} can have only tautologies {logical locution} or observations {observation predicate}.

radical language

Languages {radical language} can have words that are radicals, so grammar and syntax use word order.

subordinating language

Languages {subordinating language} can group around main word and can have particles or words that can express grammar or semantic relations.

verb language

Languages {verb language} can use verb sentences.

SOCI>Linguistics>Language>Kinds>Phonetic

tone language

Languages {tone language} can have meaning that comes from pitch changes.

whistling language

Guanches people use Silbo Gomera language {whistling language} on Gomera Island in Canary Islands.

SOCI>Linguistics>Language>Kinds>Affix

classificatory language

Bantu language {classificatory language} nouns have classes. Class prefixes precede all words associated with nouns.

inflecting language

Latin and Greek {inflecting language} {flexional language} can have words with suffixes. Suffixes represent several morphemes, so morphemes are not separate.

juxtaposing language

Languages {juxtaposing language} can use prefixes as classifiers to show grammatical relations.

SOCI>Linguistics>Language>Kinds>K Sound

centum language

Proto-Indo-European guttural k sound has changed to k sound in Greek, Italian, Celtic, Germanic, Hittite, and Tokharian {centum language}.

satem language

Proto-Indo-European guttural k sound has changed to sibilant s in Balto-Slavic, Albanian, Armenian, and Indo-Iranian languages {satem language}.

SOCI>Linguistics>Language>Kinds>Morphemes

agglutinating language

Languages {agglutinating language} can have words that use morpheme sequences, so words have separate morphemes. Turkish and most languages are agglutinating languages.

amalgamating language

Languages {amalgamating language} can have fused roots and affixes, not separate and independent word parts, so words do not have separate morphemes.

SOCI>Linguistics>Language>Kinds>Morphemes>Combination

analytic language
Vietnamese and most Chinese language {analytic language} {isolating language} words are invariable. Words can represent different morphemes in different sentence contexts.

logogram
Written Chinese characters represent meanings, not sounds. Chinese symbols are meaning units {logos, alphabet} {logographic script}. First logograms were indicators {indicative sign}, such as stick-figure pictures {pictorial sign} or counting strokes. Logograms are now invariable monosyllables. Plurals and tense are optional monosyllables.

combination
Symbols can combine with other symbols to make polysyllabic words. If two logograms combine, meanings combine. Compound characters use one part {determinative} {signific} {radical part} for main meaning, which is the basis for arranging characters in dictionaries. Compound characters use another part {borrowed character} for extra sound {phonetic, Chinese}. Phonetic compounds are 95% of Chinese characters. Phonetic compounds with same borrowed character can differ in pronunciation, because phonetic meaning is more important than sound.

Asian languages
Japanese and Korean, languages unrelated to Chinese, use Chinese characters.

synthetic language
Languages {synthetic language} can have words that are morpheme combinations, so inflections show grammar. Languages {polysynthetic language} can have words that represent whole sentences, such as verbs combined with morphemes.

SOCI>Linguistics>Language>Kinds>Replacement

substratum of language
Languages can replace another language {substratum, language} as dominant language. Substratum changes the newly dominant language {substratum theory}.

superstratum of language
Languages {superstratum} can replace another language.

SOCI>Linguistics>Language>Beginnings

grooming and language
Perhaps, language replaced grooming {grooming} as social groups became larger [Dunbar, 1996].

imitation and language
Perhaps, imitation abilities associate with larger brains and language {imitation and language} [Blackmore, 1999].

vocalization
Human language probably evolved from primate graded calls {vocalization}. In Homo habilis, advanced vocal cords and brain language areas allowed better communication.

metaphorical stage
Before words existed, context gave meaning to sounds {metaphorical stage}. Later, sounds carried meaning without context.

word origin
Before protolanguage, there were words for objects and events {word origin}. Perhaps, words originate by onomatopoeia or sound-symbolism [Smith, 1985].

prelanguage

Before language {prelanguage}, brains must have ideas of number, case, gender, noun, verb, modifier, tense, gerund, infinitive, particle, preposition, and article. Before language, brains must have spatial and temporal ideas, such as line, group, boundary, figure, background, movement, ascending, descending, association, attraction, and repulsion.

protolanguage

Before language, there were semi-semantic and semi-syntactic word-association rules {protolanguage}. Rules order words into subject-verb-object, make broader categories from objects, use categories to specify objects, and combine words and gestures. Later, word associations evolved to associate words and speech-part categories and then make complete sentences [Corballis, 2002]. Probably, language first described situations. Then language described speaker thoughts. Then language described hearer characteristics and thoughts.

ursprache

Language came from protolanguage {ursprache}.

creative language

Earliest language was essentially natural, poetic, and creative {creative language}. Later languages were more logical, artificial, and precise.

convention and words

Social convention adopts words {word, convention} {convention, word} [Bloom, 2000].

SOCI>Linguistics>Language>Beginnings>Theory

boo-hoorah theory

Perhaps, words express attitudes and try to cause attitudes {boo-hoorah theory}.

gestural theory

Perhaps, manual gestures can have meaning and syntax {gestural theory}, and brain language centers control first arm movements and then vocal tract. Speech frees hands and arms and allows communication at night [Browman and Goldstein, 1991].

interjectional theory

Perhaps, human speech began as reactions to pains or emotions {interjectional theory} [Bickerton, 1981] [Bickerton, 1990] [Bickerton, 1995] [Chagnon, 1992] [Smith, 1985].

onomatopoeic theory

Perhaps, human speech began as sound imitations {onomatopoeia} {onomatopoeic theory} [Bickerton, 1981] [Bickerton, 1990] [Bickerton, 1995] [Chagnon, 1992] [Smith, 1985].

sing-song theory

Perhaps, human speech began from meaningless chants {sing-song theory} [Bickerton, 1981] [Bickerton, 1990] [Bickerton, 1995] [Chagnon, 1992] [Smith, 1985].

sound-symbolism

Perhaps, words began from sounds used in physical activities, sound quality or tone changes, and sound metaphors {sound-symbolism} [Smith, 1985].

synesthetic bootstrapping theory

Angular gyrus and TPO connect vision and hearing sense qualities to cause synesthesia. Hand and mouth motor areas are adjacent and move similarly {synkinesia}. Visual areas link to Broca's motor area. Emotional vocalizations start from right hemisphere and anterior cingulate. Perhaps, visual-auditory, hand-mouth, and mouth-visual brain areas evolve to work together {synesthetic bootstrapping theory}. Perhaps, tool-making steps became syntax and nested phrases {hierarchic embedding} [Ramachandran, 2004].

yo-he-ho theory

Perhaps, human speech began from spontaneous work grunts {yo-he-ho theory} [Bickerton, 1981] [Bickerton, 1990] [Bickerton, 1995] [Chagnon, 1992] [Smith, 1985].

SOCI>Linguistics>Language>Reading

reading
   People read one word at a time {reading}. Learned eye movements do not relate to other tasks.

sounding out
   Reading starts with transforming letters into sounds {phonological, word} and building rules {sounding out}.

whole-word recognition
   Reading includes remembering words {lexical} as wholes {look-and-say} {whole-word recognition}.

SOCI>Linguistics>Language>Divergence

comparative method
   Current and ancient language words, grammar, and morphology differences {comparative method} can indicate preceding languages, back to Indo-European.

glottochronology
   Word differences allow calculating language-divergence dates {glottochronology}.

SOCI>Linguistics>Language>Family

language family
   Languages {language family} derived from proto-languages in different regions. Japanese, Korean, Andamanese, Bithynia, Cappadocia, Crete, Cyprus, Elam, Etruria, Lydia, Sumeria, North Australian, and South Australian aboriginal languages do not relate to other languages. Korean and Japanese languages are similar to Altaic and Turkish.

Esperanto
   mixed European languages {Esperanto language}.

SOCI>Linguistics>Language>Family>Africa

Afro-Asiatic
   Afro-Asiatic {Afro-Asiatic language family}, in north Africa and Arabia, includes Semitic languages in Arabia and five other branches in north Africa.

Bantu languages
   Bantu {Bantu language family} started in east Nigeria and Cameroon in west Africa [-3000] and spread to equatorial and south Africa, and includes Swahili in east Africa, Zulu in southeast Africa, Congo, Luba-Lulua, Luganda or Ganda, Nyanja or Nyasa, Kafir, and 80 to 100 more languages. In Bantu classificatory languages, nouns have classes, and noun classes have prefixes, which precede all words associated with noun.

Hamito-Semitic
   Hamito-Semitic {Hamito-Semitic language family}, in Arabia and northwest Africa, includes Semitic and Hamitic.
Semitic
   Semitic includes East Semitic and West Semitic. East Semitic includes only Akkadian. West Semitic includes Southern Semitic and Northern Semitic.
   Southern Semitic includes North Arabic, South Arabic, and Ethiopic. Ethiopic includes Ethiopic or Ge'ez, Tigrina or Tigray, Tigie, Amharis, Atgobba, Gafat, Gurage, and Harani.
   Northern Semitic includes Maltese, Canaanite, and Aramaic. Canaanite includes Hebrew, Phoenican, and Moabite. Aramaic includes Eastern Aramaic and Western Aramaic. Eastern Aramaic includes Syriac in Iraq, Turkey, and Iran; extinct Babylonian Judeo-Aramaic; Mandaean; and Harranian. Western Aramaic includes extinct Old Aramaic, Biblical Aramaic, Palestinian Aramaic, and Samaritan.

Hamitic

Hamitic includes Egyptian, Libyo-Berber, and Kushitic. Egyptian includes Egyptian and Coptic. Libyo-Berber includes Berber and extinct Libyan. Berber includes Tuareg, Kabyl, Shluh, Zenaga, Zenete, and extinct Guanehe. Kushitic includes Somali and Galla in Ethiopia. Perhaps, Kushitic belongs to Afro-Asiatic language family.

Hottentot-Bushman

Hottentot-Bushman or Khoin {Hottentot-Bushman language family}, in southwest Africa, includes Nama or Hottentot and San or Bushman.

Khoisan languages

Khoisan {Khoisan language family}, in south Africa, includes Khoi, San, Hadza, and Sandawe in Tanzania.

Niger-Congo

Niger-Congo {Niger-Congo language family}, in west-central Africa, includes Nigerian and Congan languages as one branch and Bantu as eastern branch. Xhosa is in south Africa.

Nilo-Saharan

Nilo-Saharan {Nilo-Saharan language family}, in upper Nile River and Sahara Desert in Africa, includes Ethiopian, Libyan, and west Sahara languages.

Sudanese-Guinean

Sudanese-Guinean {Sudanese-Guinean language family}, in central and west-central Africa, includes Ewe in Togoland and Gold Coast, Efik, Hausa in Sudan and Nigeria, Mandingo, Mende, Masai, Nubian, Twi, Yoruba, Fon in Dahomey, Ibo or Bo in southeast Nigeria, and Ubangi. Ubangi includes Banda, Mitlu, and Zande.

SOCI>Linguistics>Language>Family>Americas

Americas languages

Americas languages {Americas languages} are in Central, North, and South America.

SOCI>Linguistics>Language>Family>Americas>Central America

Mayan languages

Mayan {Mayan language family} includes Mayan.

Zapotec language

Zapotec {Zapotec language family} includes Zapotec.

SOCI>Linguistics>Language>Family>Americas>North America

Algonquian

Algonquian {Algonquian language family}, in north USA, includes Blackfoot, Cheyenne, Arapaho, Hitwan or Californian Algonquian, Central Algonquian, and Eastern Algonquian. Central Algonquian includes Fox, Illinois, Kickapoo, Miami, Menomini, Montagnais, Ojibway or Chippewa, Sank, Potawatomi, Shawnee, and Cree.

Athapascan

Athapascan {Athapascan language family}, in west-central USA, includes Apache-Navajo, Dene, and Hupa-Matole.

Hokan

Hokan {Hokan language family} was in California.

Iroquois languages

Iroquois {Iroquois language family}, in northeast USA, includes Iroquois, Cherokee, Huron or Wyandot, Tuscarora, Cayuga, Mohawk, Oneida, Onondaga, and Seneca.

Muskogee

Muskogee {Muskogee language family}, in southeast USA, includes Muskogee or Creek, Choctaw, and Seminole.

Na-Dene language family

Na-Dene {Na-Dene language family}, in Alaska, northwest Canada, and southwest USA, includes Dene.

Natchez-Muskogean

Natchez-Muskogean {Natchez-Muskogean language family}, in southeast USA, includes Muskogee or Creek, Choctaw, and Seminole. Perhaps, it is in Amerind language family.

Oto-Manguean

Perhaps, Oto-Manguean {Oto-Manguean language family}, in Mexico and southwest USA, is in Amerind language family.

Penutian

Penutian {Penutian language family} was in California.

Shoshonean

Shoshonean {Shoshonean language family}, in south USA and north Mexico, includes Shoshone, Comanche, Pueblo, and Ute. Perhaps, it is in Uto-Aztecan family.

Sioux languages

Sioux {Sioux language family}, in Minnesota, Nebraska, and Dakotas in USA, includes Assiniboin, Biloxi, Crow, Dakota, Iowa, Kansas, Katawba, Mandan, Missouri, Ogalala, Omaha, Osage, Oto, Ponka, Teton, Wahpeton, Winnebago, and Yankton.

Uto-Aztecan

Uto-Aztecan {Uto-Aztecan language family}, in Mexico and west USA, includes extinct Aztec or Nahuatl. Perhaps, it is in Amerind language family.

Yukian

Yukian {Yukian language family} was in California.

SOCI>Linguistics>Language>Family>Americas>South America

Araucan

Araucan {Araucan language family}, in Chile, includes Araucan.

Arawak

Arawak {Arawak language family}, in Caribbean and northwest South America, includes extinct Arawak. Perhaps, it is in Amerind language family.

Aymara

Aymara {Aymara language family}, in Ecuador and Bolivia, includes Aymara.

Carib languages

Carib {Carib language family}, in Caribbean, includes Carib. Carib replaced Arawak.

Quechua

Quechua or Kechua {Quechua language family}, in Peru, includes Inca.

Tupi-Guarani

Tupi-Guarani {Tupi-Guarani language family}, in Brazil and Paraguay, includes Tupi in Brazil and Guarani in Paraguay.

SOCI>Linguistics>Language>Family>Asia

Asia languages

Asia languages {Asia languages} are in Caucasia, East Asia, and Southeast Asia.

SOCI>Linguistics>Language>Family>Asia>Caucasia

Balto-Slavic

Balto-Slavic or Slavic {Balto-Slavic language family}, Indo-European language in east Europe, includes East Slavic, West Slavic, and South Slavic. East Slavic includes Russian or Great Russian, Ukrainian or Little Russian, and White Russian. West Slavic includes Polish, Lithuanian, Lettish or Latvian, Czech, Lusatian or Wend or Sorbian, Kaszub, and extinct Polabian. South Slavic includes Slovak, Serbo-Croatian, Bulgarian, Slovene, Church Slavonic or Old Bulgarian or Old Slavonic, and extinct Old Slavic.

Celtic language

Celtic {Celtic language family}, Indo-European language in England, includes Goidelic, Brythonic, and extinct Gaulish. Goidelic includes Irish or Irish Gaelic, Scots Gaelic, and Manx. Brythonic includes Welsh, Breton, and Cornish.

Germanic languages

Germanic or Teutonic {Germanic language family}, Indo-European language in Germany, includes West Germanic, North Germanic, and East Germanic. West Germanic includes Dutch, German, Flemish, Afrikaans, and Anglo-Friscian. Anglo-Friscian includes English and has Friscian in Netherlands. North Germanic includes Swedish, Danish, Norwegian, Icelandic, Faroese, and Gotlandic or Gutnian. East Germanic includes extinct Gothic, Burgundian, and Vandal.

Germanic sound shift

Proto-Germanic and other Indo-European languages {Germanic sound shift} separated before 1. High German and Low German separated from -100 to 800.

Iberian languages

Iberian {Iberian language family}, in Spain, includes Basque and extinct Aquitanian.

Indo-European languages

Indo-European languages {Indo-European language family} started in Ukraine and Anatolia, near Black Sea and Caucasus Mountains, as Proto-Indo-European [-4000] and had same complexity as current languages. Indo-European has inflection, is synthetic, and has three genders.

Indo-European includes Germanic, Italic, Indo-Iranian, Celtic, Balto-Slavic, extinct Thraco-Phrygian, extinct Hittite, Greek, Albanian, Illyrian, Tokharian in Chinese Turkestan, Armenian, North Caucasian, and South Caucasian.

Proto-Indo-European has two main branches.

branch: 4000 years ago

Hittite and Luvian [-2000] came directly from one Proto-Indo-European branch.

branch: 5200 years ago

Tocharian A and Tocharian B [-500] branched [-3500] from the other Proto-Indo-European branch.

Later branch [-3200] branched [-2500] into Welsh and Old Irish [-500] and into Latin [-1000] and Umbrian and Oscan [-500].

Later branch [-3000 to -2500] branched [-2000] into Albanian and into Gothic [1] and later Old English and Old High German [500]. Later branch [-3000] branched [-1800] into Ancient Greek and Classical Armenian. Later branch [-2500] branched [-1800] into Vedic and Old Persian and into Prussian [1000] and Latvian and Lithuanian [1300].

Indo-Iranian

Indo-Iranian {Indo-Iranian language family}, Indo-European language in Iran and India, includes Iranian and Indic.

Iranian

Iranian includes Iranian or Farsi or Persian, Urdu, Kurdesh, Pushtu or Afgani, Ossetic, Baluchi, extinct Avestan, Khotanese, and Old Sakian.

Indic

Indic includes Apabhramsa, Hindustani, Bengali, Punjabi, Rajasthani, Bhili, Khandesi, Assamese, Sinhalese in Ceylon, Kashmiri, Nepali or Gurkhali, Romani or Gypsy, Gujarati, Oriya, Sindhi, Pahari in lower Himalayas, Marathi, Bihari, and extinct Old Indic or Sanskrit.

Hindustani includes Urdu and Hindi.

Hindi includes Western or standard Hindi and Eastern Hindi.

Marathi includes Konkani dialect.

Bihari includes Bhojpuri, Maithili, and Magahi.

scripts

India has 14 major languages. Urdu and Kashmiri use modified Arabic scripts. Hindi, Sanskrit, and Marathi use Devanagari script. Punjabi uses Gurmukhi script. Bengali uses Bengali script. Script symbols can be syllables.

Italic language

Italic {Italic language family}, Indo-European language in Italy, includes Latino-Faliscan, Osco-Umbrian, and Sabellian. Latino-Faliscan includes Latin. Latin includes Romance languages West Romance and East Romance. West Romance includes French, North Italian, Spanish, Portuguese, Catalan, Provençal, Sardinian, and Rumansch or Rhetian. East Romance includes Romanian, South Italian, and extinct Dalmatian. Osco-Umbrian includes Oscan and Umbrian. Sabellian includes Marsian, Sabine, and Volscian.

North Caucasian

North Caucasian {North Caucasian language family}, Indo-European language in Caucasus, includes Eastern Caucasian or Checheno-Lesghian and Western Caucasian or Abasgo-Kerketian.

South Caucasian

South Caucasian or K'art'velian or K'art'uli'ena {South Caucasian language family}, Indo-European language in Caucasus, includes Georgian, Laz, Mingrelian, and Svanian.

Thraco-Phyrgian

Thraco-Phyrgian {Thraco-Phyrgian language family}, Indo-European language in north Greece, includes extinct Thracian, extinct Old Phyrgian, and extinct New Phrygian.

SOCI>Linguistics>Language>Family>Asia>Central Asia

Dravidian languages

Dravidian {Dravidian language family}, started in India [-2000], includes Tamil-Kurukh, Kui-Gondi, Telugu in east and southeast India, and Brahui. Tamil-Kurukh includes Tamil in Ceylon and south India, Malayaan, Tulu, Kurukh, and Kanarese. Kui-Gondi includes Kui, Gondi, Bhili, Kolimi, and Naiki.

Elamo-Dravidian

Elamo-Dravidian {Elamo-Dravidian language family}, started in Iran [-6000] and then went to India, includes Elamite and Dravidian.

Man languages

Man {Man language family}, in north Burma, southwest China, and north Indochina, includes Man.

Ural-Altaic

Ural-Altaic or Turanian {Ural-Altaic language family}, started in Ural Mountains [1000] and includes Finno-Ugrian or Uralic and Altaic.

Ural

Finno-Ugrian or Uralic includes Finnish-Lapponic, Ugric, Ob-Ugrian, Permian, and Samoyedic. Finnish-Lapponic includes Lapp, Cheremiss, Mordvin, Finnish, Estonian, Karelian, Ingrian, Livonian, Ludian or Ludish, Olonetzian, Vepsian, and Votian. Ugric includes Hungarian or Magyar. Hungarian reached Hungary [892], from Ural Mountains. Ob-Ugrian includes Ostyak and Vogal. Permian includes Votyak and Zyrican. Samoyedic includes Samoyed, Yurak, Kamessian, and Tugvy.

Altaic

Altaic includes Turkish, Manchu-Tungus, and Mongol. Altaic [1000 to 1300] came from central Asia steppes to Europe and Turkey. Turkish includes Eastern Turkish or Altaic, Western Turkish, Central Turkish, and Southern

Turkish. Eastern Turkish or Altaic includes Altaic, Abakan, Baraba, Karagas, Soyonian, Uighur, and Tartar. Western Turkish includes Bashkir, Chuvash, Irtysh, and Kirghiz. Central Turkish includes Chagatai, Kashgar, Sart, Taranchi, Uzbeg, and Yarkand. Southern Turkish includes Osmanli, Azerbaijani, Anatolian, Balkar, Kumik, and Turkoman. Manchu-Tungus includes Manchu and Tungus. Mongol includes Western Mongol, Northern Mongol, Eastern Mongol, Tangut, Shara, Afghan Mongol, and Yakut. Western Mongol includes Kalmuk. Northern Mongol includes Buryat. Eastern Mongol includes Khalkha.

SOCI>Linguistics>Language>Family>Asia>East Asia

Eskimo-Aleut
   Eskimo-Aleut {Eskimo-Aleut language family}, in Arctic northeast Asia and northwest North America, includes Eskimo and Aleut.

Hyperborean language
   Hyperborean or Paleo-Asiatic {Hyperborean language family}, in northeast Asia, includes Chukchi-Kamchadal, Ainu, and Gilyak. Ainu and Gilyak do not relate to Chukchi-Kamchadal, except by location. Chukchi-Kamchadal includes Chukchi, Kamchadal, and Koryak.

Miao-Yao
   Miao-Yao or Hmong-Mien {Miao-Yao language family}, started in China and Vietnam [-1000], includes Red Miao, White or Striped Miao, Black Miao, Green or Blue Miao, and Yao. Spread from south China over southeast Asia. Vietnamese Hmong speak it.

Sino-Tibetan
   Sino-Tibetan or Indochinese {Sino-Tibetan language family} started in China [-4000], spread from north China to south China and southeast Asia, and includes Chinese, Tibeto-Burmese, Lo-lo-Bodo-Naga-Kachin, extinct Pyu, and Thai or Tai-Kadai [-1000 to 1500].
Chinese
   Chinese includes written Wen-li, national standard Kuo-yu, North Mandarin in Beijing, Wu along Yangtse river, Chinese, Cantonese or Yueh in Kwangtung, and Min in Fukien.
Burma
   Tibeto-Burmese includes Tibeto-Himalayan and Arakan-Burmese. Tibeto-Himalayan includes Tibetan or Bhotian, literary Balti, and Himalayan. Himalayan includes Toto, Lepcha or Kong, and Gurung. Arakan-Burmese includes Arakanese, Burmese or Maghi, Kuki-Chin, and Old Kuki.
Kachin
   Lo-lo-Bodo-Naga-Kachin includes Lo-lo-Mo-so, Kachine or Singhpho, and Naga-Kuki. Lo-lo-Mo-so includes Lo-lo and Mo-so.
Thai
   Thai includes Siamese, Karen in Burma, and Shan dialects. Shan or Siamese includes Khamti, Lao Lu, Khun, and Ahom. Alternatively, Tai-Kadai includes Thai and Laotian.

SOCI>Linguistics>Language>Family>Asia>Southeast Asia

Austro-Asiatic
   Austro-Asiatic or Southeast Asiatic {Austro-Asiatic language family}, started in southeast Asia and India [-3000], includes Mon-Khmer, Annamese-Muong, and Munda or Kolarian. It spread from southeast China over southeast Asia and India. Mon-Khmer includes Khmer or Cambodian, Mon, and Cham. Annamese-Muong includes Annamese or Vietnamese and Muong. Munda or Kolarian includes North Munda and South Munda.

Austronesian language
   Austronesian {Austronesian language family}, in South Pacific Islands [-3000], has mainly Malayo-Polynesian, as well as Melanesian, Micronesian, and Indonesian or Malayan language families. Austronesian has three other families on Taiwan, which spread from Taiwan to Indonesia and Polynesia.
Polynesian
   Polynesian is in Hawaii, Samoa, and Tahiti, and among New-Zealand Maori. Bali is in Bali. Batak is in Samoa. Buginese is in Celebes. Dayak is in Borneo. Malagasy is in Malagasy. Malay is in Malaysia. Sundanese is in Sundan

Islands. Javanese is in Java. Indonesian is in Indonesia. Tagalog is in Philippines. Bicol, Bontok, Ilocano, Macassar, and Maduran are other Polynesian languages. Western Malayo-Polynesian and Central-Eastern Malayo-Polynesian also exist. Language similar to Manyan is in Madagascar.

Melanesian

Melanesian is in Fiji, Solomon, and New Hebrides.

Micronesian

Micronesian is in Caroline, Gilbert, Marshall, Marianne, and Yap.

Indonesian

Indonesian or Malayan includes Bisaya or Visaya in Philippines and Formosan in Taiwan.

Papuan languages

Papuan {Papuan language family}, in New Guinea, Bougainville, and New Britain includes Papuan.

Tasmanian language

Tasmanian {Tasmanian language family}, in Tasmania, is extinct.

SOCI>Linguistics>Language>Region

isogloss

At regional boundaries {isogloss}, languages can differ in one feature only.

isograph

Geographic regions {isograph} can have uniform general language features.

language isolate

Some languages {language isolate} do not relate to other languages.

polyglot

Regions can contain several languages {polyglot}|.

SOCI>Linguistics>Language>Transcription

Romanization

Spoken-language or writing-system transcriptions can use Roman script {Romanization}.

Romic

Sweet's phonetic-transcription system {Romic} uses Romanization.

SOCI>Linguistics>Language>Dialect

dialect

Language pronunciation {dialect}| depends on social class and geographic region.

brogue

Irish and Scottish English have dialects {brogue}|.

idiolect

Individuals have language {idiolect}.

koine

Close-knit groups in closed areas surrounded by larger areas can use dialects {koine}.

mother tongue

Colonists and settlers can use home-country language {mother tongue}.

patois

Languages {patois}| can be local dialects.

provincialism
Regions have local dialects {provincialism}.

sociolect
Communities have languages {sociolect}.

SOCI>Linguistics>Language>Dialect>Standard

standard language
Educated people use formal language {standard language}.

King's English
Language {King's English} can be exact, standardized English.

nonstandard language
Groups can use language {nonstandard language} in informal ways.

SOCI>Linguistics>Language>Dialect>Mixed

creole dialect
Simplified colonizer languages {creole}| become trade or contact languages and can become the only colony language.

lingua franca
Speakers of several languages can use mixed language {lingua franca}| in shared geographic region. Italian, with some Arabic and Greek, was in Mediterranean area.

lingua general brazilica
Contact vernaculars {lingua general brazilica} can be in Brazil.

SOCI>Linguistics>Language>Dialect>Style

High style
Style {High} can be from highlands or be a literary form.

Low style
Style {Low} can be from lowlands or after higher "Golden Age".

SOCI>Linguistics>Language>Usage

cant
Language {cant}| can repeat set expressions.

cliche
Language {cliché}| can repeat too often to be informative.

colloquialism
Language {colloquialism}| can be common regional expressions.

gobbledygook
Language {gobbledygook} can be unclear and wordy, intentionally by politicians.

motherese
Dialects {baby talk} {motherese} can be high-pitched and singsong, with lengthened vowels and high inflection.

parlance

Words can be in common use {parlance}|.

slang

Language {slang} can be popular terms that quickly fade from use.

vernacular

Language {vernacular}| can be in common use.

vulgar speech

Common activities use common speech {vulgar speech} {common speech} {non-literary speech}, while writing and rituals used formal speech.

vulgarity

Language {vulgarity} can be obscene.

SOCI>Linguistics>Language>Usage>Jargon

argot

Language {argot}| can be jargon of underworld or lower social classes.

jargon

Language {jargon}| can be professional vocabulary.

journalese

Journalists have jargon {journalese}|.

liturgical language

Religious services can use language {liturgical language}.

SOCI>Linguistics>Language>Theories

dialogism

Perhaps, meaning comes from dialogues {dialogism} {dialogic}, which have social and cultural settings. Settings use different languages {heteroglossia}, such as legal, political, economic, and personal languages. Persons result from social dialogues [Bakhtin, 1983] [Bakhtin, 1986].

fact-value distinction

Words can cause emotions {emotive meaning} {evaluative meaning} {prescriptive meaning} or carry cognitions {descriptive meaning}. Language can be about facts or about values {fact-value distinction} [Stevenson, 1963].

language of thought

Perhaps, all thoughts use the same language {language of thought} {mentalese}, which differs from actual languages. Brain concepts are in languages, software programs, or virtual machines. Software is not physiological, mechanical, or phenomenological but has information content.

logic

Logical forms are probably not the language of thought.

statements

Perhaps, concepts and propositions are language-of-thought contents.

syntax

Phonology, phonetics, morphology, word-order rules, syntactic-redundancy rules, and parsing rules are not necessarily in the language of thought. Syntactic-redundancy rules are for pronouns, agreement, and case. Perhaps, language of thought has syntax and all proposition types.

token

Perhaps, qualities are tokens in language of thought.

significative behavior

Consciousness, complex behavior, complex mental processes, and language depend on ability to use tools and signs {significative behavior}. Words start as emotion expressions, then designate concrete objects, and later have abstract meaning. People have potential capacities {potential development zone} {zone of potential development} that develop in societies.

language development

Techniques {Vygotsky-Sakharov technique} {Vygotsky-Hanfman-Kasanin test} can track language development. Language develops from sign use into sign system. Semantics develops, and sign meanings change. Children think by memorizing, but adults memorize by thinking. People gain ability to solve problems by themselves and with aid from teacher or parent {social prompting}.

goals

In situations, tools and signs reach goals, usually with feedback.

culture

Higher mental processes require social settings to develop. Socialization processes lead to consciousness. Human conscious behavior relates subject of experience to social environment. Phenomena are large and complex relation-network parts {ascending to the concrete}, not irreducible personal experiences [Vygotsky, 1930].

situation semantics

Language is about situations and about relations among communicators {situation semantics} [Barwise and Perry, 1983].

symbolic interactionism

Language develops from first gestures and then grooming and other physical interactions [Mead, 1934]. Creativity, self, and reason arise from social life, which uses language reflexively. Language and symbolic interaction {symbolic interactionism} can cause humans to be self-conscious.

truth of expression

In first-order languages, sentence truth {truth, expression} is provable from sentence-part semantic relations. All languages can transform into first-order languages, so speakers can have truth-theory. In first-order languages, meaning depends on truth-conditions. Beliefs and other intentions are mental states with contrasts. Speakers speak intentionally [Davidson, 1980].

verification principle

Fundamental language-element meanings rely on subjective experiences. More-complex language meanings derive from language element meanings, using verification methods. Statement meanings depend on verification methods. Statements are meaningful only if observations and calculations can verify them {verification principle} {verifiability principle} [Ayer, 1936] [Ayer, 1940] [Ayer, 1963].

methods

Science facts can be verifiable by observation or experiment. Analytic logic and mathematics statements can be true by language rules. Ethical statements convey emotion or attitude and are not verifiable or analytic. Other statements are meaningless.

SOCI>Linguistics>Language>Theories>Private

private language

Perhaps, consciousness is a personal language {private language}, with syntax and grammar, for communicating with oneself. However, internal language independent of human social life cannot describe mental contents [Hunter, 1973] [Wittgenstein, 1953], because language presupposes public rules and symbols.

private language argument

Languages are for shared-things communication. Private worlds can have no language, and private words have no meaning {private language argument}. In private languages, knowing and not knowing are meaningless [Hunter, 1973] [Wittgenstein, 1953]. Words about conscious states can only be about observable inclinations to behave, not about subjective experience. Public terms must be publicly verifiable. Languages must be public and about public things.

beetle in a box

If people have private worlds, minds are like small boxes with moving objects inside {beetle in a box} [Wittgenstein, 1953].

language game

Language has many functions {language game}. For example, language can state facts and define contexts.

family resemblance

Referents can be constant only in contexts. Contexts give referent features and functions, which supply meaning. Referents can be similar in some ways {family resemblance}.

SOCI>Linguistics>Language>Theories>Variation

mechanistic theory

Physiology differences cause speech to be variable {mechanistic theory}.

mentalistic theory

Mental differences cause speech to be variable {mentalistic theory}.

SOCI>Linguistics>Phonetics

phonetics

Speech has acoustic parameters {phonetics}|, such as amplitude, duration, frequency, and timbre. Acoustic parameters correspond to sound contrasts used to discriminate among speech features. Speech production and perception parameters are the same.

sound types

Sound types are consonants, sonants or semivowels, vowels, stops, continuants, aspirates, voiced, and unvoiced.

categories

People identify and label perceptual features by sharpening boundaries. People can discriminate among features along many dimensions. People group sounds into rhythms based on sound loudness, length, and pitch. Louder, longer, and higher-pitch sounds are accents.

process

Labeling/identifying and discrimination are two aspects of one mechanism. Special mechanisms make and perceive speech. Perhaps, reverse of production gives perception {motor theory of speech perception}.

articulation

Vocal cords, lungs, pharynx, tongue, nose, teeth, and lips make speech sounds. All people can make all speech sounds, but at different pitches and timbres. Lungs, pharynx, tongue, nose, teeth, and lips modify speech sounds. African languages can use clicks. Languages can use inhaled sounds. Nasalization and other vowel modifications do not change speech-sound basis.

phonetic law

Language has sound shifts over time.

statistics

People learn words by sound-sequence frequency distributions.

sciences

People can study acoustic-signal structure {acoustic phonetics} or how people produce sounds {articulatory phonetics}.

animals

Animals can perceive human speech sounds.

formant

Most sound energy is in several frequency bands {formant}|, which differ among people because vocal tract resonates at different frequencies. Lowest-frequency formant is main formant.

phonogram

Instruments {phonogram, graph}| can record speech sounds.

phonology

Speech is a linear sequence of phonological distinctive features {phonology}| {segmental phonology}, which concatenate into discrete phonemes, which concatenate into syllables, which concatenate into words. Sign language uses physical movements as phonology.

prosody in phonology

Speech uses stress, rhythm, and tone patterns {prosody, grammar}|.

SOCI>Linguistics>Phonetics>Phoneme

phoneme

Speech sounds are phonological units {phoneme}|. Phonemes are not separate and independent but have sequences. Phonemes have context. People recognize phonemes only in context, because preceding and succeeding phonemes indicate current phoneme.

phonological distinctive features

Phonemes have or lack nine features. Phonemes can use consonants, vowels, pitches, silences, intonations, and stresses. Vowels are a, e, i, o, u, and y. Consonants are b, c, d, f, g, h, j, k, l, m, n, p, q, r, s, t, v, w, x, and z. Voiced consonants are b, d, g, and z. Unvoiced consonants are p, t, k, and s. Nasal consonants are m and n. Non-nasal consonants are b, k, and s. Constricted-lip vowels and consonants are oo, w, p, and m. Unconstricted-lip vowels and consonants are i, e, k, and n.

number

People can pronounce 40 phonemes [Jaynes, 1976]. Languages typically have 12 to 67 phonemes. Phoneme number and substitutability do not relate to language type, whether isolating, agglutinative, flexional, analytic, synthetic, or polysynthetic.

mora

Phoneme parts can have different tonal changes {mora}.

radical phoneme

Phonemes {radical phoneme} can be word bases, with basic meaning.

SOCI>Linguistics>Phonetics>Phoneme>Similation

assimilation in grammar

Similar phonemes can become more similar or identical {assimilation, grammar}, by changing sound features.

dissimilation in grammar

Similar phonemes can become less similar {dissimilation}, by changing sound features.

SOCI>Linguistics>Phonetics>Change

sound shift

Over language history, sound-context phonological distinctive features can change to other distinctive features {sound shift}. Phoneme changes follow regular recurrent rules. Functional, autonomous, or spontaneous causes can change paradigmatic sounds. Nearby phonemes can change syntagmatic sounds.

drift in phonetics

Sounds have diachronic changes {drift, phonetics}.

gemination

Speech can double sounds to lengthen them {gemination}.

lenition

Consonants between vowels can change {lenition}.

SOCI>Linguistics>Phonetics>Speaking

locution
   People make sounds {locution}|.

enunciation clarity
   Speech has clarity {enunciation, clarity}|.

phone as sound
   People make {phonation} rudimentary vocal sound units {phone}.

SOCI>Linguistics>Phonetics>Speaking>Style

shibboleth
   Linguistic attributes {shibboleth} can distinguish speaker nationality.

solecism
   People can use sounds idiosyncratically {solecism}.

SOCI>Linguistics>Phonetics>Modulation

intonation modulation
   Speech has pitch changes {intonation, modulation}|. Intonation emphasizes sentence parts, for example, signaling difference between declarative sentence and question. Speech amplitude and rhythm do not necessarily change.

pitch of sound
   Speech sounds have relative rise and fall of vocal-cord vibration frequency {pitch, speech}. Speech sounds can rise, fall, rise then fall, or have no pitch change.

release of sound
   Speech organs can move to rest position {release, speech}.

rounded phoneme
   Phonemes {rounded phoneme} can use rounded lips.

sandhi in phonetics
   Phonological marks {sandhi, phonetics} can be at morpheme boundaries. Neighboring sounds or grammatical functions can alter sounds. Sounds between words can fuse {external sandhi}. Sounds in words can change {internal sandhi}. English and Finnish do not show sandhi in spelling. Sanskrit can show or omit sandhi.
   Tonal languages alter tones {tone sandhi}. Mandarin has high monotone, rising tone, falling-rising tone, and falling tone.

SOCI>Linguistics>Phonetics>Modulation>Accent

accent of syllable
   Stresses {emphasis, phonetics} {accent, phonetics}| can be on word syllable positions or sentence word positions. Languages typically place stress {fixed stress} on same syllable or word position. Word stresses are main accent and secondary accent. Accent can be on first syllable {initial accent} {initial stress}, last syllable {terminal stress} {terminal accent}, next-to-last syllable {penult syllable}, or second-to-last syllable.

chromatic accent
   Pitch changes {chromatic accent} can be for emphasis.

qualitative accent
   Accents {qualitative accent} can be stress and pitch changes.

quantitative accent

Accents {quantitative accent} can be duration changes.

SOCI>Linguistics>Phonetics>Modulation>Accent>Word

oxytone

Languages {oxytonic language} can have majority of words accented on last syllable {oxytone}|.

paroxytone

Languages {paroxytonic language} can have majority of words accented on next-to-last syllable {paroxytone}|.

proparoxytone

Languages {proparoxytonic language} can have majority of words accented on second-to-last syllable {proparoxytone}|.

SOCI>Linguistics>Phonetics>Structure

metric structure

Speech rhythm can be metrical {metric structure}.

prosodic structure

Word and sentence series stress contours can be hierarchical {prosodic structure}.

SOCI>Linguistics>Phonetics>Articulation

articulation

Vocal tract can produce speech sounds by vibrating vocal chords, positioning tongue and lips, and changing cavity shapes {articulation}|. People know 850 speech sounds.

obstruction

Airflow-obstruction locations affect articulation. Airflow-obstruction levels affect articulation.

sequence

Preceding and succeeding sounds affect speech sounds.

parts

Speech uses jaw, lips, tongue front and back, soft palate, and teeth ridge {vocal tract, speech}. Vocal tract has mouth {oral tract} and nose {nasal tract}.

articulation basis

Language speech-organ neutral or normal positions can differ.

articulator

Tongue, teeth, lower lip, and lips {articulator} have tips, blades, middles, and backs.

point of articulation

Articulators can touch lips, teeth, teeth ridge, hard palate, soft palate, uvula, pharynx, or glottis {point of articulation}. Articulation-point changes change consonants but not vowels.

coarticulation

Articulation speech sounds overlap in typical patterns {coarticulation}.

SOCI>Linguistics>Phonetics>Consonant

click sound

Air inspirations are speech sounds {click sound} in Bushman, Hottentot, and Kafir-Sotho Bantu-family languages.

digamma

Speech can use sound w {digamma}.

flap sound

In Japanese, sounds {flap sound} can mix English l and r.

initial mutation sound

In Celtic languages, initial consonants can change {initial mutation}, using aspiration, nasalization, or lenition, depending on previous-word final sound or on sentence position.

liaison in speech

Pronounce ordinarily silent final consonant of word if next word begins with vowel {liaison, speech}|.

lisp speech

Speech can pronounce s as th and z as zth {lisp}|.

oral consonant

Consonants {oral consonant} can use only oral cavity.

SOCI>Linguistics>Phonetics>Consonant>Air

aspirate consonant

Consonant h {aspirate}| is mostly moving air, without vocal-cord use. Breath puffs {aspirated consonant}, like h sounds, can follow some consonants. In Greek, aspiration or rough breathing can precede initial vowels and r. Such breathing has ' sign.

spirant as consonant

Consonants {spirant} {continuant} have no air blockage by tongue, teeth, or lips.

liquid consonant

Consonants {liquid consonant}|, such as l and r, can have no airflow change.

vocalic consonant

Liquid consonants l and r and nasal consonants m and n {vocalic consonant} begin with vowel sounds.

SOCI>Linguistics>Phonetics>Consonant>Point

alveolar consonant

Alveolar ridge behind teeth {alveolar sound} makes b, t, and n.

palatal consonant

Consonants {palatal consonant} can put tongue near hard palate.

velar consonant

Consonants {velar consonant} can place tongue back near velum soft palate: g, k, and ng.

uvular consonant

Consonants {uvular consonant} can place tongue back near uvula.

pharyngeal consonant

Consonants {pharyngeal consonant} can phonate at pharynx.

SOCI>Linguistics>Phonetics>Consonant>Point>Lip

bilabial consonant

Consonants {bilabial consonant}, such as b, p, m, and w, can use both lips.

labial consonant

Consonants {labial consonant} can use one lip.

SOCI>Linguistics>Phonetics>Consonant>Stop

affricate consonant
Blocked then allowed obstruction {affricate consonant} makes ch and j.

glide
Slight obstruction makes w or y {glide, sound}.

glottal stop
Consonants can involve glottis {glottal stop}.

glottal sound
Sounds {glottal} {laryngeal} can be like Oriental and African language h's or glottal stops.

implosion in speech
Speech can use complete air-passage closure {implosion, speech}|.

lateral consonant
Slight obstruction makes l or r {lateral consonant}.

nasal consonant
Consonants {nasal consonant}| can use nose. Mouth obstruction and nasal opening makes n, m, and ng.

plosive consonant
Consonants {stop consonant} {plosive} can use air release after complete air blockage by tongue, teeth, or lips: b, p, d, t, g, and k. Hindi has stop consonants {dental stop consonant} that touch teeth or {retroflex stop consonant} that use tongue to bend up and back.

SOCI>Linguistics>Phonetics>Consonant>Stop>Fricative

fricative consonant
Consonants {fricative} can partially block airflow, using tongue, teeth, or lips: s, z, f, v, th, and sh. Fricative consonants can be sibilant.

sibilant consonant
Fricative consonants {sibilant} can put tongue on hard palate.

SOCI>Linguistics>Phonetics>Consonant>Tap

tap in articulation
Articulation movements can be taps {tap, articulation}.

rolled consonant
Consonants {rolled consonant} can use rapid tapping of tongue front on teeth, or of uvula against tongue back, usually to make sound r.

trill
Tongue, lips, or uvula can make multiple taps {trill}|, rather than one tap.

SOCI>Linguistics>Phonetics>Consonant>Voice

voiced
Vocal-chord vibration {voiced consonant} makes b, m, z, l, and r.

voiceless

No vocal chord vibration {voiceless consonant} makes p, s, and ch.

soft consonant

Voiceless consonants {soft consonant} can have voice.

sonant

Voiced consonants and semivowels {sonant} are similar.

unvoiced sound

Some speech sounds {voiceless sound} {unvoiced sound} do not use vocal cords.

SOCI>Linguistics>Phonetics>Vowel

vowel in phonetics

Vowels {vowel}| typically begin at vocal cords. Vowels can have tongue highest part in front or back, mouth open or closed, and lips round or spread out. Vowels have distinguishing acoustic properties {vowel quality}. Spanish and many languages have only five vowels: ah = a, ay = é, ee = i, oo = u, and oh = o.

connecting vowel

Inserted vowels {connecting vowel} can make pronunciation easier.

pure vowel

Eleven vowels {pure vowel} always sound the same, in all syllables. Five vowels {diphthong, vowel} sound different in different syllables.

semivowel

Consonants can be vowel-like. w and y {semivowel} {semi-vowel} are not equivalent to full vowels.

shwa

Indistinct vowels {shwa} {neutral vowel} have upside-down e sign. A Hebrew sign {mobile shwa} indicates upside down e sound. A Hebrew sign {latent shwa} indicates no vowel sound.

twang

Vowels can resonate {sonorous} {twang}| or have nasal sound.

voiced vowel

Vocal-cord vibration {voiced} makes vowels. Consonants are typically voiceless.

vowel point

In Hebrew and Arabic, marks {vowel point} below or near consonants indicate which vowel to use.

SOCI>Linguistics>Phonetics>Glide

glide in speech

Articulation changes can have transitional sounds {glide}|.

off-glide

Speech can return oral cavity to neutral position {off-glide} {final glide}.

on-glide

Speech can move into position for phoneme {on-glide} {initial glide}.

bridge-sound

Sounds {bridge-sound} between affixes and roots can ease pronunciation.

SOCI>Linguistics>Grammar

grammar
    All utterances have syntax and paradigms {grammar}|. Grammar includes syntax and inflexion. Language knowledge is a finite system of rules operating on fundamental elements, which interact to determine an infinite number of expressions, with phonetic forms, meanings, and structural properties.
relations
    Grammar is about linguistic-unit relations, not meaning. Grammar expresses location, direction, time, number, familiarity, possibility, contingency, possession, agency, purpose, necessity, obligation, and existence or non-existence.
relations: space concepts
    All grammars indicate spatial location and motion. Sentence linguistic-unit relations reflect physical object and event relations in space and time. Physical relations reflect required grammar type: linear/regular or unrestricted, contracting or non-contracting, and context-sensitive or context-free. Complex concepts use spatial-location and motion concepts.
relations: time concepts
    Space and time have similar representations.
innate
    Many fundamental grammar properties are innate, but people have different language elements and mental representations.
grammatical sense
    People sense {grammatical sense} that word strings are grammatical. Grammatical sense depends on words fitting into familiar connection frameworks.
repetition
    People tend to use same word relationships.
context
    Contexts are unit relations. Context can be syntax rules about relations between grammar units. Context can be contrast rules about which linguistic units can replace grammar units. For constant number of linguistic units, number of relations is inversely proportional to number of paradigms.

SOCI>Linguistics>Grammar>Units

linguistic unit
    Languages have units {linguistic unit} at different levels: phonemes, words, phrases, and sentences. For both hearing and speaking, people use words, not morphemes, as language units.

lexical concept
    Basic language units are finite concepts {lexical concept}, such as subjects, verbs, objects, prepositions, adjectives, and adverbs. Words replace lexical concepts.

SOCI>Linguistics>Grammar>Inflection

inflection
    Grammar includes word-phoneme relations {inflexion} {inflection}|. Inflection is also about sound stresses.

syllable
    English has 1000 to 2000 phoneme combinations {syllable}|. Syllables {closed syllable} {blocked syllable} {checked syllable} can end in consonants. Syllables {open syllable} can end in vowels.

accidence in grammar
    Inflection can show case, tense, and number {accidence}|.

reduplication in grammar
    Sound repetition {reduplication} is for tense in Greek and for plurals in Malay.

SOCI>Linguistics>Grammar>Inflection>Morpheme

morpheme

Words have phonological units {morpheme}|, such as word roots, prefixes, suffixes, infixes, and qualities. Morphemes are not separate and independent but have sequences. Phonological units can have preferred order or no order. Succeeding-morpheme probability depends on preceding morphemes. People recognize morphemes only in context, because preceding and succeeding morphemes indicate current morpheme through associations and sound cues.

form in grammar

Morphemes can be alone {free form} {form, grammar}. Free morphemes can be in complex forms {underlying form}. Morphemes attached to words can have only one meaning {bound form}.

morphology in grammar

Rules can combine morphemes {morphology, grammar}|. Morphological rules can indicate case, tense, and number {inflectional morphology} or make new words {derivational morphology}.

SOCI>Linguistics>Grammar>Inflection>Root

root in grammar

Word parts {root, word}| hold main meaning.

stem in grammar

Roots {stem, word}| can add thematic suffixes.

base in grammar

Roots or stems {base, word} can add inflectional endings.

SOCI>Linguistics>Grammar>Inflection>Root>Sound

determinative sound

Sounds {determinative sound} added to roots can specify word aspects.

formative sound

Sounds {formative, grammar} added to roots can change meanings or derive new words.

SOCI>Linguistics>Grammar>Inflection>Affix

affix noun

Words can add sounds {affix, word}|.

infix

Formatives {infix}| can be within words.

prefix

Modifiers {prefix, affix}| can be before words.

suffix

Modifiers {suffix}| can be after words.

thematic suffix

Stem roots can add suffixes {thematic suffix}.

SOCI>Linguistics>Grammar>Inflection>Regular

regular verb

Words can follow usual noun declension {regular noun} or verb conjugation {regular verb}.

heteroclite

Words {heteroclite} can have irregular declension or conjugation.

SOCI>Linguistics>Grammar>Inflection>Vowel

vowel change
 Vowels change over time {vowel change}. Internal vowels can change qualitatively, change duration, or mute, to change meaning {vowel gradation}. Vowels in next syllables can cause internal-vowel changes {vowel mutation}. Nearby sounds can make vowels become diphthongs {vowel fracture}.

ablaut
 Similar words that vary in accent can then vary at vowel {ablaut}, such as irregular verb tenses.

syneresis
 Two vowel sounds can fuse into one sound {syneresis}.

yodization
 Pure vowels, such as "i" and "e", can change to semivowels {yodization}.

SOCI>Linguistics>Grammar>Inflection>Vowel>Strength

strong word
 Internal vowel changes can show verb past tense or noun plurals or oblique case {strong word}.

weak word
 Rather than internal vowel changes, suffixes can show verb past tense or noun plurals or oblique case {weak word}, as in Germanic languages.

SOCI>Linguistics>Grammar>Inflection>Paradigm

contrast in grammar
 Spoken language is a phoneme series. Phonemes are not separate and independent sounds but have specific sound sequences. Phonemes have contexts. Contexts determine possible phoneme substitutions {contrast, grammar} {paradigm, grammar}, which have different probabilities or strengths. Substitutions can change next-phoneme contexts. All utterances have paradigms. Words and spoken language have morpheme series, which have paradigms. People first learn frequently used grammar contrasts, which resist change most.

marked in grammar
 In context paradigms, linguistic units can be more distinct {marked, grammar} {positive, grammar} or more general {unmarked, grammar} {neutral, grammar}.

SOCI>Linguistics>Grammar>Syntax

syntax
 Sentence forms {syntax}| {syntagmatic} relate linguistic units. Syntax relations reflect relations in world and mind. Languages use syntax forms: linear/regular or unrestricted, contracting or non-contracting, and context-sensitive or context-free. All utterances have syntax.
roles
 Sentences have nested or embedded phrases. Phrases have roles or sentence slots {phrase structure} {argument structure}. Roles include subject, verb, object, agent, theme, goal, source, instrument, beneficiary, time, and place. Syntax uses lexical categories, such as nouns, verbs, adjectives, prepositions, and adverbs. Syntax uses phrasal categories, such as noun phrases, verb phrases, prepositional phrases, and sentences.
phonology
 Syntactic structure substitutes words for lexical concepts to make phonological structure.

idiom
 Expressions {idiom}| {idiomatic} can have special meaning.

interjection

Words {interjection}| can be placeholder words, surprise words, or emphasized words: ah, hey, oh, no, say, well, and wow. Some languages do not have interjections.

lexicon

Syntactic structure relates to phonological structure through language words {lexicon}|.

SOCI>Linguistics>Grammar>Syntax>Sentence

sentence in grammar

Sentences {sentence, grammar}| have positions. Sentence positions can have required order {linear sentence}.

parts of speech

Nouns are words for objects. Verbs are words for actions. Adjectives are words for attributes {parts of speech}|.

grammatical category

Subjects, verbs, objects, modifiers, and other speech parts {grammatical category} fill sentence positions.

conjunction in sentences

Words {conjunction, grammar}|, such as "and" and "or", can denote connections between two words or clauses. Conjunctions {coordinating conjunction} can connect same-type words: and, but, for, not, or, so, yet. Conjunction pairs {correlative conjunction} can connect same-type words: both/and, either/or, neither/nor, not only/but also, and whether/or. Conjunctions {subordinating conjunction} can connect subordinate clauses: after, as, as well as, because, if, in order that, provided, since, so, so that, than, that, though, unless, when, why. Some languages do not have conjunctions.

phrase of sentence

Words {phrase, sentence} can substitute for speech parts.

clause

Subsentences {clause} can substitute for speech parts. Clauses {subordinate clause} can depend on other clauses.

SOCI>Linguistics>Grammar>Syntax>Sentence>Preposition

preposition

Words {preposition}| can denote sentence word relations. There are 80 to 100 prepositions. Some languages do not have prepositions. Phrases {prepositional phrase} can be about other sentence words {object, preposition}.
space

Prepositions can be about spatial location: on, in, near, at, and above. Prepositions can refer to object axis above or below vertical axis, distance from axis, or direction from axis. Prepositions can describe object motions related to location descriptions, such as motion paths and where paths begin and end.
shape

No prepositions require knowledge of figure shapes.
object

No prepositions require knowledge of reference objects, except axis, or figure parts. Spatial configurations can be non-stereotypical or ambiguous.
time

Prepositions can be about time.
possession

Prepositions can be about possession.
grammar

Prepositions can be grammatical markers.

postposition

Preposition-like words {postposition} can be after verbs.

SOCI>Linguistics>Grammar>Syntax>Adjective

adjective
   Words {adjective}| can modify nouns.

adjective order
   In English, selector, determiner, order, number, size/shape/color, and classifier precede noun {adjective order}.

predicate adjective
   Adjective phrases {predicate adjective} can pair with copulas. With no copula, phrases are predicates.

SOCI>Linguistics>Grammar>Syntax>Adjective>Article

article
   Adjectives {article}| can specify nouns. Some languages do not have articles.

definite article
   Articles {definite article} can be "the".

demonstrative article
   Articles {demonstrative article} can be "this", "that", "these", and "those".

determiner of noun
   Articles, pre-articles, and post-articles {determiner} determine nouns.

indefinite article
   Articles {indefinite article} can be "a" or "an".

partitive article
   Articles {partitive, article} can be "some".

prearticle
   Words {prearticle} can be similar to articles but not as specific: some, many, several, much, most, all, each, both, and every.

SOCI>Linguistics>Grammar>Syntax>Adjective>Degree

degree in syntax
   Degree {degree, grammar}| can be superlative or comparative degree.

comparative degree
   Between two, one is better {comparative degree}|.

superlative degree
   Among choices, one is best {superlative degree}|.

SOCI>Linguistics>Grammar>Syntax>Adverb

adverb
   Words {adverb}| can modify verbs, adjectives, or adverbs.

conjunctive adverb
   Adverbs {conjunctive adverb} can introduce clauses: accordingly, furthermore, however, moreover, therefore.

qualifier

Adverbs {qualifier}| can modify adjectives qualitatively: very, bit, rather, and somewhat,.

quantifier
    Adverbs {quantifier, grammar}| can modify adjectives quantitatively.

SOCI>Linguistics>Grammar>Syntax>Noun

noun
    Words {noun}| can refer to persons, ideas, places, or things. Nouns can be about sensed things {concrete noun} or about ideal things {abstract noun}.

apposition
    After noun phrases, noun phrases {apposition}| {appositive} with similar meaning can be between commas.

nominal sentence
    Nouns can be main sentence parts {nominal sentence}.

noun complement
    Nouns {noun complement} {complement, noun} can complete verbs.

SOCI>Linguistics>Grammar>Syntax>Noun>Case

case of noun
    Nouns have sentence uses {case, noun}|.
grammar
    Nouns can be subjects {subjective case}. Nouns can be direct objects {objective case}. Nouns can show possession {possessive case}. Nouns can be indirect objects {nominative case}. Nouns can be adjectives {adnominal case}. Nouns can be objects used {instrumental case}. Nouns can be help to, or cause of, actions {agentive case}. Nouns can be accompaniments {comitative case}. Nouns can be hypothetical or conditional {subjunctive case}.
meaning
    Besides these grammatical functions, nouns can indicate space and time relations, prepositional object, person addressed, or place {locative case}. Nouns can be separate from rest of sentence {absolute case}. Nouns can be for becoming or transforming into something {factive case}. Nouns can name uninflected word form {common case}.
types
    Cases can be nominative case, vocative case, and all other cases {oblique case}.

substantive noun
    Nouns {substantive noun} can be adjectives.

SOCI>Linguistics>Grammar>Syntax>Noun>Kinds

common noun
    Nouns {common noun}| can be about classes or general things. Common nouns are not proper nouns and are not pronouns.

proper noun
    Nouns {proper noun}| can be about particular thing or specific, named things.

SOCI>Linguistics>Grammar>Syntax>Noun>Verbal

gerund
    Verbs {gerund}| can be in noun form, as continuing actions, and can govern case. Verbals {gerundive} {verbal adjective} can be adjectives, typically after direct objects. Only Indo-European languages have gerunds.

participle
    Verbs can be in noun form {participle}|, as completed actions.

supine noun

Verbal nouns {supine noun} can have unusual inflection.

verbal noun

Verbs {verbal, grammar}| can be nouns or adjectives, such as in infinitives, participles, gerunds, gerundives, and supines.

SOCI>Linguistics>Grammar>Syntax>Noun>Gender

gender in syntax

Nouns can be male, female, or neutral {gender}|. Russian, Greek, Latin, and German use three genders. Languages can use two genders, male and female. Swahili uses six genders. Gender refers to social roles and other meanings besides biology. Some languages do not use gender.

natural gender system

In gender systems {natural gender system}, animate objects can be actual gender, and inanimate objects can be neuter.

epicene

Nouns {epicene} can be for male or female gender.

SOCI>Linguistics>Grammar>Syntax>Noun>Number

number of noun

Nouns are singular or plural {number, grammar}. The idea of counting is in all languages. Chinese and Vietnamese do not use noun number categories but denote number by classifier words. Classical Greek, Sanskrit, and some Slavonic languages use number 2 {dual number}, as well as singular and plural. Fijian uses number 3 {trial number}.

auxiliary numeral

If used with cardinal numbers, numerals can indicate classes {auxiliary numeral}, as in Japanese.

count noun

Nouns {count noun} can be enumerable. Count nouns can take indefinite articles and are plural. Bounded nouns, nouns about events, and telic nouns are similar to count nouns.

mass noun

Nouns {mass noun, syntax}| can be singular but about divisible objects. Mass nouns are similar to plural nouns. Unbounded nouns, nouns about processes, and atelic nouns are similar to mass nouns.

numeral

Numbers {numeral, noun}| can be cardinal, ordinal, iterative, multiplicative, or partitive.

compound noun

Nouns {compound noun} can combine two or more things, using connected nouns or more than one noun.

collective noun

Nouns {collective noun}, such as "orchestra", can be about sets of similar things.

SOCI>Linguistics>Grammar>Syntax>Noun>Pronoun

pronoun

Nouns {antecedent, noun} {referent, noun} {pronoun}| can substitute for nouns. Pronouns agree with referents in number, person, and gender. Pronoun references should be to antecedents. Pronoun references should be unambiguous. Pronoun references should be definite. Pronoun references should be specific.

person of noun

Nouns can refer to speaker, hearer, others, or viewpoint {person, grammar}. All languages use person categories. Person is I, we, you, he, she, it, or they. Pronouns {exclusive personal pronoun} {inclusive personal pronoun} can delineate groupings.

demonstrative pronoun

Pronouns {demonstrative pronoun} can point to referents: this, that, these, and those.

indefinite pronoun

Pronouns {indefinite pronoun} can be general: some, someone, somebody, something, any, anyone, anybody, anything, everyone, everybody, everything, other, another, either, neither, all, many, few, each, both, one, none, nobody, and nothing.

intensive pronoun

Pronouns {intensive pronoun} can be for emphasis: myself, ourselves, yourself, yourselves, himself, herself, itself, and themselves.

interrogative pronoun

Pronouns {interrogative pronoun} can be in questions: who, whose, what, whom, which, when, where, why, and how.

obviative

Pronoun forms {obviative} can refer to new third persons.

personal pronoun

Pronouns {personal pronoun} can substitute for people or things: I, me, my, mine, we, us, our, ours, you, your, yours, he, him, his, her, his, hers, it, its, they, them, their, and theirs.

reflexive pronoun

Pronouns {reflexive pronoun} can show action on themselves: myself, ourselves, yourself, yourselves, himself, herself, itself, and themselves.

relative pronoun

Pronouns can connect clauses to antecedents {relative pronoun}: that, which, who, whom, and whose.

SOCI>Linguistics>Grammar>Syntax>Verb

aspect of verb

Verbs describe actions as completed, ongoing, or not completed {aspect}|. Aspect can be about action frequency, regularity, start, or type. Aspect relates to tense and mood. Aspect in Russian and Greek refers to completed or incomplete actions. Aspect in Greek can refer to short action length or future action. Not all languages use aspect.

auxiliary verb

Verbs {auxiliary verb} can convey tense and mood when used before perfect "have", progressive "be", or passive "be": can, could, may, might, must, shall, should, will, and would.

copula

Verbs {copula, grammar}| {linking verb} can link subject and complement: am, are, be, is, was, been. Verbs {substantive verb} can be "to be" and equivalents. Verb "to have" denotes possession. Verb "to be" denotes class member, having class, place, or time, or having existence. Verbs "to have" and "to be" carry only tense, mood, and aspect. Some languages do not use "to have" and/or "to be".

familiar form in syntax

Verbs can show kinship or familiarity {familiar form}.

predicate

Adjectives or verbs {predicate, grammar}| can state something about subjects or objects. Adjectives are about qualities and states. Verbs are about actions or states. Adverbs modify both adjectives and verbs. Simple predicates have one verb or verb phrase.

reflexive verb
Verbs {reflexive verb} can have subject and object.

verb sentence
Finite verbs can be main sentence parts {verb sentence}.

SOCI>Linguistics>Grammar>Syntax>Verb>Infinitive

infinitive
Verbs {infinitive}| can be secondary verbs. Infinitives typically have no person or number. Some languages have personal infinitives, with person and number.

split infinitive
Infinitives {split infinitive} can have an adverb between "to" and verb.

SOCI>Linguistics>Grammar>Syntax>Verb>Mode

mode of verb
Verbs have different activity types {mode, verb}|.

transitive verb
Verbs {transitive verb}| can describe actions involving subject and direct object.

intransitive verb
Verbs {intransitive verb}| can denote class by common noun, describe class by adjective, or equate classes.

semi-transitive verb
Verbs {semi-transitive verb} can have no passive but have direct objects.

SOCI>Linguistics>Grammar>Syntax>Verb>Mood

mood of verb
Verbs are in statements, commands, wishes, questions, obligations, subjectives, exclamations, or possibilities {mood, verb}. Moods {conditional mood} can be for conditions. Not all languages use mood. Mood and tense relate.

modal verb
Verbs {modal verb} can directly show mood: may, can, will, shall, ought, must, and need.

force in grammar
Questions, exclamations, assertions, and other verbal phrases have different effects {force, grammar}.

SOCI>Linguistics>Grammar>Syntax>Verb>Person

impersonal verb
Verbs {impersonal verb} can use third person singular to denote action by unspecified agents.

personal verb
Verbs {personal verb} can be about I, us, you, he, she, it, or they.

SOCI>Linguistics>Grammar>Syntax>Verb>Tense

tense of verb

Verbs describe actions in past, present, or future {tense, verb}|. Present, simple past, and future tense are main tenses {primary tense}. Tense {simple tense} can have no auxiliary. Not all languages use tense. Mood and tense relate.

historical present
Present tense {historical present} can stand in relation to past.

perfect tense
Actions or states can result from past actions or states {perfect tense}.

pluperfect
Actions or states can be about past {pluperfect} {past perfect tense}.

preterit
Tense can express that action was in past {preterit}.

SOCI>Linguistics>Grammar>Syntax>Verb>Voice

voice of verb
Verbs can be active, passive, or middle {voice, verb}|. Some languages do not have passive voice or middle voice. Languages with no passive voice can use voice {inactive voice}.

active voice
Verbs can describe subject actions {active voice}|.

middle voice
Verbs can describe actions that affect subject but objects do not act {middle voice}.

passive voice
Verbs can describe object actions on subjects {passive voice}|.

SOCI>Linguistics>Grammar>Syntax>Parsing

parsing
People can analyze words or sentences grammatically {parsing, grammar}|.

sentence analysis
Analyzing sentences {sentence analysis} involves substituting, expanding, removing ungrammatical productions, removing non-generative productions, and removing non-terminal symbols from end. Because sentences are complex, hearers can analyze same sentence in different ways.
subject, verb, and object
Each of the six possible sequences of subject, verb, and object appears in at least one human language.
types
String analysis can be bottom up or top down. Bottom-up analysis scans grammar rules to see if any apply to input string. Top-down analysis hypothesizes output sentences or phrase structures and tries to generate input string, trying grammar rules and backtracking if rule fails.

sentence diagram
Top-down parsers start with rules with variables and find places that match rules. Bottom-up parsers start with constants and make variables based on rules. Tree structures {parse tree, sentence} show how rules apply. Diagrams {sentence diagram, sentence} show sentence structures. Sentences can have different parse trees.

SOCI>Linguistics>Grammar>Syntax>Recursion

recursive function grammar
Because words, phrases, and sentences nest, grammar rules can use terms about themselves {recursion, grammar} {recursive function}|. In quantitative grammars, recursive functions {composition, grammar} can combine current

function value f and second function value g to make new current function value f: f = f + g. Recursive functions {primitive recursion} can add one to current function value: f = f + 1. Recursive functions {minimalization} {multiple recursion} can modify current function value so it approaches a limit, typically using mu operator. Because quantitative grammars involve only integers, quantitative grammars can be algorithms.

iteration

Similar events or operations can repeat {iteration}|. For verbs, Hungarian and Finnish languages, but not English, have an iterative marker to convey sense of repetition, which acts semantically like a plural marker.

nested phrase

In speech, ends of nested or interrupting phrases {nested phrase}| typically have no marks.

standard form of grammar

Grammars can have no loops {standard form}.

SOCI>Linguistics>Grammar>Kinds

categorical grammar

Grammars {categorical grammar} can relate speech categories by how categories modify other categories. Verbs, including adjectives, modify nouns. Adverbs modify verbs. Adverbs modify adverbs.

constituent grammar

Sentence words have a hierarchy of possibly concatenated smaller groups {constituent grammar} {immediate constituent grammar}.

parts of speech

Constituent grammar uses subject and predicate as fundamental categories. Other grammatical categories derive from them.

rules

Rule sequences build word-group hierarchies. Sentence types have grammar rules, which speakers use for sentence generation, and which hearers use for sentence analysis. Sentence-type rules put high-level word groups in sequences. Sentence-type rules can have necessary parts, optional parts, and branching parts. Second-level grammar rules order words in word groups. Third-level grammar rules order words in subgroups, and so on.

transformational grammar

Grammars {transformational grammar} {generative grammar} can generate sentence patterns by mappings at levels. Language comprehension uses same levels and rules.

structures

Sentences have fundamental structure {deep structure} and structure {surface structure} mapped from deep structure. Deep structure relates grammatical units of simple, representative sentences, sometimes using semantic rules. Surface structure relates word categories, like constituent grammar does, and phonological rules affect it. Deep structure resolves ambiguities left open by surface structure. Predicate calculus is a transformational grammar.

innate

Perhaps, children learn language using innate brain function to decode syntax.

universal grammar

Super-rules can relate particular rules {universal grammar}. All children can learn all languages.

SOCI>Linguistics>Grammar>Kinds>Context

Backus-Naur form grammar

Unrestricted and context-free grammars {Backus-Naur form grammar} allow symbol replacement with symbols or letters.

context-free grammar

Previous input and output can have no affect on output {context-free grammar}. Only current state determines output.

context-sensitive grammar
 Current state and previous input and output can determine output {context-sensitive grammar}.

finite state machine
 Input string and current state can determine output {finite state machine}.

linear grammar
 Previous input can determine output, with no need to go backward or forward to find context or current state {linear grammar}.

regular grammar
 Previous input about sentence and input string can determine output, with no need to go backward or forward to find context or current state {regular grammar}.

SOCI>Linguistics>Grammar>Kinds>Substitution

contracting grammar
 Simpler strings can substitute for more-complex strings {contracting grammar}. Simpler strings cannot replace strings {non-contracting grammar}.

normal-form grammar
 Grammars {normal-form grammar} can allow symbols to become two symbols, for example, replacing sentence symbols with noun and verb symbols.

standard-form grammar
 Grammars {standard-form grammar} can allow symbols to become one or two strings, for example, replacing speech-part symbols with letter strings.

well-formed grammar
 Grammars {well-formed grammar} can allow simple to complex substitutions.

SOCI>Linguistics>Grammar>Kinds>Quantitative

quantitative grammar
 Grammar rules can be strings and functions, which take input strings and make output strings {quantitative grammar}. Strings can have unique integers, using Gödel numbering. String sets {enumerable set} can have unique integers. Quantitative grammars involve enumerable sets of input sentences, output sentences, and grammar rules. Recursive functions, algorithms, Turing machines, and Post axiomatic systems are mathematically equivalent ways to model quantitative grammars.

Post system
 Because quantitative grammars involve only integers, quantitative grammars {Post system} can be axiomatic systems, with axioms about strings and inference/grammar rules about speech parts.

SOCI>Linguistics>Grammar>Kinds>Quantitative>Formal

formal grammar
 Grammars {formal grammar} can be quantitative.

Chomsky hierarchy
 Language processing and computer coding rely on grammar, which specifies sentence-structure rules. Parsing finds syntactical structure. Generating uses rules to create valid sentences. Syntax can have typical sentence structures {regular syntax}, for which words can substitute and which can be recursive {productive syntax}.
grammars

Noam Chomsky defined four generative-grammar classes, with different complexities {Chomsky hierarchy}. Type 0, with highest complexity, is General Grammars, such as Turing Machines. Type 0 grammars can be context-free, unrestricted, contracting, and freely substituting. Turing machines read input and write output anywhere on tape. Type 1 is Context-Sensitive Grammars, such as Linear Bounded Automata. Type 1 grammars can be context-sensitive, unrestricted, and non-contracting. Pushdown machines with finite tape read input and store output, after going backward and forward on tape until they find input string context that tells them what to do next. Type 2 is Context-Free Grammars, such as Pushdown Automata. Type 2 grammars can be context-free, unrestricted, and non-contracting. Pushdown machines read input and store output based solely on current state, without going backward or forward on tape. Type 3, with lowest complexity, is Regular Grammars, such as Finite State Automata. Type 3 grammars can be context-free or context-sensitive, regular, linear, and non-contracting. Finite-state machines read input tape, with no storage, until they find input string that tells them what to do next.

computer language

Computer languages must be deterministic, so parsing look-ahead is finite. Parsing non-deterministic languages requires trying all rules and/or guessing. Most unambiguous and ambiguous recursive transition networks are non-deterministic and cannot map to deterministic recursive transition networks. Non-deterministic finite state automata can map to deterministic finite state automata.

generative grammar

Grammars can have variables, which can have actions and include start symbols. Grammars can have constants, which can have no actions. Grammatical symbols are either variables or constants. Grammars can have rules of going from existing variable series to new variable/constant series. Generative grammars use finite sets of variables, constants, and rules.

relation

Grammar relations involve persons or things {direct object} and time. Relations can be states or events. States are know, believe, or have. States have experiencing subjects. Events involve agents {subject, relation}, instruments "with", beneficiaries "for", and places "on, in, at, above, below", moving, and communicating. States and events determine subject phrases. Events determine verb phrases. To communicate, write, or speak involves recipient "with or to", language "in", and/or topic "on or about". To move or walk involves source "from" and destination "to".

General Grammar

In type 0 {General Grammar}, rules start with variables and productions can be unbounded and context-sensitive. General Grammars are recursively enumerable. General Grammars are equivalent to Turing Machines.

Context Sensitive Grammar

In type 1 {Context Sensitive Grammars}, rules start with variables, and productions are the same length or longer. Rules depend on nearby symbols. Context-sensitive grammars are equivalent to Linear Bounded Automata {non-deterministic Turing Machine}, which have left and right end markers that have no replacements and so bound strings. Context-sensitive grammars are recursive. Context-sensitive grammar-recognition algorithms are Pspace-complete and so can never complete. Context-free grammars plus symbol tables can model context-sensitive grammars.

Context-free Grammar of Chomsky

In type 2 {Context-free Grammar}, rules start with variables and produce variable-and-constant series. Variables are start symbols for grammar subsets. Context-free grammars can accommodate parentheses. Rules do not depend on nearby symbols. Context-free grammars are equivalent to Recursive Transition Networks, which can refer to other transition networks.

parsing

Top-down parsers start with rules with variables and find places that match rules. Bottom-up parsers start with constants and make variables based on rules. Tree structures {parse tree, grammar} show how rules apply. Diagrams {sentence diagram, grammar} show sentence structure. Sentences can have more than one parse tree.

ambiguity

No universal algorithm can determine if context-free grammars are unambiguous or ambiguous or make ambiguous ones unambiguous.

number

Languages can have more than one context-free grammar.

normal form

Context-free grammars can have special forms {normal form, grammar}. Normal forms {Chomsky normal form} can have rules that make one variable into two variables or one constant, with no empty strings. Normal forms {Griebach normal form} can have rules that make one variable into two constants or one empty string.

Regular Grammar of Chomsky

In type 3 {Regular Grammar}, rules start with variables and produces constant-and-variable series {right linear grammar}, or variable-and-constant series {left linear grammar}. There is only one variable and it is on right or left. All other symbols are constants. Simple transition networks are equivalent to regular grammars. Finite state automata (FSA) model regular grammars, because they have start state, finite number of states, set of rules from one constant to another constant, and finite set of terminal states. Regular Grammars use regular expressions: empty strings, variables, or repeated regular-expression strings.

SOCI>Linguistics>Semantics

semantics
People can know meaning {semantics}|, by association and by insight, as information patterns become meaning.
beginning
The simplest, earliest semantics related noun subjects or objects to verbs, to express causes, sources, goals, locations, and actions [Smith, 1985].
observation
Meaning is about sense qualities, so observables can relate to other observables. Observing systems can compare observations to memorized observations. Comparing develops new concepts and categories. Meaning requires knowing something about property, not just property value. For example, meaning requires knowing something about red, not just intensity. Observations can be true, complete, and consistent. Word sense and reference change over time, position, and context, so there are no necessary or a priori truths.
context
Different languages use different categories and different category divisions. Meaning depends on definitions {lexicography, semantics}. Meaning depends on word terminology used in subjects. The same expression can have different meanings in different situations. Symbols ground only in their symbol systems.
factors
Meaning involves specific factors that words or sentences can have. Words or sentences have semantic vectors, giving factor strengths, typically zero. Perhaps, words and sentences have semantic tensors, giving factor strengths and interactions. Vector or tensor sets are contexts.
ambiguity
Human languages are complex and typically have ambiguity, but formal languages do not allow ambiguity.
word in English
English has 5000 to 10,000 basic words.

onomatology
People study name origins and meanings {onomatology}.

polysemy
Words can have multiple related meanings {polysemy}.

production of speech
Processes {production, speech} {speech production} result in saying what one means. Timed, parallel processes connect words and ideas to reach states or sequences that satisfy phonology, syntax, grammar, and semantics constraints. Mostly-automatic processes use word and phrase probabilities. Feedback and feedforward processes adjust expression to content, and vice versa, and change phonetic structure into pattern of motor-nerve signals to speech muscles.

SOCI>Linguistics>Semantics>Meaning

meaning

Words relate to perceptions and actions, how inference rules use them, how they relate to other words, and how grammar uses them {meaning}. Words have linked conceptual, phonological, syntactic, perceptual, and motor structures.

behavior

Meaning can be listener behaviors or reactions, including linguistic reactions. People have behavior patterns {gesture, meaning}, which cause behavior patterns that modify original behavior patterns. Meaning happens in social contexts. Objects do not have intrinsic meaning but only cause behavioral responses.

natural relation

Meaning can depend on natural and physical relations, independent of mind.

causes

Meaning can derive from causes and effects {causal theory of meaning}.

context

Meaningful messages carry context, which receivers use to decipher messages. Meaning can be only useful relative to systems of meanings or relationships. Meaning can be about effects on hearers or readers {tone, speech} {speech tone}, by context or intonation, to arouse, quiet, confuse, or understand. Meaning can be reference and sense understanding.

conventions

Cause-and-effect, similarity, and other relation concepts are social conventions {nomos}. Signs depend on social conventions and minds.

factors

Meaning can involve special factors or features. Factors can interact. Words, sentences, or paragraphs can have or not have factors or have them in different degrees.

mental states

Meaning can involve similarities and differences among mental states.

pattern recognition

Meaning can be pattern recognition. Objects have associated actions and attributes, which are necessary or sufficient conditions. Meaning is not perception, idea, description, or intention.

indexing

Meaning can involve indexing or labeling.

representation and movement correlation

Meaning can be relations that correlate changes or body movements with brain-representation changes. Perception and action always correlate. Motor behaviors and sense generalizations and distinctions evolved in tandem. Decisions depend on meaning.

association

Meaning can be relations among situations, events, or objects and so are classifications or associations. Distinguishing signs can carry meaning about something else, such as act of fleeing. Distinguishing marks can have meaning by convention, such as the word "flee". Meaning can be all words or object associations.

sense qualities

Sense qualities provide symbol references and meaning. Feelings and perceptions have meaning based on sense qualities. Concepts have meaning derived from feelings and perceptions.

shapes

Meaning can derive from similarities of written shapes to natural shapes {picture theory of meaning}.

sounds

Meaning can derive from speech-sound and natural-sound similarities {onomatopoeic theory of meaning}.

symbol

Symbol meaning can be relations to other symbols, which include perceptual, behavioral, and logical information. On the other hand, because symbols themselves have no meaning, relations among symbols have no meaning. Perhaps, semantic data is only syntax and representation, because everything follows laws.

sentence meaning

Sentence meaning is new information about environment. Sentence context, including grammar, determines information and changes with new sentences or words.

statement meaning

Statements are either true or false, must not be vague or ambivalent, must not be paradoxes, and must refer to existing things and events. However, most seeming statements are not statements, because they use words with different meanings in different contexts.

propositions

Meaning can be propositional statements about objects. Meaning can be about sentence types: command, statement, or question.

meaning domain

Meaning is about kinship, color, flora, fauna, weights, measures, military, money, morals, or aesthetics {domain, meaning} {meaning domain}.

meaning postulate

Brain has innate fundamental concepts and combination and inference rules {meaning postulate}. Innate grammar has paradigm and syntax and can construct new sense perceptions, beliefs, and memories.

property list

Attribute or characteristic sets {property list} can give word meaning. Properties do not change, do not interact, and are separate and independent.

use theory of meaning

Meaning is communication, speaking, writing, and social-interaction uses {use theory of meaning}.

SOCI>Linguistics>Semantics>Understanding

comprehension of meaning

Mental processes {comprehension, linguistics} find language meaning.

conceptual structure

Speakers code understanding of physical and social world into mental representations {conceptual structure, semantics}, including perceptions and behavioral patterns. Conceptual structure is independent of language.

context of situation

Children and adults interpret what they hear based on current situation, speaker intention, and audience {context, semantics}. If they understand situation, they can use language appropriate to that situation.

first-person judgment

First-person judgments {first-person judgment} are judgments about humans in general, not just about speaker.

SOCI>Linguistics>Semantics>Reference

reference in language

Denotation relates word or phrase to world part, aspect, or situation {reference, semantics}. All languages refer to things and events. Different symbolic representations can use different languages [Black, 1962] [Butterfield, 1986] [Chomsky, 2000] [Deacon, 1997] [Fodor and Lepore, 1992] [Fodor, 1975] [Fodor, 1987] [Fodor, 1990] [Fodor, 1994] [Geschwind and Levitsky, 1972] [Gunderson, 1975] [Lakoff, 1987] [Loewer and Rey, 1991] [Millikan, 1984] [Millikan, 1993] [Pinker, 1997] [Peacocke, 1983] [Pinker, 2002] [Rey, 1991] [Rey, 1993].

demonstrative meaning

Demonstratives {demonstrative} involving perception have no direct reference or sense to another person. Demonstratives involving first person have direct reference and sense to person. Demonstratives involving second persons, third persons, or objects require sense to determine meaning.

intension

Contexts, words, or phrases have references {intension, semantics}| {intensionality}. Intensional things do not have to be true or exist. In languages {intensional language}, extension can fail, because context does not allow identical sets to substitute. Contexts, words, or phrases also have sense or meaning.

person in semantics

Children learn difference between "you" and "I" and so self {person, semantics}. Children learn about themselves by understanding their relations to other things, not just by association, imitation, or frequency.

color words

Dani (New Guinea) has two colors {color words}: black-blue-green {cool color} and white-red-yellow {warm color}. Languages can have three colors: black, white, and red-yellow. Languages can have four colors: black, blue-green, white, and red-yellow. English has black, brown, purple (violet), blue, green, yellow, orange, red, pink, white, and gray. Russian has black, brown, purple (violet), blue, light blue {goluboy}, green, yellow, orange, red, pink, white, and gray. There is no known physiological basis for these categories.

SOCI>Linguistics>Semantics>Reference>Kinds

conceptual reference

References can be about signals that bring referent to mind without causing response {conceptual reference, semantics}, such as category words.

mimetic reference

References can be about signals that imitate referent {mimetic reference, semantics}, such as same sounds.

proxy reference

References can be about signals that indicate sign {proxy reference, semantics}, such as alarm calls.

SOCI>Linguistics>Semantics>Reference>Token

token in semantics

Objects and events {token, semantics} can persist over time, cause phenomena, and be category members. Tokens refer to category, show category-member uses, and define category. Tokens referring to physical objects have many predicates.

token-reflexive rule

Tokens of "I" refer to whoever produced them {token-reflexive rule}. "I" produces both word "I" and concept "I". References of tokens of "I" refer to token, so token-reflexives cannot identify persons.

SOCI>Linguistics>Semantics>Truth

argument overlap

Propositions represent situations. Propositions overlap {argument overlap} results in understanding.

asymmetric counterfactual

Environments allow some things and do not allow others {asymmetric counterfactual dependence}, and things have relations. Thoughts causally depend on relations among things.

bivalence

Statements are either true or false {bivalence}.

equivocation fallacy in semantics

Correct signs can have more than one meaning {fallacy of equivocation} {equivocation fallacy}. Signs with more than one meaning can cause errors in thought and language.

extension of set

Predicates denote subject or set properties {extension, semantics}.

formal semantics

Formal systems can study semantics {formal semantics}. Formal model-theoretic semantics can create models that make language true. Truth-theoretic semantics can find statements that are true for all models. Semantics {possible world semantics} can create fictional models. Situation semantics can study communicators and communication situations.

SOCI>Linguistics>Semantics>Factors

semantic relations
Meaningful relations {semantic relations} include pairs: origin-destination, action-actor, difference-cause, recipient-method, motive-obstacle, trajectory-instrument, object-vehicle, and time-place [Bilgrami, 1992].

semantic differential
Words and phrases differ {semantic differential} in goodness or badness, strength or weakness, activity or passivity, sentence position, and relation to other words.

semantic component
Word sets can have common factors {semantic component}. Words have semantic components. No semantic component is in all languages. Language independently determines semantic components.

homologue in semantics
Objects {homologue}| can have similar structure.

SOCI>Linguistics>Semantics>Definition

definition in language
Defining words {definition, semantics} {verbal definition} makes well-formed sound sets and points to objects. Objects have previously caused mental concepts to form in minds through visual or aural sense qualities. Mental concepts are word meaning. However, images are not necessarily concepts, thus requiring additional verbal information.
Words can have circular definitions. Words can have legal definitions.
parts
Definitions can have essential portions {class, definition} and auxiliary portions {modifier, definition}. However, many words cannot be so defined. Words can require several essential or auxiliary parts.

connotation
Word sense or context {connotation, semantics}| involves space, time, causes, actions, purposes, explanations, and problems.

denotation
References {denotation, definition}| relates words or phrases to world part, aspect, or situation.

ostensive definition
To show properties, definition can use examples or sample objects {ostensive definition, semantics}| {explanation by examples}. Ostensive definition can prove supposedly a-priori synthetic statements.

SOCI>Linguistics>Semantics>Metaphor

metaphor in semantics
Metaphors {metaphor, semantics} make analogies between two situations.
context
Context explains metaphor, because metaphor purpose was about context, not metaphor's usual meaning.
similarity
Metaphors use similarities between functions and structures, means and ends, conclusions and premises, effects and causes, and bodies and supports.
understanding
Understanding metaphorical language involves different language processes than comprehending literal language. Processes look at context, note that context does not allow literal word interpretation, and look for analogies, metaphors, and figurative language.

interaction metaphor
Meaning arises from actual-topic and analogous-topic interaction {interaction metaphor}.

substitution metaphor

Poetic or ornamental language can replace literal language {substitution metaphor}.

SOCI>Linguistics>Semantics>Kinds

bio-functionalism

Representations represent as evolution designed them to do {bio-functionalism}.

biosemantics

Relation to behavior and/or evolution cause statements to have meaning {biosemantics}.

Cognitive Grammar

Brain grammars {Cognitive Grammar} and semantics {Cognitive Semantics} can relate mental representations to language. Cognitive Grammar has rules to link syntactic categories {readjustment rule}, to link syntax and meaning {projection rule}, to link linguistic to non-linguistic concepts {correspondence rule, semantics}, and to infer concepts from other concepts logically, pragmatically, and heuristically.

empirical semantics

Word meanings are uses in situations {empirical semantics}.

functional role semantics

Meaning depends on possible cognitive uses {functional role semantics} {conceptual role semantics} {inferential role semantics} {procedural semantics}.

hermeneutics

To interpret texts, imagining others' experiences, in other locations and times, allows understanding of word and phrase meanings {hermeneutics}|. Physical data alone cannot explain human action, which needs mental-state analysis and interpretation. In studying and understanding, it is important to know writing style, intended audience, problem, and social and historical context. Writing can be formal or informal.

semiotic materialism

People are entities that make signs {semiotic materialism}: "You are what speaks you."

truth-conditional semantics

Sentence meaning is conditions that make sentence true {truth-conditional semantics} {model-theoretic semantics} {Situation Semantics}. Only whole sentences have meaning.

SOCI>Linguistics>Semantics>Word

parasynthesis

Composition and derivation {parasynthesis} can form words.

SOCI>Linguistics>Semantics>Word>Structure

word conceptual structure

Words can have up to three open arguments {conceptual structure, word} {word, conceptual structure}. First argument is entity, such as event, object, or place. Second argument is token or type of event, object, or place. Third argument is relation.

kernel of word

Word parts {kernel, word} hold basic meaning.

SOCI>Linguistics>Semantics>Word>Subjects

folk etymology

Word changes can make words similar to familiar words, without regard to meaning or real etymology {folk etymology}.

lexicography

People make dictionaries and definitions {lexicography, words}|.

terminology

People study words used in subjects {terminology}|.

vocabulary of words

Average adult English-speaker knows ten to fifteen thousand object names {vocabulary, word}|.

SOCI>Linguistics>Semantics>Word>Relations

acronym

Words {acronym}| can have first letters of phrase words.

antonym

Words {antonym}| can mean the opposite of another word.

cognate word

Words {cognate word} in different languages can have same root.

doublet word

Words {doublet word} can derive from same word but be different in meaning.

eponym

Words {eponym}| can sound similar.

heteronym

Same word spellings {heteronym}| can have different meanings and/or sounds.

homonym

Words {homonym}| can have same spelling and pronunciation as another word but have different meaning.

paronym

Words {paronym}| can derive from same word but have different meanings.

pseudonym

People can use names {pseudonym}| instead of real names.

synonym

Words {synonym, word}| can mean the same as other words.

SOCI>Linguistics>Semantics>Word>Kinds

ghost word

Made-up words {ghost word} can have errors in construction.

loan word

Words {loan word} can come from another language.

neologism

Words {neologism, word}| can be new or have new usages.

partitive

Words {partitive, parts}, such as "some", can denote parts.

patronymic

Names {patronymic}| can identify father.

SOCI>Linguistics>Semantics>Word>Kinds>Natural

natural kind

Terms {natural kind} can be person names or natural substances.

rigid designator

Terms {rigid designator}, such as person names or natural substances, can always mean same thing in physical and all other worlds.

SOCI>Linguistics>Symbol

symbol in linguistics

Physical objects or events {symbol, language} can cause perceptions that label, index, suggest, or reference other perceptions or concepts.
form

Nothing is intrinsically a symbol. Symbols can be diagrams, icons, physical objects, indexes, or names. Symbols can be singular terms, like proper nouns. Symbols can denote classes, like common nouns. Symbols can describe, like adjectives. Symbols can equate, like intransitive verbs.
form: goals

Symbol clusters can be goals, rewards, emotions, and memories. Emotions are symbolic reactions to symbol-cluster changes. Rewards are symbolic consequences of reaching goals.
cause

Marks or signs can stand for other objects and events by resemblance, through cause and effect, or by physical or mental connection. Symbols reference mental representations by rules, such as shape similarity, or by conventions, such as previous cultural references.
properties

Symbols indicate objects and events. Symbols are signs, not what they physically are. Symbols are never more important than objects. Symbols are not concepts or definitions. Symbols have no meaning by themselves.
relation

Symbol-object relationships are one-way. Objects do not reference symbols.
system

Symbol sets can form reference systems, such as alphabets. Symbol sets can add rules to make languages for applying symbols.

singular term

Proper nouns {singular term} can designate particular objects.

SOCI>Linguistics>Writing

writing in linguistics

Writing {writing system} can use pictograms in pictography, logograms in logography, or abstract signs in linear writing. Alphabet letters or characters have basic shapes.

rebus principle

Logograms can denote sounds {rebus principle}|. Added symbols can indicate intended words.

boustrophedon

Lines can alternate direction {boustrophedon}, always go left, always go right, go up and down, or always go down.

acrophony

First word sounds can be alphabet letters {acrophony, writing} {acrophonetic writing}. The first alphabet, Semitic, is an example.

SOCI>Linguistics>Writing>Study

grammatology
People study writing {grammatology}.

graphemis
People study writing systems {graphemis}.

orthography
People study phonetic, syllabic, logographic, or ideographic alphabets {orthography}|.

paleography
People study old writing systems {paleography}.

syllabary
People can list written syllables {syllabary}.

SOCI>Linguistics>Writing>Method

stenography
Machine-typing methods {stenography}| can reduce number of letters for common words, to speed recording.

tachygraphy
Handwriting methods {tachygraphy} {shorthand} can reduce number of letters for common words, to speed recording.

SOCI>Linguistics>Writing>Style

cursive writing
Smooth flowing simplified handwriting {cursive writing}| is for everyday use.

epigraphy
Metal, stone, and clay have writing {epigraphy}.

monumental writing
Writing {monumental writing} can be on buildings and in official documents.

SOCI>Linguistics>Writing>Alphabet

alphabet
Writing systems {alphabet, writing} use units that depend on sounds {phonetic alphabet, writing system}, syllables {syllabic alphabet, writing system}, or words {ideographic alphabet, writing system}.

SOCI>Linguistics>Writing>Alphabet>Linear

Arabic alphabet
Arabic language uses a cursive alphabet {Arabic alphabet}, with words written right to left. Persian language uses Arabic alphabet plus four characters.

Aramaic alphabet
Aramaic language developed an early alphabet {Aramaic alphabet}.

Cyrillic alphabet

In Bulgaria, Cyril and Methodius derived a new alphabet {Cyrillic alphabet} from Greek, as they translated Bible from Greek into local languages in 9th century. Russia, Bulgaria, Serbia, and Ukraine use Cyrillic alphabet.

Devanagaii script
In India, Sanskrit and Hindi in India use a script {Devanagaii script}.

Ethiopian alphabet
Ethiopian language has a distinctive alphabet {Ethiopian alphabet}.

Germanic alphabet
German language uses Roman alphabet {Germanic alphabet} plus special letters, such as ß.

Glagolitic alphabet
Early Slavic languages used an alphabet {Glagolitic alphabet}.

Gothic alphabet
In Bulgaria [300 to 400], bishop Ulfilas invented an alphabet {Gothic alphabet}.

Greek alphabet
Alphabet {Greek alphabet} letters [-800] can be alpha, beta, gamma, delta, epsilon, zeta, eta, theta, iota, kappa, lambda, mu, nu, xi, omicron, pi, rho, sigma, tau, upsilon, phi, chi, psi, omega. Letters have uppercase and lowercase. Though a non-Indo-European language, Etruscan used Greek alphabet.

Hebrew alphabet
Hebrew language uses a distinctive alphabet {Hebrew alphabet}.

Linear A alphabet
Minoan syllabary {Linear A alphabet} had syllable symbols.

Linear B alphabet
Mycenae syllabary {Linear B alphabet} symbols were syllables with one consonant and one vowel. Mycenaeans introduced Linear B writing after they conquered Crete.

ogham
In Ireland [300 to 400], alphabet {ogham} was linear.

Pehlevi alphabet
Old Persian [-200] used a script {Pehlevi alphabet}.

Phoenician alphabet
Phoenicia had first linear alphabet {Phoenician alphabet} {West-Semitic alphabet} [-1700].

Roman alphabet
In Italy [-700 to -600], alphabet {Roman alphabet} {Etruscan alphabet} was linear.

rune of alphabet
Early Germanic tribes developed signs {rune, letter}|. First six runic-alphabet letters are f, u, th, a, r, and k {futhark}.

SOCI>Linguistics>Writing>Alphabet>Logogram

Cherokee alphabet
Sequoia or Sequoyah invented a syllabary {Cherokee alphabet} in North Carolina [1820].

Easter Island alphabet
Easter Island had logograms {Easter Island alphabet}.

Hieroglyphic Hittite

Hittite language had hieroglyphic logograms {Hieroglyphic Hittite}.

hieroglyphics

In Egypt [-3000], ideograph logograms {hieroglyphics, alphabet} were for consonants.

Indus Valley alphabet

In Indus Valley [-2200], alphabet {Indus Valley alphabet} had logograms, not yet deciphered.

Mayan glyphs

In Mexico, alphabet had logograms {Mayan glyphs}.

proto-Elamite alphabet

In Elam, alphabet had logograms {proto-Elamite alphabet}.

Zapotec alphabet

In south Mexico, Zapotec language had logograms {Zapotec alphabet}.

SOCI>Linguistics>Writing>Alphabet>Logogram>Asia

han'gul

In Korea [1446], king Sejong invented script {han'gul}.

hiragana

Chinese can use cursive ideography {hiragana}.

SOCI>Linguistics>Writing>Alphabet>Logogram>Japan

kana alphabet

Japanese can use formal syllable-writing system {kana}.

kana majiri

Japanese can use syllable-writing system {kana majiri}. Because it comes from hiragana, Chinese-ideogram translations use kana majiri.

kanji

Japanese syllable-writing systems {kanji} can have logograms.

katakana

Japanese syllable-writing system {katakana}, derived from Chinese ideograms, is for official documents and science.

SOCI>Linguistics>Writing>Alphabet>Kinds

ideographic alphabet

Writing systems {ideographic alphabet, writing}| can use units about objects, not sounds.

linear writing

Writing systems {linear writing} can use sound-sign series.

logography

Writing systems {logography} can use logograms.

phonetic alphabet

Writing systems {phonetic alphabet, sounds}| can use units about sounds.

pictography

Writing systems {pictography}| can use pictograms.

syllabic alphabet

Writing systems {syllabic alphabet, linguistics} can use logograms about syllables.

SOCI>Linguistics>Writing>Alphabet>Units

glyph sign

Alphabets can have word-like signs {glyph, sign}|.

hieroglyph

In ancient Egypt, pictographs {hieroglyph, picture}| represented words or syllables.

ideogram

Figures {ideogram}| {ideograph} can be for objects or symbols, not sounds. Ideograms can have added unpronounced semantic signs to denote categories.

isotype

Writing can have non-phonetic signs {isotype} of universal meaning.

logogram

Pictured objects {logogram}| can represent objects or sounds. Logograms can represent first word sounds {acrophony, logogram}.

petroglyph

Pictograms {petroglyph}| can be on rocks.

phonetic symbol

In Chinese, symbols {phonetic, symbol} {phonetic complement} within compound ideographs can suggest pronunciation.

pictogram

Pictures {pictogram}| can denote objects and sounds.

SOCI>Linguistics>Writing>Alphabet>Letters

case in writing

Letters can be full-size {uppercase} or smaller {lowercase} {case, writing}.

contraction of words

Words can use apostrophe to show letters that were left out {contraction, word} {word contraction}.

ligature in writing

Two letters can link {ligature, writing}| to improve appearance: ae, fi, ff, fl, oe, and tt.

diphthong

Two letters {digraph} {diphthong, letter}| can represent one sound.

triphthong

Three letters {triphthong} can represent one sound.

zed

Z {zed}.

diacritical mark

Letters can have additions {diacritical mark}| to basic shapes.

SOCI>Linguistics>Writing>Alphabet>Letters>Sign

hard sign
A Russian letter {hard sign}, replaceable by apostrophe, is mute and is only in word middles. Bulgarian pronounces hard sign in word middles but not at word ends.

soft sign
Russian, Ukrainian, and Bulgarian have mute sign {soft sign}, with preceding consonant palatalized.

SOCI>Linguistics>Writing>Symbol

ampersand
& {ampersand}|.

and symbol
& {and symbol}.

asterisk
* {asterisk}|.

at symbol
@ {each symbol} {at symbol}|.

broad arrow
> {broad arrow}.

care of symbol
% {care of}| {account of}.

cents symbol
¢ {cents}|.

copyrighted symbol
(c) {copyrighted}|.

cross symbol
+ {cross symbol}|.

dagger
† {dagger}|.

dash symbol
-- {dash symbol}|.

dollar symbol
$ {dollar}|.

double dagger
‡ {double dagger}|.

double quotation mark
"..." {double quotation mark}|.

etc. symbol

&c. {etc.} {and so on}.

index symbol
   hand with pointing index finger {index symbol}|.

number symbol
   # {number symbol}|.

percent symbol
   % {percent symbol}|.

pipe
   | {pipe symbol}|.

registered trademark
   (R) {registered trademark}|.

section symbol
   § {section symbol}|.

swung dash
   Tilde can have position like dash {swung dash}.

trademark symbol
   (TM) {trademark}|.

SOCI>Linguistics>Writing>Symbol>Punctuation

apostrophe symbol
   ' {apostrophe symbol}|.

backslash
   Virgule can slant in opposite direction {backward slash} {backslash}|.

brace symbol
   Brackets can be curly {brace symbol}|.

bracket symbol
   [] {bracket symbol}| {square bracket symbol}.

colon symbol
   : {colon symbol}|.

ellipsis symbol
   ... {ellipsis symbol}|.

exclamation point
   ! {exclamation point}|.

full stop
   Statements can end with a mark {full stop} {period symbol}.

hyphen
   - {hyphen}|.

paragraph symbol

¶ {paragraph symbol}|.

parentheses
() {parentheses}|.

question mark
Questions end with ? {question mark}|.

quotation mark
"" {quotation mark}|.

semicolon
; {semicolon}|.

single quotation mark
' {single quotation mark}|.

slant bar
/ {virgule} {slant bar}.

slash
/ {slash}| {solidus, slash} {shilling, symbol}.

SOCI>Linguistics>Writing>Symbol>Proofreading

close space sign
Half-circle above space and half-circle below space {close space sign} mean close space.

delete sign
/ {delete sign} means delete character struck through.

insert sign
^ {insert sign} means insert above caret.

move sign
Signs {move sign} mean move farther to left or right: [ ].

paragraph sign
¶ {paragraph sign} means start new paragraph.

pound sign
{pound sign} means insert space.

SOCI>Linguistics>Writing>Symbol>Letter Accent

accent aigue
´ {accent aigue}.

accent grave
` {accent grave}.

acute accent
´ {acute accent}|.

breve symbol
Symbols {breve} over vowels can indicate shortened sound.

caret
  ^ {caret}|.

cedilla
  ç {cedilla}|.

chevron
  ^ {chevron}|.

circumflex
  ^ {circumflex}|.

diacritic mark
  Marks {diacritic}| added to basic letters can change phonemes.

grave accent
  ` {grave accent}|.

macron
  ¯ {macron} over vowel indicates lengthened sound.

quantity mark
  Diacritical marks {quantity mark} can show quantitative accents. Macron is long. Breve is short.

tilde
  ~ {tilde}|.

umlaut
  ¨ {umlaut}| {diaeresis} {trema}.

underscore
  _ {vinculum symbol} {underscore}|.

SOCI>Linguistics>Writing>Symbol>General

good luck charms
  Good luck charms {good luck charms} include shaking hands with chimney sweeps, rolling 7 on two dice, crossing fingers, and finding four-leaf clovers. Charms include horseshoes, horseshoe nail rings, Kewpie dolls, rabbit's feet, three monkeys, 4's, 7's, teddy bears, toadstools, and wishing wells.

ribbons as symbols
  Ribbons {ribbons, contests} for contests are blue ribbon for first place, red ribbon for second place, white ribbon for third place, and other color ribbon for fourth place.

SOCI>Linguistics>Writing>Symbol>Characters

three of completion
  3 {three of completion} is for beginning, middle, and end.

8 symbol
  eternity {8 symbol}.

9 symbol
  evil {9 symbol}.

A-1 symbol
  quality {A-1 symbol}.

SOS signal
  distress signal {SOS symbol}.

V sign
  victory {V sign}.

SOCI>Linguistics>Writing>Symbol>Pictogram

all-seeing eye
  Eye {all-seeing eye} in triangle in circle is for vigilance.

alpha and omega
  beginning and end {alpha and omega symbol}.

ankh
  cross with top loop {ankh}|.

ball and chain symbol
  bondage {ball and chain symbol}.

ballot box symbol
  democracy {ballot box symbol}.

bomb symbol
  nihilism or terrorism {bomb symbol}.

book and candle symbol
  knowledge {book and candle symbol}.

bundle of arrows symbol
  unity {bundle of arrows symbol}.

burning torch symbol
  knowledge {burning torch symbol}.

caduceus symbol
  Medicine symbol has two snakes around pole {caduceus}|.

calumet symbol
  peace {calumet symbol}.

circle symbol
  eternity {circle symbol}.

clasped hands symbol
  socialism {clasped hands symbol}.

cornucopia symbol
  abundance {cornucopia symbol}.

crown and scepter symbol
  monarchy {crown and scepter symbol}.

distaff symbol
   domesticity {distaff symbol}.

eye and nose symbol
   thoughtfulness {eye and nose symbol}.

fasces symbol
   unity {fasces symbol}.

fire and sword symbol
   war {fire and sword symbol}.

five stars
   quality {five stars}.

flabellum symbol
   papal authority {flabellum}.

gargoyle symbol
   vigilance {gargoyle symbol}.

gavel symbol
   democratic government {gavel symbol}.

gong symbol
   beginning {gong symbol}.

green cross symbol
   safety {green cross}.

hakenkreuz
   Nazism {hakenkreuz} {swastika}.

hammer and sickle
   Communism {hammer and sickle}.

hourglass symbol
   time {hourglass symbol}.

infinite cross symbol
   eternity {infinite cross}.

Janus symbol
   beginning and end {Janus symbol}.

lamp symbol
   nurse {lamp symbol}.

mace symbol
   democratic government {mace symbol}.

mask of comedy
   Masks {comedy mask} {mask of comedy}| can have smiles.

mask of tragedy
   Masks {tragedy mask} {mask of tragedy}| can have frowns.

micrometer symbol
   precision {micrometer symbol}.

mirror symbol of truth
   truth {mirror symbol}.

mortar and pestle symbol
   pharmacology {mortar and pestle symbol}|.

nine gates of hell symbol
   evil {nine gates of hell symbol}.

orb symbol
   monarchy {orb with top cross symbol}.

palette symbol
   painting {palette symbol}|.

Phrygian cap symbol
   freedom {Phrygian cap symbol}.

piggy bank symbol
   thriftiness {piggy bank symbol}.

pillar symbol
   stability {pillar symbol}.

raised fist symbol
   threat {raised fist symbol}.

raised gun symbol
   freedom {raised gun}.

raised torch
   truth {raised torch}.

red and white striped pole
   barber {red and white striped pole}.

red cross symbol
   first aid {red cross}.

Rx
   take medicine {Rx symbol}|.

scales and sword
   justice {scales with sword}|.

skull and crossbones
   poison {skull and crossbones}|.

skull and dagger symbol
   threat {skull and dagger symbol}.

sundial symbol

time {sundial symbol}.

three balls symbol
  pawnbroker {three balls symbol}.

tiara and keys symbol
  theocracy {tiara and keys symbol}.

tower symbol
  stability {tower symbol}.

triskellion
  progress {triskellion}.

umbrella symbol
  divine power of Oriental leader {umbrella symbol}.

weathervane symbol
  inconstancy {weathervane symbol}.

whirlagig symbol
  inconstancy {whirlagig symbol}.

white feather symbol
  cowardice {white feather symbol}.

windmill symbol
  idealism {windmill symbol}.

yoke symbol
  bondage {yoke symbol}.

SOCI>Linguistics>Writing>Symbol>People

Amor
  epilogue {Amor}.

angel symbol
  peace {angel, symbol}.

Cousin Michael
  Germany {Cousin Michael}.

Fama
  fame {Fama}.

Father Knickerbocker
  New York City {Father Knickerbocker}.

Father Time
  transience {Father Time}.

Grim Reaper
  death {Grim Reaper}.

Ivan symbol

Russia {Ivan symbol}.

John Bull symbol
England as cartoon person {John Bull}.

Justitia
justice {Justitia}.

Lorelei
seduction {Lorelei}.

Marianne
France {Marianne}.

Mephistopheles
devil {Mephistopheles}.

Pagliacci
prologue {Pagliacci}.

parson with umbrella
prohibition {parson with umbrella symbol}.

Spirit of '76
USA revolution {Spirit of '76}.

St. George symbol
courage {St. George symbol}.

Uncle Sam
USA as cartoon person {Uncle Sam}.

SOCI>Linguistics>Writing>Symbol>Animal

ant symbol
diligence {ant symbol}.

bear symbol
strength {bear symbol}.

beaver symbol
diligence {beaver symbol}.

beehive symbol
industry {beehive symbol}.

bulldog symbol
tenacity {bulldog symbol}.

bull symbol
strength {bull symbol}.

butterfly symbol
inconstancy {butterfly symbol}.

Cerberus symbol

vigilance {Cerberus symbol}.

crab symbol
perseverance {crab symbol}.

crocodile symbol
falsity {crocodile symbol}.

dove symbol
peace or innocence {dove symbol}.

dragon
vigilance {dragon}.

eagle symbol
courage {eagle symbol}.

fox symbol
slyness {fox symbol}.

Gallic cock symbol
courage {Gallic cock symbol}.

griffin symbol
vigilance {griffin symbol}.

lamb symbol
innocence {lamb symbol}.

lion symbol
courage {lion symbol}.

mule symbol
stubbornness {mule symbol}.

owl symbol
wisdom {owl symbol}.

peacock symbol of vanity
vanity {peacock symbol, vanity}.

Serpent Ouroboras biting tail
eternity {Serpent Ouroboras biting tail to make circle}.

serpent symbol for evil
evil {serpent symbol}.

squirrel symbol
thriftiness {squirrel symbol}.

tiger symbol of courage
courage {tiger symbol, courage}.

unicorn symbol virginity
virginity {unicorn symbol, virginity}.

whale symbol
   magnitude {whale symbol}.

white swan symbol
   perfection {white swan symbol}.

wivern
   vigilance {wivern}.

SOCI>Linguistics>Writing>Symbol>Plant

almond symbol
   virginity {almond symbol}.

laurel sign
   victory {laurel symbol}.

lily symbol
   virginity {lily symbol}.

oak branch sign
   victory {oak branch symbol}.

olive branch symbol
   peace {olive branch symbol}.

palm leaf symbol
   peace {palm leaf symbol}.

palm symbol
   achievement {palm symbol}.

wreath symbol
   fame {wreath symbol}, with or without trumpet.

SOCI>Linguistics>Writing>Symbol>Flag

Jolly Roger
   piracy {Jolly Roger}.

red flag
   explosives or revolution {red flag symbol}.

white flag of truce
   truce or surrender {white flag symbol}.

yellow flag
   quarantine {yellow flag symbol}.

SOCI>Linguistics>Writing>Symbol>Magic

hand of glory
   invisibility {hand of glory}.

magic alphabet
   stylized alphabet {magic alphabet}.

mandrake symbol
   invulnerability {mandrake symbol}.

Satan's ram
   {Satan's ram}.

SOCI>Linguistics>Writing>Symbol>Divination

birds symbol
   augury {birds symbol}.

crystal ball symbol
   gastromancy {crystal ball symbol}.

fire symbol
   pyromancy {fire symbol}.

palms symbol
   chiromancy {palms symbol}.

serpents symbol
   augury {serpents symbol}.

smoke symbol
   capnomancy {smoke symbol}.

spirits symbol
   necromancy {spirits of the dead symbol}.

stars symbol
   astrology {stars symbol}.

tea leaves symbol
   future {tea leaves symbol}.

water symbol
   hydromancy {water symbol}.

wind symbol
   aeromancy {wind symbol}.

SOCI>Linguistics>Writing>Symbol>Hermetic

alchemic symbols
   Alchemic substances have symbols {alchemic symbols}.

crucified rose
   {crucified rose}.

crucified serpent
   {crucified serpent}.

dragon of elements
   {dragon of elements}.

fountain of youth
    {fountain of youth}.

hermetic citadel
    {hermetic citadel}.

hermetic sigil
    {hermetic sigil}.

Tarot cards
    Cards {Tarot cards} can add to the ordinary 52 to make 78 cards. Trump cards are for human attributes, desires, or events in life, such as Love trump, Devil trump, and Star trump. Four aces include rods for action, swords for struggle, cups for family, and pences for money. The Fool or Matto is the wild card. Tarot began in Milan, Italy, and Ferrara, Italy [1400 to 1500].

SOCI>Linguistics>Writing>Symbol>China

bat symbol
    longevity and happiness {bat symbol}.

cranes symbol
    longevity {cranes symbol}.

dragon symbol
    good fortune and royalty {dragon symbol}.

geomancer's compass
    {geomancer's compass}.

geomantic diagrams
    eight diagrams {geomantic diagrams}.

geomantic hexagons
    sixty-four hexagons {geomantic hexagons}.

pah-kwa
    Symbol against evil has a symbol {pah-kwa} on one side, a symbol {Monade} on other side, and yin-yang in middle.

phoenix symbol
    peace and prosperity {phoenix symbol}.

pine tree symbol
    longevity {pine tree symbol}.

serpent symbol for creation
    creation {serpent symbol for creation}.

three-legged toad symbol
    fortune and wealth {three-legged toad symbol}.

tiger symbol China
    good gambling luck {tiger symbol, China}.

tortoise symbol
    long life {tortoise symbol}.

unicorn symbol China
  long life and fecundity {unicorn symbol, China}.

yin-yang symbol
  creation-principle {yin-yang symbol}.

SOCI>Linguistics>Writing>Symbol>Japan

horin-rimbo
  wheel of good law {horin-rimbo}.

nade-takara-nusubi
  sacred knot of longevity {nade-takara-nusubi}.

rising sun
  Japan {rising sun symbol}.

three keys symbol
  love, health, and wealth {three keys symbol}.

tomoye
  Shinto universe-revolution symbol {tomoye}.

torii symbol
  Shinto purification symbol {torii symbol}.

SOCI>Linguistics>History

Sumerian linguists
  linguist
  Sumer
  -2000
  Sumerian linguists started language study.

Linear B writing
  inventor
  Crete
  -1400 to -1300
  Linear B writing [-1400 to -1300]
  Mycenaeans introduced Linear B writing after they conquered Crete. In Linear B writing, symbols are syllables with one consonant and one vowel.

linguistics in history
  linguist
  Earth
  -1000 to 2007
  Linguistics includes grammar, language families, language origins, phonetics, and semantics.

Henry Sweet [Sweet, Henry]
  linguist/philologist
  England
  1877 to 1888
  Handbook on Phonetics [1877]; Oldest English Texts [1885]; Icelandic Primer [1888]
  He lived 1845 to 1912.

Antoine Meillet [Meillet, Antoine]
  linguist
  USA
  1912 to 1937
  How Words Change Their Meaning [1912]; Introduction to Indo-European Comparative Linguistics [1937]
  He lived 1866 to 1936.

Kenneth Pike [Pike, Kenneth]
  linguist
  USA
  1954 to 1960
  Language in Relation to a Unified Theory of the Structure of Human Behavior [1954 to 1960: three volumes]
  He lived 1912 to 2000. Synonyms in different contexts are different idea instances {tagmeme} {tagmemics}.
Behavior description can be for actor or inside {emic}. Behavior description can be for observer or outside {etic}. He
invented a language {Kalaba-X constructed language}.

Marija Gimbutas [Gimbutas, Marija]
  linguist
  Lithuania/USA
  1956 to 1965
  Bronze Age Cultures of Central and Eastern Europe [1965]
  She lived 1921 to 1994. She invented Kurgan hypothesis [1956].

Joseph Greenberg [Greenberg, Joseph]
  linguist
  USA
  1963 to 1987
  Studies in African Linguistic Classification [1955]; Universals of Language [1963: editor]; Languages of Africa
[1963]; Language in the Americas [1987]
  He lived 1916 to 2001 and classified world languages [1963] into four families: Niger-Kordofanian, Nilo-Saharan,
Afro-Asiatic, and Khoisan. People came to Americas from Asia in three separate waves with different languages
{Greenberg Theory}: Amerind, Eskimo-Aleut, and Na-Dene.

Francis P. Dineen [Dineen, Francis P.]
  linguist
  USA
  1967
  Introduction to General Linguistics [1967]
  He lived 1887 to 1891.

SOCI>Linguistics>History>Animal Language

R. Allen Gardner [Gardner, R. Allen]/Beatrix T. Gardner [Gardner, Beatrix T.]
  primatologist
  USA
  1969 to 1989
  Teaching sign language to an ape [1969]; Comparative psychology and language acquisition [1980]; Vocabulary
Test for Chimpanzees (pan troglodytes) [1984]; Teaching Sign Language to Chimpanzees [1989: with T. E. Van
Cantfort]
  Beatrix lived 1933 to 1995. After four years of training, the chimpanzee Washoe acquired over 100 signs of
American Sign Language. It heard no other language. Some signs were for general classes, rather than specific objects
and events. Some signs changed or extended. Washoe used sign order and substituted signs with similar meanings or
shapes. However, no primates developed signing themselves. Humans had to teach them. Humans cued chimpanzees to
make signs, and chimpanzees signed to get rewards. Chimpanzees signed to each other socially but not for rewards.

Francine G. Patterson [Patterson, Francine G.]

primatologist
USA
1978 to 1987
Linguistic capabilities of young lowland gorilla [1978]; Koko's Story [1987]
She lived 1947 to ?. The gorilla Koko acquired over 250 signs of American Sign Language and learned spoken English comprehension.

Herbert Terrace [Terrace, Herbert]
primatologist
USA
1979
Nim [1979]
The chimpanzee Nim Chimsky acquired over 125 simplified American-Sign-Language signs.

SOCI>Linguistics>History>Grammar

Panini
linguist
Gandhara (Kandahar), India
-490 to -470
Eight Chapters [-490 to -470: 4000 sutras or grammar rules]
He lived -520 to -460 and wrote Sanskrit grammar that had phonetic system and word analysis.

Stoic linguists
linguist
Greece/Italy
-300 to -100
Stoic linguists studied logic, rhetoric, etymology, language origins, and relations among nouns, verbs, and articles.

Patanjali
linguist/philosopher
Tamil, India
-200 to 200
Great Commentary [-200 to 200: about Panini's grammar]; Discourses on Yoga [-200 to 200: about Raja Yoga or Ashtanga Yoga, including Kaivalya Pada as fourth book]
He wrote about Patanjali Yoga or Raja Yoga or Ashtanga Yoga, one of the Six Schools, Shad-Darsananas, or Classical Systems of Philosophy. Raja Yoga is meditation. Hiranyagarbha started Raja Yoga.
Bhakti Yoga is devotions, prayers, rituals, and worship. Jnana Yoga is using reason to become free of seeing differences. Karma Yoga is service to others.

Katyayana or Varttika-kara or Vararuchi or Vararuci
mathematician/grammarian/Vedic priest
India
-170 to -150
Discourses on Altar Construction [-170: about geometry and altar construction]; Critical Gloss [-170 to -150: about Panini's grammar]
He lived -200 to -140. He was in Aindra grammarian school and lived in northwest India.

Dionysius Thrax [Thrax, Dionysius]
linguist
Thrace, Greece/Alexandria, Egypt
-120
Art of Grammar [-120]
He lived -170 to -90, was Stoic, and wrote comprehensive grammar.

Marcus Terentius Varro [Varro, Marcus Terentius] or Varro Reatinus

linguist
Rome, Italy
-50
On the Latin Language [-50: 25 books]; Agricultural Topics [-50: 3 books]
He lived -116 to -27.

Apollonius Dyscolus [Dyscolus, Apollonius]
  linguist
  Greece
  150 to 200
  Syntax [150 to 200]
  He lived 100 to 200 and wrote about Greek syntax, starting systematic grammar study.

Aelius Donatus [Donatus, Aelius]
  linguist
  Rome, Italy
  353 to 354
  Major Arts [353 to 354]; Minor Arts [353 to 354: about the eight speech parts]
  He taught St. Jerome.

Priscian or Priscianus Caesariensis
  linguist/teacher
  Constantinople
  500
  Foundations of Grammar [500: 18 books about Latin grammar]
  He was Greek and from Caesarea (Cherchell, Algeria).

Sibuyeh or Sibawayh
  linguist
  Shiraz, Persia
  790
  Doctrine [790: Arabic grammar]
  He lived 760 to 793.

Sanskrit grammar
  linguistic school
  India
  800
  Twelve schools of grammatical theory developed, using phonetic systems and word analysis.

Abu Rayhan al-Biruni [al-Biruni, Abu Rayhan] or Abu Reyhan al-Biruni [al-Biruni, Abu Reyhan] or Biruni
  geographer/astronomer/scientist/linguist/mathematician
  Ghazni
  995 to 1040
  Definition [995 to 997]; Chronology of Ancient Nations [1000]; Shadows [1021]; Book of India [1030 to 1040]; Masudic Canon [1000 to 1040: astronomy and trigonometry]; Book of Pharmacy or Book of Medicinals [1000 to 1040: Arab and Indian medicine]; Book of Precious Stones [1000 to 1040: minerals]; Elements of Astrology [1000 to 1040: mathematics and astronomy]
  He lived 973 to 1048, wrote grammar, and calculated latitude and longitude. He measured land in three dimensions {geodesy} {geodetics}.

Claude Lancelot [Lancelot, Claude]/Antoine Arnauld [Arnauld, Antoine]
  linguist
  Paris, France
  1660
  Port Royal Grammar [1660: all languages have similar structure]

Lancelot lived 1616 to 1695. Arnauld lived 1612 to 1694.

Wilhelm von Humboldt [Humboldt, Wilhelm von]
 linguist
 Germany
 1791 to 1828
 Limits of State Action [1791]; Researches into the Early Inhabitants of Spain by the Help of the Basque Language [1821]; On the Dual [1828]; Heterogeneity of Language and its Influence on the Intellectual Development of Mankind [1828]
 He lived 1767 to 1835, wrote about ethics, and studied language types. The three structural-language types differ in morphology and syntax. Sanskrit is syntactically more complex than modern languages.
Politics
 States should ensure property and lives.

Junggrammatiker or Neogrammarians
 linguistics school
 Leipzig, Germany
 1870 to 1880
 All sound changes follow rules, so certain phonetic laws are absolute. It included Karl Verner, Berthold Delbrück, August Leskien, Hermann Paul, Hermann Osthoff, Karl Brugmann, Eduard Sievers, and Wilhelm Braune.

George O. Curme [Curme, George O.]
 linguist
 USA
 1905 to 1935
 Grammar of the German Language [1905 and 1922]; College English Grammar [1925]; Grammar of the English Language III: Syntax [1931]; Grammar of the English Language II: Parts of Speech and Accidence [1935]
 He lived 1860 to 1948 and wrote about syntax.

Otto Jesperson [Jesperson, Otto]
 linguist
 Denmark
 1922
 Language [1922]
 He lived 1860 to 1943 and developed categorical grammar. Specific factors, such as maximum vocal-tract-constriction location, determine speech-sound articulation. Constriction completely closes for consonants like /p/. Nasal passage opens for consonants like /m/. Voicing onset time is immediate for /b/ but delayed for /p/.

John Rupert Firth [Firth, John Rupert]
 linguist
 England
 1930 to 1937
 Speech [1930]; Tongues of Men [1937]
 He lived 1890 to 1960 and developed prosodic analysis.

Leonard Bloomfield [Bloomfield, Leonard]
 linguist
 USA
 1933 to 1935
 Language [1933]; Stressed Vowels of American English [1935]
 He lived 1887 to 1949 and was main developer of immediate constituent grammar and constituent structure.

Kazimierz Ajdukiewicz [Ajdukiewicz, Kazimierz]
 linguist/philosopher
 Poland
 1935 to 1940

Syntactic Connexion [1935]; Empirical Basis of Knowledge [1940]

He lived 1890 to 1963, helped develop immediate constituent grammar, and was analytic philosopher. The same data can have more than one closed and coherent independent description {conventionalism} {radical conventionalism}, from which people can choose based on simplicity, aesthetics, usefulness, ease, or evidence. Two basic syntax categories are sentences and singular terms, which can combine.

Louis Hjelmslev [Hjelmslev, Louis]
  linguist
  Denmark
  1943
  Prolegomena to a Theory of Language or Introduction to a Theory of Language [1943]
  He lived 1899 to 1965 and developed categorical grammar.

Charles Francis Hockett [Hockett, Charles Francis]
  linguist
  USA
  1944 to 1958
  Spoken Chinese [1944: with Chaoying Fang]; Course In Modern Linguistics [1958]
  He lived 1916 to 2001, was Bloomfield's student, and worked on transformational grammar.

Rulon Wells [Wells, Rulon]
  linguist
  USA
  1947
  Immediate Constituents [1947]
  He lived 1919 to ?.

Charles C. Fries [Fries, Charles C.]
  linguist
  USA
  1949 to 1952
  Coexistent phonemic systems [1949: with Kenneth L Pike]; Structure of English [1952]
  He lived 1887 to 1967 and studied grammar.

Yehoshua Bar-Hillel [Bar-Hillel, Yehoshua]
  linguist
  USA
  1950 to 1971
  On syntactic categories [1950]; Quasi Arithmetical Notation for Syntactic Description [1953]; Pragmatics of Natural Languages [1971: editor]
  He lived 1915 to 1975 and helped develop immediate constituent grammar.

Zellig S. Harris [Harris, Zellig S.]
  linguist
  Russia/USA
  1951
  Methods in Structural Linguistics [1951]
  He lived 1909 to 1992 and developed transformational grammar.

Sebastian Konstantinovich Shaumyan [Shaumyan, Sebastian Konstantinovich]
  linguist
  USA
  1951 to 1965
  Structural Linguistics [1951 to 1965]
  He lived 1916 to 2006 and helped develop transformational grammar {applicative-generative grammar}.

Morris Halle [Halle, Morris]
linguist
Latvia/USA
1952
Preliminaries to Speech Analysis [1952: with Roman Jakobson and Gunnar Fant]; On accent and juncture in English [1956: with Noam Chomsky and Fred Lukoff]; Sound Pattern of English [1968: with Chomsky]
He lived 1923 to ?, was member of Prague School, and studied phoneme distinctive features.

Roman Jakobson [Jakobson, Roman]
linguist
Russia/USA
1952
Preliminaries to Speech Analysis [1952: with Morris Halle and Gunnar Fant]
He lived 1896 to 1982, was member of Prague School, and studied phoneme distinctive features.

Noam Chomsky [Chomsky, Noam]
linguist
USA
1957 to 2000
Syntactic Structures [1957]; Review of B. F. Skinner's Verbal Behavior [1959]; Aspects of a Theory of Syntax [1965]; Language and Mind [1972]; Reflections on Language [1975]; Rules and Representations [1980]; Knowledge of Language [1986]; Language and the Problems of Knowledge [1988]; New Horizons in the Study of Language and Mind [2000]
He lived 1928 to ?, studied unconscious and innate language structures, and developed transformational grammar to explain how brain makes language structures. Newborn brain has innate linguistic rules {universal grammar, Chomsky}. Learning a particular language, which has words, sets limited-range linguistic parameters. Expressed language {E-language} depends on internal language {I-language}. Grammars assign structures {logical form} to sentences. Grammars can generate just language sentences {observationally adequate grammar}, give some structure to all sentences {descriptively adequate grammar}, or give structure used by speakers to all sentences {explanatorily adequate grammar}.

Joachim Lambek [Lambek, Joachim]
linguist
USA
1958 to 1988
Mathematics of Sentence Structure [1958]; Categorial and categorical grammars [1988]
He lived 1922 to ? and helped develop immediate constituent grammar.

Eric Partridge [Partridge, Eric]
linguist
New Zealand/England
1965
Usage and Abusage [1965]
He lived 1894 to 1979.

Jerry A. Fodor [Fodor, Jerry A.]
linguist
USA
1975 to 2000
Language of Thought [1975]; RePresentations [1981]; Modularity of Mind [1983]; Psychosemantics [1987]; Theory of Content and Other Essays [1990]; Holism: A Shopper's Guide [1992: with Ernest Lepore]; ELM and the Expert: Mentalese and its Semantics [1994]; Concepts [1998]; In Critical Condition [2000]; Mind Doesn't Work That Way [2000]
He lived 1935 to ?. Putnam and Chomsky influenced him. He developed projection rules to try to formalize semantics and model semantic relations by syntax {proof theory, Fodor}. Brains think using symbol system with syntax and semantics {language of thought, Fodor} {mentalese, Fodor}.

However, mental language must also have meaning and syntax. If mental language is meaningful, then regular language is meaningful, so why have mental language.

David E. Johnson [Johnson, David E.]
linguist
USA
1980
Arc Pair Grammar [1980: with Paul M. Postal]
He lived 1946 to ? and studied grammar.

Derek Bickerton [Bickerton, Derek]
linguist
USA
1981 to 1995
Roots of Language [1981]; Language and Species [1990]; Language and Human Behavior [1995]
Animal calls and signs are structural wholes and have no component parts. Hawaiian immigrants spoke pidgin, and their children spoke creole. Creoles all over world are mostly similar to each other, possibly indicating universal grammar, which has same default settings for creole and young children.

SOCI>Linguistics>History>Invention

pre-cuneiform writing
inventor
Sumer
-3500
pre-cuneiform writing
In first writing system {pre-cuneiform}, styluses indented clay.

cuneiform Sumer
inventor
Sumer
-3500 to -2500
cuneiform writing [-3500 to -2500]
Reed pens drew pictures that represented words or sounds on clay tablets {cuneiform writing}, to record trade and taxes. Pre-cuneiform developed into a system with 200 to 300 simplified sideways pictures.

hieroglyphic script
inventor
Egypt
-3100 to 394
hieroglyph
Egyptian mdju netjer or words of the gods {hieroglyph, script} {hieroglyphics, script} {hieroglyphic script} developed as idealized or sketched picture ideograms, referring to animal characteristics and human gestures. Hieroglyphs face rightward in columns, to read down, or lines, to read right to left. Greeks called it hiera grammata (sacred letters) or ta hieroglyphica (sacred carved letters). Book of the Dead used cursive hieroglyphic script.

phonogram invented
inventor
Egypt
-3100 to 394
phonogram
Hieroglyphs {phonogram, sound} can stand for sounds.

rebus phonograms
inventor
Egypt

-3100 to 394
phonogram
Phonogram series rebuses can be for concepts, opinions, beliefs, commands, requests, and logical relations. Rebuses can have extra end signs {determinative, rebus} to indicate rebus-series subject.

hieratic script
inventor
Egypt
-2500
hieratic script
Cursive script {hieratic script} derived from cursive hieroglyphic script. After -600, it was only for religious documents, because demonic script replaced it.

cuneiform Asia Minor
inventor
Asia Minor
-1500
cuneiform writing [-1500]
Cuneiform writing came from Sumer.

demotic script
inventor
Egypt
-600
demotic script
Cursive script {demotic script} derived from hieratic script. Rosetta Stone has demotic, hieroglyphic, and Greek.

Coptic script
inventor
Egypt
-300
Coptic script
When Ptolemies ruled, script {Coptic script} was like Greek alphabet.

Louis Braille [Braille, Louis]
inventor
France
1821 to 1829
Braille [1821 to 1829]
He lived 1809 to 1852. He invented a printing and writing system using six dots, in two vertical lines of three raised dots each, to represent 63 characters and allow blind people to read by touch {Braille} [1821 to 1829].

Ralph K. Potter [Potter, Ralph K.]
linguist/inventor
USA
1945
sonograph
He lived 1895 to 1980 and invented sound recorder {sonograph} [1945].

SOCI>Linguistics>History>Language Origin

language
language
Earth
-70000 to -60000
Languages began, or at least became significant, 70,000 to 60,000 years ago.

African and Eurasian language divergence
　language
　Africa
　-70000 to -50000
　African and Eurasian languages diverged 70,000 to 50,000 years ago.

Southeast Asian and Eurasian languages divergence
　language
　Southeast Asia
　-60000 to -40000
　Southeast Asian and Eurasian languages diverged 60,000 to 40,000 years ago.

Na-Dene
　language
　Europe/Asia/Caucasia
　-13000
　Perhaps, Chinese, Navajo, Basque, Etruscan, and some Caucasian-Mountain languages had a common ancestor {Na-Dene language}, 15000 years ago.

Nostratic
　language
　Europe/Asia
　-13000
　Perhaps, Uralic, Altaic, and Indo-European languages had a common ancestor {Nostratic language}, 15000 years ago. Uralic was in northeast Europe. Altaic was in central Asia. Indo-European was in Anatolia, Turkey.

Proto-Indo-European
　language
　Russia
　-8000 to -6500
　Languages {Proto-Indo-European language} began in central-Asia steppes among Kurgan horsemen, possibly from Nostratic and/or Na-Dene languages, 10000 to 8500 years ago.
　First Samara and Seroglazovo cultures, then Dnieper-Donets and Sredny Stog cultures of Scythians near lower Volga River to Dnieper River, in central Asia steppe at Urheimat, rode horses and had Proto-Indo-European language [-4500 to -4000]. From them developed Kurgan people [-5000 to -3000], who built kurg burial mounds and spread Proto-Indo-European language from southwest Russia {Kurgan hypothesis}, making Kurgan I, Kurgan II, and then Kurgan III. Maykop culture is in north Caucasus [-4000 to -2500]. Kurgan IV or Yamna culture is in steppe [-4000 to -2500]. Globular Amphora culture began in east Europe [-2500]. Proto-Greeks went to Balkans [-2500]. Proto-Persians went there [-2500].

Chinese writing
　language
　China
　-5500 to -5000
　First Chinese written characters were 7500 to 7000 years ago, along Yellow River.

Sumerian
　language
　Sumeria
　-5000
　Languages {Sumerian language} began 7000 years ago. Sumerian is a separate language family. Akkadian belongs to Afro-Asiatic languages.

Indo-European
　language

Anatolia, Turkey
-4000 to -3000
Indo-European language began among farmers in Anatolia, Turkey, 6000 to 5000 years ago, possibly from Nostratic and/or Na-Dene.

Sanskrit
language
Pakistan
-2000
Languages {Sanskrit language} began 4000 years ago in Pakistan.

SOCI>Linguistics>History>Phonetics

Jacob Grimm [Grimm, Jacob]
linguist/philologist
Berlin, Germany
1811 to 1837
High German Master Song [1811]; German Grammar [1819 to 1837]
He lived 1785 to 1863. As language develops, sound usage shifts according to rules {Grimm's Law} [1822], accounting for sound pairing among languages.

Karl Verner [Verner, Karl]
linguist
Germany
1875
He lived 1846 to 1896. In all languages, sound changes follow same rules {Verner's Law} [1875].

Daniel Jones [Jones, Daniel]
linguist/philologist
England
1909 to 1918
Pronunciation of English [1909]; Outline of English Phonetics [1918]
He lived 1881 to 1967 and invented International Phonetic Alphabet. Cardinal vowels have different articulation places, such as tongue height, mouth front or back, and rounded or unrounded lips.

Nikolai Trubetzkoy [Trubetzkoy, Nikolai]
linguist
Russia/Prague, Czech Republic
1938
Principles of Phonology [1939]
He lived 1890 to 1938 and studied phonemes.

SOCI>Linguistics>History>Semantics

Isidore of Seville
linguist
Seville, Spain
630
Etymologies or Origins [630]
He lived 560 to 636 and translated.

Realist/Nominalist
philosophic school
Europe
1000 to 1400
Realist and Nominalist philosophers studied word and object relations, object classes, and human mind.

William Jones [Jones, William]
   linguist
   England
   1783 to 1794
   Sanscrit Language [1786: nonfiction]; Laws of Manu [1783 to 1794: translation from Sanskrit]; Recollection of Shakuntala [1783 to 1794: translation from Sanskrit of play by Kalidasa. Shakuntala was a beautiful woman.]; Account of Seasons or Cycle of Seasons [1783 to 1794: translation from Sanskrit of poem by Kalidasa]; Gita Govinda or Song of Govind or Song of Divine Love between Radha and Krishna [1783 to 1794: translation from Sanskrit of poem by Jayadeva. Govind is Krishna as Protector.]
   He lived 1746 to 1794 and related Sanskrit, Greek, and Latin by describing similarities among words [1786].

Neolinguists
   linguistics school
   Germany
   1870 to 1880
   Expressive aspects of language are dominant.

Michel Bréal [Bréal, Michel]
   linguist
   Paris, France
   1897
   Essay on Semantics [1897: Metaphors can cause language changes]
   He lived 1832 to 1915. Metaphors are common.

Vilhelm Erik Svedelius [Svedelius, Vilhelm Erik]
   linguist
   Sweden
   1897
   Analysis of Language [1897]
   He lived 1816 to 1889. Event and relation communications differ in meaning and grammar. Relation communications nest and invert phrases. Event communications can use word sequences in event order, with no transformations.

Edward Sapir [Sapir, Edward]
   linguist
   USA
   1921 to 1929
   Culture, Language, Personality [1921]; Status of Linguistics as a Science [1929]
   He lived 1884 to 1939. Language affects thinking {Sapir-Whorf hypothesis} [1929].

Otto Neurath [Neurath, Otto]
   linguist/philosopher
   Vienna, Austria/USA
   1921 to 1935
   Anti-Spengler [1921]; Scientific World-View [1929: with Hahn and Carnap]; Unified Science and Psychology [1933]; Meaning of Rational Consideration and Action [1935]
   He lived 1882 to 1945, was of Vienna Circle of Logical Positivism, and led Unity of Science Movement. Movement tried to unite sciences through characteristic actions.
Epistemology
   People can have knowledge through subjective and historic means. Sentence meaning is the publicly accessible outcome {outcome, meaning} of publicly accessible procedures. Group beliefs establish outcomes and procedures, even in science. Cognitive and scientific meaning requires that sentence be expressible in logical language. People have constructed subjects of discourse without foundations, like boats {Neurath's boat} built while at sea.

Ivor A. Richards [Richards, Ivor A.]

linguist/philosopher
USA
1922 to 1936
Foundations of Aesthetics [1922: with James Wood]; Meaning of Meaning [1923: with C. K. Ogden]; Philosophy of Rhetoric [1936]; Practical Criticism [1936]

He lived 1893 to 1979. He developed Basic English with C. K. Ogden. Metaphor has actual topic, analogy to that topic, something in common between the topics, and reason for using analogy.

Charles Kay Ogden [Ogden, Charles Kay]

linguist
USA
1923 to 1930
Meaning of Meaning [1923]; Basic English: A General Introduction with Rules and Grammar [1930]
He lived 1889 to 1957 and studied semantics.

Alfred Korzybski [Korzybski, Alfred]

linguist
USA
1933
Science and Sanity [1933]
He lived 1879 to 1950 and developed General Semantics, with Hayakawa.

Max Black [Black, Max]

linguist
Azerbaijan/England/USA
1933 to 1983
Nature of Mathematics [1933]; Language and Philosophy [1949]; Metaphor [1955]; Models and Metaphors [1962]; More about Metaphor [1979: in Metaphor and Thought]; Prevalence of Humbug [1983]

He lived 1909 to 1988. Models and metaphors are similar in purpose and use. Different people interpret metaphors in different ways {interaction theory}.

Samuel I. Hayakawa [Hayakawa, Samuel I.]

linguist
Canada/USA
1938
Language in Thought and Action [1938]
He lived 1906 to 1992 and helped develop semantics {General Semantics}, with Korzybski.

Charles William Morris [Morris, Charles William]

linguist
England
1938 to 1968
Foundations of the Theory of Signs [1938]; Signification and Significance [1968]
He lived 1901 to 1979 and studied theory of signs {semiotics}, which has semantics, pragmatics, and syntactics.

Benjamin Whorf [Whorf, Benjamin]

linguist
USA
1940
Science and Linguistics [1940]
He lived 1897 to 1941. Language affects thinking {Sapir-Whorf hypothesis, Whorf} [1940].

Ferdinand de Saussure [Saussure, Ferdinand de]

linguist
France
1949

Course of General Linguistics [1949]

He lived 1857 to 1913 and founded modern structural linguistics {structuralism, linguistics} {structural linguistics}.

Phonemes marks usage differences in sound or symbol systems. Phonemes are not physical, separate, independent elements.

Word values are functions of exchangeable and non-exchangeable words {substitution, word} {word substitution}. Word connections provide word meanings, so word meaning depends on all word values. Speaker and listener vocabularies must be identical to convey full meaning in communication.

Mario Pei [Pei, Mario]

linguist
USA
1954 to 1965
Dictionary of Linguistics [1954: with Frank Gaynor]; Story of Language [1965]
He lived 1901 to 1978.

Herbert Paul Grice [Grice, Herbert Paul] or Paul Grice [Grice, Paul]

linguist
England
1957 to 1975
Meaning [1957]; Causal Theory of Perception [1961]; Utterer's Meaning, Sentence Meaning, and Word-Meaning [1968]; Logic and Conversation [1975]

He lived 1913 to 1988. Speaker meaning is what speaker intended to make happen to audience using words {conversation implicature}. Intention is to modify audience beliefs or behavior, and audience knows intention {reflexive intention}. Meaning is about speaker and hearer mental state. Speaker meaning is first and determining, above word or sentence meaning. Speaker meaning, linguistic meaning, or semantics follows from thoughts. Actual usage does not necessarily reflect thought. Speaker meaning and word meaning can differ.

Jerrold J. Katz [Katz, Jerrold J.]

linguist
USA
1963
Structure of a Semantic Theory [1963: with Fodor]; Semantic Theory [1971]; Integrated Theory of Linguistic Descriptions [1978: with Paul Postal]; Metaphysics of Meaning [1990]

He lived 1932 to 2002 and developed projection rules to try to formalize semantics.

Carl Hempel [Hempel, Carl]

philosopher
USA
1965 to 1966
Aspects of Scientific Explanation [1965]; Philosophy of Natural Science [1966]
He lived 1905 to ? and was logical empiricist.

Description is result of physical laws.

Explanation and prediction differ only in time, because facts are deducible from other facts and at least one law {covering-law model} {deductive-nomological model}.

Sentence meaning is the publicly accessible outcome of publicly accessible procedures. Group beliefs establish outcomes and procedures, even in science. Cognitive and scientific meaning requires that sentence be expressible in logical language.

Psychology can treat internal states of people like black boxes, only checking stimuli and responses {methodological behaviorism}.

Induction can lead to statements but can also lead to statement contrapositives. Contrapositive statements are general, while statements are specific. Evidence for contrapositive statement cannot support statement. For example, "All ravens are black" is logically the same as its contrapositive, "All not black things are not ravens", and both have support from each raven observation {paradox of the ravens, Hempel} {ravens paradox, Hempel}.

Physical and material world concepts always change as people acquire new knowledge, so physicalism and functionalism are not static concepts {Hempel's dilemma}.

Saul Kripke [Kripke, Saul]
> linguist
> USA
> 1972 to 1982
> Naming and Necessity [1972 and 1980]; Wittgenstein on Rules and Private Language [1982]
> He lived 1940 to ?.

Statements can be true and cannot be false {necessary truth, Kripke}, like arithmetical equalities. Statements can be true, though possible to be false {contingent truth}, like historical facts. Some necessary truths are not a priori, because people can learn identities later.

Terms, such as person names or natural substances {natural kind, Kripke}, can always mean same thing in physical and all other worlds {rigid designator, Kripke}. Terms {non-rigid designator}, such as variables or descriptions, can allow different possible values in physical and/or all other worlds. People can use rigid designators to refer to same things to which previous persons referred {causal theory of reference, Kripke}.

However, time can change references.

Necessary identities involve two rigid designators, and contingent identities involve at least one non-rigid designator. Identity theories of mental state and physical state are either necessary identities or one term is non-rigid. They cannot be necessary, because people can imagine mental state, like pain, without physical state. They do not have non-rigid terms, because mental-state instance is essence, not property, and physical state specifies atom positions and motions.

Proper names are always about same object. Proper names can be about people about whom people know nothing more and so have no sense, only reference. Proper names of people about whom people know something else have sense and reference.

People can conceive of matter and consciousness as separate being, so they are both possible, and so must be different, not just different names for same thing or different levels in hierarchy of knowledge or being, because one is objective and one subjective. Mental states, representing ideas, cause linguistic responses, which report mental state using signs. Response pattern depends on similarity or relation, represented by mental state, which people do not necessarily consciously know. Because mental states vary widely, natural occurrences have incompatible expressions.

People think and speak based on social word usage {anti-individualism}. Meaning is normative, as language communities make rules, and relates to individual dispositions. Perception is also necessary for communication about objects.

People can have a priori knowledge of contingent things {mind, Kripke} and empirical knowledge of necessary truths {essence, Kripke}.

Paul M. Postal [Postal, Paul M.]
> linguist
> USA
> 1980
> Arc Pair Grammar [1980: with David E. Johnson]
> He developed projection rules to try to formalize semantics.

John Macnamara [Macnamara, John]
> linguist
> USA
> 1982
> Names for Things [1982]
> He studied naming.

David K. Lewis [Lewis, David K.]
> philosopher/linguist
> USA
> 1983 to 1986
> Philosophical Papers [1983 and 1986]; General Semantics; On the Plurality of Worlds [1986]
> He lived 1941 to ?.

Language and other social conventions developed unconsciously, not by agreement, to coordinate behavior. First, unstructured unrelated signals expressed intention. Later, signals gained structure. Then simple intentions used

conventional form. Finally, sentences used these elements. Complex-expression meanings are functions of component meanings.

Epistemology

Roles in causing organism physical behaviors define mental concepts, states, events, and processes {causal theory of mental concepts}.

Effects depend on their causes, so if there are no such causes, there are no such effects {counterfactual dependence}.

Propositions are about possible worlds and cannot be about impossible worlds.

Properties are about possible subjects of propositions, which can be individual or category sets.

Metaphysics

Reality is local physics, which makes everything else. Quantum mechanically possible worlds are actually real {modal realism, Lewis} and are separate in time and space.