Introduction to Linguistics

Knowledge of Language

Phonetics: Speech Sounds
Phonology: Sound Patterns
Morphology: Word Structure
Syntax: Sentence Structure
Semantics: Meaning
Pragmatics: Meaning in Context

Design Features

1. Arbitrariness
2. Discreteness
3. Rule Governedness
4. Productivity

Approaches

Synchronic: Snapshot, study at different levels
Diachronic: Study changes over time

Origin

Synchronic linguistics in Ancient India (approx 4th century BCE)
Diachronic (historical) linguistics in the West (from 18th century)
Formal linguistics: Language as a formal system (from 19th century)
Sociolinguistics: Study of how language functions in society (from mid 20th century)

Phonetics I

Consonants

Airflow through oral cavity is obstructed

Voicing: Voiced v/s Voiceless, Voiceless are on the left, no vibration of vocal folds
Place of Articulation: Bilabial is furthest out, glottal is deepest (but not in oral cavity)

Manner of Articulation:
Plosive (Oral / Nasal) Stops: Completely blocked
Fricative: Partial obstruction and turbulence
Affricate: Stop and Fricative
Approximants: Liquids (Constriction but no turbulence) and Glides (Semi-Vowels)
Sonorant Consonants: No turbulence, Includes Liquids & Nasals, Not Plosives and Fricatives

	BILABIAL	LABIODENTAL	INTER-DENTAL	ALVEOLAR	POST-ALV.	PALATAL	VELAR	GLOTTAL
PLOSIVE	p b			t d			k g	ʔ
NASAL	m			n			ŋ	
FRICATIVE		f v	θ ð	s z	ʃ ʒ			h
AFFRICATE					tʃ dʒ			
LIQUID (CENTRAL)				r				
(LATERAL)				l				
GLIDE	w					j		

bilabial	[p], [b], [w], [m]	pet, bet, wet, met
labiodental	[f], [v]	fine, vine
interdental	[θ], [ð]	thin, this
alveolar	[t], [d], [s], [z], [l], [r], [n]	tune, dune, soon, zoo, loon, rune, noon
post-alveolar	[ʃ], [ʒ], [tʃ], [dʒ]	ship, genre / measure, chip, gym
palatal	[j]	yes
velar	[k], [g], [ŋ]	kit, gift, king / think
glottal	[h], [ʔ]	hat, uh-oh

	monophthongs				diphthongs			
VOWELS	iː sheep	ɪ ship	ʊ good	uː shoot	ɪə here	eɪ wait		
	e bed	ə teacher	ɜː bird	ɔː door	ʊə tourist	ɔɪ boy	əʊ show	
	æ cat	ʌ up	ɑː far	ɒ on	eə hair	aɪ my	aʊ cow	
CONSONANTS	p pea	b boat	t tea	d dog	ʧ cheese	ʤ June	k car	g go
	f fly	v video	θ think	ð this	s see	z zoo	ʃ shall	ʒ television
	m man	n now	ŋ sing	h hat	l love	r red	w wet	j yes

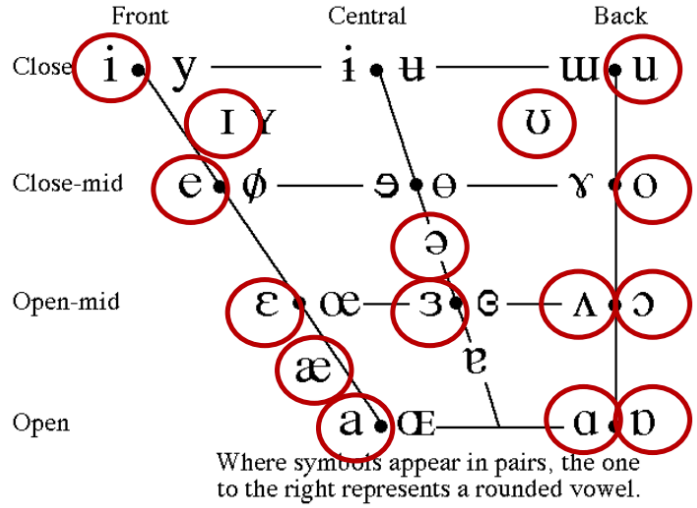
Phonemic Chart
voiced
unvoiced

The 44 phonemes of Received Pronunciation based on the popular Adrian Underhill layout

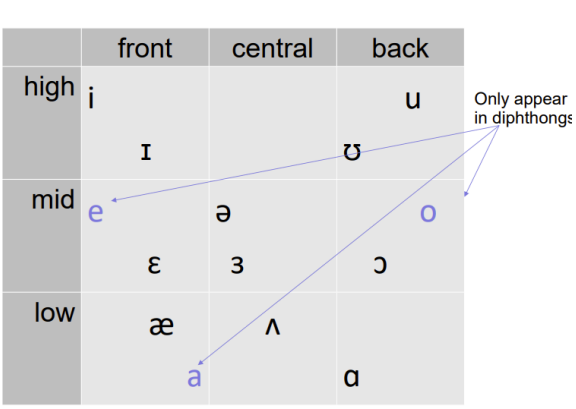
adapted by EnglishClub.com

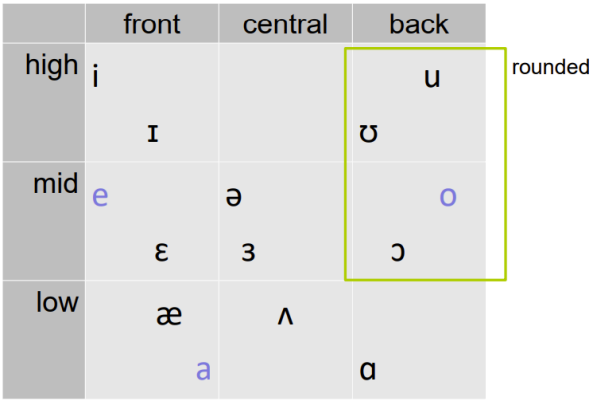
SgE
Final Consonant Devoicing
th/dh Stopping: [θ] as [t] and [ð] as [d]

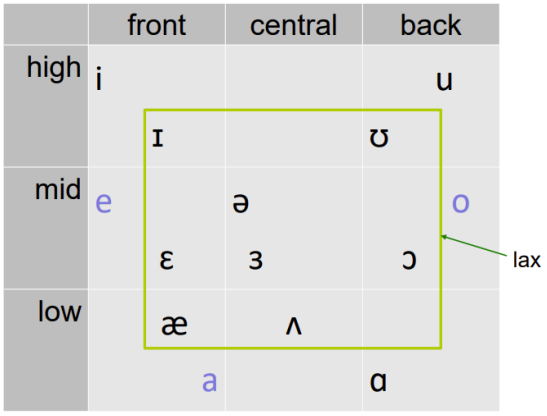
Phonetics II
Vowels
Airflow through oral cavity is not obstructed
Lip Rounding: Rounded v/s Unrounded
Height: Low / Mid / High
Frontness: Front / Central / Back
Tenseness: Tense v/s Lax
Mophthong v/s Diphthong



AmE
Rhotic: [r] following a vowel is retained

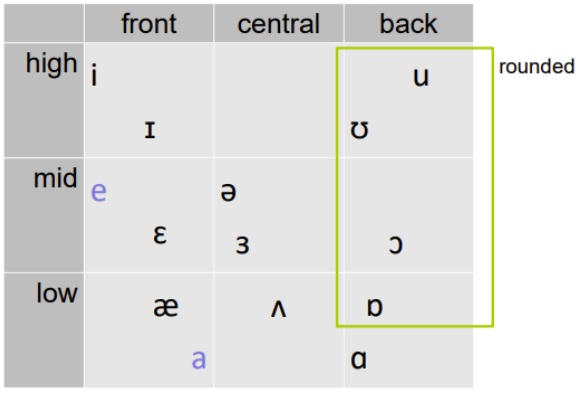


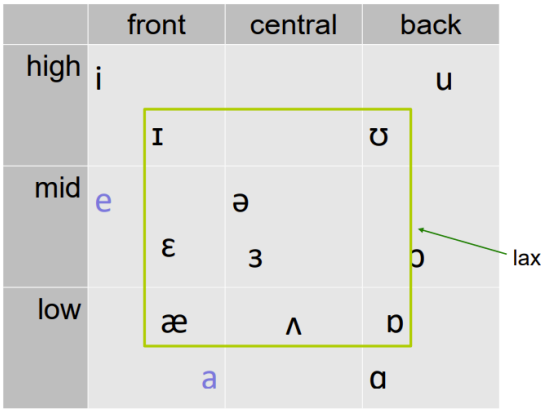




BrE

Postvocalic r: When [r] comes after a vowel and before a pause or consonant, it is deleted and realized as a schwa [ə] or replaced with a long vowel [:]





SgE

No tense-lax distinction

Most Singaporeans delete postvocalic [r]

	front	central	back
high	i		u
mid	e ɛ	ə	o ɔ
low		a	

Summary
Monophthongs: Vowels in steady state from start to finish
Diphthongs: Vowels which move from one state to another

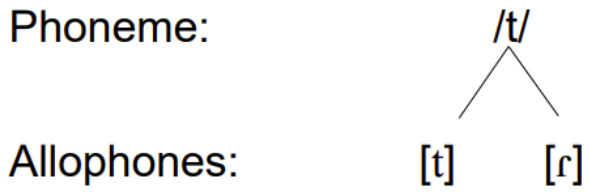
Example	US - GA	UK - RP	SingE
SHEEP	i	i	i
SHIP	ɪ	ɪ	i
SET	ɛ	ɛ	ɛ
TRAP	æ	æ	ɛ
CLASS	æ	ɑ	a
GOOSE	u	u	u
FOOT	ʊ	ʊ	u
STRUT	ʌ	ʌ	a
THOUGHT	ɔ	ɔː	ɔ
LOT	ɑ	ɒ	ɔ
COMM**A**	ə	ə	ə

Example	US (GA)	UK (RP)	SingE
MAY	eɪ	eɪ	e
MY	aɪ	aɪ	ai
BOY	ɔi	ɔi	ɔi
MOW	oʊ	əʊ	o
NOW	aʊ	aʊ	au
NEAR	ir	ɪə	iə
SQUARE	ɛr	ɛə	ɛ(r)
TOUR	ʊr	ʊə	uə(r)
PURE	jɜr	jʊə	jo(r)
NORTH	ɔr	ɔː	ɔ(r)
START	ɑr	ɑː	a(r)
NERD	ɜr	ɜː	ə(r)
WRIT**ER**	ər	ə	ə(r)

Stress
Stress: Emphasis on linguistic unit
Lexical Stress: On particular syllable, higher, louder, and longer
All words have one syllable that receives primary stressed which is marked with [ˈ] before the syllable
Secondary stress is marked with a low apostrophe [ˌ]

Phonology
Phone: Basic unit of speech

Phonemes
Minimal Pair: Changing one phone results in a different word
Contrastive Distribution: Can occur in the same phonological environment forming minimal pairs
Complementary Distribution: Can never occur in the same phonological environment, do not form minimal pairs
Free Variation: Can occur in same environment as different pronunciations but do NOT result in different meanings



Not in contrastive distribution, and are phonetically similar
A phone can be the realisation of more than one phoneme
Identification: Not in contrastive (never appear in same environment and result in different word) and are phonetically similar

Phonological Rules
Basic Allophone: Default realisation
Underline represents current phoneme
Use + and - to represent properties e.g. [+ high] [- voice]
Example: /t/→[ʔ] / _[ən]
Symbols: V (Vowel), C (Consonant), ∅ (Nothing), $ (Syllable Boundary), # (Word Boundary)

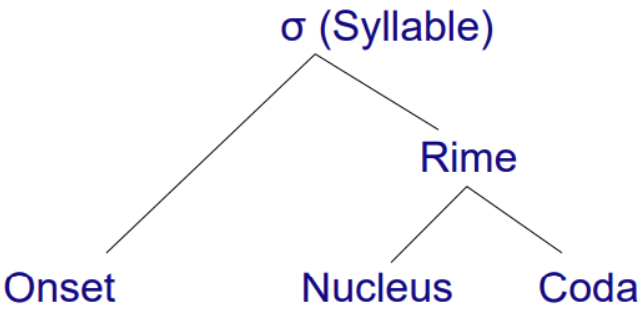
$$A \rightarrow B \,/\, [\text{env. } 1]\_[\text{env. } 2]$$

Phonological Processes
Assimilation: Two nearby sounds become more similar
Dissimilation: Two nearby sounds become more different
Epenthesis: A phone is added
Deletion: Underlying phoneme is not realised on surface phonetic level
Metathesis: Two sounds are switched

Synchronic: Phoneme deleted in certain phonological environments
Diachronic: Phoneme deleted in modern language

Syllables
Phonotactics: Where phonemes can appear
Sonority Hierarchy: How “loud” phones are
More sonorous phones tend to be closer to nucleus
Vowels > Approximants > Nasals > Fricatives > Affricates > Plosives
i.e. Nucleus is usually vowels
All syllables must have a nucleus

Constraints
If the first consonant in a complex onset is not an /s/, the second must be a liquid or glide
If the second consonant in a complex coda is voiced, so is the first


σ (Syllable)
Rime
Onset
Nucleus
Coda

Morphology

Morpheme: Smallest meaningful unit in a language
Bound: Cannot exist on its own
Free: Stands on its own as a word

Affixes

Most bound morphemes are affixes
Affixes must occur more than one in vocabulary, have an identifiable grammatical function or meaning, and be added to a word to modify its core meaning
Prefix: Before word
Suffix / postfix: After a word
Infix: Middle of a word
Circumfix: Surrounding

Productive: New words are commonly / easily made out of the affix
Use TikTok test

Inflectional: Used to express certain grammatical information, word stays at the same part of speech and meaning
Derivational: Creates new word with different meaning, often a different part of speech
Can be Class-Changing or Class-Maintaining

Word Classes

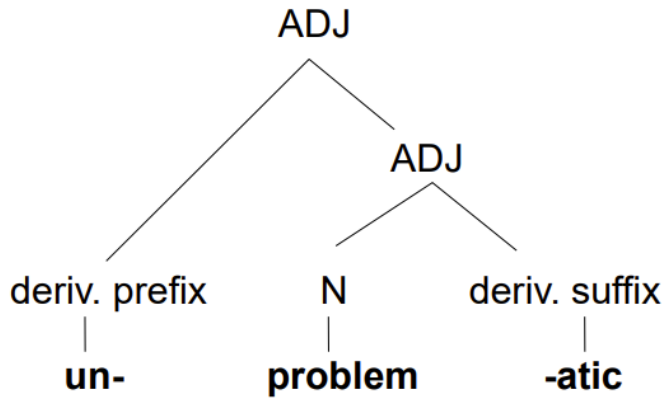
Nouns: Person / animal / thing
Verbs: Action / event / state
Adjectives: Give more information and modify or describe features and qualities of things
Adverbs: Add more information about verb or adjective
Preposition: Describe relationship between words from major word classes
Pronouns: Words which substitute for noun phrases
Determiners: Come before nouns, show what type of reference the noun is making
Conjunctions: Show link between two words or phrases
Interjections: Exclamation words

Allomorphs: Irregular forms of inflectional affixes (e.g. plural that is not -s), different realisations of underlying morphemes
Not necessarily determined by phonological environment

Roots: Morphemes that form the core meaning of the word
Bound roots: Bound morphemes that are roots
Cranberry Morphemes: Bound morphemes with no clear meaning

Compound Words: Contain more than one root
Open Compound Words: Single words conventionally written as two orthographic words
Closed: Written without space
Hyphenated: Written with hyphen between them

Hierarchical Word Structure:
Prevent confusion in word formation



Word Boundaries
Orthography: Are there spaces when written out
Phonology: Stress patterns or phonological rules
Divisibility: Can sequence be divided
Pause: Can speakers put a pause

Lexis: Referring to words
Lexical: Adjective form
Lexeme: Collection of words sharing root
Lexicon: Language's collection of lexemes

Parts of Speech
Content Words: Contentful and provide meaning
Function Words: Serve grammatical functions and indicate relationship between content words

Word Formation
Conversion: Word changes word class with no new morphemes added
Backformation: Word appears to be made up of certain morphemes when it is not, usually from trimming a word
Clipping: Cutting of parts of a word
Blending: Combining Clippings together
Acronym: Initials pronounced as a regular word
Initialism: Words pronounced as letters

Syntax I

Syntax: Study of rules underlying sentence structure
Top-Down: How can we parse a sentence
Bottom-Up: What rules determine how words can fit together

Morphological Tests

Nouns: Can we attach -s to it
Adjectives: Can we attach -ly to it
Verbs: Can we attached -ed to it
Inverse is not necessarily true
Words can belong to more than one word class
Syntactic Frame: What can I put in a blank

Constituents

Units that group together in sentence structure
Phrase: Between word and sentence level
Phrases can be nested in other phrases

Tests

Topicalization: Can it be moved to the front of the sentence
Cleft: It is <> that <>
Psuedocleft: <> is what <>
Substitution: Can the chunk be replaced by a known constituent like Pronouns (that / this) or Proforms (did so / do so / was so)
Deletion: Can the unit be deleted

Phrases

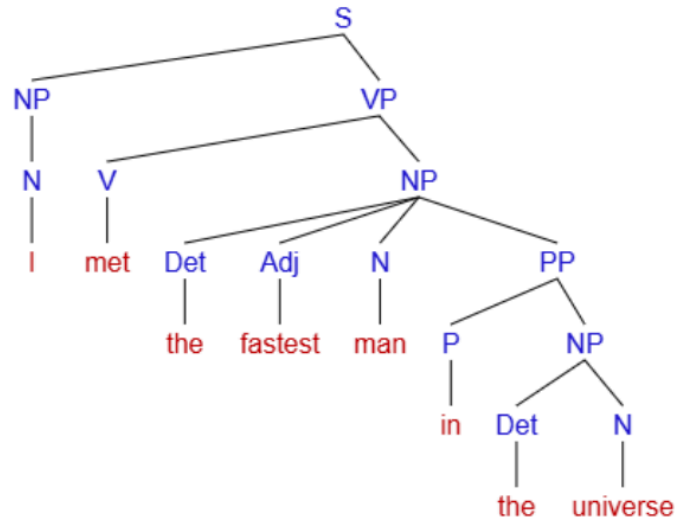
Phrases have an important word known as the head of the phrase
Phrase types are named after word class of head
Test for phrase head: A Y is a type of X

Phrase Rules

Noun Phrases may or may not have determiners, and can have as many adjectives as needed
NP → (Det) (Adj)* N (PP)
() = Optional, * = Repeatable

Syntax II

VP → V (NP) (NP) (PP)
PP → P NP
S → NP VP



Syntax Tree: Shows phrase structures, helps to disambiguate
Constituent: Node that exclusively dominates a sequence and nothing else
Must fully expand NPs!

Sentence Constituents
NP: Subject
VP: Predicate
Main Verb: Crucial component of predicate
Auxiliary Verbs: Modify grammatical function and meaning of main verb

Arguments: Expressions necessary to complete meaning of predicate
Intransitive Verbs: One argument, subject
Transitive Verbs: Two arguments, subject and object
Ditransitive Verbs: Three arguments, subject and two objects
Direct object and Indirect object (can occur with PP)

Adjuncts: Constituents which are not necessary to complete sentence

Extending Sentences
Recursion: Syntactic elements that can infinitely repeat within each other, e.g. PPs and NPs in each other
Coordination: Link constituents of same syntactic class as sisters
Subordination: Adding subordinate constituent as daughter of another constituent

Ambiguity
More than one possible interpretation
Semantic Ambiguity: Relating to Meaning
Syntactic Ambiguity: Arises from multiple possible syntactic structures
Garden Path Sentences: Sentences with partial ambiguity which might lead to misparsing

Word Order

Word Order Topology: Categorise languages by order in which subjects verbs and objects usually occur in sentences
SVO: 42% of languages, e.g. English, Chinese, Malay
SOV: 45% of languages e.g. Tamil, Japanese, Korean
VSO: 10% of languages, Tagalog, Arabic
VOS: 3%
OVS: 1%
OSV: Basically none

Analytic Languages: Almost no inflectional morphology, rely on relatively strict word order and function words to indicate grammatical relationships
Synthetic Languages: Extensive inflectional morphology
Tends to even out in overall complexity
Less inflectional morphology: More complex syntactic patterns, more auxiliary verbs
Smaller phonological inventory: Longer words

Semantics

The study of meaning in language
Meaning as a Description: Use a description to explain a word, but this ends up as a circular definition
Referent: Object or entity to which a word refers
Meaning as referent: Not foolproof, two different words can refer to the same thing but end up with different meanings

Frege's Puzzle: If and b refer to the same object, a = b means the same thing as a = a, but a = b is informative and a = a is a tautology
Meaning: Reference and Sense (Way term refers to referent)

Non-referring expression: Expression with no referent
Truth-value gap: Situation where statement is neither true nor false

Constant reference: Expression that always refers to the same thing
Variable reference: Expression that can refer to different things depending on who is speaking and other factors

Relationships between Words

Homophones: Different words pronounced the same way
Homographs: Words that are spelled the same way
Homonyms: Both homophones and homographs
Polyseme: Word with multiple related meanings

"Type of" relationship
Hyponym: Subset
Hypernym: Superset
Holonym: Has a
Meronym: Part of

Synonym: Both
Antonym: Opposite of synonym
Gradable Antonyms: Each forms one end of a continuous scale
Complementary Antonyms: Not gradable, either one or the other
Relational Antonyms: Each term plays an opposite role

Semantic Shift: Words Change meaning or usage over time
Narrowing: Shift towards more limited meaning
Broadening: Shifts towards more general meaning, e.g. genericisation
Upgrading / Amelioration: Meaning becomes more prestigious over time
Downgrading / Pejoration: Meaning becomes more negative over time

Relationships between Sentences

Truth Tables

Entailment: (a) does not give complete information about (b)
Paraphrases: (a) and (b) entail each other, (a) if and only if (b)
Like synonyms, but for sentences

A	**entails**	**B**
T	->	T
F	->	T/F
F	<-	F
T / F	<-	T

Contradiction: Both cannot be true at the same time

A	**contradicts**	**B**
F	->	T
T	->	F
F	<-	T
T	<-	F

Presupposition: Background, implicit assumptions of a sentence
Not focus of main proposition, remain even after negation
(b) is assumed by (a)
Use negation test to differentiate presupposition and entailment

A	**presupposes**	**B**
T	->	T
F	->	T
X	<-	F
T / F	<-	T

Presupposition Triggers
Name / Definite Description: Existence
Verbs: Factive / Change of State
Clefts
Temporal / Time Word Clauses

Pragmatics
The study of meaning in context

Speech Acts
Locution: What the speaker says
Illocution: The speaker's intention
Perlocution: Resulting effect that the speech act has

Performative Utterances: Neither true or false, change social reality when uttered
Explicit Performatives: Directly perform an action through utterance, involving a performative verb
Formulaic Performative: Does not have a performative verb but involves a conventional phrase used to perform some act
Implicit Performatives: Do not have performative verbs or conventional phrases, but still do something by being uttered

Felicity: Whether something makes sense based on context
Felicity Conditions: Conditions necessary for a performative to be felicitous
Felicity depends on illocution, no perlocution

Searle's Classification
Representatives: Represent speaker's beliefs about the state of the world, can be true or false by checking state of the world
Directives: Direct addressee to a course of action, includes questions
Commissives: Commit speaker to a course of action, indicating intention
Expressives: Express speaker's emotional state
Declarations: Bring about a state of affairs by being uttered

Conversational Implicature
Cooperative Principle: Language is effective due to cooperation and conventions, assume interlocutors will work with each other

Gricean Maxims
Maxim of Quality: Be truthful
Maxim of Quantity: Be as informative as required, not more or less
Maxim of Relation: Be relevant
Maxim of Manner: Be clear and orderly, avoid obscurity and ambiguity

Flouting: Infringing a maxim to generate additional implicit meaning
Conversational Implicature: Implicit meaning generated from flouting of maxim
Sarcasm: Flouting of maxim of quality
Rely on context, do not survive negation tests
Are cancellable

Maxim of Quantity: Use "and not test"
Add "and" plus negated version of proposition
Yields a valid sentence when implicature is cancelled
Fails for entailments and presuppositions

Politeness Theory
Interacting harmoniously with others and avoiding conflict or causing offense

Positive Politeness Strategies: Avoid causing offense by highlighting friendliness and closeness
Negative Politeness Strategies: Avoid causing offense by showing deference

Face: Reputation or public perception
Positive Face: Want that self-image and wants are appreciated and approved of by others
Negative Face: Want to have freedom of action and freedom from imposition
Strategies relate to face wants

Face-Threatening Act: Someone says something that threatens someone's face
Threatening Speaker:
Apologising: Threatens positive face, by admitting they do not meet approval
Thanking: Threatens negative face, by admitting they needed help with something
Threatening Addressee:
Criticism: Threatens positive face, by saying they do not approve of addressee's actions or views
Orders: Threatens negative face, by infringing on addressee's ability to do what they want

Mitigation of FTA
Add positive politeness strategies by showing approval
Add negative politeness strategies by showing deference
Going off record by hinting
Not saying it

Factors affecting Strategies
Social Distance: How well do we know each other
Power Difference: Is one of us in a more powerful social position
Cost of imposition: Is speaker asking for a big favour or talking about a sensitive issue

Sociolinguistics
The study of how language functions in society

Language Variation
Language: Collection of dialects
Accent: Refers to pronunciation
Dialect: Refers includes pronunciation but also lexicon and grammatical structure
Any variety of a language is a dialect
Mutual Intelligibility: Can speakers of two varieties understand each other, but not a straightforward measure
Shaped by political and social factors
Many varieties which are mutually intelligible but distinct languages, and varieties that are not mutually intelligible but are referred to as dialects

Sociolinguistic Knowledge: Understanding of how language is typically used by different social groups in different contexts
Formal Linguistics emphasis categorical rules
Sociolinguistics emphasises probabilistic patterns
Factors Affecting language use: Linguistic factors, Social factors, Stylistic factors (situation)

Language Attitudes:
Standard Language users are rated on status measures like intelligence, wealth, and education
Non-standard Language users are rated on solidarity measures like friendliness, trustworthiness, and kindness
Use of regional linguistic features can form local identity
Social meaning of variant is determined mostly by social status of users
Language use is a reflection of social identity, and part of how you construct it
Language and identity are con-constitutive

Stylistic Variation: How individuals vary language use across situations, e.g. attention, audience, and identity
Speaker-Focused approach: Views speakers as active constructors and performers of styles

Persona: Type of identity that is well known in a community and has certain conventional attributes associated with it

A single linguistic feature can index / point to a wide range of possible social meanings

Language Change
Factors Driving it:
Social Change: Evolution of society, changing concepts and distinctions
Social Structure: Communities where everyone knows each other tend to inhibit change
Mobility and Contact: Contact with new languages and cultures
Imperfect Learning: Children acquiring slightly different language systems from their parents
Changes triggering other Changes: One aspect shifting triggering larger reorganisation
Cognitive Efficiency: Certain types of features and structures may be easier to learn or process

Neuromotor Efficiency: Certain articulatory sequences may be easier to produce

Real-time studies: Analyse data from the same community at different points in time
Apparent-time studies: Treat language across generations as window into how community has changed over time

Language Contact

Lingua Franca: Language used for communication between groups that do not share a native language
Borrowing: One or both languages is influenced by the other, borrowing terms, features, and concepts
Multilingualism: One or both communities become multilingual and learn how to use both languages

Code-Switching: Alternating between languages within a single utterance
Inter-Sentential: Between two sentences or clauses
Intra-Sentential: Within a single sentence or syntactic clause
Tag-Switching: Brief discourse tag not syntactically integrated into the sentence
Syntax of each language must be respected

Contact Language: New language formed that incorporates elements of original languages
Language primarily takes vocabulary from the superstrate language
Takes grammatical and phonological structure from substrate language
Pidgin: Contact language with no native speakers, learned as a second language, generally simpler in structure
Creoles: Contact languages with native speakers, learned as first languages, more complex than pidgins

Argument whether there is unique Singapore English or division into Standard Singapore English and Colloquial Singapore English / Singlish
Colloquial Singapore English is structured like a creole, with English as the Superstrate and Primary substrates being Chinese Dialects and Malay
Endonormative Stabilisation: Singaporeans increasingly orienting to local norms for English rather than eternal norms

Language and Justice

Legal Applications: Making legal arguments and interpreting written laws

Forensic Applications: Solving crimes
Linguistic Fingerprint: Traces authors leave in their writing that can identify them, e.g. Word Choice, Grammar, Spelling and punctuation

Societal Applications: Identifying societal injustice and proposing solutions
Investigating inequalities and biases in society relating to language e.g. accent-based discrimination, police bias in speech

Psycholinguistics
The intersection of psychology and linguistics, a.k.a psychology of language
Stroop Effect: Trying to focus on something else, but brain automatically processes words we see

Characterised by major debates
Does language function in the brain like any other learned human ability, or is it special?
Is language acquired via general learning mechanisms, or is it acquired in a special way?
Are the grammatical rules we observe functioning in language actually active in the brain?
Are the commonalities we observe across languages the result of an innate universal grammar?

Language Acquisition
How do children learn language?
Developed methods for studying child language acquisition e.g. head-turn preference
Newborns are already familiar with rhythms and sounds of mother's languages due to exposure, can identify differences at a few hours old

Perceptual Narrowing: Perception becomes more specialised in the phonology of languages around them as they grow
6 months: React to a difference in sounds that do not contrast in their native language
12 months: Stop reacting

Milestones:
6 months: Babble, responds to name
12 months: Use one or more words with meaning (expressive vocab), holophrastic (one-word phrase), understands simple instructions (receptive vocab)
24 months: Can combine two words into sentences, in the 100s
3 years old: Sentences of at least 3 words, 1000
5 years old: Can pronounce all vowels and most consonants, 1000s to 10000s

Children have different features of languages such as
Non-adult-like phonological features
Overregularisation of past tense forms: Learn them correctly at first, but enter a phase of over-applying regular inflectional rules, demonstrates that they are developing a system of grammatical rules and not just imitation
Some lexical gaps in knowledge
Pragmatically inappropriate use of pronouns
Inconsistent perspective in narration

Mapping Problem: Puzzle of how children learn to attach words to things in the world
Children can learn meanings of words not directly taught through assumptions about meaning and contextual clues
fis Phenomenon: Children's comprehension of language is generally ahead of their production abilities

Universal Grammar: Belief that humans have a set of innate grammatical principles

Poverty of the Stimulus: Claim that children do not receive enough data from their environment to account for everything they end up learning (evidence for Universal Grammar)
Children do not receive much negative evidence such as corrections or information about what types of patterns are incorrect, yet they can still learn what patterns are incorrect
Supporters: Children cannot learn from positive evidence alone, but can learn due to innate UG
Critics: Patterns result from universal characteristics of human cognitive processing and learning, and not from language specifically or UG

Critical Period: Is there a window of age where humans can learn languages?
Children are more successful at learning languages than adults, but why?
Critics argue that children have more time and might take years to acquire certain linguistic features, and learning ability tapers off gradually and not suddenly

Language in the Brain

Methods for Studying:
Direct Investigation: Using imaging tools such as fMRI
Indirect Investigation: Studying cognitive processes and linguistic phenomena

Where in the Brain?

Broca's Area: In the frontal lobe of left hemisphere, important in speech production and to some extent comprehension
Aphasia: Language disorder resulting from brain damage
Broca's Aphasia: Comprehension is relatively intact, but patients are unable to express themselves and producing syntactic structures
Wernicke's Area: Posterior section of the superior temporal gyrus in the left hemisphere, associated with comprehension
Wernicke's Aphasia: Can produce fluent speech with correct syntax, but it often does not make sense with frequent word substitutions, trouble with comprehension
Language is processed primarily in left hemisphere
Right hemisphere is crucial to emotion-related tasks such as understanding intonation
Reading Chinese involves both hemispheres, while reading alphabetic languages is more left-lateralized

Language Production and Processing

McGurk Effect: When combining audio and visual output, people hear something different
We make use of visual articulatory information and combine it with what we hear, but a minority of individuals do not experience this effect or can toggle it
Connectionist Model: Elements of language function as nodes in a neural network
Spreading Activation: When a node is activated, some activation spreads to all connected nodes, and might highly activated node gets selected as output

Language and Thought

Linguistic Determinism / Strong form of Sapir-Whorf Hypothesis: People can only conceive things that are describable in their language
Linguistic Relativism / Weak form of Sapir-Whorf Hypothesis: Some aspects of cognition are influenced by the language one speaks

Linguistic Universalism: Thinking is not affected by individual language differences, some argue thinking happens in a universal metalanguage not affected by spoken language

Thinking for Speaking: If a language uses some type of information, you get in the habit of taking note of it e.g. colour terms

Metaphorical Mappings: Speakers use language of concrete domains to talk about abstract domains, e.g. Spatial Metaphors for time
English and Chinese have horizontal spatial metaphors, but Chinese also has vertical ones
English uses forwards for the future while Chinese use backwards
Experiments found that this affected performance in questions asked about time after spatial tasks were performed that matched spatial metaphors