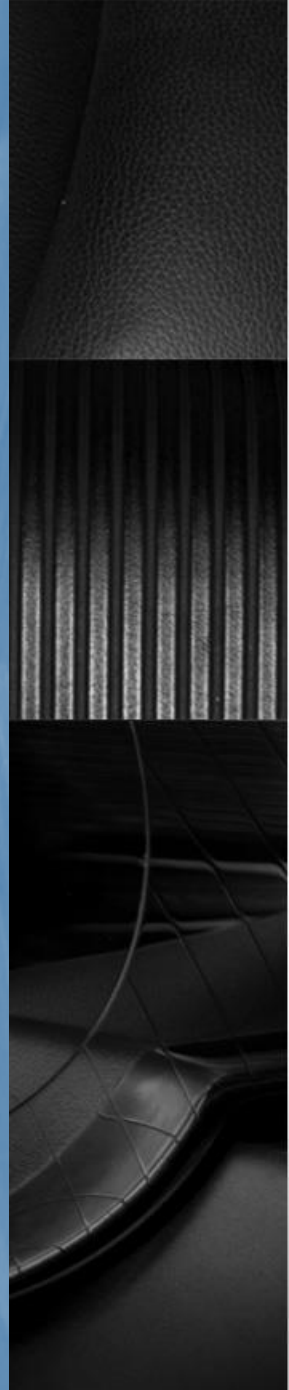


Communication

Language

Verbal Communication





## What is language?

- One definition:

“...a system of symbols and rules that enable us to communicate.”

(Harley, 2014)

- Language is a social activity – a form of joint action where people collaborate in order to achieve a common aim

(Clark, 1996)



## Different fields of study of language

- The study of meanings is known as **semantics**
- The study of word formation is **morphology**
- The use of language is known as **pragmatics**
- An act of speaking or writing which in itself effects or constitutes the intended action is known as **illocution**



## Sapir-Whorf hypothesis (1956a, 1956b)

- Language and Culture
- Additional purpose of language? Evolved to shape our perception
- The Sapir-Whorf hypothesis argues that
  - the form and characteristics of **languages determine the ways in which people think**
  - **different languages will generate different cognitive structures**



## What is communication?

- The transfer of *meaningful* information from one person to another
- Requires that people have a shared understanding of the system used to transfer that information
- Types of communication
  - Verbal
  - Non-verbal
  - Written



## **Face-to-Face Communication (speech)**

- The most personal form of communication
  - Allows for a full range of verbal and non-verbal signals to be used
  - Allows the sender to observe feedback in the receiver

## **Non-Face-to-Face Communication (speech)**

- The telephone
  - What communication techniques are intact/depreciated/missing?



## Non-verbal communication

- Makes up the majority of communication between sender and receiver (DePaulo, 1991)
  - Body position and movements
  - Facial expressions
  - Physical distance
- The main source of 'tells' (discrepancies in message communication)
- Symbolic communication
  - Dress
  - 'The trappings of power'



## Computer-Mediated Communication

- Email, Text and the Internet
  - Recordable communication
  - Paralanguage and the lack of non-verbal communication
  - Deindividuation and barriers



## Verbal Communication

- Verbal channel of communication
  - The channel we *feel* that we use the most
  - The channel we are most consciously aware of using
- Oral
- Written
  - But even in these, there are many subtypes...
    - How do you talk to your friends?
    - Parents?
    - Boss at work?
    - Me?



## Communication Styles

- **Facilitative/equal**
  - Transactional; help team-mates/subordinates express ideas; be supportive
  - Seen as feminine and weak
  - Tactfully assertive
- **Commanding/authoritative**
  - Ensuring the job gets done; task-oriented
  - Seen as masculine and powerful
  - Directly assertive
- Both viewed as productive styles – used to achieve goals or introduce ideas
  - But still need to select the right one to achieve goal



- **Passive-aggressive**

- Nonparticipation; blocking transactional communication
- Indirect

- **Hostile/divisive**

- Counterproductive; usually concerned with achieving an individual's aims over those of the team
- Aggressive

- Both used as unproductive styles – used to achieve personal aims or block the goals of the team

- Both equally devastating to communication in a team, but can stem from very different individual goals or personality traits of the individual concerned

- 
- So what is the difference between being hostile and being 'assertive'?
  - Assertiveness involves clearly getting your point across, not attacking others
  - Using open communication, so allowing others opinions to be aired, not having a closed rant! (Lumsden & Lumsden, 2004)



## Gender Differences in Communication Styles

- Tannen (1990) – women use *rapport-talk* whilst men use *report-talk*
  - Women use language to establish connections and negotiate relationships
  - Men use language to preserve independence and negotiate status
- Is this a difference between men and women, or a difference in power?
  - Do successful women use *rapport* or *report* talk?
  - Probably the latter – communication linked to power in the interaction (Scudder & Andrews, 1995)



## Gender Differences

- Women more likely to use “powerless speech” – qualifiers  
e.g., ‘kind of’, ‘didn’t they?’; rising intonation turning speech into questions  
(Grob et al., 1997; Wieman & Giles, 1988)
- Women interrupt less than men in mixed sex groups
- **Lakoff (1975)**  
Hesitancy, or lack of assertiveness, are markers of a woman’s speech  
But – time-specific? Change over time?



## One-way communication

- Lectures
- Mission statements
- General edicts
- Efficient use of time and money
  - Getting across (a sometimes large amount of) information to as many as possible in the most efficient way
- But takes many things for granted
  - Accepted passivity of the audience
  - Motivation of the audience



## One-way communication

- Need to provide a forum for feedback
  - Unless we don't want it!
  - But this can give rise to other types of communication



## Grapevines

- Informal communication networks
  - Students in the pub
  - Workers in the canteen
  - ‘gossiping’; ‘rumour-mongering’

- An important safety valve?

Or a divisive and malicious underground network?

- Depends on how they are treated in the first place – the agenda of those using them



## Why do grapevines exist?

- Davis (1976) – the negative side of grapevines
  - When there is a lack of formal communication in an environment
  - Insecurity amongst members
  - Conflict between superiors and subordinates ('us' and 'them')
  - Distrust and dislike – using the grapevine for your own personal advantage
  - Need to spread information quickly (can be a positive)

- 
- Zaremba (1988) – the positive side
    - A safety valve that allows frustrations to be aired informally
    - Creates group cohesion and unity
    - A safeguard against management complacency – makes them understand that official information must be passed to others
    - An unofficial way for subordinates to feed back information to superiors as to how they feel about things



It's Time For A Break



**15 MINUTES!**



# **Explanations of Language**



## Chomsky's nativist, linguistic explanation of language development

Assume that language has a structure of grammar that is independent of language use – an independent rule system that determines the sentences that are grammatical or permissible

**Grammars consist of a finite set of rules**, and this set of rules is shared by all the speakers of that language

**The rules allow the generation of an infinite set of mutually comprehensible sentences**



Chomsky – argued that language is innate, species specific and biologically pre-programmed

In Chomsky's approach, the component of the brain devoted to language is referred to as the 'language faculty'

This faculty in its initial state is genetically determined and similar across the human species – with the exception of those with serious pathology (Chomsky and Place, 2000)

The theory accounting for this initial state is known as universal grammar

Universal grammar contains the system of grammatical rules and categories common to all the world's languages

For example, English tends to have a *subject-verb-object* grammar

The majority of the world's languages are SVO languages

Welsh is *verb-subject-object*

*Object-subject-verb*: very rare

“To Dagobah, I must go”





Chomsky (1968) - the language faculty must have at least two components

1. A cognitive system involved in the storing of information

### **Idealised linguistic competence**

Our abstract knowledge of our language

The judgements we would make if we had sufficient time/memory capacity

2. Performance systems that access this information and make use of it in different ways

### **Actual linguistic performance**

Limited by time/memory capacity

Result – errors, hesitations etc.



Proposed that the cognitive system interacts with two performance systems

- The articulatory-perceptual system – (pronunciation)
- The conceptual-intentional – (conceptual system – unique adaptation for communication)



The innate language component traditionally labelled a '*language acquisition device*' or *LAD* (Chomsky, 1965)

Bestows upon the child a host of information about grammatical classes and possible transformations



The LAD operates on raw linguistic data in children's language to produce the particular abstract grammar of the children's native tongue

The innate knowledge must consist of aspects of language that are universal to all languages

Children have the capacity to learn all languages so the LAD cannot be specific



Chomsky's assertions relate to.....

Innate nature of language acquisition

Ability of children to construct language beyond that which they hear in their social world

.....suggests that there is a critical period during which children can best learn language

.....and that children that miss out on this will not be able to learn language fluently (e.g. Genie 'Secrets of the Wild Child')



## Criticisms of Chomsky's approach

Chomsky speaks of the core grammar of a language – but this might be because of an historical accident

Aitchison (1983) – we have an inbuilt puzzle-solving capacity, rather than grammar

Chomsky tends to ignore the fact that we don't all speak in grammatically correct sentences even though we're supposed to know what is and isn't correct

LAD? Evidence that language structure is acquired in a piecemeal fashion over many years



Chomsky also focuses on grammar to the detriment of semantics – meaning –  
*‘colourless green ideas sleep furiously’*

Chomsky disregards meaning and the social situation in which language is normally produced. He disregards in particular the situation in which a child learns his first language

Language input to children– fully formed and responsive – so social interactions form the context for language development (Chapman, 2000)

**Bruner** - Language Acquisition Socialization System (LASS)

Emphasized the importance of the **mother-child dyad** in the child’s acquisition of language

Children learn the language that they have heard their parents speak



# Language and the Brain - The Biological Basis of language

Are language functions localized?

- Knowledge from lesion studies/autopsies
- fMRI – brain-damaged and non-brain-damaged speakers
- Two brain hemispheres partly specialised
- 96% right-handed people/70% left-handed people – language functions predominantly localized in the **left hemisphere**

(Rasmussen and Milner, 1977)
- Same left-hemisphere regions implicated in use of sign language with either hand

(Corina et al, 2003)

- 
- 1950s - Effects of electrical stimulation on brains of surgical epilepsy patients
  - PET and CAT scans – support localisation of language functions
    - \*(positron emission tomography / computerized axial tomography)
  - Early research on brain damaged patients
  - Broca (1860s) - identified the existence of a “language centre” in posterior portion of frontal lobe of left hemisphere
  - Aphasia:  
Partial or total loss of the ability to articulate ideas or comprehend spoken or written language, resulting from damage to the brain caused by injury or disease

**Broca's aphasia** – a language impairment caused by damage to the cortical and sub-cortical tissue in the left frontal lobes ('Broca's area')

- Impaired ability to speak: **Laborious, hesitant, non-fluent speech**
- Vocal apparatus undamaged
- Ability to understand language apparently unaffected



Tan's brain  
- large lesion in the frontal cortex

## Wernicke's aphasia (1874)

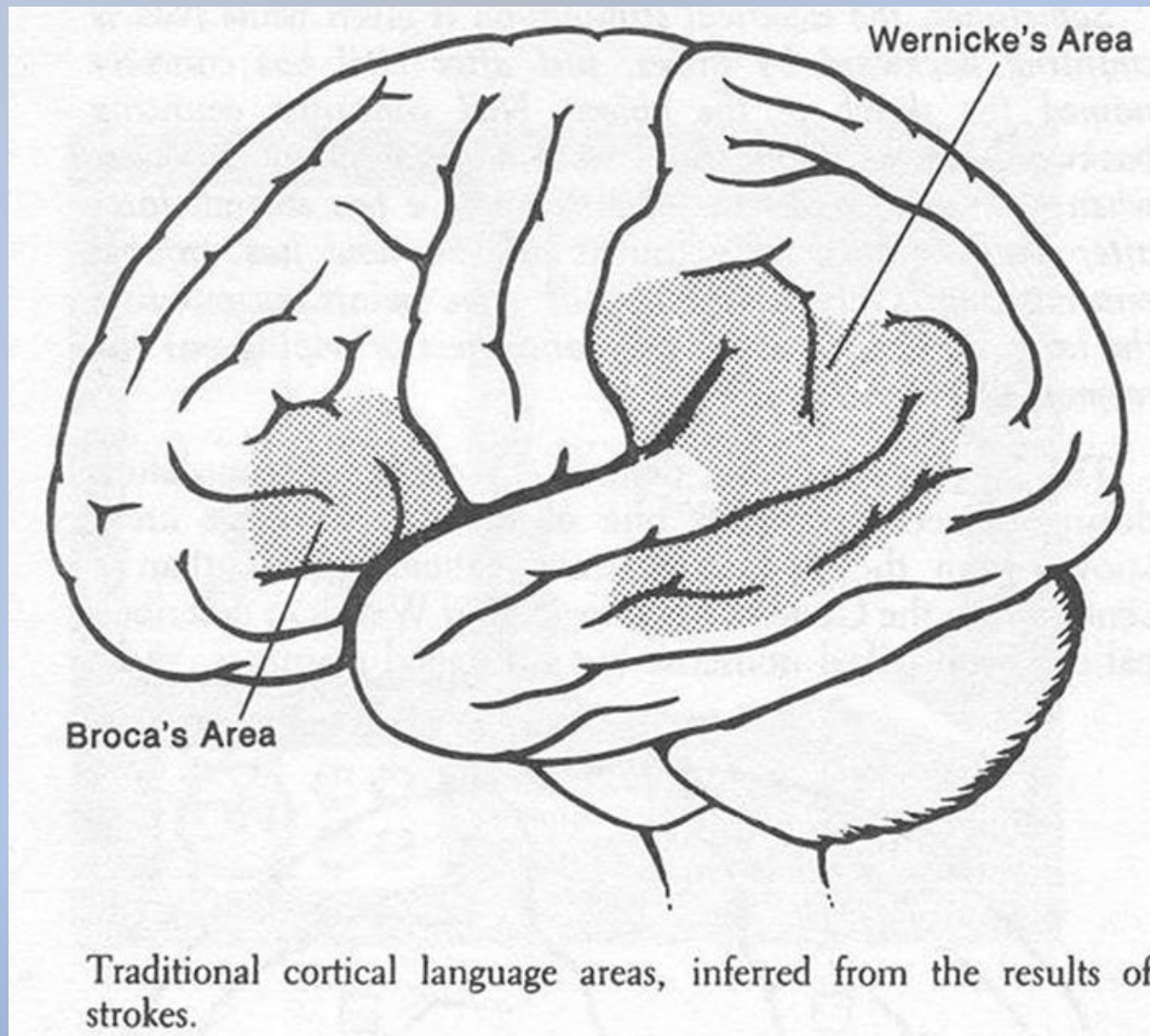
Damage to area further back in left hemisphere

– part of the temporal lobe known as the temporal gyrus

Damage to this area results in:

- Fluent speech that makes little sense (articulate, correct rhythm)
- Severe impairment in ability to comprehend language
- Hearing remains unaffected

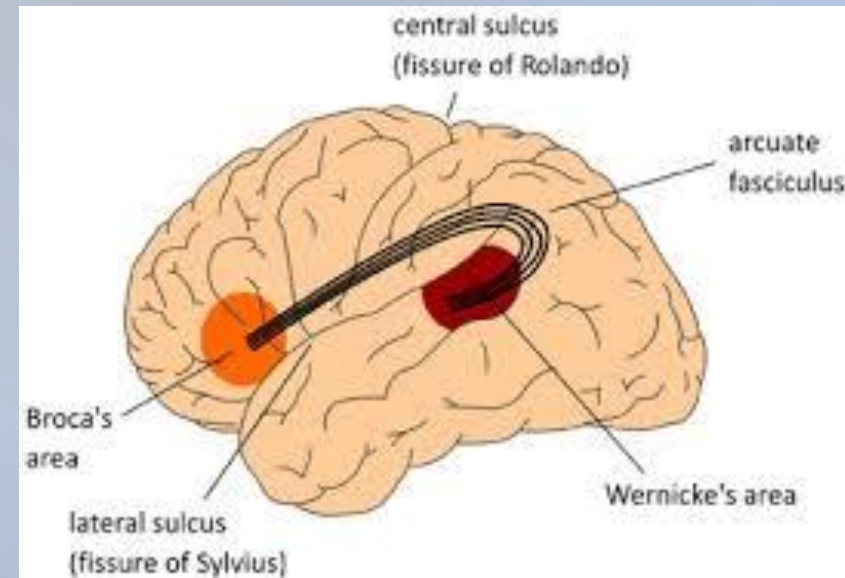




# The Wernicke-Geschwind Model

Asserts that

- **Language generation flows from areas at the back to the front of the left hemisphere**
- Hear word - information transmitted from part of cortex responsible for processing auditory information to Wernicke's area
- If speak that word - information flows to Broca's area where articulatory information is activated
- It is then passed on to the motor area responsible for speech





If read a word:

- Visual area of cortex activates angular gyrus and then Wernicke's area

Damage to arcuate fasciculus:

- Difficulties repeating language
- Comprehension and production remain unimpaired
- A disconnection syndrome – connection between two areas damage without damage to the areas themselves



## Summary

- Communication and Language
- Verbal and Non-verbal communication
- Sapir-Whorf hypothesis
- Communication styles
- Gender differences (e.g. Lakoff – women's speech)
- Chomsky's nativist explanation (LAD), Bruner (LASS)
- Biological basis of language
- Broca's aphasia
- Wernicke's aphasia
- Wernicke-Geschwind model of language organization



# Reading

Gross, R. D. (2010). *Psychology: the science of mind and behaviour (6th ed.)*.

London: Hodder Education.

(Chapter 19. particularly Theories of Language Acquisition)

Harley, T. A. (2014). *The Psychology Of Language: from data to theory (4<sup>th</sup> ed.)*.

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(Chapter 3: The foundations of language)