Name:
Tutor Group:
Topic: 2. Communication (page 113 – 133)

IGCSE

Psychology Revision Workbook

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Communication

Learning objectives:	**I've made revision notes on this**	**'RAG' this objective 1st Attempt**	**'RAG' this objective 2nd Attempt**
Understand and be able to evaluate Piaget's theory.			
Understand and be able to evaluate the Sapir-Whorf hypothesis.			
Understand variations in recall of events and recognition of colours			
Understand differences between human and animal communication.			
Understand the limited functions of animal communication.			
Understand and be able to evaluate Von Frisch's bee study.			
Understand properties of human communication not present in animal communication.			
Understand how to define non-verbal communication and verbal communication.			
Understand the functions of eye contact including regulating flow of conversation, signalling attraction and expressing emotion.			
Understand body language including open and closed posture, postural echo and touch.			
Understand key concepts from research methods topic.			
Understand personal space including cultural, status and gender differences.			
Understand and be able to evaluate Darwin's evolutionary theory of non-verbal communication.			
Understand evidence that non-verbal behaviour is innate.			
Understand evidence that non-verbal behaviour is learned.			
Understand and be able to evaluate Yuki's study of emoticons.			
Understand key concepts from research methods topic.			

Communication Keywords:

Keyword	Definition
Communication	
Language	
Thought	
Cognitive Development	
Egocentric	
Objectivity	
Culture	
Recognition	
Posture	
Touch	
Territory	
Verbal Communication	
Non-verbal communication	
Eye contact	
Body Language	
Closed posture	
Open posture	

Postural echo	
Cultural norms	
Evolve	
Adaptive	
Innate	
Learned	
Neonate	
Sensory deprived	
Demand characteristics	

5.1 What is the relationship between language and thought?

Word bank:	language	communication	growth of language

Although research has found that animals use _____ (see pages 116-118), they do not use _____ like humans do.
Animals are also unable to use complex thought. This may mean that these two skills are somehow connected.
There are different ideas about the relationship between language and thought.

Piaget's theory: language depends on thought

Jean Piaget was very important in helping us understand how humans develop cognitively. He believed that **cognitive development** leads to the _____. This means that we can only use language at a level that matches our cognitive development.

According to Piaget's theory, children develop language in four stages:

	Age of child at this stage:	What development happens at this stage:
Sensorimotor Stage		
Pre-operational Stage		
Concrete Operational Stage		
Formal Operational Stage		

Evaluating Piaget's theory: language depends on thought

Use page 113 to complete the following questions:

1. Who were the participants of Piaget's Study?

2. What are the advantages of observing this type of participant?

3. What are the disadvantages of observing this type of participant?

4. Piaget carried out the research on his own. Why would it make his results more reliable if he involved another researcher?

5. What was Piaget's sample size and how might this affect his findings?

Describe and evaluate Piaget's theory of language and thought. (12 marks)

Use the space below to write a plan for how you will approach this examination question:

Now use the space below to write a response for this question:

Description.....

Evaluation.....

One weakness of Piaget's theory is that it is challenged by the Sapir-Whorf hypothesis, which suggests that language influences thought rather than the other way around. This means Piaget's view may be too...

However, a strength of Piaget's theory is that it is supported by Piaget and Inhelder's research on the Three Mountains Task, which showed that younger children struggle with perspective-taking and mainly use language to express their own viewpoint. This supports Piaget's idea that pre-operational children are...

A limitation is that Piaget's research has been criticised for researcher bias, as many of his studies involved observing his own children or small, unrepresentative samples. This means...

The Sapir-Whorf hypothesis: thinking depends on language

Task: Using the information sheet you are given in class, create a mind map in your exercise book and condense this theory into the following 3 sections:

- Sapir Whorf Hypothesis
- Variation in colour recognition
- Variation in recall of events

The **Sapir-Whorf hypothesis** was developed by _____ and _____. It states that our _____ and _____ are shaped by the language we speak. Different languages lead to _____ ways of thinking and understanding.

Language may:

- Lead us to focus on certain ways of _____ and _____ things.
- Make some ways of _____ easier and more likely than others.
- Lead to _____ bias, where the ability to recall or retrieve certain information is affected.

To support their ideas, Sapir and Whorf studied _____ (native) languages. _____ compared Indigenous American languages with English, highlighting differences in how _____ used words for time and how the _____ had many words for snow.

Even within the same language, cultural and generational differences affect word _____. Words like _____ and _____ have changed in meaning over time, influencing how people think about them.

Word Bank:

Sapir Whorf Thoughts behaviours different seeing understanding thinking memory indigenous Whorf Hopi Inuit Meanings stream cloud

Evaluating the Sapir-Whorf Hypothesis:

S	
O	
D	
A	

5.2 How are human and animal communication different?

Use the top of page 116 to create key points for animal communication:

Animal Communication:

Limited Functions of animal Communication

What properties are only part of human communication?

Highlight key points as you read.

While many animals communicate, human language has unique properties that set it apart. Linguists have identified key design features of language, two of which—productivity and displacement—are believed to be exclusive to humans. While some animals show elements of these features, their communication is far more limited and often influenced by human interaction.

Key Features of Human Language

- Productivity – Humans can create an unlimited number of messages, using language in new and creative ways. In contrast, animal communication is fixed and limited. For example, bees use dance to indicate a food source, but they cannot express concepts like "up" or "down."
- Displacement – Humans can talk about things that are not present and future events, which allows us to plan ahead and discuss abstract ideas. Some animals, like bees, display limited displacement by dancing to indicate food far from the hive, but this is rare.

Can Animals Learn Human-Like Communication?

Koko the Gorilla – Koko learned 1,000 signs and understood 2,000 spoken words. She showed productivity by combining words (e.g., calling a ring "finger-bracelet"). However, this was taught by humans, not naturally developed.

Evaluation: Are These Features Truly Unique?

- Research continues to explore animal communication, and some findings challenge the idea that these features are *only* human.
- However, animals like Koko may simply be imitating rather than using language naturally.
- Ethical concerns exist around keeping wild animals in captivity for communication studies.

While productivity and displacement remain key features of human language, ongoing research helps us better understand the complexity of animal communication.

Using the information above complete the following MCQ questions:

1. What is the primary characteristic of productivity in human language?

A. The ability to communicate only about present events
B. The creation of unlimited messages in new ways
C. The use of fixed and limited communication patterns
D. The ability to dance to indicate food sources

2. How does Koko the Gorilla's communication demonstrate the complexity of animal language acquisition?

A. She developed sign language naturally without human intervention
B. She could only communicate about present objects
C. She showed creativity by combining words like "finger-bracelet"
D. She could only communicate through dance patterns

3. Which statement best describes displacement in human language?

A. The ability to only communicate about present situations
B. The capacity to discuss past and future events
C. The use of repetitive communication patterns
D. The limitation to concrete objects only

4. What key point does the text make about animal communication studies?

A. Animals naturally develop human-like language
B. All animals show displacement in communication
C. Animal communication studies are completely ethical
D. Ethical concerns exist regarding captive communication studies

5. What conclusion can be drawn about animal communication based on the text?

A. Animals have mastered all aspects of human language
B. Animal communication is as complex as human language
C. Animals may be imitating rather than using natural language
D. Bees have unlimited communication abilities

!!!Key study!!!!

KEY STUDY – von Frisch's bee study (1950)

AIM:
to investigate how bees communicate the location of a food source to each other.

RESULTS:
food. When the food waswithin 100 metres, they performed a round dance, moving in circles. For foodfurther away, they performed a waggle dance, where the number of turns in 15 seconds indicated distanceand the straight part of the dance showed directionrelative to the sun.

METHOD:
a field experiment was carried out in the real-life environment of the bees. Researchers created food sources for a hive of bees by placing glass containers of sugar-water at different locations. They also used a hive with glass sides so that the bees' behaviour could be observed easily. Bees were marked with tiny spots of different coloured paints to make it easier to identify them when they returned to the hive. Researchers observed and recorded the movements that the bees made when they returned to the hive after collecting the food.

CONCLUSION:
von Frisch concluded that bees use a variety of different movements to communicate the distance and direction of food sources between each other

EVALUATION:

Which letters from G.R.A.V.E can you apply to the evaluation von Fricsh's bee study (1950)?

Focus	Points with Evidence and Explanation (PEE Format)
G	
R	
A	
V	
E	

Practice Exam Questions:

1. Decide whether each of the following statements is true or false.
   a) Bees do a waggle dance to communicate to other bees that there is a food source close to the hive. (1 mark)
   b) Bees use the straight part of the waggle dance to communicate the direction of a food source to other bees. (1 mark).

2. Using your knowledge of psychology, discuss properties of human communication that are not present in animal communication. [9 marks]

5.3 What is non-verbal communication?

How do we communicate with other people? Write down as many methods that you can think of:

Communication that requires the use of words is called **verbal communication**; for example talking to someone or reading a letter. Communication that does not require the use of words is **called non-verbal communication**.

What does non-verbal communication include?

*** Examination Tip ***

When distinguishing between two terms, remember that examples can be helpful and can help you access maximum marks.

Understanding function of the eye

Read through 'Functions of Eye Contact' on page 122 of the IGCSE textbook. Summarise what research has found about the role of eye contact during communication in the table below in your book.

What the research has found?	What does this mean about the function of eye-contact?
When one person in a conversation wore dark glasses there were more interruptions and pauses in the conversation.	*Eye-contact is important in communication in order to maintain smooth flow of conversation.*

Using the spaces below create a mindmap for each of the following Non-verbal communication points:

Body Language – posture

Touch

Personal Space

Practice Exam Questions:

3. State one function of eye contact. [1 mark]

_____

4. Explain the difference between open posture and closed posture. [3 marks]

_____

_____

_____

5. Describe factors that have been found to affect personal space? [6 marks]

_____

_____

_____

_____

_____

_____

_____

5.4 What is non-verbal communication?

One key idea explaining non-verbal communication is **natural selection**. For an organism to **evolve** successfully, survival and reproduction are essential. Genetic characteristics are more likely to be passed on to successive generations if they help to increase an organism's chance of surviving and successfully reproducing.

The second key idea explaining non-verbal communication is **survival of the fittest**. Successful **adaptive** organisms have changed to fit their situation and environment, and are therefore most likely to survive and reproduce.

Use the space provided to summarise Darwin's evolutionary theory of non-verbal communication:

Evaluation of Darwin's Evolutionary theory:

Which letters from S.O.D.A can you apply to the evaluation of Darwin's Evolutionary theory?

Focus	Points with Evidence and Explanation (PEE Format)
S	
O	
D	
A	

Where does our ability to use non-verbal behaviour come from? Use a highlighter to highlight key words from the points below.

Is non-verbal behaviour innate?	Is non-verbal behaviour learned?
✅ **1. Darwin's Theory** – Facial expressions are the same across all cultures, suggesting they are **innate** rather than learned. ✅ **2. Universal Facial Expressions** – Emotions like anger, disgust, fear, happiness, sadness, and surprise are recognized worldwide. ✅ **3. Papua New Guinea Study** – People from Papua New Guinea used non-verbal communication in a story, and American students accurately identified their emotions. ✅ **4. Neonates and Emotional Expressions** – Babies show facial expressions (e.g., sadness, smiles, disgust, pain, surprise) at a very young age, suggesting they are not learned. ✅ **5. Pre-Cry Expression** – Neonates display sadness before crying, supporting the idea that emotions are innate. ✅ **6. Sensory Deprivation and Learning** – If non-verbal behaviour were learned, people with sensory deprivation (e.g., blindness) would struggle to express emotions in the same way. ✅ **7. Blind Babies Study** – Blind babies smile just like sighted babies, showing that smiling is not learned through vision. ✅ **8. Blind vs. Sighted Athletes Study** – A study of 4,800 photos found that blind and sighted athletes showed similar emotional expressions at key moments, further supporting that non-verbal behaviour is innate.	✅ **1. Some non-verbal behaviour is learned** – While some aspects are innate, research suggests that certain non-verbal behaviours are influenced by experience. ✅ **2. Social Smiles in Athletes** – **8**5% of silver medallists used a social smile (mouth only) rather than a true smile, suggesting they had learned to mask their emotions. ✅ **3. Cultural Differences** – Personal space, touch, and gestures vary across cultures and are **learned by observing others**. ✅ **4. Yuki's Emoticon Study** – Culture affects how we interpret facial expressions, showing that non-verbal communication is partly learned. ✅ **5. Eye Contact and Conversation** – Eye contact is linked to speech and helps conversations flow. It is learned alongside language through social interactions. ✅ **6. Generational Changes** – The way non-verbal communication is used has changed over time, supporting the idea that it is learned rather than entirely innate.

Summarise Yuki's emoticons study (2007) in the summary boxes below:

KEY STUDY –

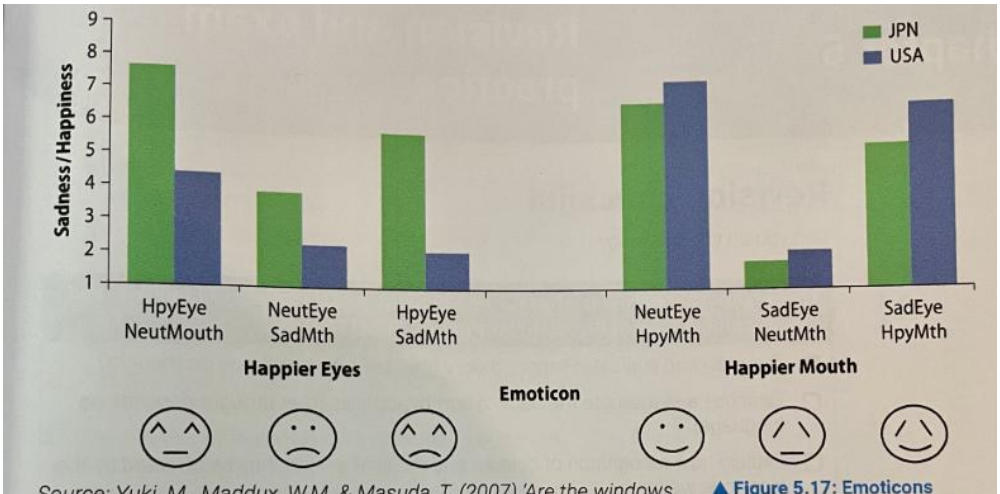
AIM:

RESULTS:

METHOD:

CONCLUSION:

EVALUATION:



Source: Yuki, M., Maddux, W.M. & Masuda, T. (2007) 'Are the windows to the soul the same in the East and West?', Journal of Experimental Social Psychology, 43(2), 303–311.

▲ **Figure 5.17: Emoticons similar to those used by Yuki**