Lecture 4: Hypothesis

A fact is something certain. It can be proved. It exists. Science, however, is not only concerned with what is already known, it is also very much concerned with what remains to be discovered. Exploring zones of doubt and ambiguity, making hypotheses and building models are essential functions of scientific activity.

***Hypothesis** can be expressed in three main ways:*
- *by conditionals,*
- *through the use of certain conjunctions, adverbs and verbs,*
- *by modals (see Unit 9).*

In this section, we focus on the different forms and uses of the conditional. Conditionals link two ideas – a hypothetical cause and its result.
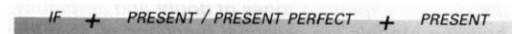*Compare:* ➤ *I gave her some medicine when she was ill.*
                 ➤ ***If** she was ill, I **would** give her some medicine.*
In the first sentence, the illness is a fact. In the second it is only a hypothesis. In the first sentence the patient gets some medicine. In the second, she doesn't.
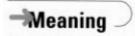
Functions & Grammar

KEY POINTS – CONDITIONALS

1. Verb forms
→ There are four different forms of the conditional.

■ *The timeless conditional*

IF + PRESENT / PRESENT PERFECT + PRESENT

➤ **If** water **boils**, it **produces** steam.
➤ **If** water **has boiled**, it **is** safe to drink.

→Meaning

Conditions which are **invariably true** – therefore timeless.
Typically, this form is used to express **scientific facts** and **logical links**.

❚ The first conditional

IF + PRESENT / PRESENT PERFECT + FUTURE (WILL)

➤ **If** you boil the water, it **will produce** steam.
➤ **If** the low atmospheric pressure **continues**, there **will** be rain.

→**Meaning**

Potential future events and situations.
Used for **predictions**, **potential consequences** and **warnings**.

❚ The second conditional

IF + PAST + CONDITIONAL (WOULD)

➤ **If** it **snowed**, she **would** not come.
➤ **If** I **had** more money, I **would** help you.

→**Meaning**

Speculation, **unreal** or **imaginary situations** which are not very likely to happen.
N.B. – The difference between the first and the second conditional is **not** a difference
in time – it is a difference in the **probability** of the **condition**.
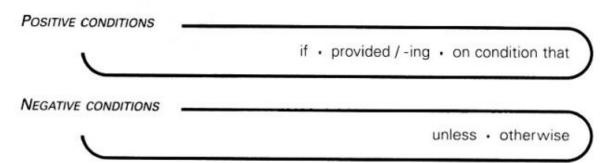
❚ The third conditional

IF + PAST PERFECT + PAST CONDITIONAL (WOULD HAVE + P.P.)

➤ **If** Napoleon **had invaded** England, French **would have become** the
language of science.
➤ He **would have** avoided the accident if he **had left** earlier.

→**Meaning**

Reference to events and results in the past that **did not occur** because the
conditions were **not fulfilled** [G. Notes 19].

2. Conjunctions
→ "If" is not the only conjunction used to introduce conditions.

POSITIVE CONDITIONS

if · provided / -ing · on condition that

NEGATIVE CONDITIONS

unless · otherwise

➤ We will go swimming tomorrow **unless** it rains.

3. Lexical expressions

→ There is a restricted number of lexical expressions which can have a conditional meaning.

- a requirement · a prerequisite
- to depend on · to require
- it is necessary · essential

➤ *My visit **depends on** the weather.* (if the weather is bad, I won't come)
➤ *Hygienic conditions are a **prerequisite** for surgical intervention.*