Lecture 3. Theory, Model, Algorithm. Modeling the Process of Translation

- Translation is the process or result of converting information from one language variety into another.
- The aim is to reproduce as accurately as possible all grammatical features of the 'source language' original by finding equivalents in the 'target language'.
- At the same time all factual information contained in the original text must be retained in the translation

Translation can refer to

- ***Translating*** (the process, the activity)
- ***A translation*** (the product of the process of translating, the translated text)
- ***Translation*** (the abstract concept which encompasses both the process of translating and the product of that process)

Theory of translation

- To be comprehensive and useful must attempt to describe and explain both the process and the product

The process of translation

- Is essentially mental rather than physical.
- To describe it we are committed to undertaking the investigation within the discipline of psychology and within the framework of psychological studies of perception, information processing and memory; cognitive science.

- As the process crucially involves languages we need to draw on the resources of linguistics and, more precisely, psycholinguistics and sociolinguistics.
- Psycholinguistics examines the process in the mind of the translator
- Sociolinguistics places the SL and TL in their cultural contexts

3 key issues of The process of Translation

1

The problem of equivalence between texts and the extent to which it is desirable or possible to preserve the semantic and/or stylistic characteristics of the SLT

3 key issues of The process of Translation

2

- The notion of the rule; the distinction between the constitutive rule which defines an activity and the regulative rule which constrain the activity by reference ro predefined norms of behavior which are often assumed rather than explicitly stated

3 key issues of The process of Translation

3

- The need to recognize and act upon the distinction between translation as a process, as product and as concept

What is translator?

- All communicators are translators.
- They receive signals (in speech and in writing) containing messages encoded in a communication system which is not identical with their own
- Any model of communication is at the same time a model of translation, of vertical or horizontal transfer of significance.

The translator

- is a bilingual mediating agent between monolingual communication participants in two different language communities. S/he decodes messages transmitted in one language and re-encodes them in another. It is re-encoding process which marks the bilingual translator off from the monolingual communicator.

The translator

- Like other communicator lives in the world of the senses through which perceptions are integrated as concepts, experiences can be recalled and even relived through the systems of memory

It is essential to distinguish between

- Sensation—receiving stimuli from the outside world through the senses

- **And**

- Perception –the organization of these impressions into an endlessly varied but stable and consistent world with agreed dimensions of space and time

Central to the process of sensation and perception are

- ***Aggregate***
  - ***Whole***
  - ***System***

- which are interrelated

Sense and perception

Aggregates

- Consisting of sensory stimuli are perceived as

- **Wholes**

- Whose cohesive character is conceptualized

- **a System**

- Chaotic aggregates which are fed up into mind through the senses have boundaries put around them by the processes of perception and are thus converted into information-bearing wholes

- The aggregates and wholes are substantial things in the real world whereas the system is abstract and exists (if at all) in the mind

What do communicators know about the language?

Knowledge of the options available for

- Converting amorphous ideas into concepts which are organized into propositions (semantic knowledge)
- Mapping propositions which are universal and not tied to any language onto the clause-creating systems of a particular language (syntactic knowledge)
- Realizing clauses as utterances and texts in actual communicative situations (rhetorical knowledge)

The translators

- Are more consciously aware of language and the resources it contains than monoligual communicators are.

- Both possess procedural knowledge (they know how operate the system) but translators also possess factual knowledge (knowing that the system has specific characteristics)

Model of monolingual communication

- The sender selects message and code
- Encodes message
- Selects channel
- Transmits signal containing message
- Receiver receives signal containing message
- Recognizes code
- Decodes signal
- Retrieves message and
- Comprehends message

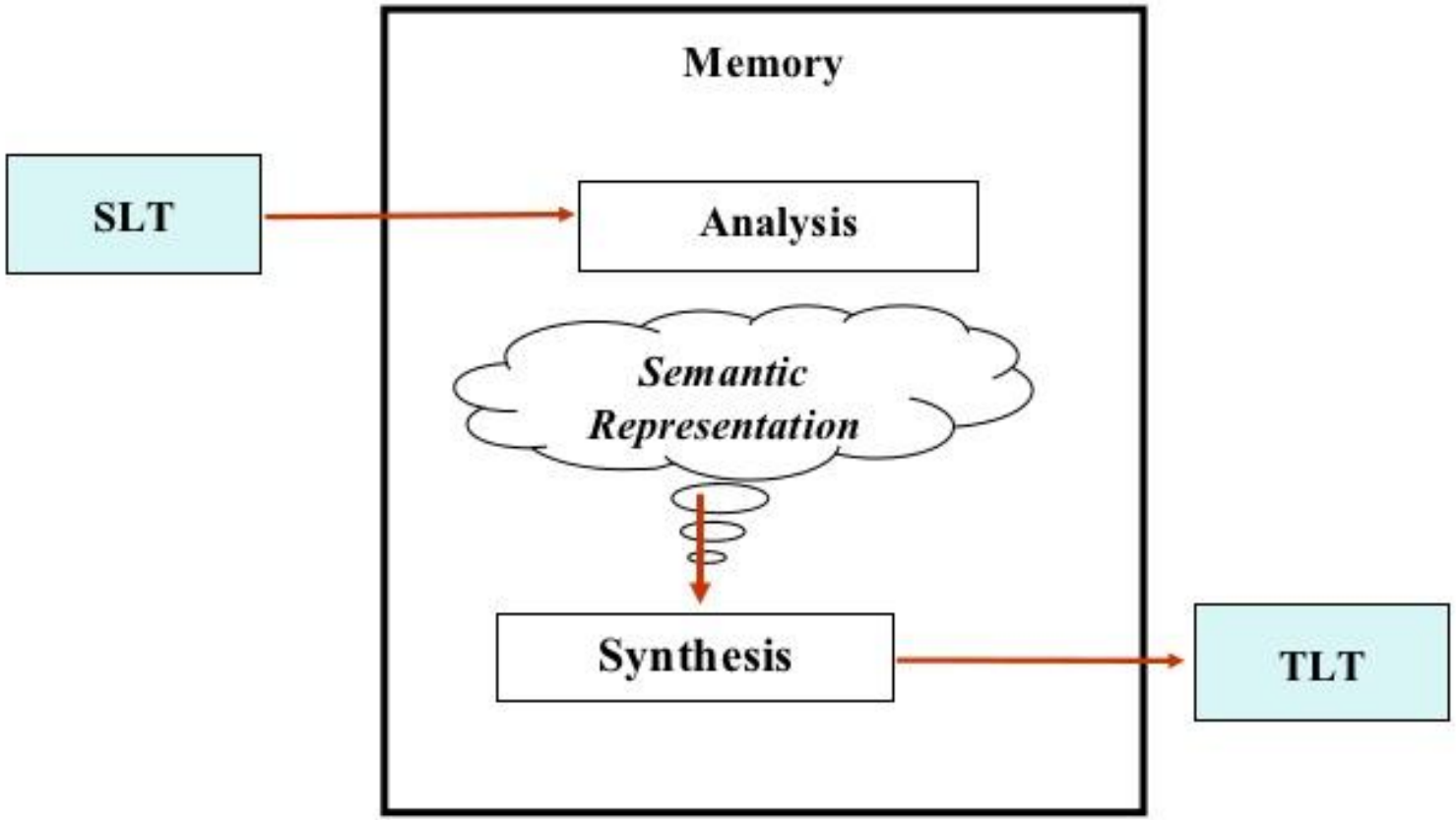
Model of the process of translation

- Translator receives signal 1 containing message
- Recognizes code 1
- Decodes signal 1
- Comprehends message
- Translator selects code 2
- Encodes message by means of code 2
- Selects channel
- Transmits signal containing message

- **Psycholinguistic explanation**
- focuses mainly on steps 7 and 3 (decoding and encoding)
- **Text-linguistic/ sociolinguistic explanation**
- focuses more on the participants, on the nature of the message and on the ways in which the resources of the code are drawn upon by users to create meaning-carrying signals and the fact that sociocultural approach is required to set the process in context.

The Translation Process

(Bell, 1991:21)



What is translation theory?

- It is inappropriate to expect that a theoretical model of translation should solve all the problems a translator encounters. Instead, it should formulate a set of strategies for approaching problems and for coordinating the different aspects entailed

- Chaotic aggregates which are fed up into mind through the senses have boundaries put around them by the processes of perception and are thus converted into information-bearing data (wholes).

- The explanation of the system is the theory of the scientists which, when passed on to others, is realized as a model

Perception and enquiry

- PHENOMENA are observed and collected in the form of DATA whose cohesive character is explained by a THEORY which is transmitted to others in the form of MODEL

- Neither psycholinguistics nor neurology can yet provide reliable information on how linguistic data are stored in the brain, how linguistic matching procedures take place and what mental structures are active in recalling linguistic information

Theory, Model, Algorithm

A model is attempt at a description rather than an explanation.
An explanation is a theory.

A theory

- Is an explanation of a phenomenon, the perception of system and order in something observed. It exists in the mind. It has no tangible manifestation. It is an idea which constitutes the internal representation of a phenomenon (e.g. my own idea of the layout of the actual London Underground system)

Theory

- A statement of a general principle, based upon a reasoned argument and supported by evidence, that is intended to explain a particular fact, event or phenomenon, i.e. while a model answers the question 'what?', the theory answers the question 'why?'

Theory of translation entails

- A theory of translation as a process
- A theory of translation as a product
- A theory of translation a both process and product

A theory of translation as a process

- Would require a study of information processing and such topics as perception, memory and the encoding and decoding of messages and would draw heavily on psychology and on psycholinguistics

A theory of translation as a product

- Would require a study of texts not merely by means of the traditions levels of linguistics analysis (syntax and semantics) but also making use of stylistics and recent advances in text-linguistics and discourse analysis

A theory of translation a both process and product

- Would requre the integrated study of both and such a general theory is, presumably, the long-term goal for translation studies

Requirements for the theory

- Empiricism (it must be testable)
- Determinism (it must be able to predict)
- Parsimony (it must be simple)
- Generality (it must be comprehensive)

Possible expectations from a theory of translation

- Statements of the conventions which constrain the activity of translation rather tan definitions of rules which determine it.
- Models which offer probabilistic post fact explanations of what has been done, rather than deterministic a priori models which claim to predict what will be done
- Models of the dynamics of the process itself rather that static descriptions of the structure of the products
- Indications of the relationships which exist between translation and communicative competence, discoursal coherence and appropriateness

A model

- Is an external rather than internal representation of the explanation; a realization of the theory. It exists as tangible object (a diagram, a formula, a text) which stands for the idea embodied in the theory.
- E.g. London Underground system is represented by 2 different kinds of maps
  - The schematic plan in which stations are shown equidistant, lines are not curved etc. and
  - A map in which the lines are drawn in relation to the roads under which they run or which they cross

Requirements for the model

1. It must fully represent the theory that is stands for i.e. indicate what the phenomenon really is rather than what it appears to be
2. It must do this by revealing significant characteristics of the phenomenon explained by the theory. It shouldn't be a copy of the original phenomenon. It should focus attention on those parts of the phenomenon which are considered to be more essential by the theory

Requirements for the model

3. It must have a heuristic function; making it easier to grasp the explanation (i.e. the theory) and doing that in a way which makes further study easier and leads to deeper understanding. This is achieved by means of analogy. A model proposes that we view a phenomenon as if it were other than appears. The model does any more than specify the components involved and the relationships they have with each other.

- An integrated, interdisciplinary, multi-method and multilevel approach to the explanation of the phenomenon of translation will facilitate the creation of a more relevant and up-to-date theory of translation which will take its rightful place as a key area in the human sciences.
- In short: inside or between languages, human communication equals translation. A study of translation is a study of language(R. Bell)

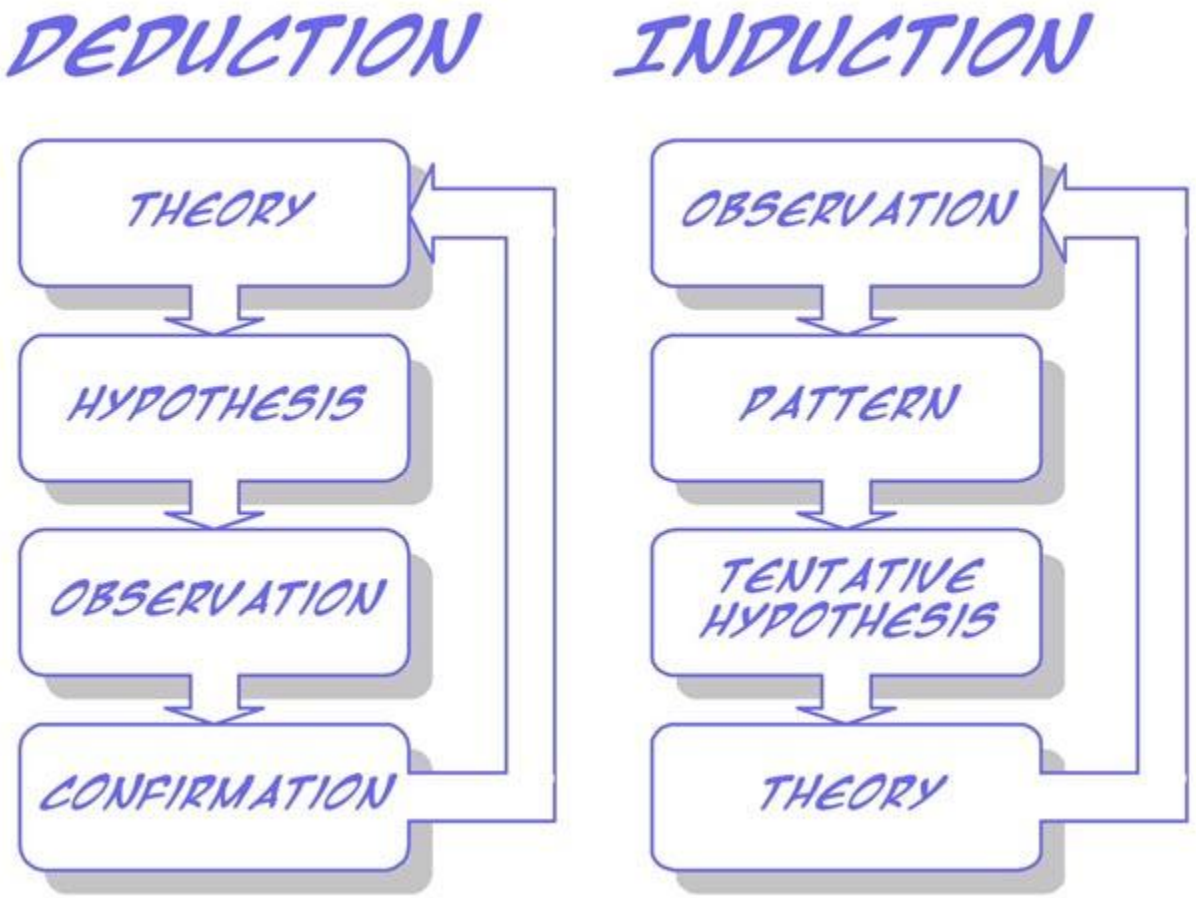
Hypothesis

- is a scientifically proved assumption either about an event which cannot be directly observed or about a regularity explaining the behavior of a known set of events

Algorithm

- Is a set of instructions or precisely specific operations comprising certain procedure.

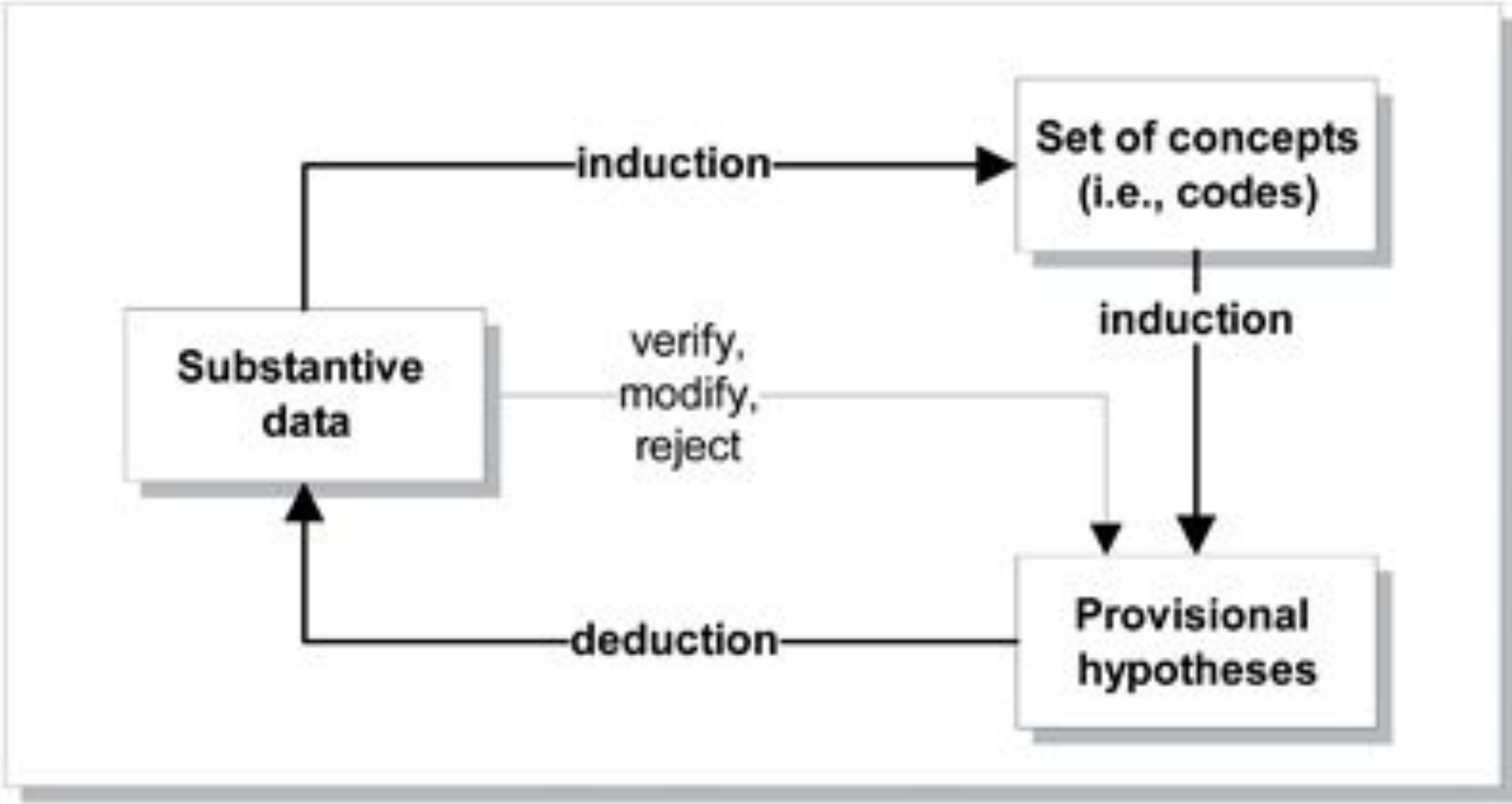
Methodology: deduction and induction



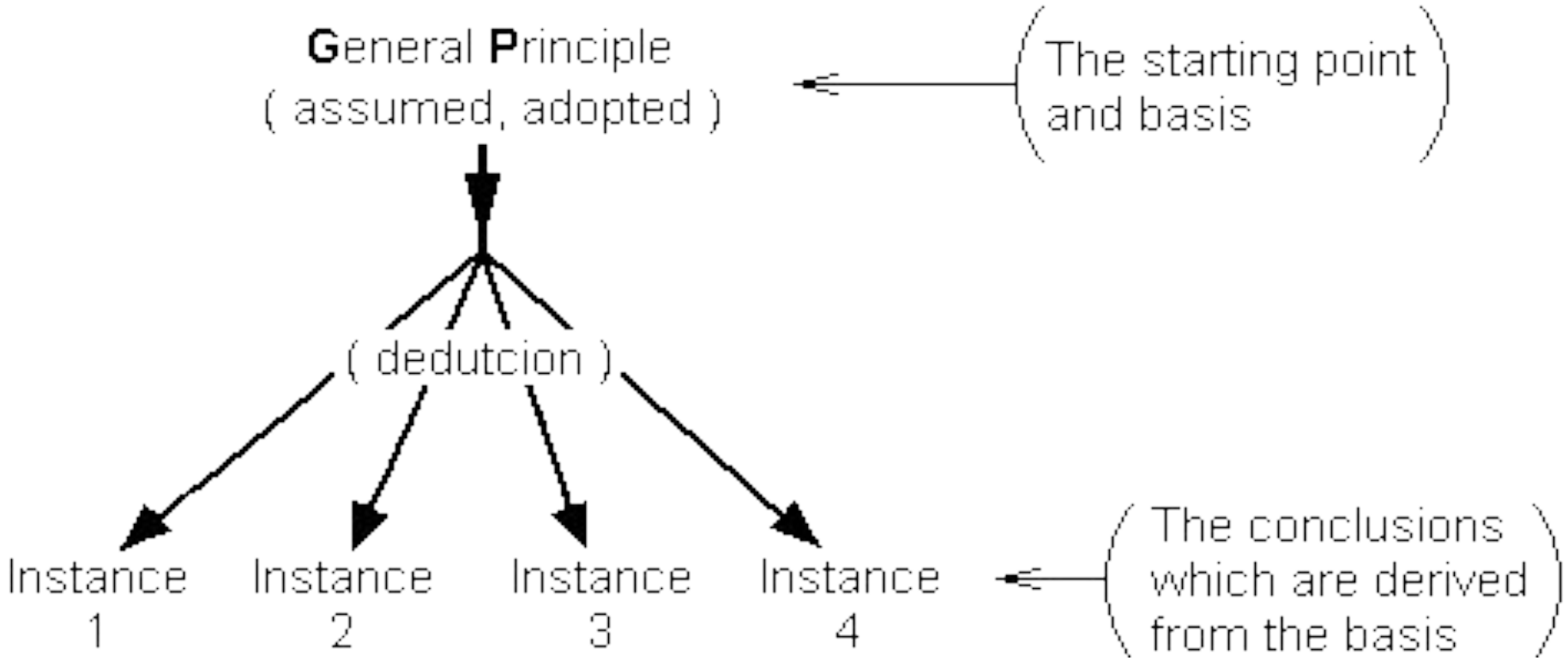
Deductive vs. Inductive

	Deduction	Induction
Definition	Goes from general to particular	Goes from particular to the general
Example	1. All dogs are mammals 2. Fido is a dog 3. Therefore, Fido is a mammal	In history, people I know and know of have died. CONCLUSION: all humans are mortal.
Value	More certain, but less informative.	More informative but less certain.

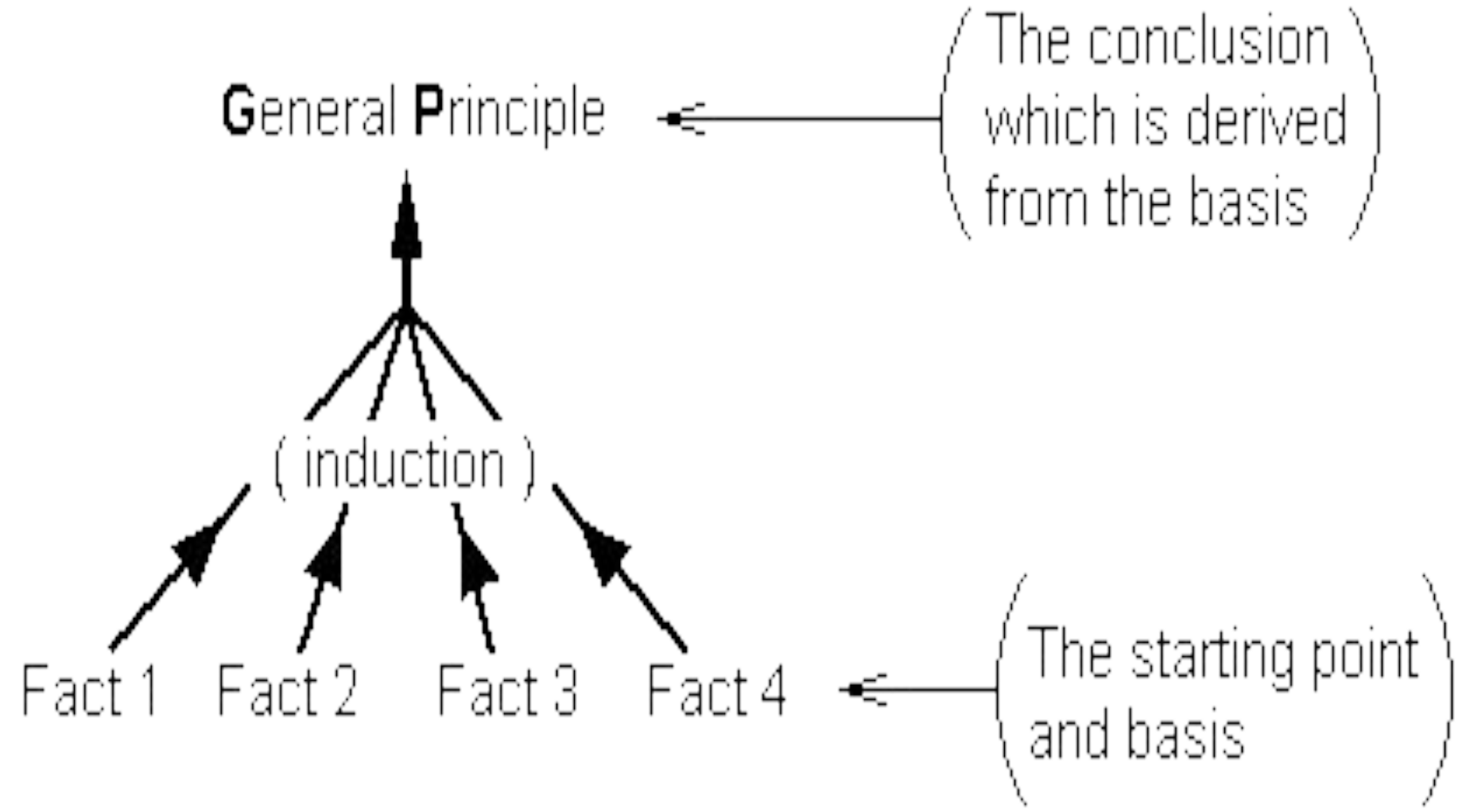
Deduction and induction



Deduction


General Principle
(assumed, adopted)
The starting point and basis
(dedutcion)
Instance 1
Instance 2
Instance 3
Instance 4
The conclusions which are derived from the basis

Induction


General Principle
The conclusion which is derived from the basis
(induction)
Fact 1
Fact 2
Fact 3
Fact 4
The starting point and basis

Both induction and deduction, reasoning from the particular and the general, and back again from the universal to the specific, form the essence to scientific thinking.

— Hans Christian von Baeyer —

AZ QUOTES

Language modeling

- Is a method of formulation of certain general hypotheses about the structure of a language as an abstract semiotic system as well as a method of experimental evaluation of the correctness of these hypotheses

Deduction in language modeling

- Is formulation of certain sequences of abstract schemes being more or less close approximation of real facts and phenomena of a language and evaluation of the correctness of these schemes by application to real language structures.
- Models produced by deduction are called ***synthetic or generative***

Induction in language modeling

- is formulation of abstract model schemes on the basis of specific language material. The correctness of obtained model patterns for the language as a whole is also checked by application of the model to real language formulation
- Models produced by induction are called analytical

Paradigmatic vs syntagmatic

- Paradigmatic models describe the principles of combining the elements into sets in a language whereas the syntagmatic ones describe the relation between elements

To show how translation 'works' as a process we need

- A theory to tell us what the observables and general principles of their interrelation are (i.e. on what basis they operate in such way that a translation is produced)
- A model to show the system of observables, i.e. their interrelation and hierarchy, if any
- An algorithm to show what steps are to be taken to obtain a translation of a ST into TT.

Translation as an object of linguistic modeling

- Is a complex entity consisting of the following components:
  - Elements and structures of the ST
  - Elements and structures of the TT
  - Transformation rules to transform the elements and structures of the ST into those of TT
  - System of the languages involved in translation
  - Conceptual content and organization of the ST
  - Conceptual content and organization of the TT

The unit of translation

- The smallest segment of an SL text which can be translated, as a whole, in isolation from other segments. It normally ranges from the word through the collocation to the clause. It could be describes as small as possible and as large as necessary, though some translators would say that the only unit of translation is the whole text.

During the translation we

- Deduce the rules of equivalent selection and substitution on the basis of observed events (ST elements)
- Build a model of the TL elements selected for substitution and the deduced rules
- Generate the TT on the basis of this model