Week 1. Science and Linguistics

Linguistics = a scientific approach to language.

Scientific = from scientia.
Latin word meaning "knowing".
(scientia historically related to schism and scissors)

Scientific --> knowledge of events in the world around us based on careful observation.

Scientific Method

1) Formulate hypotheses about something you don't know, based on what you do know

2) Find or produce context which will produce different conditions, depending on which hypothesis is right

3) Update what you do know to take into account what you just found out

<table>
<thead>
<tr>
<th>CAREFUL OBSERVATION</th>
<th>EXPLICIT KNOWLEDGE</th>
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</thead>
<tbody>
<tr>
<td>the real world</td>
<td>theoretical constructs</td>
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Analysis = relating observations to theory.
A Schematic representation of the position of the first man in the hallway as it changes over time.

The number of times the entire cycle is completed in a given time period—i.e., the number of times the movement from Fig. 1 to Fig. 4 is executed—is called frequency. It is usually measured in cycles-per-second, or Hertz.

The sound wave representation for an actual linguistic utterance is given below.