Translation Error Types

University of Bielefeld

Class: Applied Linguistics

Lecturer: Thorsten Trippel

Semester: SS 2007

A presentation by: Christina Falke, Annika Mumme, Federica Olbricht, Nina Reinsdorf, Birte Varchmin, Nina Weber, Andreas Windmann
Table of Contents

• Theoretical background
• Ambiguity
• Standard assumptions (a field study)
• Homophony
• Punctuation and intonation
• Uncertain reference
• Unclear hand-offs
• Implicit interference
• Lexical interference
• Unfamiliar terminology
• Conclusion
Theoretical background

• Interest in process-oriented view of translation and strategies used by human interpreters to cope with translation problems
  – Terms of translation strategy and translation problems have to be defined
  – Translation strategy: plans to solve problems that occur when reaching a particular translation goal
  – Translation problems: distinction between
    • translation problems
    • translation difficulties
Theoretical background

- Translation problems (general) are linguistic phenomena known to be problematic in translation independent from the individual translator for example ambiguous words
- Translation difficulties (individual) are difficulties that individual translators could have when dealing with the translation process
Theoretical background

Machine Translation

• Translation problems = translation mismatches
• Translation mismatch refers to cases in which a source language expression is confronted by several target equivalents
• Translation difficulties / problems are not suitable terms for the approach of describing human translation behaviour and machine translation
Theoretical background

Machine Translation

Potential translation problems and Actual translation problems:

• Potential become actual when there is an information deficit at a certain point in time not taking into account whether the translator is aware of it

• Criterion for actual translation problems: information deficit
Theoretical background

Machine Translation

• An actual translation problem is characterized by the following factors:
  – A decision must be made during the translation process
  – BUT there is an information deficit
  – at a specific moment within the translation process
  – in a certain moment

• Translation process – decision making process

• When a decision relevant to the translation process cannot be made due to an information problem, the translator has a translation problem
Theoretical background
Translation Target and Translation strategies

- Translation target – what is important in a particular translation
  - Translation order
  - Text type
  - Function of translated text

- The translation target specifies which of the implicit and explicit information is of importance – transferred into target language
Theoretical background
Translation Target and Translation strategies

• Human translation strategies:
  – Reduction strategies
  – Achievement strategies
Ambiguity - Definition

• “Ambiguity is the presence of two or more meanings in a word, phrase, sentence or passage” (Cushing 1994, 7).
  – Example: Flying planes can be dangerous.
    • Interpretation A: Planes that are flying can be dangerous.
    • Interpretation B: To fly planes can be dangerous.
Structural Ambiguity

- Structural ambiguity is present if “different meanings emerge from the differences in how the grammar of [a] phrase or sentence is analyzed” (Cushing 1994, 8)

Flying planes can be dangerous.

Participle noun verb adjective $\rightarrow$(A)

Flying planes can be dangerous.

Gerund noun verb adjective $\rightarrow$(B)
Lexical Ambiguity

• One speaks of lexical ambiguity if “different meanings emerge as a result of there being more than one meaning for an individual word” (ibid.).
  – Example: Flying planes can be dangerous.
    • Interpretation B1: Piloting a plane can be dangerous.
    • Interpretation B2: Being a passenger on a plane can be dangerous.
Ambiguity as a Result of Speech Acts

• The theory of Speech acts claims “dass mit Hilfe von Sprache Handlungen vollzogen werden” (Kindt in Müller 2002, 289).
• A certain phrase can perform several actions depending on the context, which can lead to ambiguous interpretation if the context is unknown to the interpreter.
  – Example: It is pretty cold in here.
    • Interpretation A: The temperature in this room is low. (statement)
    • Interpretation B: Shut the window! (request)
    • Interpretation C: Don’t you feel cold, too? (question)
    • …
Ambiguity in Translation

- Of course, the way an ambiguous phrase, sentence or word is interpreted affects the way it is translated:
  - Example: Flying planes can be dangerous.
    - Translation A: Fliegende Flugzeuge können gefährlich sein.
    - Translation B1: Das Steuern von Flugzeugen kann gefährlich sein.
    - Translation B2: In Flugzeugen zu reisen kann gefährlich sein.
Translation problems involving ambiguity can be solved by additional contextual information:

- Example: Flying planes can be dangerous – especially when you are not trained as a pilot.

The additional contextual information makes B1 (Das Steuern von Flugzeugen kann gefährlich sein) the most plausible translation for the first part of the sentence.
Am bigu ity i n T ranslat ion

• In some cases, a possible strategy is to try to preserve the degree of ambiguity when translating a phrase (cf. Prahl/Petzoldt in Hauenschild 1997, 136):
  – Translation B1/2: Mit dem Flugzeug zu fliegen, kann gefährlich sein.

• This translation roughly fits the Interpretations B1 and B2, but the strategy does not offer a solution for the problem whether Interpretation/Translation A or B is the right one. The translator can solve this problem only when he is given additional contextual information.
Standard assumptions
A study by Prahl & Petzolt

There were 2 studies by Prahl & Petzold (1997):

• Translation of an ambiguous text with no contextual information

• Translation of a Vermobil dialogue
Standard assumptions
First study by Prahl & Petzolt

„Wenn die Ballone platzen, würde man den Ton nicht hören, weil die Entfernung bis zum richtigen Stockwerk zu groß wäre.“

„Da das ganze Unternehmen darauf beruht, daß der elektrische Strom nicht unterbrochen wird, würde es auch zu Problemen kommen, wenn der Draht in der Mitte abreifen würde.“
Standard assumptions
First study by Prahl & Petzolt

• The problem: There is not enough contextual information given
  → How can the text be translated despite the lack of information?
Standard assumptions
First study by Prahl & Petzolt

Possible results:

• “der Ton“: noise, *sound*, signal, hear it, bang, tone

• “das ganze Unternehmen“: business, process, problem, experiment, enterprise, the *whole enterprise*, the whole thing, the whole undertaking

• “der Draht in der Mitte“: the wire in the middle, the wire in its middle, a wire in the middle, to *break in the middle*
Standard assumptions
First study by Prahl & Petzolt

- With a great L2 knowledge, linguistic knowledge and a decent education as a technical translator the problem can be handled more easily
- The more experienced translators avoided interpretation
- Ambiguity preserving strategy → more general expressions which are ambiguous in both languages are used
Standard assumptions
First study by Prahl & Petzolt

Missing information can be assumed

- by looking at the translation order: First the explicit information is translated, and then the implicit

- by looking at how much information is given: The more is given, the easier it is to find out the rest
Standard assumptions
Second study by Prahl & Petzolt

“Ja, Moment, ich muß erst mal einen Blick in meinen Terminkalender werfen.“

“Yes, my name is Beth Shilds from Beth Industries and I would very much like to see your software.“

“Oh, let’s see. Yes, I’m free half past one on Wednesday the third November“
Standard assumptions
Second study by Prahl & Petzolt

Possible results:

• “Ja, Moment“: One moment, please; Hold on, please (possible on the phone)
• “See your software“: Ihre Software sehen, an Ihrer Software interessiert, Ihre Software kennenzulernen, über Ihre Software zu informieren, etwas über Ihre Software erfahren
• “half past one“: halb zwei, 13.30 Uhr, 12.30 Uhr
Standard assumptions
Second study by Prahl & Petzolt

- In the second study there was more information given
- With a knowledge of idiomatic expressions, ambiguous verbs and time reference the translation is easier
Standard assumptions
Second study by Prahl & Petzolt

Conclusion:

• When translating without contextual knowledge and translation order, try to preserve the degree of ambiguity and avoid the use of standard assumptions
• According to our standard assumptions we can conclude the missing information
Homophony

• Near homophony consists in different words or phrases that sound exactly or nearly alike
• Usually occurs in spoken language, because words are spelled differently but sound alike which can cause great misunderstandings, even accidents (e.g.: “to” and “two”)
• There are also homophones that are spelled the same and sound the same (e.g. saw = “Säge” and saw as the past tense of to see)
Homophony

• Example 1: Controller clears the aircraft to descend “two four zero zero.” But pilot reads clearance back as “O.k. Four zero zero.”

• Example 2: a) a Maspeth climb  b) a massive climb

• Example 3: a) on the deck  b) off the deck
Punctuation And Intonation

Punctuation mistakes

• Example 1:
  a) The flight attendant stood by the door and called the passengers' names as they arrived.
  b) The flight attendant stood by the door and called the passengers' names as they arrived.

a = calling someone's name
b = calling someone names
Intonation mistakes:

- Example 2: That`s a hell ↓ of an idea ↓!
  What was that? I say, that`s a hell ↑ of an idea ↑

- The stressed words are spoken with lower pitch in the first sentence (↓) and higher pitch (↑) in the third
  - Effect: same words in the same order have the opposite meaning
Punctuation and Intonation

• Example 3: I don’t think. I know!
I don’t think you know either!
I don’t think I know.

• → Sentence 1 and three only differ in length of the pause between think and I
• Effect: different meaning!
Uncertain Reference

- Ambiguity arises because of uncertain references
Uncertain Reference

Example 1: “She told the pilot her flight would be late.”

– Meaning:

• She told the pilot her own flight would be late.

• She told the pilot the pilot’s flight would be late.

• She told the pilot someone else’s flight would be late.
Uncertain Reference

Example 2: “His wife is a pilot, but he doesn’t know anything about it.”

– Pronoun “it“ can refer to:
  • The state or expression of being a pilot
  • If the husband is unskilled in piloting airplanes
  • To the fact of his wife‘s being a pilot
  • If he thinks she is a flight attendant or traveling salesperson
Uncertain Reference
Difference between standard textbook grammar and actual colloquial usage

• Example 3: “The pilot was late for the flight, which caused much comment.“

• Example 4: “He has vetoed sixteen bills, all of which have been sustained.“
Uncertain Reference
Difference between standard grammar and actual colloquial usage

Standard grammar:
• Relative pronoun *which* must have an earlier occurring noun phrase as its antecedent
• So in the example the flight causes the comment and sixteen bills have been sustained, since those are the only earlier nonhuman noun phrases

Actual usage:
• *Lateness of the pilot* is understood as causing the comment and *the vetoes of bills* have been sustained, even though *the lateness* and *the vetoes* do not explicitly appear as noun phrase
Uncertain Reference

• Clash can be troublesome for people who learn English as a second language as adults, as do many foreign pilots and controllers

• Uncertainty about reference of pronouns can lead to confusion about the meaning of the sentence
Uncertain Reference

Miami International Airport 1972

• 2334:05 **EAL 401**: Ah Tower this is Eastern, ah 401, it looks like we’re goona have to circle, we don‘t have alight on our nose gear yet.

• 2334:14 **Tower**: Eastern 401 heavy, roger, pull up, climb straight ahead to two thousand, go back to approach control, one twenty eight six.
Miami International Airport 1972

- 2334:21 **EAL 401**: Okay, going up to two thousand, one twenty eight six.

- 2335:09 **EAL 401**: All right, ah, approach control. Eastern 401, we’re over the airport here and climbing to two thousand feet, in fact, we’ve just reached two thousand feet and we’ve got to get a green light on our nose gear.
Miami International Airport 1972

- 2336:27 **MIA Approach Control**: Eastern 401, turn left heading 300.
- 2338:46 **EAL 401**: Eastern 401 will go ah, out west just a little further *if we can (...) get this light to come on here*.
- 2341 Second officer within the cockpit: I can‘t see it, it‘s pitch dark and *I throw the little light, I get nothing*. 
Uncertain Reference

Miami International Airport 1972

- 2341:40 MIA App Con: Eastern 401, how are things comin‘ along out there?
- 2341:44 EAL 401: OK, we‘d like to turn around and come, come back in.
- 2341:47 MIA App Con: Eastern 401 turn left heading 180.
- 2342:12 IMPACT: Aircraft crashes into the Everglades.
Uncertain Reference

The Problem:

• Approach controller used “things“ to refer to the aircraft’s apparent decline in elevation
• He wanted to check with the crew
• But the crew appears to have taken it to refer to the nose-gear problem they had preoccupied with
• The crew was unaware of the decline in elevation because of the preoccupation
Uncertain Reference

The Problem:

• When the crew responds with “okay“ the controller erroneously concludes that the decline in elevation is under control

• The crew had not a clue about it

• The aircraft crashed into the Everglades and 101 people died
Communication problems are caused by:

- Unintended addressee: pilots answer someone else’s descents clearance
- Frequency mix ups (wetsbound/eatsbound)
- Garblings

A controller stated:

- Controllers do talk fast
- Use equipment older than most of today’s work force and it engages a lot slower than their mike before they speak
Uncertain Reference
Communication problems

• Time lag between keying of a mike and the transmitter‘s actual output
• Many controllers use a foot treadle to bring alive a boom mike
• Pilots either press the mike button or another button on the yoke
Uncertain Reference Communication problems

• Pilots and controller often treat the mike button like a hair trigger
• Most of the newer equipment has automatic squelch controls (Rauschunterdrückung)
• this removes some operation errors but most people do not understand that there is a time delay between the time that a receiver receives a carrier frequency
Uncertain Reference
Communication problems

• Often first words of sentences are missed or misunderstood, and ist due to impatience in starting talking
Unclear Hand-offs

• Also problem of communication
• Example: a new controller noticed aircraft A and B merging as A was leaving flight lever 348
• Pilot a had advised climbing to FL 370 when he reported in
• Controller had acknowledged but did not verify the assigned altitude
Unclear Hand-offs

• The controller had been told by his predecessor that A had been stopped at FL 330
• But tape records indicate A was never recleared to FL 330
Implicit Interference

• A hearer derives meaning from a sentence that is not clearly explicit in its words or grammar

• Examples:
  – “No doubt the passengers are honest, but I wouldn’t leave my wallet lying around”
  – “The flight was just wonderful. The copilot was awake the whole time.”
Implicit Interference

• In both examples a meaning is inferred from the juxtaposition of two clauses or sentences.
• The meaning is opposite or irrelevant to the explicit meaning of either clause or sentence individually.
• Typically in such cases, the meaning inferred from the juxtaposition is pejorative, though the individual clauses/sentences are not.
Implicit Interference

• Syntactic misdirection
  – incorrect meaning is inferred for a sentence because the first part looks syntactically like a different sentence
  – Examples:
    • (1) “The plane taxied past the tower.”
    • (2) “The plane taxied past the tower crashed.”
Implicit Interference

• (1) is perfectly normal, but (2) seems bizarre until one realizes that *taxied* (the verb in (1)) is a participle modifying plane
• The meaning of (2) more explicitly spelled out:
• “The plane, I mean the one that was taxied past the tower, crashed.”
Implicit Interference

• The misleading part of the misunderstood sentence does not need itself to be a complete sentence

• Examples:
  – (3) “The clearance sent the plane on its way.”
  – (4) “The clearance sent the plane wasn’t heard.”

• In contrast to (1) and (2), the confusion is not caused because the first part of (4) is a sentence itself but because it has a preferred analysis
Lexical Interference

• Implicit interferences can sometimes be induced through the use of a single word

• Example:
  – “Is the pilot still hung over?”
Lexical Interference

• Answering this question with either yes or no equally commits the responder to an implicit assumption that the pilot has been drinking.

“Just a minute! What do you mean? The pilot wasn’t drinking!”
Lexical Interference

• (1) “Are all crew members present?”
• Answer possibilities:
• (2) “No, not all crew members are present.”
• (3) No. In fact, no crew members are present.”
• The examples contain the words still and all whose semantic effect maintains even when the sentence appears to be negated
Lexical Interference

• Dangerous interferences are drawn in aviation settings from the use of such words as *expect* and *anticipate* because of the time lag and indefiniteness that such words imply
Lexical Interference

• Example:
  – A crew, prior to arrival the VOR, was told to *expect* 210 knots at four miles. The copilot missed that call. When they arrived at the VOR, the captain said: “210 knots at four” and began making a PA. The copilot misinterpreted this as meaning 4,000 feet and started a descent.
Lexical Interference

• The captain assumed that the copilot would understand what the meant by “four”
• The copilot gave that number (four) what was probably an otherwise more typical interpretation
Lexical Interference

• Similarly interferences may be drawn even when expect, anticipate or their equivalents are not used
• In this case the same sort of uncertainty arises in some other way
Lexical Interference

• Examples:
  – “If a plane crashes on the border of the United States and Canada, where do they bury the survivors?
  – “If a plane crashes on the border of Maine and Massachusetts, where do they bury the victims?
• One might actually spend time trying to answer (1) if one’s attention lapses before one reaches the last word
• One might try to answer (2) if one is not familiar with the relevant geography
Unfamiliar Terminology

What is that?

- Abbreviation
- Improper terminology
- Gestures

→ Misinterpretation
Unfamiliar Terminology
Example: Abbreviation

• REIL → runway end identifier lights
• A: “We have the REIL lights up all the way; do you have the runway in sight?”
• B: “How do you tell the difference between real lights and imitation lights?”
• “ladies, legal, lights, liquids” → turn on the seatbelt sign, reduce airspeed to less than 250 knots, turn on the lights for recognition, and make sure the hydraulic pumps and fuel boost pumps are turned on
Unfamiliar Terminology
Example: Gestures

“point down, show 4 fingers”
→ Aircraft had been instructed to park via ramp 4 on arrival
→ Misunderstanding
Unfamiliar Terminology
Example: Improper terminology

“Cleared.”
“Remain clear of the runway.”
“Hold short for landing traffic.”
Summary

<table>
<thead>
<tr>
<th>Ambiguity</th>
<th>Ambiguity can be defined as the presence of two or more meanings in an utterance due to different possibilities of lexical, grammatical or pragmatic interpretation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard assumptions</td>
<td>The probability that the interpretation of a text (through standard assumptions) is correct must be high in order to use them (e.g. “half past one” when talking about a business meeting). Otherwise the text should be translated on the basis of uncertain knowledge using the <strong>Ambiguity-preserving strategy</strong> (e.g. „sound“ for “Ton”).</td>
</tr>
<tr>
<td>Homophony</td>
<td>Different words or phrases that sound exactly or nearly alike (e.g.: “to” and “two”)</td>
</tr>
</tbody>
</table>
## Summary

<table>
<thead>
<tr>
<th>Punctuation &amp; Intonation</th>
<th>Mistakes in punctuation and intonation often change the meaning of words (e.g. 1. That's a ↓ hell of an idea ↓! What was that? I say, that's a hell ↑ of an idea ↑ 2. I don't think. I know! I don't think you know either! I don't think I know)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implicit Interference</td>
<td>A hearer derives meaning from a sentence that is not clearly explicit in its words or grammar “No doubt the passengers are honest, but I wouldn’t leave my wallet lying around”</td>
</tr>
</tbody>
</table>
### Summary

| **Lexical Interference** | Implicit interferences can sometimes be induced through the use of a single word  
|                         | “Is the pilot *still* hung over?” |
| **Uncertain references** | Ambiguity can arise. The choice of words are unclear and the meaning of the statement can be misunderstood.  
|                         | Example: MIA: “How are *things* comin' along out there?” |
| **Unfamiliar Terminology** | Abbreviation, improper terminology and gestures can lead to a misinterpretation, and can therefore be (in some cases) dangerous |
Bibliography

