Stimulus-based data collection in LDD

3L Summerschool 2008
Friederike Lüpke

Your turn

- Please form three groups.
- In each group, please pick one of the following linguistic domains for which you will design a stimulus:
  – An investigation of direct and indirect causation.
  – An investigation of colour terms.
  – An investigation of alienable and inalienable possession.
- Take 10 minutes to hink about the linguistic parameters your stimulus needs to cover and come up with a description of a possible stimulus.
- We will present your results in the group.

Examples for the use of static stimuli

Posture verbs in stative positions (Ameka, de Witte & Wilkins 1999)

English: The bottle is standing on the rock.

Jalonke: *Biniir-εε dɔɔ-xi gεm-εε fari.*
bottle-DEF sit-PF rock-DEF on
'The bottle is sitting on the rock.'

Goemai: The stick is hanging on the tree trunk.

Jalonke: *Tam-εε kiran-xi wurixuntun-na ma.*
stick-DEF lean-PF tree trunk-DEF at
'The stick is leaning against the tree trunk.'

Examples for the use of dynamic stimuli

Event segmentation: ECOM clips (Bohnemeyer & Caelen 1999)
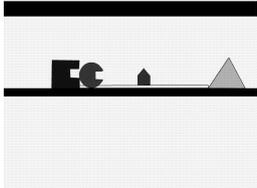
English: The ball rolled from the square past the house to the triangle.	Single clause; single verb
Yukatek: The ball is at the square, and it goes rolling, and then it passes the house, and then it arrives at the triangle.	Multiple independent clauses

Posture verbs in caused positions (Hellwig & Lüpke 1999)
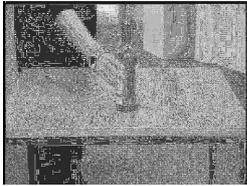
English: She puts the bottle on the table.

Jalonke/Goemai: She 'sits' the bottle on the table.

Differences between stative and caused positions:

Same posture verb used : Jalonke.

Different verbs with same extension used: Goemai.

Different verbs with different extensions used: English

Semantic differences:

In Jalonke and Goemai, objects with a base sit/are 'sat', even when their longest axis is vertical.

In English, they stand, but are put.

7

Cut & break verbs (Bohnemeyer, Bowerman & Brown 2001)
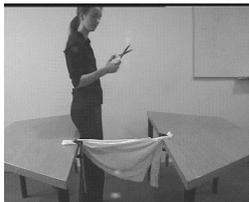
English: cut (with scissors)

Dutch: knippen 'cut with scissors'

Jalonke: cut-iterative (because cloth has already been cut).

English: cut (with knife)

Dutch: snijden 'cut with a knife'

Jalonke: cut (because fish hasn't been cut yet).

8

Your turn

- Have you come across stimuli-based data in your own research?
- If so, what was the domain in question, and what did the stimulus look like?
- What was your impression about the method, data and analysis?
- Please take five minutes for reflection; we will share the findings in the group.

9

# Examples for the use of interactive stimuli

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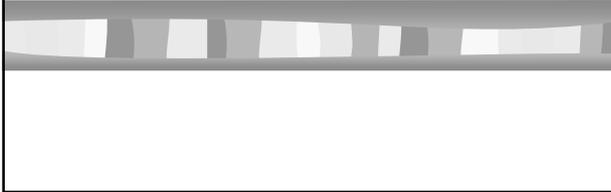
The Puzzle Task (Eisenbeiss & Matsuo 2003)

- Children have to describe puzzle pieces in order to be handed the piece to be handed to them
- The pictures are selected in order to elicit descriptions of external possession and to 'force' the children to verbalise all the relevant contrasts

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An Example of the contrasts involved
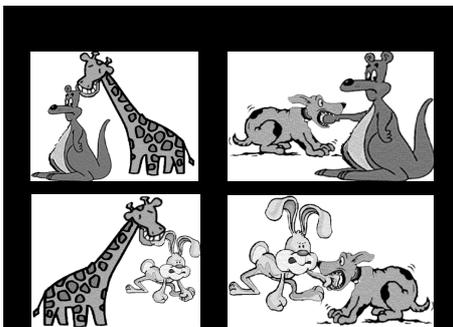
The HCRC map task (HCRC Edinburgh)

The instruction giver's map	The instruction follower's map

Crucial: landmarks on both maps are not identical in order to increase motivation to communicate.
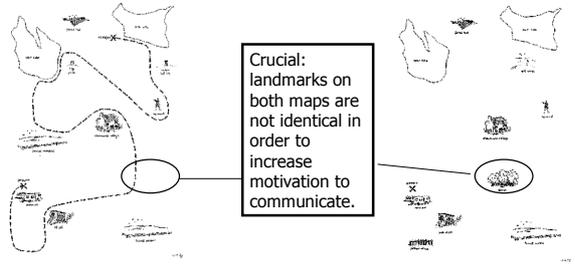
The men and tree matching game (MPI Nijmegen)

- Two consultants, a 'director' and a 'matcher' have identical sets of photos with similar scenes.
- The director describes a photo to the matcher, who has to find the matching picture.
- The photos are selected to uncover the categories triggering the choice of the matching photos – in this case, intrinsic vs. absolute frames of reference

Ad hoc stimuli

Ad hoc stimuli

- New technologies enable fieldworkers to create stimuli 'ad hoc' in the field:
  - Digital photos
  - Video clips
  - Animations
- Although generally not usable for cross-linguistic comparison, these stimuli can yield interesting and highly relevant data difficult to get otherwise.

16

Action descriptions (Lüpke 2005, ms.)

- Videos recorded in the field that are described by consultants.
- PRO:
  - Yield fine-grained event descriptions difficult to obtain otherwise.
  - Can be used to cover semantic domains not attested so far in the corpus.
- CON:
  - Don't constitute a 'speech event' in the sense of Hymes.

17

Photos and Powerpoint animations

- Useful for ethnobotany
- Sequences of stills from digital video or ppt animations can be used to elicit stages of an event
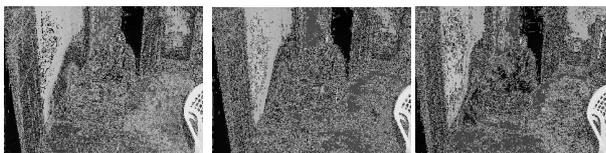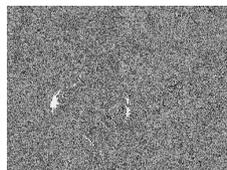
18

Potential problems

Limited ecological validity

- It is important to aim at culturally appropriate methods.
- However, total ecological validity leads to non-transferability.
- Therefore:
  - Elicitations and stimuli should replace the names of culturally unfamiliar items with more familiar ones.
  - However, replacement objects should possess the properties that are salient for the stimulus.


Different cultural settings and interpretational norms

- Interactional tasks may violate culture-specific norms of interaction and should be carefully negotiated.
- Culture-specific picture-reading and other conventions should be taken into account when training consultants to work with stimuli created in Western societies with literacy in the Latin alphabet:
  - There is compelling evidence that directionality in picture-reading and interpretation of picture sequences follows the orientation of the dominant writing system.
  - The same holds for expectations on thematic roles of participants to the left vs. to the right of a picture

Inheritance effects

- Existing stimuli were created in order to answer specific research questions. This context should be taken into account when using them.
- TPRS: Originally created in order to investigate IN and ON topological relations.
- Later supplements cover other topological relations.
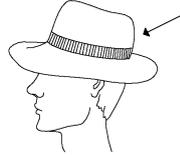
22

Controlled anthropomorphism: TomatoMan

- Moving images bear the strong probability of anthropomorphic interpretations of the Figures.
- In some cases (TomatoMan), this is intended, in other cases, there are no explicit guidelines on how to interpret the Figures.
- If unsure, try to guide your consultants consistently towards one interpretation only.
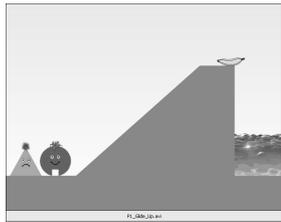
Ozuryek & Kita: TomatoMan

23

Uncontrolled anthropomorphism: ECOM clips

Uncontrolled   Controlled?
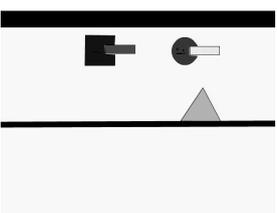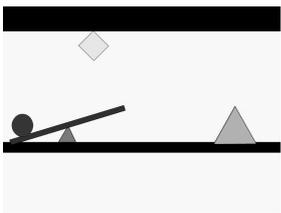
24

Unclear or absent instructions for procedure and analysis

- Data based on existing stimuli are of value only if the original instructions are adhered to as closely as possible.
- Unfortunately, instructions are often lacking or not sufficiently explicit in explaining, e.g. whether
  - The first spontaneous description of a scene is aimed at
  - All possible descriptions of scene are aimed at
  - The admissibility of alternative constructions to describe the events should be elicited as well, etc…
- In the case of unclear or missing instructions and the impossibility to contact the creators of the stimulus, it is recommended to come up with your own instructions and to document them.

25

Flawed parameters underlying the stimulus

- Stimuli are only as good as the parameters covered by the scenes they contain.
- If these have gaps, the resulting data won't offer a complete picture of the semantic/functional domain covered by the stimulus.
- Likewise, if the stimulus only features unusual scenarios for the domain in question, the data may be inconclusive for its analyis.

26

Unfamiliarity of consultants with the task

- Common objections to the use of stimuli are that:
  - Consultants are unfamiliar with the medium or the task
  - They randomly describe details of the stimulus instead of producing the desired target structures
  - The stimuli are too abstract to be used in the speech community.
- It should be noted, that in psycholinguistic experiments, consultants are routinely trained prior to an experiment through careful instructions and training items, and pilot tasks serve to adapt the stimulus to their needs.
- In an LDD context, consultant training is even more important and should always precede data collection.

27

Conclusion

- Like other methods for data collection, the use of stimuli is no 'free and easy' solution but requires careful consideration of factors regarding:
  - The design of the stimulus and its appropriateness to cover the domain in question in the specific cultural setting
  - The training needed for consultants (and researchers) to become familiar and at ease with the task.
  - The instructions and proedure necessary to obtain the desired results.
  - The ways in which the data can be analysed.

> Like all all kinds of data, stimuli –based should be complemented with other data types in order to get the complete picture!

Useful links

- MPI Nijmegen Language & Cognition and Acquisition Groups:
  - Large number of stimuli on a range of topics; stimuli and manuals upon request: http://www.mpi.nl/world/index.html
- The MPI EVA Leipzig links to field tools:
  - http://lingweb.eva.mpg.de/fieldtools/tools.htm
- Russ Tomlin's Fish Film:
  - Stimulus designed to uncover the motivation for voice contrasts, topicality, etc. http://logos.uoregon.edu/tomlin/research_fishfilm.html
- Wallace Chafe's Pear Film
  - Designed to compare narrative structure http://www.linguistics.ucsb.edu/faculty/chafe/pearfilm.htm
- Phillip Wolff's animations on causality (upon request?)
  - Aimed at testing Talmy's force dynamics model of causation http://userwww.service.emory.edu/~pwolff/
- Sonja Eisenbeiß's elicitation games (upon request)
  - A variety of games and tasks for language acquisition studies, focussing on three participant events and external possession http://privatewww.essex.ac.uk/~seisen/index.htm