Constraints of Language on Thinking and Behaviour

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Edward Sapir (1884–1939) was an American anthropologist-linguist, who is widely considered to be one of the most important figures in the early development of the discipline of linguistics.

Benjamin Lee Whorf (1897 –1941) was an American linguist and fire prevention engineer. Whorf is widely known as an advocate for the idea that because of linguistic differences in grammar and usage, speakers of different languages conceptualize and experience the world differently.

https://en.wikipedia.org/wiki/Benjamin_Lee_Whorf
This study shows that the forms of a person's thoughts are controlled by inexorable laws of pattern of which he is unconscious. These patterns are the unperceived intricate systematizations of his own ... every language is a vast pattern-system, different from others, in which are culturally ordained the forms and categories by which the personality not only communicates, but also analyzes nature, notices or neglects types of relationship and phenomena, channels his reasoning, and builds the house of his consciousness.

(whorf, 1956. p. 252)

In simpler terms, language could, to some extent and in some way, determine the nature of our thinking.
Sapir-Whorf hypothesis

The strong version

(known as linguistic determinism):

All human thoughts and actions are bound by the constraints of language.

The weaker version

(known as linguistic relativism):

Language shapes our thinking and behaviour only to a limited extent.
“...there is no evidence for the strong version of the hypothesis – that language imposes upon its speakers a particular way of thinking about the world” (Wason & Johnson-Laird, 1977:411)

Psycholinguistic studies indeed showed that some lexical terms, such as **basic colour terms**, could be universal (Newman, 1954; Berlin & Kay, 1969; Heider, 1972; Kay & McDaniel, 1978; Lucy & Shweder, 1979)

However, the effort to disprove Whorf’s weak version empirically has not been successful.
Sapir-Whorf hypothesis

A summary of Sapir-Whorf hypothesis:

(1) Languages vary in their semantic partitioning of the world;

(2) the structure of one’s language influences the manner in which one perceives and understands the world;

(3) therefore, speakers of different languages will perceive the world differently.

(Gentner & Goldin-Meadow, 2003:4)

Word, Meaning, and Concept
What is “word meaning”? 

• What does it mean when you say you know the meaning of a word?  
  E.g.,  
  – What does it mean when you say you know a word, such as “bird” “blue”, or “happy”? 

• How do we conceive of a word meaning?
What is “word meaning”? 

- something that is conveyed or signified, or sensed in a symbolic sign.

- a fragment of conceptual structure that is linked in long-term memory with a phonological structure and a syntactic structure.

The words one knows consist of stored concepts linked with stored elements of linguistic expression.

(Jackendoff, 1992:55)

Within a cognitive theory,

Conceptual Well-Formedness Rules

linguistic structures

conceptual structures

perception and action

Inference rules

(Jackendoff, 1992:55)
the resources available in the brain for forming concepts

Conceptual Well-Formedness Rules

linguistic structures

conceptual structures

Inference rules

perception and action

Similar to logical inference

the brain’s combinatorial organization
Where do the *Conceptual Well-Formedness Rules* come from?

- According to Kant, Fodor, and Jackendoff, they can not be learned: they are the foundation on which learning is based.

(Jackendoff, 1992; Fodor 1975; Kant, 1895/2005):
• Conceptual Well-Formedness Rules encompass the space of possibilities provided by
  - sense-data
  - the combination of elements of that space by the principle of association.

According to philosophers, such as Plato, Descartes, and Locke, sensible ideas (sense-data) are immediate impressions upon the eye, which reacts for subjective viewing.
• All serious research on lexical organization confirms common sense in suggesting that word meanings are composite – they are built up from some set of conceptual primitives and principles of combination.

(Jackendoff, 1994:134)
Back to the question:

How do we conceive of a word meaning?

Piaget’s hypothesis:

Children acquire their repertoire of concepts in a certain order, starting with basic sensorimotor concepts and gradually progressing from them to more abstract domains, eventually arriving at the most abstract concepts of pure logic.

(Piaget, 1954a)
Back to the question:

How do we conceive of a word meaning?

Vygotsky’s explanation of word meaning:

Word meanings are dynamic rather than static formations. They change as the child develops; they change also with the various ways in which thought functions.

If word meanings change in their inner nature, then the relation of thought to word also changes.

(Vygotsky 1996: 217)
“From the point of view of psychology, the meaning of every word is a generalization or a concept. And since generalizations and concepts are undeniably acts of thought, we may regard meaning as a phenomenon of thinking.”

(Vygotsky, 1996: 212)
Sapir-Whorf hypothesis

Back to the summary of Sapir-Whorf hypothesis:

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(3) therefore, speakers of different language will perceive the world differently.

(Gentner & Goldin-Meadow, 2003:4)
Specific Whorfian Question 1

• Does the language we acquire influence where we make our category distinctions?
  • Language as Category Maker?

Semantic partitioning of the world in the written system?

Ex. 1.1:

An example of semantic radicals in Chinese and affixes in English

女 Female
The gender-specific formation of Chinese characters with the semantic radical 女 to refer to

1) female characters, or
2) female characters as being pretty, fragile, sexual, or evil.

In this case, the Chinese language reflected a classification of individuals in the world.

Then, are such radicals likely to constrain the perception of the speakers of Chinese?
The semantic radical 女 in monosyllabic characters in Chinese

<table>
<thead>
<tr>
<th>Female</th>
<th>Female: positive features</th>
<th>Female: Negative features</th>
</tr>
</thead>
<tbody>
<tr>
<td>她 tā</td>
<td>好 hǎo</td>
<td>奸 jiān</td>
</tr>
<tr>
<td>妹 nǐ</td>
<td>妙 miào</td>
<td>妖 yāo</td>
</tr>
<tr>
<td>姐 jiě</td>
<td>娇 jiāo</td>
<td>娼 pīn</td>
</tr>
<tr>
<td>妹 mèi</td>
<td>妖 yāo</td>
<td>妓 bì</td>
</tr>
<tr>
<td>媽 mā</td>
<td>妊 yán</td>
<td>娼 chāng</td>
</tr>
<tr>
<td>妞 nǎi</td>
<td>妓 wǔ</td>
<td>妓 biǎo</td>
</tr>
<tr>
<td>姨 láo</td>
<td>娼 jiāo</td>
<td>娼 piáo</td>
</tr>
<tr>
<td>娘 mā</td>
<td>妓 zhu</td>
<td>娼 pīn</td>
</tr>
<tr>
<td>妾 yí</td>
<td>娼 yú</td>
<td>婢 nú</td>
</tr>
<tr>
<td>娘 niàn</td>
<td></td>
<td>婢 yín</td>
</tr>
</tbody>
</table>
Then, are speakers of Chinese likely to unconsciously associate the actions depicted by such words with females?

A type of gender-specific semantic partitioning of the world?
The concept of 借 Jiè in Chinese

‘borrow’ and ‘lend’ in English
## Chinese ‘jie’ 借 vs. English ‘borrow’ and ‘lend’

<table>
<thead>
<tr>
<th>Chinese</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 他借了一本书。</td>
<td>1. He borrowed a book.</td>
</tr>
<tr>
<td>2. 他借来了一本书。</td>
<td>2. He has borrowed the book.</td>
</tr>
<tr>
<td>3. 他借出去了一本书。</td>
<td>3. He has lent a book.</td>
</tr>
<tr>
<td>5. 书（被）借走了。</td>
<td>5. The book was borrowed.</td>
</tr>
<tr>
<td>6. 书(被) 借来了。</td>
<td>6. The book was lent.</td>
</tr>
</tbody>
</table>
Chinese ‘jie’ 借 vs. English ‘borrow’ and ‘lend’

1. 借 borrow
2. 借来 borrow come
3. 借出去 borrow exit
4. 借给 borrow give
5. 借走 borrow go
Chinese ‘jie’ 借 vs. English ‘borrow’ and ‘lend’

Question:

Could this difference between the two languages indicate that speakers of English habitually think of “borrow” and “lend” as two physical actions with distinctively opposite directions, whereas speakers of Chinese tend not to do so?

1. 借 borrow
2. 借来 borrow come
*chuān* 穿 and *dài* 戴 in Chinese

‘*put on*’ and ‘*wear*’ in English
Ex. 1.3:

English

〇 = wear

□ = put on

Chinese

〇 = 戴

□ = 穿
• “If semantics varies crosslinguistically, then one cannot maintain that conceptual structure is universal and that semantic structure reflects conceptual structure”.

(Gentner & Goldin-Meadow, 2003:7)
Sapir-Whorf hypothesis

Back to the summary of Sapir-Whorf hypothesis:

(1) Languages vary in their semantic partitioning of the world;

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(3) therefore, speakers of different language will perceive the world differently.

(Gentner & Goldin-Meadow, 2003:4)
Specific Whorfian Question 2

• Do grammatical characteristics of a language shape speakers’ perceptions of the world?
  • Language as Lens?

My own studies suggest, to me, that language, for all its kingly role, is in some sense a superficial embroidery upon deeper processes of consciousness, which are necessary before any communication, signaling, or symbolism whatsoever can occur . . .

(Whorf, 1956: 239)
A study of Swedish speakers’ learning of Chinese noun classifiers

Gao, 2010

Control group:
- Thirty Chinese–Swedish bilingual children (11 boys and 19 girls; age range: 6–15; mean age: 9.06) from Lund and Stockholm in Sweden

Experiment group:
- Thirty Swedish students learning Chinese as their major or minor at Lund University and Stockholm University (21 males and 9 females; age range: 21–30; mean age: 25.7)

<table>
<thead>
<tr>
<th>Chinese classifier phrase</th>
<th>Numeral</th>
<th>Classifier</th>
<th>Noun</th>
<th>English equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>-yì</td>
<td>本 běn</td>
<td>书 shū</td>
<td>a book</td>
<td></td>
</tr>
<tr>
<td>-yí</td>
<td>个 gè</td>
<td>书架 shújià</td>
<td>a bookshelf</td>
<td></td>
</tr>
<tr>
<td>-yí</td>
<td>个 gè</td>
<td>鍵匙 yàooshi</td>
<td>a bunch of keys</td>
<td></td>
</tr>
<tr>
<td>-yí</td>
<td>把 bā</td>
<td>椅子 yīzi</td>
<td>a chair</td>
<td></td>
</tr>
<tr>
<td>-yí</td>
<td>台 tái</td>
<td>电脑 diànnǎo</td>
<td>a computer</td>
<td></td>
</tr>
<tr>
<td>-yí</td>
<td>本 běn</td>
<td>字典 zìdiǎn</td>
<td>a dictionary</td>
<td></td>
</tr>
<tr>
<td>-yí</td>
<td>窗 shàn, 透 dào, 个 gè</td>
<td>门 mén</td>
<td>a door</td>
<td></td>
</tr>
<tr>
<td>-yí</td>
<td>个 gè, 只 zhī</td>
<td></td>
<td>a drawer</td>
<td></td>
</tr>
<tr>
<td>-yí</td>
<td>把 bā</td>
<td>玻璃杯 bolíbei</td>
<td>a glass</td>
<td></td>
</tr>
<tr>
<td>-yí</td>
<td>只 zhī</td>
<td>手 shǒu</td>
<td>a hand</td>
<td></td>
</tr>
<tr>
<td>-yí</td>
<td>桌 tiáo</td>
<td>钥匙 yàooshi</td>
<td>a key</td>
<td></td>
</tr>
<tr>
<td>-yí</td>
<td>窗 shàn, 透 dào, 个 gè</td>
<td></td>
<td>a key</td>
<td></td>
</tr>
<tr>
<td>-yí</td>
<td>个 gè</td>
<td>玻璃杯 bolíbei</td>
<td>a glass</td>
<td></td>
</tr>
<tr>
<td>-yí</td>
<td>只 zhī</td>
<td>手 shǒu</td>
<td>a hand</td>
<td></td>
</tr>
<tr>
<td>-yí</td>
<td>窗 shàn, 透 dào, 个 gè</td>
<td></td>
<td>a key</td>
<td></td>
</tr>
<tr>
<td>-yí</td>
<td>窗 shàn, 透 dào, 个 gè</td>
<td></td>
<td>a key</td>
<td></td>
</tr>
</tbody>
</table>

Table 1. Nouns and classifier phrases tested as learning outcome.
Chinese classifier use by Swedish learners of Chinese and Swedish-Chinese bilingual children

<table>
<thead>
<tr>
<th>Participants</th>
<th>Correct usage %</th>
<th>Improper usage %</th>
<th>Incorrect usage %</th>
<th>Failure %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bilingual children</td>
<td>52.8 (475/900)</td>
<td>22.3 (201/900)</td>
<td>13.0 (117/900)</td>
<td>11.9 (107/900)</td>
</tr>
<tr>
<td>Low level – adults – 1st session</td>
<td>34.0 (102/300)</td>
<td>23.0 (69/300)</td>
<td>23.3 (70/300)</td>
<td>19.6 (59/300)</td>
</tr>
<tr>
<td>Medium level – adults – 1st session</td>
<td>38.0 (113/300)</td>
<td>12.3 (37/300)</td>
<td>35.0/35.3 (105/300)</td>
<td>15.0 (45/300)</td>
</tr>
<tr>
<td>High level – adults – 1st session</td>
<td>61.7 (185/300)</td>
<td>11.0 (33/300)</td>
<td>21.3 (64/300)</td>
<td>6.0 (18/300)</td>
</tr>
<tr>
<td>Average – 1st session – adults</td>
<td>44.7 (402/900)</td>
<td>15.4 (139/900)</td>
<td>26.0 (234/900)</td>
<td>13.9 (125/900)</td>
</tr>
<tr>
<td>Average – 3rd session – adults</td>
<td>71.7 (645/900)</td>
<td>8.1 (73/900)</td>
<td>15.2 (137/900)</td>
<td>5.0 (45/900)</td>
</tr>
<tr>
<td>Average for adults – all three sessions</td>
<td>58.1</td>
<td>11.6</td>
<td>20.8</td>
<td>9.5</td>
</tr>
</tbody>
</table>

Table 2. Bilingual children’s classifier production compared with adults’ learning results (raw figures in parentheses).
Children’s performance compared with that of the adults in the first session.

Figure 1. Children’s performance compared with all adults’ in the first test session.
Adult learners’ progress over three months

Figure 4. All adults’ improvement over three test sessions.
Bilingual children’s reasoning

<table>
<thead>
<tr>
<th>Associated noun items</th>
<th>Correct classifier(s)</th>
<th>Classifier(s) used incorrectly</th>
<th>Children’s reasoning for their incorrect classifier use.</th>
</tr>
</thead>
<tbody>
<tr>
<td>letter</td>
<td>封 fēng</td>
<td>张 zhāng</td>
<td>A letter is flat like a piece of paper.</td>
</tr>
<tr>
<td>newspaper</td>
<td>张 zhāng</td>
<td>央 yè</td>
<td>It is just one page.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>片 piān</td>
<td>A newspaper is a page that is thin and flat.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>篇 piān</td>
<td>A newspaper contains articles.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>版 bǎn</td>
<td>It is one page of the newspaper.</td>
</tr>
<tr>
<td>both hands</td>
<td>双 shuāng</td>
<td>对 duì</td>
<td>Two hands are a pair.</td>
</tr>
</tbody>
</table>
What does the study tell us about the difference between the bilingual children and the adult learners?

• The children used a cognitive bottom–up approach where they connected the classifiers with ontological categories; that is, they did not formulate any preconceived rules to follow but instead judged a noun item by its perceptual features and then made a match to the embedded semantic meanings of a classifier.

• The adults used a top–down learning approach for synthesizing noun referents and forming them into a cohesive whole.
Language structure is like a lattice or screen through which we see the world of our experience. (Carroll, 1956:315-317)
Humboldt’s (1836) view of language

• Language as the formative organ of thought.
• Thought and language are inseparable.

(see Gumperz and Levinson 1996a; Lucy 1996, for reviews)
Sapir-Whorf hypothesis

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(Gentner & Goldin-Meadow, 2003:4)
Specific Whorfian Question 3

- Does language augment our capacity for reasoning and representation?
  - Language as Toolkit?

Recent studies on ‘throw’ action verbs


Table 6: The frequency of actions with different values of three binomial variables

<table>
<thead>
<tr>
<th></th>
<th>Vertical Direction</th>
<th></th>
<th>Horizontal Direction</th>
<th></th>
<th>Initial Arm Shape</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Upward</td>
<td>Downward</td>
<td>Forward</td>
<td>Sidewise</td>
<td>Straight</td>
</tr>
<tr>
<td><strong>rēng</strong></td>
<td>40</td>
<td>19</td>
<td>41</td>
<td>18</td>
<td>37</td>
</tr>
<tr>
<td><strong>diū</strong></td>
<td>48</td>
<td>12</td>
<td>38</td>
<td>22</td>
<td>47</td>
</tr>
<tr>
<td><strong>pāo</strong></td>
<td>60</td>
<td>0</td>
<td>59</td>
<td>1</td>
<td>29</td>
</tr>
<tr>
<td><strong>tóu</strong></td>
<td>58</td>
<td>2</td>
<td>60</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>shuāi</strong></td>
<td>0</td>
<td>59</td>
<td>47</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td><strong>shuǐ</strong></td>
<td>25</td>
<td>34</td>
<td>14</td>
<td>45</td>
<td>12</td>
</tr>
</tbody>
</table>

Gao & Wang, 2013
Research Methods

• Perceptual Approach
• Behavioural approach
Methods

Target words:
• 6 ‘throw’ verbs in Chinese
• 6 ‘throw’ verbs in English
• 6 ‘throw’ verbs in German

Participants:
• Native monolingual Mandarin speakers
• Native English speakers
• Native German speakers
• Chinese-English bilingual children
Methods

Perceptual Experiment: setting

• Participant
  – sits in front of a computer screen
  – watches a video recording of a series of different throwing actions
• 2 cameras in the front and aside

Perceptual Experiment: instructions

• Part 1: Please use a verb to describe each of the actions you see.
• Part 2: Please match the actions you see with the words on the cards.
Methods

• **Behavioral Experiment: setting**
  • Participant
    – stands still
    – Confirms the verbs they see and know on the cards
    – holds a novel object
  • 2 cameras in the front and aside

• **Behavioral Experiment: instructions**
  • 请V这个东西。
  • Please V it.
Methods

Behavioral Experiment: procedure

Round 1
• Participant performs an action according to the instructions
  – Monolinguals: 6 instructions corresponding to 6 verbs
  – Bilinguals: 12 instructions corresponding to 12 verbs
• Random verb order

Round 2
• Same as Round 1
Native English speakers’ performance on perceptual and behavioural tasks

Figure 1: The semantic distribution of English ‘throw’ verbs on five action features

Wang & Gao, 2016
Crosslinguistic differences

Wang & Gao, 2016

Figure 1: The semantic distribution of English ‘throw’ verbs on five action features

Figure 2: The semantic distribution of Chinese ‘throw’ verbs on five action features

Figure 3: The semantic distribution of German ‘throw’ verbs on five action features
Monolingual and bilingual differences in perception and lexical word use

Gao & Wang (2013)
A verb-action matching task by monolingual and bilingual children
Further questions

Could we be convinced by the findings of the studies that the following are true?

• Languages delineate underlying classifications of experience, and different languages classify experience differently (Lim, 2003:54)

• Bilinguals see the world in a different way in different languages.
Language and Culture
Linguistic meaning, individual thought, and cultural pattern

Figure 5 Structure of Whorf’s argument linking language, the individual, and culture

Luck, 1992:64
### Ways to begin a letter by Chinese-English bilinguals:

**English** | **Chinese**
---|---
1. Dear Teacher Chen | 1. 尊敬的陈老师  
2. Dear President Chen | 2. 尊敬的陈校长  
3. Dear Director Chen | 3. 尊敬的陈主任  
4. Dear Mr Chen | 4. 尊敬的陈先生  
5. Dear Parent | 5. 尊敬的家长同志  
6. Dear Sir/Madam | 6. 尊敬的/亲爱的女士或先生  
7. Dear Professor Chen | 7. 尊敬的/亲爱的陈教授  
8. Dear Chen Laoshi | 8. 尊敬的/亲爱的陈老师  
9. Dear Friend | 9. 亲爱的朋友？  
10. Dear Sister | 10. 亲爱的姐姐/妹妹

Examples from bilingual students at NTU
Similar ideas expressed in different ways with different associations:

Chinese
• 像蜜蜂一样勤奋 Xiàng mìfēng yīyàng qínfèn
   as diligent as bees

English
• as busy as a bee

Swedish
• flitig som en myra
   as diligent as an ant
Similar ideas expressed in different ways with different associations:

English:
When the cat’s away, the mice will play.

Swedish:
När katten är borta dansar råttorna på bordet.
When the cat is away, the mice dance on the table.

Chinese:
山中无老虎，猴子称大王。
Shānzhōng wú lǎohǔ, hóuzi chēng dàwáng
When there are no tigers in the mountains, monkeys will be kings.
Conclusions and Further Questions

• Language must be developed and acquired in a specific cultural environment.
• In language use, there is a link between expression and conception.
• Expression and conception are shaped by life experience.
• Life experience is itself shaped by language.

Further Questions:
• Is the link conventionally and culturally grounded?
• Does it evolves with history?
Thank you!
Language and Culture

Helena Gao
Perception of inter-personal relations

- Asymmetric terms of address: Indicators of inter-personal relations
  
  e.g.

- While speaking Chinese, asymmetric terms of address in Chinese create one type of mutual perception
  - “Mr. Wang” vs. “Wang Xiao Dong”

- While speaking English, we tend to call each other by first names.
  - The inter-personal relation has apparently changed with the change in language.
  - The relation has to match the language.
A continuum along which utterances may be ranked

- At the propositional end
  - largely novel combination of words and phrases
  - with relatively little predictability among the parts

- At the opposite end

- Utterances which are highly automatic

- e.g., songs, nursery rimes, lines from jokes, plays and poems

- In between along this continuum
  - A wide heterogeneity of prefabs, swirling in our mental filing cabinet, read to be “reached for”
    - E.g., “how are you doing?”, “what can I say?” Oh my God!” etc.
  - Also a whole range of expressions that we call clichés, hedges, proverbs, idioms, metaphors, similes, allusions, curses and swearings, maxims and epigrams, mottos, slogans, aphorisms, quotations from well-known sources, etc.
Neurolinguistic findings
(Van Lanker, 1975)

- The propositional utterances appear to lateralize more to the left hemisphere
- Automatic speech shows more lateralization to the right hemisphere
- Finding consistent with the belief that
  - the left hemisphere is especially involved in making sequential decisions
  - propositional utterances are made up of longer sequences of decision units than automatic utterances.
Prefabricated or routine formulated *expressions*

- These routine formulated expressions have stronger influence on speakers’ habitual thought and patterns of speaking.

- Cognitively, they are processed differently.
  - Speakers may reach for them more in the right hemisphere than in the left one.
    - Hughlings Jackson (1932) noted that automatic speech was in general better preserved in patients with left hemisphere damage.
Lexical semantics of mental lexicons

• E.g., A question, such as “What do you think of a peacock? Is it a big bird or a small bird?” can be normally answered in English in the following two ways:

(a) I think it is a big bird.
(b) I don’t think it is a big bird.
In Mandarin, possible answers differ:

• (c) 我不认为它是一个大鸟。
  I think it not be one classifier big bird.
  I don’t think it is a big bird.

• (d) 我觉得它不是大鸟.
  I feel it not be one classifier big bird.
  I don’t feel that it is a big bird.

• (e) 我想它不是大鸟.
  I think/guess/imagine/anticipate/gather/infer it not be one classifier big bird.
  I guess that it is not a big bird.
In Swedish, more possible answers:

• (f) Jag tror inte, att det är någon stor fågel. (*tror*: same as the English *think* in *a*)

• (g) Jag tycker inte, att det är någon stor fågel. (*tycker*: indicating an imaging aspect)

• (h) Jag anser inte, att det är någon stor fågel. (*anser*: indicating a conclusive reasoning aspect)

• (i) Jag skulle inte tro, att det är någon stor fågel. (*skulle inte tro*: indicating that the result of reasoning can be claimed to be true)

• (j) Jag har svårt att föreställa mig, att det är någon stor fågel. (*har svårt att föreställa mig*: expressing one’s feeling of difficulty in visualizing or depicting a scene as an answer)

• (k) Såvitt jag förstår, är det inte någon stor fågel. (*såvitt jag förstår*: indicating one’s own understanding, which might be different from others’
References


• Gao, H. (2001). The physical foundation of the patterning of physical action verbs. Lund University Press. Chapter 2: Lexicalization patterns from contact to motion and motion to contact. pp. 41-60