Interdisciplinary Studies on Information Structure Vol. 15

Questionnaire on Focus Semantics

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Interdisciplinary Studies on Information Structure

ISIS | Working Papers of the SFB 632 | 15

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Universitätsverlag Potsdam

Bibliografische Information der Deutschen Nationalbibliothek
Die Deutsche Nationalbibliothek verzeichnet diese Publikation in der Deutschen Nationalbibliografie; detaillierte bibliografische Daten sind im Internet über http://dnb.d-nb.de/ abrufbar.

Universitätsverlag Potsdam 2010
http://info.ub.uni-potsdam.de/verlag.htm

Universitätsverlag Potsdam, Am Neuen Palais 10, 14469 Potsdam
Tel.: +49 (0)331 977 4623 / Fax: 3474
E-Mail: verlag@uni-potsdam.de

Interdisciplinary Studies on Information Structure (ISIS)

Series Editors:
isis.editors@googlemail.com
http://www.sfb632.uni-potsdam.de/isg.html

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ISIS issues do not appear according to strict schedule.

ISSN 1866-4725

Published online at the Institutional Repository of the Potsdam University
URL http://pub.ub.uni-potsdam.de/volltexte/2010/3682/
URN urn:nbn:de:kobv:517-opus-36826
http://nbn-resolving.de/urn:nbn:de:kobv:517-opus-36826

Preface

This is the 15th issue of the working paper series *Interdisciplinary Studies on Information Structure* (ISIS) of the Sonderforschungsbereich (SFB) 632. This online version contains the Questionnaire on Focus Semantics contributed by **Agata Renans, Malte Zimmermann and Markus Greif**, members of Project D2 investigating information structural phenomena from a typological perspective. The present issue provides a tool for collecting and analyzing natural data with respect to relevant linguistic questions concerning focus types, focus sensitive particles, and the effects of quantificational adverbs and presupposition on focus semantics. This volume is a supplementation to the Reference manual of the Questionnaire on Information Structure, issued by Project D2 in ISIS 4 (2006).

Svetlana Petrova

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Part I

Methodological Guidelines

In all of the QUIS$_{SEM}$ questionnaire, the counterparts and semantics of focus sensitive expressions, their distribution and their way of association with focus are elicitated with use of three main types of tasks:

1. Production tasks:
    a) translation tasks
    b) picture tasks
    c) story with gaps tasks
2. Judgment tasks:
    a) felicity judgment tasks
    b) truth-value judgment tasks
    c) grammaticality judgment tasks
3. So called *tests*.

In this section of QUIS$_{SEM}$, we present some general methodological guidelines on semantic fieldwork[1]. First, we provide general advice regarding the tasks in the QUIS$_{SEM}$ manual, and second, we provide methodological guidelines for these tasks.

Language — Meta-Language Notice that all the tasks should be completed by a native speaker of the object language; the researcher, on the other hand, does not have to be a native speaker. All the instructions and descriptions of the contexts can be made in the meta-language, i.e., English [Matthewson, 2004].

Cultural Adoption All the examples, texts, descriptions of the context, etc., should be culturally adopted. They should take into consideration the economic,

[1] Very helpful guidelines on semantic fieldwork can be found in the Lisa Matthewson's article [Matthewson, 2004].

social, and cultural conditions of the society in which the object language is spoken. Before conducting a given task, please make sure this is the case.

Translations Some elements from the tasks of the QUIS$_{SEM}$ should be translated into the object language. The ideal situation is when the translatoin is made by a linguist who is a native speaker of the object language. When this is not possible, the translation should be made either by (1) a native speaker of the object language or by (2) a linguist (researcher).

In the first case (1) the translation made by a native speaker should be controlled by a linguist. In the case of semantic elicitation tasks, it is important to control the information strucutre of the translated sentences. The researcher should check that the same elements in both the initial and target sentences carry focus markers. Moreover, for the tasks in part III *Distribution of Focus Sensitive Expressions*, syntax must be controlled particularly precise.

Although to conduct some tasks (e.g. felicity judgment tasks) we need sentences in the object langauge, which are infelicitous, notice that you should never ask for translating infelicitous (ungrammatical) sentences [Matthewson, 2004]). That is why we suggest deviding infelicitous sentences into two parts (when it is possible, of course) and asking for translation of each part separately. Such an operation is possible for example in the case of felicity judgmnet task from the section 6.3.1. An infelicitous sentence *Only [John]$_F$ visits Monica on Sunday and only [Tom]$_F$ visits Monica on Sunday too.* can be devided into two felicitous sentences (1) *Only [John]$_F$ visits Monica on Sunday* and (2) *Only [Tom]$_F$ visits Monica on Sunday*. An informant should translate both sentences separately. The fieldworker's task is to join both parts with a copulative conjunction. In the second case (2), in which the translation is made by a linguist, a native-speaker of the objct language should check all the translated material — it should be grammatically correct and sound natural.

Tasks Mixing Every test checks for one characteristic of focus sensitive expressions. It follows that the examples from one test are more or less similar. It makes QUIS$_{SEM}$ easy to use. However, notice that while conducting fieldwork the examples should be mixed. They cannot all come from the same test. Otherwise an informant get used to the given task and we cannot draw the reliable conclusions from his answers.

Informant's Answers All the informant's answers should be either jotted down or recorded. In the case of tone languages, the latter is recommended. It is worth jotting down (or even recording) all the additional comments made by an informant as well. However, these comments cannot be treated as a solution to the problem you are working on, although they can be a helpful clue [Matthewson, 2004].

1 Translation Task

Translation tasks can be used to get a general picture of a given phenomenon in the object language, especially when the counterparts of the researched linguistic elements are not known to the researcher. Notice however that the results of this kind of elicitation cannot be treated as a final answer for the research question. Translation tasks are too vague for it, because it is difficult to control all the factors that can influence the informant's answers. The result obtained in the translation task should be treated rather as a clue [Matthewson, 2004] that provides the basis for further investigations — translation tasks should be conducted as a preliminary task for other tests.

The interpretation of focus sensitive expressions depends on the discourse in which they occur. This is why every sentence to be translated is preceded by a short contextual description. The main function of the context is (1) to eliminate possible ambiguity and (2) to determine the focused element in the sentences

to be translated. Context descriptions do not have to be given in the object language — in this case a metalanguage (e.g. English) is fine [Matthewson, 2004].

You should ask for the translation of the full sentences only, which are grammatically correct [Matthewson, 2004]. In order to make the presentation of the test more lucid, focus is marked in all sentences to be translated. However, the presentation for the informant should not contain any markers of information structure. The informant should only get a plain text with a contextual description and a sentence to translate.

It is important that while interpreting the results obtained in this task you assume that the translations made by the informant are grammatically correct.

Summary

- Every sentence to be translated should be preceded by a contextual description;
- description of the context can be provided in the meta-language (e.g., English);
- sentences to be translated should not contain information structure markers (note that other linguistic elements should not be marked as well);
- results obtained in the translation task should be treated as preliminary ones.

2 Picture Task

Picture tasks are designed to elicit the given linguistic elements in semi-spontaneous speech without stimuli to be translated. Usually they consist of a set of pictures with descriptions of them or questions about them. The informant shoud either (1) correct the description if it does not correspond to what he

can (or she) can see in the picture or (2) answer the question about the content of the picture. In both situations the informant should be asked to use the full sentences only.

You should have the descriptions of the pictures and questions about them translated into the object language. For the discussion on making translations see page 7.

Picture tasks are designed to be made orally. The researcher should first present the picture to the informant, after which fieldworker should ask questions about the content of the picture or read a description of the picture. The informant's answers should either be jotted down or (as recommended) recorded. Notice that recordings are especially useful in the case of tone languages.

Summary

- The informant should be instructed to use the full sentences only;
- descriptions of the pictures and questions about them should be translated into the object language by a native-speaker linguist, a native-speaker or a linguist (see page 7);
- focus markers in both the intial descriptions of the pictures in English and descriptions of the pictures in the object language should be obtained by the same elements.

3 *Story with Gaps* Task

A *Story with Gaps* task consists of a text with gaps that are to be filled in by the informant with an appropriate word. Which word should be used is determined by the context.

In the QUIS$_{SEM}$ the texts are presented in English. Before conducting the test, you should have the text translated into the object language. The discussion on making translations is presented on page 7.

In order to make the translations easier, the appropriate words from the gaps are not deleted in the original English text. Elements that should be removed from the target text are written in italics. Furthermore, in every text there are two kinds of gaps: (1) *normal* (marked with numbers) — which should be flled in with the words under investigation and (2) *fillers* (usually marked by letters). After translating the text, the elements from the gaps should be removed.

Summary

- The text should be translated into the object language;
- the words written in italics should be deleted from the target text;
- there are two kinds of gaps: *normal* and *fillers*.

4 Judgment Tasks

In the QUIS$_{SEM}$ three kinds of judgment tasks are used: (1) felicity judgment tasks, (2) truth-value judgment tasks and (3) grammaticallity judgment tasks.

In the case of (1), an informant is asked to judge whether the given sentence is felicitous in the given context. In the case of (2), the informant should answer the question about whether a given sentence is true in the given context. Finally, in the case (3) the fieldworker asks whether the sentence is grammatically correct. Let us consider the following example: There is one context description (1-a) and three answers to the given question:

(1) a. Bob and John went fishing. I know that Bob caught ten fish and John caught fewer fish than Bob did. How many fish did John catch?

b. #John exclusively caught [eight]$_F$ fish.

c. John only caught [twenty]$_F$ fish.

d. *John caught [eight]$_F$ only fish.

We can see that the sentence (1-b) is infelicitous in the context of the sentence (1-a) (exclusively is not licensed in the sentences which refer to the logical entailment scales with total order). Notice that (1-b) is both grammatical and true (it does not follow from the context (1-a) that (1-b) is false). The sentence (1-c) is grammatical and felicitous but is not true (from the context follows that John caught fewer than ten fish). Sentence (1-d) is felicitous and true but is not grammatical (only is not lincensed in this position).

In the QUIS$_{SEM}$ all three kinds of judgments are used to elicit different properties of focus sensitive expressions. The methodological guidelines for all of them are similar.

First of all, you should have the target sentences translated into the object language. The discussion on making translations is provided on page 7. In the case of felicity judgment tasks, it is especially important to control information structure of the target sentence in the object langauge — it should precisely reflect the information structure of the original sentence in English. In the case of the grammaticality judgment tasks, the grammatical strucure of the sentence should be controlled.

To make the presentation of the tasks more lucid, we have marked focus in the sentences to judge. Notice, however, that the informant should get the sentences without any metalinguistic information-strucure markers. The syntactical elements should not be marked metalinguistically as well.

If an informant judges a sentence as infelicitous, it is good to ask what is wrong with the sentence or why it is infelicitous. You can also ask the informant to correct the infelicitous sentence to obtain a felicitous one. This information can be helpful to draw reliable conclusions about the information or grammatical strucure of the sentence.

Summary

- Have the sentences to be judged translated into the object langauge;
- the informant should judge a *plain* sentence — i.e., without any metalinguistic markers;
- if sentence is judged by an informant as infelicitous, you can ask why this sentence is not correct and how this sentence can be changed to obtain a correct one.

5 Tests

Tests check the semantics of the linguistic elements in an indirect way. They consist of a context description (usually a short story) and questions about its content. In addition, several answers to choose from are provided. The task of the informant is to choose the appropriate answers to the given questions. The interpretation of the results are provided in the description of each *test*.

You should have the context descriptions, questions, and answers translated into the object language (for the discussion on making translations, see page 7).

To make the design of the test as clear as possible, focus elements are marked using metalinguistic symbols. However, an informant should obtain a *test* without any markers which do not belong to the object language itself.

Summary

- You should have the descriptions of the context, questions, and answers translated into the object language (see discussion on page 7)
- the informant should get a plain *test* without any metalinguistic markers.

Part II

Counterparts of Focus Sensitive Expressions and their Meaning

Expressions are called focus sensitive when their interaction with focused elements is such that altering the position of the focus in the given sentence changes the meaning of the sentence. Let us consider the following example:

(1) a. Brian [invited]$_F$ Mary.
b. Brian invited [Mary]$_F$.

Both sentences have the same truth-conditional reading and are true under the same conditions, namely if and only if Brian invited Mary. Different placement of the focus accent does not change the meaning of the sentences. By contrast, consider now the same sentences with the added exclusive particle *only*.

(2) a. Brian only [invited]$_F$ Mary.
b. Brian only invited [Mary]$_F$.

We can see that they differ according to their truth-conditional meaning. The sentence (2-a) is true if and only if Brian invited Mary and did not do anything else to Mary. Whereas the sentence (2-b) is true if and only if Brian invited Mary and nobody else. Since the different positioning of focus in the sentences (2-a) and (2-b) changes the truth-conditional meaning of these sentences, we can see that *only* is a focus sensitive expression.

In English, and many other languages, there is a wide spectrum of focus sensitive expressions, including, but not limited to, exclusives, adverbs of quantification, additives, particularizers, intensifiers etc.

In the QUIS$_{SEM}$ we consider only a subset of them, that is, exclusives, additives, scalars and adverbs of quantification. Our choice was dictated by theoretical considerations based on Beaver and Clark's work [Beaver and Clark, 2008]. Furthermore, the above-mentioned focus sensitive expressions are some of the most popular and the most typical ones. Their characteristics will be con-

sidered on the examples of *only* (exclusive), *too, also* (additives), *even* (scalar) and *always* (quantificational adverb).

The QUIS$_{SEM}$ should, at least partly, answer the following questions:

- In the given language, do counterparts of english focus sensitive expressions (*only, always, even, too, also*) exist? Finding this out is one of the main objectives of the QUIS$_{SEM}$.
- What is the syntactic distribution of focus sensitive expressions?
- How do focus sensitive expressions affect the meaning of the sentence?
- What are the semantic characteristics of the focus sensitive expressions?
- Are they conventionally or freely associated with focus?

The part of the QUIS$_{SEM}$ dedicated to the focus sensitive expressions is organized by type of expression, not by properties. Once we know which focus sensitive expressions are used in the given language, we can check which properties they have. From the organization of the QUIS$_{SEM}$ it follows that the same characteristics (exhaustivity, for example) may be checked for more than one expression in different parts of the QUIS$_{SEM}$.

6 Exclusives (*only*)

It is claimed (e.g. [Koenig, 1991]) that in every language there is at least one exclusive particle, such as *nur, lediglich, ausschliesslich* in German; *solo, unico, soltanto* in Italian; or *tylko, jedynie, wylacznie* in Polish[2]. In this part of the QUIS$_{SEM}$, we consider the semantics of three English exclusive particles: *only,*

[2] Of course, we have presented only a small subset of all exclusive particles in the given language.

merely, and *exclusively*. However, the tests are mainly concentrated on finding out the counterparts and semantics of *only*, since this is the most frequently used exclusive in English.

The function of exclusive particles (as their name shows) is to exclude the potential alternatives to the focal element satisfying the relevant open sentence[3]. For illustration, let us consider the following example:

(1) John invited [Mary]$_F$.

The relevant open sentence has the form *John invited x*, where $x = \{Mary,\ John,\ Bill,\ Mary\,and\,John,\ Mary\,and\,John\,and\,Bill, ...\}$[4]. In this case the value of x is not constrained to *Mary*. It is not said that John didn't also invite other people apart from Mary. Whereas the sentence

(2) John only invited [Mary]$_F$.

gets the interpretation that John has invited Mary and nobody else. All the alternative values to x in the formula *John only invited x* are excluded. In this case $x = \{Mary\}$.

[3] It is important to notice that the relevant open sentence is indicated by the Current Question (Question under Discussion). Compare the following question-answer pairs (Q-A pairs):

1. a) Who did John invite?
   b) John only invited [x]$_F$.
2. a) Who invited Mary?
   b) Only [x]$_F$ invited Mary.
3. a) What did John make with Mary?
   b) John only [x]$_F$ Mary.

[4] The theories differ according to the way of indicating set of the salient alternatives. However, the choice of the theory is not relevat for our considerations, which is why we do not go deeper into this issue.

One of the most characteristic properties of exclusive particles lies in their referring to the salient scales. The proper scales are created by ordering the possible answers to the Current Question. We can distinguish at least three main types of scales that exclusives can refer to:

1. logically entailing scales with partial-order, used in 'regular' exclusive statements;

2. logically entailing scales with total order, e.g., sentences with numerals;

3. non-entailing scales with contextually given pre-ordering, e.g., ranks and professions.

For illustration, let us consider the following sentences with *only*:

(3) a. Which books did George read for the German literature exam?
b. George only read [The Magic Mountain and Faust]$_F$.

(4) a. How many fish did Mike catch?
b. Mike caught only [three]$_F$ fish.

(5) a. Mike is a general, George is a colonel and what does John do?
b. John is only [a lieutenant]$_F$.

The first sentence (3-b) refers to the logically entailing scales with partial-order. $\{The\,Magic\,Mountain,\ Faust\}$ is the set satisfying the open sentence *George read only x* and it provides an answer to the Current Question given in (3-a). The weaker answer is the singleton: either $\{The\,Magic\,Mountain\}$ or $\{Faust\}$, whereas the stronger one is any proper superset of $\{The\,Magic\,Mountain,\ Faust\}$.

The scale to which *only* refers to in the second (4-b) sentence is a logically entailing scale with total order. The weaker answers to the Current Question

include all the numerals which value is less than three, that is, *he caught one fish, he caught two fish*, whereas the stronger answer contains a numeral which value is more than three, e.g., *he caught four fish, he caught twenty fish etc*.

The exclusive particle in the third sentence (5-b) refers to a non-entailing scale. The elements ordered on the scale are not logically related to one another. However, there is a pre-ordering that is contextually given. In the case of (5-b), the possible answers to the Current Question refer to the salient scale of the army degrees: *private — lieutenant — colonel — general*. The weaker possible answers claim that John has a lower rank than a lieutenant, for example, *John is a private*. On the other hand, the stronger answers include all the statements that John has a higher rank than a lieutenant, for example, *John is a colonel, John is a general*.

It is important to notice that in fact both *only, exclusively* as well as *merely* refer to the given scales. Although in this sense all of the considered exclusives are scalar, they do not form a homogenous class of words:

(1) *Merely* has an additional pejorative meaning component. The sentence *John merely read [two]$_F$ articles* does not only get an exclusive interpretation but also a pejorative one, namely that it is quite bad that John read no more than two articles.

(2) Exclusives differ also according to the scales they can refer to. Both *only* amd *merely* can refer to all three kinds of scales mentioned above. Notice, however, that whereas the distribution of *only* is much wider, the distribution of *merely* is much more constrained.

The particle *exclusively* has the most limited distribution in terms of referring to the scales. This particle causes infelicity in the cases of the logically entailing scales with total order (6) and the non-entailing scales in predicative environment (7):

(6) a. John and Mary ate chicken and chips for dinner and for that paid John, but I paid for their dessert. I know that Mary ate five cookies but how many cookies ate John?

b. ??John ate exclusively [three]$_F$ cookies.

(7) a. Mike, George and John are good friends. They love mountains. All of them are alpinists and they used to climb together. All of them work in the army: Mike is a general, George is a colonel, but what does John do?

b. #John is exclusively [a lieutenant]$_F$.

As mentioned above, *only* and *merely* can refer to all three kinds of scales, which is why if we replace *exclusively* by *only* or *merely*, we obtain felicitous sentences[5]. The reply to the first question: *John ate only/merely [three]$_F$ cookies* is totally correct, as well as the answer *John is only/merely [a lieutenant]$_F$* for the second question[6].

As we have seen all of the exclusives refer to salient scales, but they differ in their distributions and additional meaning components. Therefore, we will not talk about the scalar and non-scalar exclusives (what is very common in the literature) but rather about three types of the exclsuives: (a) only-type (the general exclusives), (b) the merely-type and (c) the exclusively-type. It is important

[5] Notice however that both *merely* and *exclusively* are not easily licensed in the corrective statements when the sentence with exclusive refers to the entailment scales with total order, for example:

(i) a. How many people came to the party?
b. Bill and Peter came to the party.
c. No, only [Peter]$_F$ came to the party.
d. #No, exclusively [Peter]$_F$ came to the party.
e. #No, merely [Peter]$_F$ came to the party.

[6] Notice however that the sentences with *only* and *merely* differ because of the additional pejorative meaning component of *merely*.

to notice that, while the distributions of *merely* and *exclusively* usually do not coincide, the ditribution of *only* is compatible with both of them. It means that in every context *only* can substitute for both *merely* and *exclusively*.

The characteristic behaviour and distribution of *exclusively* and *merely* can be described without going too deep into theoretical considerations.

(a) First of all, as was already mentioned, *merely* has an additional pejorative meaning component, and because of this it cannot be used in non-pejorative (positive) contexts. Let us consider the following example, where the second clause suggests a positive interpretation of the sentence:

(8) #Bill merely read [two]$_F$ books, which is good.

We can observe that such a sentence, because of the contradictory meaning of *merely* and the second clause *which is good*, is infelicitous in English.

(b) Second, *merely* does not presuppose the prejacent in the negated clauses when it refers to the non-entailing scale with contextually given pre-ordering (for more detailed discussion see section 6.2.3). Let us look at the following example:

(9) John met not merely a lieutenant, but a general.

This sentence does not force us to conclude that John met both a lieutenant and a general, but it rather suggests that John met a general but not a lieutenant.

(c) The third characteristic property of *merely* is its easily licensing in the predicative sentences with evaluative meaning, for example:

(10) a. Mary always wanted to be a doctor. In high school she considered being a nurse. I know that she works in the hospital. What does she do?

b. She is merely [a cleaning lady]$_F$.

The answer to the question has a strict pejorative meaning. On the salient scale of the jobs prestige which can be done in the hospital, the cleaning lady is visibly at the end of the scale.

Exclusively behaves differently in comparison to *merely* in all the cases mentioned above ((a)—(c)). However, these observations do not allow to distinguish *exlusively* from *only*. The property that allows one to do that is operating on the total ordered entailment scales. *Exclusively* cannot operate on such a scale without causing infelicity, whereas *only* is licensed to do it. Let us look at the following examples:

(11) a. *John read exclusively [two]$_F$ books.
b. John read only [two]$_F$ books.

The sentence (11-b) is totally correct, whereas the sentence (11-a) is ungrammatical.

Merely and *only* can be easily distinguished beacuse *only* does not get such a strong pejorative meaning component as *merely*.

Summing up, we can distinguish three types of exclusives: (a) only-type, (b) merely-type and (c) exclusively type. The most general type (which can be used in all contexts demanding the use of exclusive) is the only-type, while the distributions of *exclusively* and *merely* are significantly limited. What is more, their distributions usually do not coincide. The differences between *merely* and *exclusively* are presented above. So, we have in fact two types of contexts with exclusives demanding either the use of *exclusively* or the use of *merely*. In any case both of these particles can be substituted by *only*.

After conducting the tests from this part of the QUIS$_{SEM}$ for any given language X, the answers to the following questions should be known:

- What are the counterparts of English exclusives and what is the main exclusive particle in the object language? (see 6.1)
- How one can distinguish three types of exclusives: only-type, merely-type and exclusively-type? (see 6.2)
- Do exclusives obtain an exhaustive interpretation? (see 6.3.1)
- Which part of the meaning of the sentence with *only* is presupposed, asserted, or conversationally implicated? (see 6.4)

6.1 Counterparts of Exclusives

6.1.1 Translation Task 1

Translation tasks can be used to get a general picture of exclusives in the object language. The interpretation of the focus sensitive expressions depends highly on the discourse in which they occur. That is why every sentence is preceded by a short context description. First, you should present your informant the context and then ask him to translate a sentence containing a focus sensitive expression (the sentence that should be translated is written in boldface.) Methodological advice about conducting translation tasks is provided in section 1.

On the basis of the type of exclusives used in the English sentences, we distinguish two groups of sentences to translate. In the first group there are sentences in which exclusively-type exclusives are used, and in the second one there are the sentences in which merely-type exclusives are used. Notice that in English *only* (in comparison to *exclusively* and *merely*) can be used for both groups. It is highly possible that the informant will use the same exclusive particle in both contexts, namely the most frequent one.

What is more, English exclusives can associate with a range of syntactic constituents of grammatical functions, among others NO, VP, DO, etc. In the test, we present various association patterns of *only* with focus. What is more, sentences 13-16 include negated *only*. In the first group of sentences:

- 1 — 2 *only* associates with Subject,
- 3 — 4 *only* associates with V,
- 5 — 6 *only* associates with VP,
- 7 — 8 *only* associates with DO,
- 9 — 10 *only* associates with PP,
- 11, 12, 13, 14 — *only* associates with: N, VP, V, DO.

In the second group, *only* associates with Subject (sentences 1 – 2), V (sentences 3 — 4), VP (sentences 5 — 6), DO (sentences 7 — 8) and PP (sentences 9 — 10).

In principle it is important to notice that in the object language (1) there can be two seperate expressions for negated and non-negated exclusives, and (2) the different syntactic elements that *only* associates with may demand the use of different exclusive, although in English this is not the case.

Exclusively-type *only*

1. a) There were four children. Tom, George and Angela went to kindergarden. Mary went to school.

   b) **Only [Mary]$_F$ went to school.**

2. a) There were four students. Bill, Sue, and Jane did not pass the test. Anne passed the exam.

b) **Only [Anne]$_F$ passed the exam.**

3. a) Anne baked a cake but she did not eat it.

   b) **Anne only [baked]$_F$ the cake.**

4. a) Henry read this book but he did not write it.

   b) **Henry only [read]$_F$ this book.**

5. a) Liz was told to milk a cow and pick up mangoes. She forgot to milk a cow, so...

   b) **Liz only [picked up mangoes]$_F$.**

6. a) Yesterday evening Mary read a book and she did not do anything else.

   b) **Yesterday evening Mary only [read a book]$_F$.**

7. a) Tom is married to Lisa. He loves her more than anybody else in the world and he is not interested in any other woman.

   b) **Tom only loves [Lisa]$_F$**

8. a) Anne is sick and she must maintain a strict diet. She is allowed to eat vegetables and nothing else.

   b) **When she is sick Anne only eats [vegetables]$_F$**

9. a) In the christian tradition people should have christmas trees at homes in December and in no other month.

   b) **Christians only have a christmas tree at home [in December]$_F$.**

10. a) Margaret is a very busy person. She has time to go to the market on Monday and on no other day.

b) **Margaret only goes to the market [on Saturday]$_F$.**

11. a) Tom and Mary went to the cinema.

    b) **Not only [Tom]$_F$ went to the cinema, but also Mary.**

12. a) Anne cooked dinner and washed the dishes .

    b) **Anne not only [cooked dinner]$_F$, but also washed the dishes.**

13. a) Mary washed and brushed her hair.

    b) **Mary not only [washed]$_F$ her hair, but also brushed it.**

14. a) Tom invited Mary and Sue.

    b) **Tom not only invited [Mary]$_F$, but also Sue.**

Merely-type *only*

1. a) There was an official reception at the presidential palace. The organizers expected that the American president would also come, but he sent his assistant instead.

   b) **Only [the president's assistant]$_F$ took part in the reception.**

2. a) A general was expected to come to the meeting with new recruits, whereas...

   b) **only [a lieutenant]$_F$ came to the meeting with new recruits.**

3. a) John wanted to help his teacher, who had fallen into the puddle of mud — but he looked so funny that...

   b) **John only [stared]$_F$ at his teacher.**

4. a) George went to the capital city. He wanted to meet the king, but...

b) **George only [saw]$_F$ the king.**

5. a) Paul wanted to buy a new car, but...

   b) **Paul only [repaired his old car]$_F$.**

6. a) Mary went on holiday to England. She really wanted to meet Queen Elizabeth II, but...

   b) **Mary only [saw her son]$_F$.**

7. a) Anne went to the market. She really wanted to buy mangoes, but...

   b) **Anne only bought [bananas]$_F$.**

8. a) George's favourite fruit is watermelon. He likes bananas but mango just a little bit. He really wanted to eat a watermelon, but...

   b) **He only ate [a mango]$_F$.**

9. a) Mary decided to come back home on foot. She thought it would take her half an hour, but...

   b) **It only took her [ten minutes]$_F$.**

10. a) Tom is a very good fisherman. On Sunday there was really bad weather.

    b) **Tom caught only [three]$_F$ fish on Sunday.**

6.1.2 Translation Task 2

The test consists of nine pairs of sentences. The sentences marked by (a) provides a context. The (b)-sentences should be translated by an informant. Present your informant a context and then ask him or her to translate the sentence in the given context.

Exclusively-type *only*

1. a) Tom and Jenny are going for vacation.

   b) **No! Only [Tom]$_F$ is going for vacation.**

2. a) Mary baked and ate a cake.

   b) **No! Mary only [baked]$_F$ a cake.**

3. a) James bought apples and bananas.

   b) **No! James only bought [bananas]$_F$.**

4. a) Paul plays football and he plays tennis.

   b) **No! Paul only plays [football]$_F$.**

5. a) Anne goes shopping on Fridays and on Sundays.

   b) **No! Anne only goes shopping [on Fridays]$_F$.**

Merely-type *only*

1. a) A colonel entered the room.

   b) **No! Only [a lieutenant]$_F$ entered the room.**

2. a) She bought a car.

   b) **No! She only bought [a bike]$_F$.**

3. a) Mary talked to a president.

   b) **No! She only [saw]$_F$ a president.**

4. a) Mary's flight took almost an entire day.

   b) **No! It only took [5 hours]$_F$.**

6.1.3 Production Task (pictures)

In the production tasks, informants are forced to utter a sentence without linguistic stimuli to translate. This picture task helps to find out the counterparts of exclusives during spontaneous speech. The general methodological advice regarding this type of test is found in section 1.

Description of the Test

The test consists of pictures and descriptions to the pictures that should be translated into the object language before presenting them to the informant. The informant should correct the description if it does not correspond to what he or she can see in the picture. The pictures and the descriptions force the informant to use an exclusive in the corrective statements. The first three descriptions do not demand the corrections. They should be used randomly as fillers while conducting the test.

Present your informant a picture and read a description assigned to the picture. Ask the informant to correct the description if it is not in accordance with what he or she can see in the picture. To brief the informant, you can use the following instructions:

> You will see several pictures, each followed by a short description. If the description does not correspond to what you can see in the picture, please correct it using a full sentence.

The answers should be jotted down or recorded. You should also note all the additional comments made by your informant. It can be a valuable *clue* for your research. In the boldface text we present the predicted informant's responses.

Figure 1: Description 1

Figure 2: Descriptions 2, 4 and 6

Figure 3: Description 3

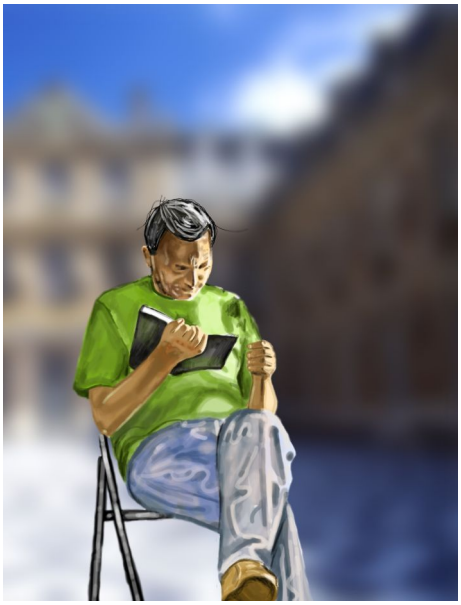

Figure 4: Descriptions 5, 7 and 9

Figure 5: Description 8

Descriptions — Exclusively-type *only*

1. a) Mary bought apples and bananas.

   b) **Yes, Mary bought apples and bananas.**

2. a) Tom and Mary are eating dinner.

   b) **No, only [Mary]$_F$ is eating dinner.**

3. a) George and Martha are watching tv.

   b) **No, only [George]$_F$ is watching tv.**

4. a) Alice is cooking and eating dinner.

   b) **No, Alice is only [eating]$_F$ dinner.**

5. a) Tom is writing and reading a book.

   b) **No, Tom is only [reading]$_F$ a book.**

6. a) Alice is reading a book and eating dinner.

   b) **No, Alice is only [eating dinner]$_F$.**

7. a) A man is reading a book and drinking water.

   b) **No, the man is only [reading a book]$_F$.**

8. a) A boy is holding flowers and books in his hands.

   b) **No, the boy is only holding [flowers]$_F$ in his hands.**

9. a) Tom is reading a book and a newspaper.

   b) **No, Tom is only reading [a book]$_F$.**

Merely-type *only*

1. James caught twenty five fish.

2. **No, he only caught [one fish]$_F$.**

6.1.4 Story — Production Task

The *Story — production task* is designed to elicit exclusives and additives during spontaneous speech with the use of stimuli different from those in the previous tasks — in this test we suggest making use of linguistic stimuli presented in the form of short text.

The test consists of the text and the questions to its content. The story and the questions are designed in such a way that it is necessary to use either an exclusive or an additive particle to give the correct answers to the questions.

Have the story and questions translated into the object language. Present the story to your informant. Informants can either listen to the text or read it on their own. When your informant is familiarized with the story, ask him or her the questions about its content. Again, it can be done either in writing or verbally.

After each question we provide the predicted answers.

Story

Anne, Mary, and John are good friends. All of them go to the same school. Anne lives next to it so she can go there on foot. Mary and John cannot do that because they live too far away. They have to go to school by bus.

Girls are really good in mathematics, whereas John is interested in literature and he hates studying physics and maths, so he has bad marks in these subjects.

Anne and Mary try to help him in math but he is not willing to spend his time studying it instead of reading novels.

Anne, Mary, and John are very different but they love spending time together! All of them like biking, but they also have their own hobbies. Mary loves swimming. She is in the *School Swimming Club*. Anne and John do not like swimming very much, but they always come to swimming competition to chear for Mary. Anne has also interesting hoobies. She collects stamps and postcards. John is a typical man. He often plays football and goes fishing.

1. a) Who lives next to the school? Do Mary and Anne live there?
   b) No, only Anne lives next to school.
2. a) Who goes to school by bus? Does John and anybody else go there by bus?
   b) Yes, Mary also goes to school by bus.
3. a) Who is interested in literature? Are Mary and John interested in it?
   b) No, only John is interested in literature.
4. a) Which school subject does John hate? Does he hate studying physics and nothing else?
   b) No, he also hates studying math.
5. a) Is Mary and nobody else good in math?
   b) No, Anne is also good in math.
6. a) Who loves swimming? Do both Mary and John love it?
   b) No, only Mary loves swimming.
7. a) What is Anne's hobby? Does she only collect stamps?

b) No, she also collects postcards.

8. a) What is John's hobby? Does he only play football and nothing else?

b) No, he also goes fishings.

6.2 Only-type, Exclusively-type and Merely-type Exclusives

As was written in the introductory part (see page 20), three types of exclusives can be distinguished in English: (1) only-type, (2) exclusively-type and (3) merely type. All of them refer to the salient scale; however, their distribution differs significantly. *Only* can be used in every context that requires the use of an exclusive particle, whereas the distribution of *merely* and *exclusively* are considerably more limited. What is more, usually the distribution of *merely* and *exclusively* do not coincide. Let us briefly racall the differences in the behaviour and distribution of *merely* and *exclusively*.

Merely:

- has an additional pejorative meaning component, which is why it cannot be used in positive (non-pejorative) contexts;
- can operate in all kinds of scales, but not in all kinds of exclusive contexts;
- does not presuppose the prejacent in the negated clauses;
- is easily licensed in the predicative sentences with a pejorative meaning.

Exclusively:

- cannot operate on entailment scale with total order;
- presupposes the prejacent in the negated clauses;
- is not licensed in the predicative sentences with a pejorative meaning.

Notice, that in all cases *merely* and *exclusively* can be subsituted by *only*.

From these observations follow that the use of exclusively-type exclusives in contexts that demand the use of merely-type exclusive causes infelicity. Let us consider the following examples:

(12) John likes fishing and he is pretty good at it. Last week John went fishing with George. I know that George caught ten fish. But what about John?

a. He only caught [five]$_F$ fish.
b. He merely caught [five]$_F$ fish.
c. #He exclusively caught [five]$_F$ fish.

(13) Bill could not decide if he should invite Mary, Jane, or both Mary and Jane to the cinema. What did he do in the end? Did he invite Mary, Jane, or both of them?

a. He only invited [Mary]$_F$ but he was really happy about it.
b. *He merely invited [Mary]$_F$ but he was really happy about it.
c. He exlcusively invited [Mary]$_F$ but he was really happy about it.

In the example (12) it is needed to use an exlusive that can operate on an entailment scales with total order, therefore exlcusively-type exclusives cause infelicity here (they cannot operate on such scales), whereas in the example (13) there is a visibly positive context (Bill was happy about his choice). Therefore, the use of *merely*, which has a pejorative meaning component, is not licensed. These facts can help us to find out if a given exclusive particle is a merely-type, an exclusively-type, or both (i.e., an only-type). In this section we present tests which help figure this out.

6.2.1 Story with Gaps

The aim of the test is to figure out if in the object language seperate exclusively-type and merely-type exclusives exist.

There are eleven gaps in the text that should be filled in with the proper word. The context demands using either an exclusively-type or a merely-type exclusive. There are also five 'filler gaps' that do not require the use of exclusive particles.

Before conducting the test, the text should be translated into the object language. To make the translation easier, we do not remove from the text the exclusive particles and the filler words. Nonetheless, the words that should be removed are written in italics. Additionally, the gaps where a merely-type exclusive should be used are marked with a letter and the gaps where an exclusively-type exclusive should be used are marked with a number. The 'filler gaps' are marked with a roman numeral.

Observing which particles are used in which gap (in which context) you can figure out, if a given particle is a merely-type or an exclusively-type. Looking at the text globally, you can see if there are different particles used in different contexts. Notice, however, that only-type exclusives can be used in the contexts licensing both the exclusively-type and merely-type exclusives. Hence, it may happed that all the gaps, except for the fillers, will be filled in with the same particle. However, this is also a conlusive result, showing that in the object language a particle that has similar distribution to *only* in English exists.

Methodological advice regarding this kind of tasks is presented in section 3.

Description of the Test

Translate the text into the object language. Remove from the text all the words marked in the initial text as exclusive particles or filllers. The additional mark-

ers indicating exclusively- and merely-type exclusives as well as filler markers should be deleted. Give the prepared text to your informant and ask him or her to fill in the gaps. You can use the following instructions:

> You will get the text with gaps. Read the text carefully and then fill in the gaps with the proper word.

Text - *Scout's Trip*

During the girl scouts camp, a group of the smallest scouts (Jenny, Pati, Megan, and Sharon) went on a small trip to the forest. For the small girls the (I) *forest* seemed to be very dark and very dangerous. Their task was to bring an eagle's feather back to the camp. Suddenly, they saw something strange. 'Oh, it's a wild boar!' — said Jenny. 'No, it's a wolf!' — (II) *said* Pari. All the girls except Megan were panicking. (1) *Exclusively* Megan was brave enough to check what it was. She went to the animal and said to the girls: 'No, it's (a) *merely* a small road dear. It will not bite us.' Although nothing bad has happened, Jenny, Pati and (III) *Sharon* were very afraid. (2) *Exclusively* Megan wanted to continue the trip. She said, 'we must get back to the camp at 7 o'clock. We don't have so much time. There are (b) *merely* 3 hours left and we still do not have an eagle's (IV) *feather*.' The girls listened to Megan and continued the trip. After two hours they became really hungry. They wanted to find something to eat because they (c) *merely* had two sandwiches with them. They couldn't find anything to eat. (3) *Exclusively* Sharon was lucky — she found some blueberries! They were so happy! (d) *Exclusively* one of them was not satisfied because she got a stomach ache after eating the fruits. The time has come to go back to the camp. Girls were not able to find an eagle's feather. The (4) *only* thing they found were the (V) *blueberries* they ate.

6.2.2 Judgment Felicity Task

This test helps to find out if a given exclusive particle is either a merely-type or an exclusively-type. The methodological advice for this test are presented in the section 4.

In order to conduct this task, it is important to have a general picture of exclusives in the object language. Therefore, it is worth making translation (see 6.1.1, 6.1.2) and production tasks (see 6.1.3, 6.1.4) before conducting a *Felicity Judgment Task*. We also suggest to make *Story with Gaps* task (see 6.2.1), which gives you a preliminary idea as to which exclusives in the object language are merely-type and exclusively-type.

The test works best when there is more than one exclusive particle in the object language. However, it can also be applied to those languages where one can find only one exclusive particle. That is why in the *Description of the test* we propose two scenarios: (1) created for the languages with one exclusive, and (2) created for languages with two (or more) exclusives.

The test is based on the observations described in the introductory part to the section *Only-type, exclusively-type and merely-type exclusives* (see page 39). Let us recall briefly that using an exclusively-type exclusive in the context licensing merely-type exclusive (and vice versa, that is, using a merely-type exclusive in the context licensing an exclusively-type exclusive) causes infelicity (see section 6.2).

This *Judgment Task* consists of twenty sentences with removed exclusive particles (instead of writing the specific exclusive, we just wrote a variable *exclusive particle*). Ten sentences require the use of exclusively-type particles and ten sentences require the use of merely-type exclusives.

Have the sentences and the context descriptions translated into the object language. In place of the variable *exclusive particle* write the exclusive you want to research:

1. When there is only one exclusive particle in the object language (or it seems so), then — of course — you have to use the same particle in all entities. In this case the test can help you to find out which interpretations can have the given particle (merely-type, exclusively-type, or both).

2. When there are two, or more, exclusive particles in the object language, then you should fill in each sentence with one particle only. You should make sure that the same particle occurs in the contexts licensing exclusively-type and merely-type exclusive. To obtain minimal pairs, fill in the same sentence with different particles. Only then you will be able to draw a reliable conclusion about the types of exclusives in the object language.

Present your informant a translated sentence filled in with a particle and ask him whether the given sentence is felicitous or not. You can use, for example, the following questions: *Is this sentence correct?*, *Is this sentence ok?* or *Does this sentence make sense?*. When the context is provided, first present your informant the context and then ask for a judgement. If your informant decides that the given sentence is infelicitous, you can ask him to improve it.

To conduct this test you can also use the sentences from *Translation Task 1 and 2* (see sections 6.1.1 and 6.1.2). First, make a translation task and then follow all of the steps described in the *Felicity Judgment Task* (since there is no a variable *exclusive particle* in the translation tasks, put different exclusives in the place of *only*).

If a given particle causes infelicity in the context licensing a merely-type exclusive, whereas is felitious in the contexts where an exclusively-type exclusive is required, you can assume that the exclusive is the latter type. In contrast, when a particle causes infelicity in the context demanding exclusively-type exclusive and it is felicitous in the context licensing merely-type exclusives, the given exclusive is an exclusively-type.

Sentences — exclusively-type *only*

1. a) Anne and James went to Italy.
   b) No, (*exclusive particle*) [Anne]$_F$ went to Italy.
2. a) Mary and John visited their grandmother.
   b) No, (*exclusive particle*) [Mary]$_F$ visited her grandmother.
3. a) George planted and gathered tomatoes.
   b) No, George (*exclusive particle*) [planted]$_F$ tomatoes.
4. a) Kate fed and pated a dog.
   b) No, she (*exclusive particle*) [fed]$_F$ a dog.
5. a) Jane cooked dinner and went to the market yesterday.
   b) No, Jane (*exclusive particle*) [cooked dinner]$_F$ yesterday.
6. a) George went to school and visited his grandmother yesterday.
   b) No, George (*exclusive particle*) [went to school]$_F$ yesterday.
7. a) Maria invited Tom and Jerry to the party.
   b) No, Maria (*exclusive particle*) invited [Tom]$_F$ to the party.

8. a) Sheldon studied math and physics yesterday.
   b) No, Sheldon (*exclusive particle*) learned [math]$_F$ yesterday.
9. a) Tom's sister wemt on vacation in May and in July.
   b) No, Tom's sister (*exclusive particle*) went on vacation [in May]$_F$.
10. a) Claire goes to the church at 6 o'clock and again at 14 o'clock.
    b) No, Claire goes to church (*exclusive particle*) [at 14 o'clock]$_F$.

Sentences — merely-type *only*

1. a) How many fish did John catch?
   b) John caught (*exclusive particle*) ten fish.
2. a) How many pages did Jim read?
   b) Jim read (*exclusive particle*) eight pages.
3. a) This man who just entered the room, is he a general?
   b) No, he's (*exclusive particle*) [a lieutenant]$_F$.
4. a) Oh, it's the president!
   b) No, it's (*exclusive particle*) [the prime minister]$_F$.
5. a) A cardinal was expected to came to the meeting.
   b) Instead (*exclusive particle* [a bishop]$_F$ came.
6. a) A vice-chancellor was supposed to visit the exchange students.
   b) (*exclusive particle*) [a dean]$_F$ visited them instead.
7. a) Did Anne manage to meet Queen Elizabeth II?

b) No, she (*exclusive particle*) [saw]$_F$ her.

8. a) Did she buy a flat?

   b) No, she (*exclusive particle*) [rented]$_F$ one.

9. a) Did George meet a general ?

   b) No, he (*exclusive particle*) met [a colonel]$_F$.

10. a) Did Jane buy a car?

    b) No, she (*exclusive particle*) bought [a bike]$_F$.

6.2.3 Test for Scalarity — Beaver and Clark

The meaning of exlcusives consists of two elements: prejacent (positive part of the meaning of exclusives) and universal (exclusive, negative element of the meaning of exclusives). Let us consider the following example:

(14) Only Jane went to the Zoo.

The prejacent (the positive component of the meaning of exclusives) is a proposition that Jane went to the Zoo, whereas the universal part (the negative part of the meaning of exclusives) is a proposition that nobody else but Jane went to the Zoo.

In this test we adopt the Beaver and Clark's observations about the scalarity of exclusives [Beaver and Clark, 2008]. We use it to determine if a given exclusive is a merely-type or an exclusviely-type. Namely, an exclusive is a merely-type when its negation can be used without making an implication that the prejacent holds. Notice, however, that it relates to the non-entailing scales with contextually given pre-ordering. Let us consider the following examples:

(15) a. John met not merely a lieutenant, but a general
b. John met not exclusively a lieutenant, but a general
c. John met not only a lieutenant, but a general.

We can see that from the sentence (15-a) we do not have to conclude that John met a lieutenant, so the prejacent does not have to hold. What is more, we cannot find any example where we will be forced to conclude from the sentence with *merely* that a prejacent holds.

In the case of *exclusively* we can observe a reverse phenomenon. The sentence (15-b) implies that John met both a lieutenant and a general, so it follows that the prejacent holds. Furthermore, it is difficult to find out a context in which the prejacent does not hold when we utter a negated *exclusively* in the sentence.

The sentence (15-c) implies that John met both a lieutenant and a general (the prejacent holds), so we can deduce that *only* is a merely-type exclusive. However, it is also possible to conclude from (15-c) that John did not meet a lieutenant, but a general. Hence, the prejacent does not have to hold, so *only* can be treated as an exclusively-type exclusive. These observations allow one to draw a conclusion that *only* can be a subsitute to both merely-type and exclusively-type exclusives.

Description of the Test

The test consists of four small stories including a sentence with an exclusive. After each text there is a question about the content of the story. Have the stories and the questions translated into the object language.

Instead of writing a specific exclusive in the stories, we wrote a variable *exclusive particle*. Replace it with exclusives you want to research. To obtain a minimal pair use two (or more) particles in the context of the same story.

exclusive	**situations 1, 2**	**situations 3, 4**
merely	(a)no; (b)yes	'b'
exclusively	(a)yes; (b)yes	'a'
only	mixed answers	mixed answers

Table 1: Predicted Answers for the English Exclusives

After translating all the material and filling in the variables, present the stories to your informant and ask him to answer the questions.

If the answers are in accordance with the prejacent, it means that a particle is exclusively-type. When the answer is not in accordance with the prejacen, then the particle is merely-type.

The answer *'yes'* for the questions 'a' in situations (1) and (2) suggests that an informant implies that the prejacent holds (the exclusive is an exclusively-type). The answers for the 'b' questions (in the situations (1) and (2)) are not important from the point of view of this test. However, we predict that in every case the informant will reply *'yes'*.

In the case of the *counting questions* (situations (3) and (4)) the answer 'a' suggests that an informant counts both prejacent and universal (the exclusive is an exclusively-type), while a choice of the answer 'b' says that the informant does not count a prejacent (the exclusive is a merely-type). A choice of 'c' means that the informant counts prejacent without counting universal, but we predict that this will not happen. The predicted answers for the English exclusives are shown in the Table 1.

Story — 'Official Reception'

1. George was invited to the official government reception. He did not (*exclusive particle*) talk to the civil servant, but to the president.

   a) Did John talk to the civil servant?

i. yes

ii. no

b) Did John talk to the president?

i. yes

ii. no

2. George was happy to be there. He could get to know so many people. He did not (*exclusive particle*) get to know the waiters, but the famous actors.

a) Did John get to know waiters?

i. yes

ii. no

b) Did John get to know the famous actors?

i. yes

ii. no

3. There was a lot of good food and drinks at the reception. George did not (*exclusive particle*) drink 2 glasses of wine, but 5 glasses of champagne.

- How many glasses of alkohol did George drink?

a) 7

b) 5

c) 2

d) other, why?

4. After the party not (*exclusive particle*) 20 BMWs, but 30 Porsches came to pick up the guests.

- How many cars came to pick up guests from the party?

a) 50

b) 30

c) 20

d) other, why?

6.3 Meaning of Exclusives

6.3.1 Exhaustivity

When the sentence with a focus sensitive expression obtains an exhaustive reading, the denotation of the focused item is the maximal or unique entity satisfying the property denoted by the remainder of the clause. Let us consider the following example:

(16) Denis only eats [vegetables]$_F$.

The sentence (16) has a reading that Denis eats nothing other than vegetables (*vegetables* constitutes the maximal and unique entity that fulfills the statement *Denis eats it*). It is also possible to interpret in this way *onlyV*:

(17) Denis only [eats]$_F$ vegetables.

(17) gets the reading that what Denis does with vegetables is eating them and nothing else (eating is the maximal action that he does with vegetables).

On the other hand, there are focus sensitive expressions that can get both interpretations: exhaustive and non-exhaustive. One of them is the adverb of quantification *always*. Let us consider the following example:

(18) Denis always eats [vegetables]$_F$.

It is possible to interpret the sentence (18) in such a way that Denis eats vegetables but also something else. Hence, *always* can get a non-exhaustive reading.

Below we present the test which helps to find out if the exclusives in the given object language obtain exhaustive or non-exhaustive interpretation. In a later part of the QUIS$_{SEM}$ (see 9.2.1) you can find the test for exhaustivity created for quantificational adverbs.

Test for Exhaustivity — Judgment Felicity Task

A sentence has an exhaustive reading when the focused element denotes a unique or a maximal entity satisfying the property denoted by the remainder of the clause. It follows from the definition of *a unique or maximal entity* that such an entity can be only one. Hence, if we add to the sentence with a particle having an exhaustive interpretation another focused item(s) having the same property as the first one, we obtain a sentence in which the first focused item (which should denote a uniqe or maximal entity satisfying the property denoted by the remainder of the clause) is neither unique nor maximal because another focused item also denotes an element satisfying the property denoted by the remainder of the clause. But we know that the first focused item indeed denotes such a unique or maximal entity (by definition of clauses with an exhaustive reading). Hence, by adding the second focused item, we obtain infelicity.

Let us consider the following example:

(19) Mary only eats [rolls]$_F$ for breakfast.

if we want to know if this sentence obtains an exhaustive reading, we should check if we can add to this sentence another focused element satisfying the property denoted by the remainder of the clause without obtaining infelicity, for example:

(20) #Mary only eats [rolls]$_F$ for breakfast, and she only eats [youghurt]$_F$ for breakfast too.

We can see that by adding such a focused element to the sentence (19), we obtained infelicity (sentence (20)). Therefore, we can conclude that the focused element in the first clause (rolls) denotes a unique or maximal entity satisfying the property denoted by the remainder of the first clause. Hence, the sentence fulfilles the requirements for obtaining an exhaustive interpretation.

Description of the Test

The test consists of twelve sentences with exclusive particles. In each sentence there are two focused elements which satisfy the remainder of the clause. If these focused items denote maximal or unique entities of given properties (if the clause with *only* gets an exhaustive reading), then two focused items satisfying the remainder of the clause are not licensed in one sentence. If they do not denote the maximal or unique items (if the clause with *only* does not get an exhaustive reading), then two focused elements with the same properties are licensed in one sentence.

Have the sentences translated into the object language (for the discussion on making translations, see page 7. If you want to ask one of your informants for translations, we propose the following strategy: Since we predict that the sentences from this task are infelicitous, you cannot ask an informant to translate full sentences (you should never ask for translation of unacceptable sentences [Matthewson, 2004]). Instead, we suggest deviding sentences into two parts and asking for translation of each part separately, e.g., a sentence *Only [John]$_F$ visits Monica on Sunday and only [Tom]$_F$ visits Monica on Sunday too* can be devided into (1) *Only [John]$_F$ visits Monica on Sunday* and (2) *Only [Tom]$_F$*

visits Monica on Sunday. The fieldworker should join both parts (translated by a native speaker) with a coordinating conjunction.

Present the translated sentences to your informant and ask him or her for a felicity judgment. You can use the following questions: *Is this sentence correct?*, *Is this sentence ok?* or *Does this sentence make sense?*.

If your informant judges the sentence as an infelicitous one (as incorrect, not ok etc.), you can be quite sure that the sentence has an exhaustive reading. If the sentence is accepted by your informant, it is very plausible that the sentence lacks an exhaustive interpretation.

Additional methodological guidelines regarding judgment tasks are provided in section 4.

Sentences

1. *Only* [John]$_F$ visits Monica on Sunday and *only* [Tom]$_F$ visits Monica on Sunday too.

2. *Only* [Tina]$_F$ invites Tom and *only* [Mary]$_F$ invites Tom too.

3. George *only* [bakes]$_F$ a cake and he *only* [eats]$_F$ a cake too.

4. Hanna *only* [plays]$_F$ with children and she *only* [works]$_F$ with children too.

5. Mary *only* [goes to the market]$_F$ on Monday morning and she *only* [cleans the floor]$_F$ on Monday morning.

6. Pam *only* [visits her friends]$_F$ on Friday evening and she *only* [visits her grandmother]$_F$ on Friday evening too.

7. Jane *only* picks [mangoes]$_F$ and she *only* picks [bananas]$_F$ too.

8. Agnes *only* meets [Sabrina]$_F$ in the evening and she *only* meets [Clara]$_F$ in the evening too.

9. Natalie *only* watches tv [on Sunday]$_F$ and she *only* watches tv [on Monday]$_F$ too.

10. a) Tom's favourite singer is Madonna. Apart from Madonna, he really likes Phil Collins and Rod Stewart. Sometimes he also listens to Mariah Carey and Elton John. Tom wanted to get an autograph from one of his favourite singers. Actually, he dreamed of getting Madonna's signature.

    b) **However, only [Elton John]$_F$ gave him an autograph and only [Mariah Carey]$_F$ gave him an autograph too.**

11. a) John is a marathon runner. He likes to sprint for 10 kilometres. During a run he decided that when he noticed his pace was too high for him, he would slow down and run normally. If this was still too fast for him, then he would slow down again and jog.

    b) **John only [jogged]$_F$ for 10 kilometers and he only [run normally]$_F$ for 10 kilometres too.**

12. a) Tom felt in love with Olivia. Apart from her, he is highly attracted to Megan and Julia. He also likes Mary and Anne. There was a school ball and Tom wanted to invite Olivia.

    b) **However, Tom only invited [Mary]$_F$ and he only invited [Anne]$_F$ too.**

no.	**test**	**Conversational Implicature**	**assertion**	**presupposition**
6.4.1	Failure of Simple Cancellation	+	−	−
6.4.2	Visibility to Negation	?	+	−
6.4.3	Projection out of if-clause	?	−	+

Table 2: Conversational Implicature, Assertion and Presupposition

6.4 Nature of Semantic Effect

The meaning of the sentences with exclusives consists of two elements: (1) positive (prejacent) and (2) negative (universal, exclusive)[7].

The question is if the prejacent and universal are presupposed, asserted or conversationally implicated?

We propose to conduct three tests to find out at least the partial answer to the above question: (1) cancelabillity in unembedded context, (2) visibility to negation, and (3) and projection out of if-clauses. The first test enables to distiniguish conversational implicature from assertion and presupposition. It is possible because only conversational implicature can be cancelled in unembedded clauses by the same speaker. The second and third test help to distinguish assertion from pressuposition: assertion is visible to negation (while presupposition is not), whereas presupposition projects out of if-clauses (while assertions do not). The summary of this paragraph is shown in the table 2.

[7] For explanation, see section 6.2.3

6.4.1 Failure of Simple Cancellation — Felicity Judgment Task

Since(1) presuppositions and (2) assertions cannot be cancelled in unembedded contexts, whereas (3) conversational implicatures allow for such an operation, the test enables to distinguish (3) from (1) and (2). In order to check if the given exclusive particle can be cancelled in unembedded contexts, we propose conducting a felicity judgment task. The additional methodological guidelines regarding this kind of tests are provided in section 4.

The test consists of six sentences with subsequent conditions: (a) cancelled prejacent, and (b) cancelled universal. In addition, next to the original sentence we provide an intended meaning of the initial sentence.

Have the sentences with cancelled elements translated into the object language (see page 7). Present them to your informant and ask him or her whether the given sentence is felicitous or not. You can use the following questions: *Is this sentence ok?*, *Is this sentence correct?* or *Does this sentence make sense?*. If the sentence is judged as felicitous, it means that prejacent/universal is conversationally implicated. If the sentence is judged as infelicitous, the prejacent/universal is either a presupposition or an assertion.

Sentences

1. Only [John]$_F$ swam. = *Nobody else but John swam.*

    a) Only [John]$_F$ swam and, in fact, he did not swim.

    b) Only [John]$_F$ swam and, in fact, somebody else swam.

2. Only [Megan]$_F$ likes football. = *Nobody else but Megan likes football.*

    a) Only [Megan]$_F$ likes football and actually Megan does not like football.

b) Only [Megan]$_F$ likes football and actually somebody else likes football.

3. Only [Bob]$_F$ ate a banana.= *Nobody else but Bob ate a banana.*

   a) Only [Bob]$_F$ ate a banana and, in fact, he did not eat it.

   b) Only [Bob]$_F$ ate a banana and, in fact, somebody else ate a banana.

4. Mary only baked [a cake]$_F$. = *Mary baked nothing else but a cake.*

   a) Mary only baked [a cake]$_F$ and actually she did not bake it.

   b) Mary only baked [a cake]$_F$ and actually she baked something else.

5. Tom only visited [his grandmother]$_F$. = *Tom visited nobody but his grandmother.*

   a) Tom only visited [his grandmother]$_F$ and, in fact, he did not visit her.

   b) Tom only visited [his grandmother]$_F$ and, in fact, he visited somebody else.

6. John only stroked [a cat]$_F$. = *John stroked nothing else but a cat.*

   a) John only stroked [a cat]$_F$ and actually he did not stroke a cat.

   b) John only stroked [a cat]$_F$ and actually he stroked another animal.

6.4.2 Visibility to Negation — *Test*

Visibility to negation is one of the most famous test for distinguishing presupposition from assertion: an assertion is visible to negation, while a presupposition is not.

We present five short stories and two questions about each of them. In each case the question (a) is about the prejacent and the question (b) is about the universal.

Have the stories, questions and answers translated into the object language (see page 7). Present your informant all the translated material and ask him or her to answer the questions. You can use the following instruction:

> Now you will see several short stories and questions about them. Please, answer the given questions.

If an informant chooses the 'no' answer to the (a) questions, it means that prejacent is visible to negation and therefore assereted. If the informant chooses 'yes' to the (b) question, it suggests that the universal is visible to negation and therefore asserted. The answers 'yes' to the (a) questions and 'no' to the (b) questions suggest that the given component is invisible to negation, and is therefore presupposed.

General methodological guidelines on this kind of elicitation task are provided in section 5.

Stories

1. Mary, Bill and Jane went to the party. It's not the case that only Mary drank alcohol there.

   a) Did Mary drink alcohol at the party?

      - yes
      - no

   b) Did somebody other than Mary drink alcohol at the party?

      - yes

- no

2. At the same party, some people danced, some talked and some drunk. It is not the case that Mary only danced there.

   a) Did Mary dance at the party?

      - yes
      - no

   b) At the party did Mary do something else beside dancing?

      - yes
      - no

3. Yesterday John could not sleep because there was terrible noises on the street. It is not the case that only John slept poorly last night.

   a) Did John sleep poorly last night?

      - yes
      - no

   b) Did somebody other than John sleep poorly last night?

      - yes
      - no

4. John and his friends went to play football on Sunday. It's not the case that only John and his four friends played football.

   a) Did John and his friends play football on Sunday?

      - yes
      - no

b) Did somebody other than John and his friends play football on Sunday?

- yes
- no

5. After the match, John and his friends went to the lake. Some of them swam, some of them dived, and some just took bathed in the sun. It is not the case that John only swam.

a) Did John swim?

- yes
- no

b) Did John do something else beside swimming?

- yes
- no

6.4.3 Projection out of if-clauses — *Test*

Embedding the sentence into the *if*-clause allows us to distinguish presupposition from assertion: presuppositions projects out of *if*-clause, while assertion does not.

We present four short stories including sentences with exclusives. After each story there are two questions about (a) a prejacent and (b) a universal part of the meaning of the sentence with exclusive.

Have the sentences, descriptions of the context, questions, and answers translated into the object language (see page 7). Present you informant all the translated material and ask him or her to answer the questions. You can use the following instruction:

Now you will see several short stories and questions to them.
Please answer the given questions.

If an informant chooses the answer ‘yes’ to the question (a), it means that a prejacent is presupposed. However, if the informant chooses ‘no’ to the question (b), it can be concluded that a universal is presupposed. In fact, they are the only answers from which we can draw realiable conclusions. Choosing the other answers (‘I do not know’ or ‘no’ to question (a) and ‘yes’ or ‘I do not know’ to question (b)) does not provide conclusive results.

Notice that the results of this test made for english exclusive particle *only* may not give clear results and they should be checked through use of other tests from the part *Nature of Semantic Effect* (see 6.4.1, 6.4.2).

Stories

1. Mary and Jim gave a reception. If only John had eaten ice-cram, they would have had a lot of extra sweets.

   a) Did John eat ice-cream?

      - yes
      - no
      - I do not know.

   b) Did anybody other than John eat ice-cream?

      - yes
      - no
      - I do not know.

2. Paul and John invited their friends over to cook and eat. If Mary only [had eaten]$_F$ the cake, they would not have had such a dirty kitchen.

a) Did Mary eat the cake?

- yes
- no
- I do not know.

b) Did Mary do anything other than eating the cake?

- yes
- no
- I do not know.

3. Every Wednesday Paul and their friends meet to play sports. This Wednesday Mary wanted to invite Paul to the cinema. If Paul only had played [football]$_F$, they would have had time to go to the cinema.

a) Did Paul play football?

- yes
- no
- I do not know.

b) Did Paul do anything other than playing football?

- yes
- no
- I do not know.

4. George wanted to invite some of his friends over to watch a horror movie. Anne is in love with George. If Goerge only had invited [Anne]$_F$, she would have been very happy.

a) Did John invite Anne?

- yes
- no
- I do not know.

b) Did John invite anybody other than Anne?

- yes
- no
- I do not know.

7 Additives (*too, also*)

In many languages there is a range of additive particles, for example: *also, too, as well, either, likewise* in English, *auch, ebenfalls, gleichfalls* in German, *takze, tez, rowniez* in Polish, *anche, pure, comunque* in Italian.

Beaver and Clark [Beaver and Clark, 2008] observed that the main function of additive particles is to indicate that the Current Question (the Question under Discussion)[8] is partially answered[9]. To illutrate this, let us consider the following examples:

(1) [Bill]$_F$ likes bananas, too.

[8] A question is a Current Question (A Question under Discussion) when all the interlocutors agree that providing an answer to it is the most recent goal of the discussion. The Current Question does not have to be asked explicitly.

[9] Compare the Q-A pairs:

1. a) Who likes bananas?
   b) [Bill]$_F$ likes bananas, too.
2. a) What does Bill like?
   b) Bill like [bananas]$_F$, too.

(2) Bill likes [bananas]$_F$, too.

It is commonly assumed that the sentences with additives have existential presupposition: in senence (1), that somebody likes bananas, and in sentence (2), that Bill likes something. However, an existential presupposition is too weak to intepret the meaning of the sentences with an additive particle in a proper way. It seems that the sentences with additives presuppose much stronger propostitions, namely, in the case of sentence (1), that there is a salient instance of someone other than Bill liking bananas, whereas in the case of sentence (1), that there is a salient instance of such a thing that it is not banana and Bill likes it. That is why we can assume that the sentences with additive particles indicate that a partial answer to the Current Question has already been provided.

In English we can distinguish between scalar additives (*even*), non-scalar additives (*also, too*)[10], and vague additives (*similarly, likewise, analogously*). However, in the QUIS$_{SEM}$ we concentrate on the semantics of scalar and non-scalar additives. For the scalar additive (*even*), we dedicated a separate part of the QUIS$_{SEM}$ (see section 8), whereas in this part we consider the counterparts and meaning of two non-scalar additives: *also* and *too*.

The unmarked version of the non-scalar additives is prefocal *also*. The non-scalar additive *also* (both prefocal and postfocal) associates with its right elements, while *too* associates with its left components.

In English sentences with negation, one can find another additive particle, that is *either*. Koenig [Koenig, 1991] claims that *either* is a suppletive form of *too*, *also* and *as well*, which shows wide scope over a negation that preced the additive.

[10] Notice, however that *too* and *also* can get a scalar interpretation as well. The difference between the scalar additive *even* and the non-scalar additives *too, also* is that *even* is never licensed in the non-scalar contexts, whereas *too* and *also* are.

After conducting the tests from this part of the QUIS$_{SEM}$, the answers for the following questions should be known :

- What are the counterparts of the English additive particles in the given object language?
- Do they obtain scalar or non-scalar interpretation?
- Do they have the property of *additivity*?
- Do they trigger a presupposition, entailment, or maybe conventional implicature?

7.1 Counterparts of Additives

In this part of the QUIS$_{SEM}$, we propose tasks which help to discover the counterparts of the english additive particles in the given object language. You should start your investigation by conducting a translation test. However, keep in mind that this only gives you a general overview of the additives in the given language and you should check your predictions about their semantics in the production tasks.

7.1.1 Translation Task

Thanks to the translation tasks, we can get the first general picture about the counterparts of the English additive particles in the object language. The general methodological advice on conducting translation tasks are presented in the section 1.

The test consists of twenty sentences to translate. Some sentences are preceded by a description of the context if needed. Present your informant a de-

scription of the context, if it is provided, and then ask him to translate the target sentence (written in boldface).

English additive particles associate with a range of syntactic constituents of grammatical function what is visible in the sentences to translate. Besides, we present also additive particles in the senteces with negation. In the sentences:

- 1, 2, 11 additive particle associates with Subject;
- 3, 4, 12 additive particle associates with V;
- 5, 6, 13 additive particle associates with VP;
- 7, 8, 14 additive particle associates with DO;
- 9, 10, 15 additive particle associates with PP;
- in the sentences with negation (16, 17, 18, 19, 20) additive particle associates with: Subject, V, VP, DO, PP.

It is important to notice that it may happen that in the object language different additive particles are used in the sentences with and without negation (as it is in English). What is more, different association patterns may also demand the use of different additives.

Sentences

1. a) Mary and John are going to Italy next week. Is anybody else (from their family) going to Italy next week?

   b) **[Roger]$_F$ is going to Italy, too.**

2. a) I know that Peter plays guitar. Does anybody else at his school play guitar?

b) **[Tom]$_F$ also plays guitar**.

3. a) Yesterday Mary cooked with her children. Did she do anything else with her children yesterday?

   b) **Yesterday Mary [played]$_F$ with her children, too.**

4. a) John wrote this book. Did she do anything else with this book?

   b) **John also [illustrated]$_F$ this book.**

5. a) Anne visits her grandmother on Mondays. Does she do anything else on Mondays?

   b) **On Mondays Anne [goes to the market]$_F$, too.**

6. a) Yesterday morning Megan cleaned her flat. Did she do anything else?

   b) **Megan also [baked a cake]$_F$ yesterday morning.**

7. a) John met Sandy yesterday evening. Did John meet anybody else yesterday evening?

   b) **John met [Jane]$_F$, too.**

8. a) Mary bought bananas. Did she buy anything else?

   b) **Mary bought also [oranges]$_F$.**

9. a) On Mondays John starts school at 8 o'clock. Does he start school at 8 o'clock in any other day?

   b) **John starts school at 8 o'clock [on Thursdays]$_F$, too.**

10. a) Brenda goes to the market on Tuesdays. Does she go to the market in any other day?

b) **Brenda goes to the market also [on Fridays]$_F$.**

11. **John likes Megan and [Bob]$_F$ likes Megan, too.**
12. **Mary washed her hair and she also [brushed]$_F$ her hair.**
13. **Yesterday Jenny went to the market and [cooked a dinner]$_F$, too.**
14. **Anne plays piano and she also plays [guitar]$_F$.**
15. **Sharon visits her grandparents on Wednesdays and she visits her grandparents [on Sundays]$_F$, too.**
16. **Bob does not like Mary and [Tommy]$_F$ does not like her either.**
17. **John does not read poems and he does not [write]$_F$ poems either.**
18. **Agnes did not go to school yesterday and she did not [visit her grandmother]$_F$ either.**
19. **Mary did not invite John and she did not invite [George]$_F$ either.**
20. **Philip does not work on Saturdays and he does not work [on Sundays]$_F$ either.**

7.1.2 Production Task — Pictures

The picture production tasks are designed to find out the counterparts of the given linguistic elements (in the case of this test — additive particles) during spontaneous speech of the informant without use of lingustic stimuli to translate. The general methodological guidelines on picture tasks are provided in the section 2.

Description of the Test The design of this test is the same as the design of the production task for exclusive particles (see 6.1.3). The test consists of nine pictures with descriptions that should be translated into the object language before presenting them to the informant.

Present your informant a picture and read the description assigned to it. The informant should correct the description if it does not correspond to what he or she can see in the picture. The pictures and descriptions are designed to force the informant to use the additive particle in the corrective statements. The first picture and the corresponding description constitute a control task — they do not demand the use of the additive particle in the corrective statement.

You can use a following instruction to brief your informant:

> You will see several pictures each followed by a short description. If the description does not correspond to what You can see in the picture, please correct it. Use full sentences only.

Jot down or record the informant's answers. Note all the additional comments made by your informant as well. They can be a helpful *clue* for your research. The boldface sentences present the predicted answers of the informant.

Descriptions

1. a) Only John is fishing.
   b) **Yes, only John is fishing.**
2. a) John is only fishing.
   b) **Yes, John is only fishing.**
3. a) John has caught only one fish.
   b) **Yes, John has caught only one fish.**

Figure 6: Descritpion 1 — merely-type *only*

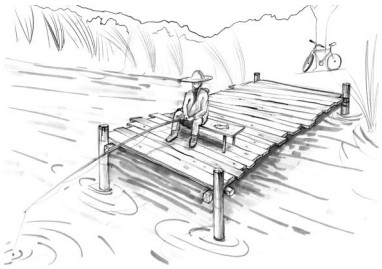

Figure 7: Description 1, 2 and 3

Figure 8: Description 4

Figure 9: Description 5

Figure 10: Description 6

Figure 11: Description 7

Figure 12: Description 8

Figure 13: Description 9

Figure 14: Description 10

Figure 15: Description 11

4. a) Only [Mary]$_F$ is eating a banana.

   b) **No, [Anne]$_F$ is eating a banana too.**

5. a) Only [a girl]$_F$ is playing guitar.

   b) **No, [a boy]$_F$ is playing guitar too.**

6. a) A girl is only [eating an apple]$_F$.

   b) **No, she is also [reading a book]$_F$.**

7. a) Ben is only drinking water.

   b) **No, he is also [riding a bike]$_F$.**

8. a) A boy is only playing a song.

   b) **No, he is also [singing]$_F$ a song.**

9. a) A man is only sitting.

   b) **No, he is also [smoking]$_F$.**

10. a) Mary is only eating [an apple]$_F$.

    b) **No, she is also eating [a banana]$_F$.**

11. a) Jane is only holding a flower$_F$.

    b) **No, she is also holding [a book]$_F$.**

7.2 Meaning of Additives — Additivity

The characteristic feature of the meaning of additive particles (as the name shows) is additivity. Let us consider the following example:

(3) Anna also plays football.

The sentece (3) obtains the reading that not only Anna but somebody else plays football as well. The proposition that there is a salient instant of somebody other than Anna playing football constitutes the additive part of the meaning of additive particles.

In this part we present a test to check if the given particle in the object language has an additive meaning.

7.2.1 Frauke's Test

The aim of this task is to check if the given particle in the object language can obtain an additive meaning. The task is designed as *a test* — for the general methodological guidelines on these kind of elicitation tasks, see section 5.

The test consists of three short dialogues between Mary and her mother along with questions regarding their content. During the dialogue, Mary and her mother talk about what Mary should do and what she indeed did. In each dialogue, when Mary reports what she did, she uses a statement with an additive particle. It suggests that despite what Mary says she did, she did something else as well. Of course, we can observe such an effect only when the particle from Mary's statement is indeed additive. This observation can be used to detect if the given particle is additive or not. The task of the informant is to answer the question about what Mary did. For each question we provide three possible answers.

Have the dialogues, questions and answers to the questions translated into the object language (see page 7). Present all the translated material to the informant and ask him to answer the questions. You can use the following instructions to brief your informant:

> Now you will see three dialogues and questions about them. Please, read them carefully and answer the questions.

The first two dialogues check the meaning of the given particles in the given object language. If informant choose the answer ‘c’ it means that the given particle has an additive meaning. The answers ‘a’ and ‘b’ suggest that the given particle does not have an additive meaning component. The last dialogue is the filler. Mary uses an exclusive particle instead of an additive one. In this case, ‘a’ is the predicted answer.

Dialogues

1. MOTHER Mary, I’m going to work now. Here’s an apple and a banana for You. You can eat it when I’m at work.
   (*Mary’s mother has just came back from work.*)
   MOTHER Hello, Mary. I guess You ate the banana.
   MARY Guess what? I also ate the apple.

   - What did Mary eat?

     a) banana

     b) apple

     c) banana and apple

2. MOTHER Mary, go to the shop and buy bread and butter.
   (*After thirty minutes*)
   MOTHER Hello, Mary! I guess you bought butter.
   MARY Guess waht? I also bought bread!

   - What did Mary buy?

     a) butter

     b) bread

     c) bread and butter

3. MOTHER Mary, go to the orchard and bring apples and pears.
   (*After thirty minutes*)
   MOTHER Hello, Mary! I guess you brought apples.
   MARY Guess what? I only brought pears.

   - What did Mary bring?

     a) apples

     b) pears

     c) apples and pears

7.3 Nature of Semantic Effect

As for exclusives (see section 6.4), we can check the nature of the semantic effect of introducing an additive particle into a sentence.

The meaning of the sentence with an additive particle can be devided into two parts: (1) core-meaning and (2) additive. Let us consider the following example:

(4) Mary also has [a book]$_F$.

The (1) core-meaning of the sentence with an additive particle says that Mary has a book (it is the meaning of the clause without an additive particle), whereas the (2) additive one claims that there is a salient instance of such a thing that Mary has it and it is not a book.

In this part of the QUIS$_{SEM}$, we want to check if the given component of the meaning of the additive particle is asserted, presupposed or conversationally implicated. To reach this goal, we use the same tests as those for checking the nature of the semantic effect of introducing into a sentence another focus sensi-

tive particles (see sections 6.4 and 8.3), that is, (1) failure of simple cancellation, (2) visibility to negation and (3) projection out of *if*-clause.

The first test (1) allows conversational implicature to be distinguished from presupposition and assertion. The two further tests — (2) and (3) — help uncover whether the given part of the meaning is presupposed or asserted.

7.3.1 Failure of Simple Cancellation — Judgment Felicity Task

The basis of this test is the observation that conversational implicature can be cancelled by the same speaker (in unembedded contexts), whereas presupposition and assertion cannot.

The test consists of four sets of sentences. First, we present the initial sentence (marked by number) and then (a) the same sentence with cancelled core-meaning and (b) the sentence with the additive part of the meaning cancelled. In addition, we provide an intended meanings of the intial sentences (written in italics).

Have the sentences (a) and (b) translated into the object language (see page 7). Present your informant a sentence (in version (a) or (b)) and ask him if it is felicitous or not. You can use the following questions: *Is this sentence ok?*, *Is this sentence correct?* or *Does this sentence make sense?*.

If an informant judges a sentence as:

- felicitous (correct, ok etc.) — it suggests that this part of the meaning is conversationally implicated;
- infelicitous (incorrect, not ok etc.) — it means that a given part of the meaning is either presupposed or asserted.

Failure of Simple Cancellation is a judgment felicity task. For general methodological guidelines on this kind of tests see section 4.

Sentences

1. $[\text{Megan}]_F$ bought a book too. = *Megan and somebody else bought a book.*

   a) $[\text{Megan}]_F$ bought a book too and actually she did not buy a book.

   b) $[\text{Megan}]_F$ bought a book too and actually nobody else bought a book.

2. Megan also [ate]$_F$ a soup. = *Megan ate a soup and she made something else with a soup.*

   a) Megan also [ate]$_F$ a soup and, in fact, she did not eat a soup.

   b) Megan also [ate]$_F$ a soup and, in fact, she did not do anything else with the soup.

3. Mary also invited [Tom]$_F$. = *Mary invited Tom and somebody else.*

   a) Mary also invited [Tom]$_F$ and actually she did not invite Tom.

   b) Mary also invited [Tom]$_F$ and actually she did not invite anybody else.

4. Sam also [went for a walk]$_F$. = *Some went for a walk and he did something else.*

   a) Sam also [went for a walk]$_F$ and, in fact, he did not go for a walk.

   b) Sam also [went for a walk]$_F$ and, in fact, he did not do anything else.

7.3.2 Visibility to Negation — *Tests*

Assertion is visible to the negation, while presupposition is not. That is why introducing negation to the sentence allows one to be distinguished from the

other. The following tests are designed to establish whether the given part of the meaning of the sentence with an additive particle is presupposed or asserted.

7.3.3 Test 1

We present four negated sentences with additives and descriptions of the context. For each sentence, there are two questions: (a) for core-meaning and (b) for additive part of the meaning of the sentence with an additive.

Have the context, sentences with additives, questions and answers translated into the object language. Present all the translated material to the informant and ask her or him to answer the questions. You can use the following instructions:

> Now You will see several short stories and questions about them. Please answer the questions.

If an informant chooses the answer:

- 'no' for the question (a) or (b) — it suggests that the given part of the meaning is visible to negation, and therefore it is asserted;
- 'yes' for the question (a) or (b) — it means that the the given part of the meaning is not visible to negation, and hence it is presupposed.

Additional methodological advice on conducting this kind of elicitation task is provided in section 5.

Stories

1. Children were to bring their favourite toy to the kindergarden. It's not the case that also [Mary]$_F$ brought a teddy bear.

   a) Did Mary bring a teddy bear to the kindergarden?

- yes
- no

b) Did somebody else beside Mary bring a teddy bear to the kindergarden?

- yes
- no

2. During the break at school every pupil read something. They read books, cartoons, newspapers and magazines. It's not the case that Mary also read [a newspaper]$_F$.

a) Did Mary read a newspaper?

- yes
- no

b) Did Mary read something else other than a newspaper?

- yes
- no

3. On Megan's birthday party, people ate cake and drunk champagne. It's not the case that Julia also [baked]$_F$ a cake.

a) Did Julia bake a cake?

- yes
- no

b) Did Julia do something else other than baking a cake?

- yes
- no

4. During the family picnic mother and father played tennis, Julia and her cousins played volleyball, but it is not the case that Bill also [played football]$_F$.

   a) Did Bill play football?

      - yes
      - no

   b) Did Bill do something else beside playing football.

      - yes
      - no

7.3.4 Test 2

We present six short stories together with questions about them. Each story contains a negated sentence with an additive particle. Every story is followed by a question regarding its content with two possible answers. The (a) answers are in accordance with a core-meaning the (b) answers are in accordance with an additive part of the meaning of the sentence with an additive. The task of the informant is to choose the correct answer to the question. The chosen answer suggests which component of the meaning is not visible to negation, and is hence presupposed. Notice, that in this test are used *wh*-questions, whereas in the preceeding test there are only 'yes/no' questions.

Have all the stories, questions and possible answers translated into the object language (for discussion on making translations see page 7). Present all the translated material to the informant and ask him or her to answer the questions. Note that the informant can choose more than one answer to each question.

To brief your informant, you can use the following instructions:

> Now You will get a short test. Please, read all the short stories carefully and answer the questions. For each question you can choose more than one answer.

If the informant chooses the answer ‘a’ — it means, that the core-meaning is presupposed. If he or she chooses the answer ‘b’ — it suggests that the additive part of the meaning is presupposed.

The additional advice on conducting this kind of elicitation tasks are provided in section 5.

Stories

1. Anne and Mark decided to get married. At their wedding the guests wore elegant clothes: tuxedoes and chic dresses. It is not the case that [Mark]$_F$ wore a tuxedo too.

   - Who wore a tuxedo?

     a) Mark

     b) Some other men than Mark

2. There were a lot of guests at the wedding and they gave flowers to the bride or groom. It’s not the case that John also gave flowers [to the bride]$_F$.

   - To whom did John give flowers?

     a) Bride

     b) Groom

3. The guests really enjoyed the party. They danced until dawn the next day. Anne and Mark hired a great band. It’s not the case that the guitarist also [sang]$_F$ songs.

- What did the guitarist do?

  a) sang songs

  b) he did other things with the songs than singing them (e.g., playing them)

4. Anne's parents love dancing, especially her mother. It's not the case that Anne's mother also [did the cancan]$_F$.

   - What did Anne's mother do?

     a) She did the cancan.

     b) She did things other than dancing cancan.

7.3.5 Projection out of if-clause — *Test*

As was already written in the section 6.4.3, embedding the sentence into the *if*-clause allows presupposition to be distinguished from assertion: the presupposition projects out of *if*-clauses, while the assertions do not. The test is designed to establish whether the given part of the meaning of the sentence with an additive (core-meaning or additive part of the meaning) is presupposed or asserted.

We present four short stories. Every story contains an *if*-clause with an additive particle. For each story there are two questions — (a) to the core-meaning and (b) to the additive part of the meaning of the sentence with an additive particle. The infromant's task is to answer the given questions. If they answer 'yes' to any question, it means that the given part of the meaning projects out of *if*-clause, and hence is presupposed.

Have stories, questions and answers translated into the object language. Present all the translated material to the informant and ask him or her to answer the questions. You can use the following instructions:

Now You will get several short stories and questions about them. Please, answer the given questions.

The intepretation of the results of the test is as follows: If an informant chooses the answer 'yes' to the question (a), it means that the core-meaning is presupposed. If he or she chooses 'yes' to the question (b), it suggests that additive part of the meaning is presupposed. The answer 'no' or 'I do not know' (to any question) do not give conclusive results. In fact, the answer 'yes' is the only reliable answer from which we can draw conclusions.

The general methodological guidelines on this kind of elicitation tasks are provided in section 5.

Stories

1. In Natalie's school an anniversary performance is organized. If also [Natalie]$_F$ takes part in the performance, it'll be a big success.

   a) Is Natalie taking part in the performance?

      - yes
      - no
      - I do not know.

   b) Is anybody else apart from Natalie taking part in the performance?

      - yes
      - no
      - I do not know.

2. Bill has an exam tomorrow. If Bill also reads [the manual]$_F$, he will be really well prepared for tomorrow.

   a) Does Bill read the manual?

- yes
- no
- I do not know.

b) Does Bill read anything else than the manual?

- yes
- no
- I do not know.

3. Jessica is cooking dinner for her family. She likes to season the dishes to taste. If she also [puts pepper]$_F$ in her soup, it will taste delicious.

a) Does Jessica put pepper in her soup?

- yes
- no
- I do not know.

b) Does she do anything else with her soup other than putting pepper in it?

- yes
- no
- I do not know.

4. Barbara is holding a reception tomorrow. Anne is helping her with the preparation. If Anne also [bakes a cake]$_F$, it will be a great party.

a) Is Anne baking a cake?

- yes
- no

- I do not know.

b) Is Anne doing anything else other than baking a cake?

- yes
- no
- I do not know.

8 Scalars (*even*)

König [Koenig, 1991] describes the meaning of the English scalar particle *even* in terms of likelihood. According to Koenig, the focused element in the sentence with *even* is the least likely object to have a given characteristic. Let us consider the following example:

(1) Even $[\text{Maggie}]_F$ came to school today.

This sentence gets an interpretation that among all the pupils who came to school today, Maggie was the least expected person to come (perhaps she was ill for a long time). It is assumed that *even* introduces something *unexpeted* or *surprising*.

Such an interpretation in terms of likelihood corresponds to one part of the meaning of scalar particles as distinguished by Kartunnen and Peters [Kartunnen and Peters, 1979], that is, *scalar implicature*.

According to Kartunnen and Peters, the English scalar particle *even* also has a second component of meaning, namely *existential implicature*, which corresponds to the additive component of the meaning of the additive particles. Let us look at the following example:

(2) Even $[\text{Tom}]_F$ likes football.

From this sentence, we can conclude not only that (1) Tom was the least likely person among some salient group of people to like football (the scalar part of the meaning of *even*), but also that (2) there are other people beside Tom who like football (the additive part of the meaning of *even*).

By analogy, the sentence

(3) Tom even likes [football]$_F$.

gets an interpretation that (1) football was the least likely thing to be liked by Tom, and that (2) Tom likes also other things beside football. Additionally, we can distingiuish also a core-meaning of the sentence with *even*, that is, the meaning of the given clause without a focus sensitive particle. The core-meaning of the sentence (3) is a proposition that Tom likes football.

In sum, we can distinguish three components of meaning of the English scalar particle *even*: (1) scalar, (2) additive, and (3) core-maeaning. We will invoke to all of them while considering the meaning of scalar additives.

After conducting the tests from this part of the QUIS$_{SEM}$, the following questions should be at least partially answered:

- What are the counterparts of the English scalar particle *even* in the object language?
- Do the scalar particles in the object language also have the additive meaning component?
- Is the given part of the meaning of the sentence with a scalar particle presupposed, asserted, or conversationally implicated?

8.1 Counterparts of Scalars

8.1.1 Translation Task

A translation task is designed to get the general view of scalars in the object language. Notice, however, that it is needed to check their semantics in the further tests.

English scalar additive *even* can associate with a range of syntactic constituents of grammatical function, an this is reflected in the sentences to translate. In the sentences:

- 1, 2 *even* associates with Subject,
- 3, 4 *even* associates with V,
- 5, 6 *even* associates with VP,
- 7, 8 *even* associates with DO,
- 9, 10 *even* associates with Adjective

Present the context your informant and then ask him or her to translate a proper sentence containing a scalar additive. The sentences that the informant should translate are written in boldface. Before conducting the test, look at the general methodological guidelines on translation tasks which are provided in section 1.

Sentences

1. a) Mary does not like studying. Usually she performs poorly on tests. This time the test was not so difficult. Everybody passed the test.

   b) **Even [Mary]$_F$ passed the test.**

2. a) Parents say that Santa Clause brings present only to the good children. Mathew behaved really badly last week. But Santa Clause loves all children and he gives presents to everybody.

   b) **Even [Mathew]$_F$ got a present.**

3. a) Tom bought a cake and brought it to the party. Maria also brought a cake.

   b) **She even [baked]$_F$ the cake!**

4. a) John read a beautiful poem on the meeting. He not only read it.

   b) **He even [wrote]$_F$ the poem.**

5. a) Anne likes spending time with her brother.

   b) **She even likes [playing football]$_F$ with him.**

6. a) George is not a very fit person. He finds playing tennis really difficult. George decided to start doing sport. He did not only learn swimming, but...

   b) **He even learn [to play tennis]$_F$.**

7. a) Mary organized a party. She invited all her classmates.

   b) **She even invited [Jerry]$_F$.**

8. a) John went on vacation to England. He wanted to see prince Charles, but...

   b) **He even saw [Elisabeth II]$_F$.**

9. a) Mary likes eating bananas.

   b) **She even likes eating [green]$_F$ bananas.**

10. a) Anne loves children.

    b) **She even likes [naughty]$_F$ children.**

8.1.2 Story with Gaps - *Megan's Family*

Story with Gaps Test is designed to find out the counterparts of English scalar particle *even*. The test cosists of text with (1) six gaps (marked with numbers) whose context in English demands the use of scalar additives, and (2) three filler gaps (signed with letters) whose context does not require the use of scalar particle.

Have the text translated into the object language. Note that we provide text in which the gaps are filled in with the proper words (written in italics). Before presenting the text to the informant, all the itelicized words from gaps should be removed.

Present the text with empty gaps to your informant and ask him or her to fill in the gaps with the proper words. You can use the following instructions:

> Now you will read a short story with gaps. Please read the story carefully and fill in the gaps with the appropriate words.

The general methodological advice on conducting *Story with Gaps* tasks are presented in section 3.

Story — *Megan's Family*

> Once Megan decided to take a trip with her husband to the mountains. Megan's (a) *husband* had wanted to take her to the mountains since they got married. They decided to take their children and Megan's mother, Mary, with them. Everybody found this idea nice, (1) *even* Megan, who is always stressed about everything,

and her mother, who is afraid of sleeping in a tent. When Mary was young she used to go camping. In the mountains there were really spartan conditions! They didn't (3) *even* have (b) *a tent* — they had to build a funny shelter made out of their sleeping bags. Mary didn't know that her mother had once had such an adventurous holiday. She did not want it to be worse this time! She has never liked trekking so much, but this time she (4) *even* decided to try climbing!

The village where they went turned out to be a really nice (c) *place* and everybody found something for they enjoyed, (5) *even* Megan's children, who are usually very anxious. They fell in love with the place. Megan's family was so glad to be there that they (6) *even* stayed longer than planned.

8.2 Meaning of Scalars — Additivity

The meaning of the English scalar particle *even* consists of two parts (see page 88) — scalar and additive. However, it may be that in the given object language the scalar particle does not have the second (additive) meaning component. This test checks that.

The test is designed as a judgment felicity task. Before conducting the test, look at the general methodological guidelines on this kind of elicitation tasks provided in section 4.

The task consists of four stories. In each story, a scalar particle is used. The story (1)-(3) describes the scalar context and negates the additive reading of the scalar particle. If after canceling the additivity the story is still coherent, it suggests that the given scalar particle is not additive. Otherwise, the given particle has the additive property. The story (4) is a filler. It describes the scalar context and confirms the additive meaning of this scalar particle.

Have the stories translated into the object language. Present them to your informant and ask him or her whether the given story is coherent or not. To brief your informant, you can use the following instructions:

> Now you will receive three short stories. Read them carefully.
> After reading each of them, tell me if the given story makes sense.

In addition, after each story you should repeat the question: *Does this story make sense?*, *Is this story ok?*. If the given story is judged as incoherent (the story does not make sense, is not o.k.), you can ask your informant why it is so.

If the informant says that the given story does not make sense, it means that the scalar particle used in the story is not additive. If the story is judged as ok, it means that the given scalar particle is additive.

We predict that the informant will judge the stories: (1)—(3) as incoherent and (4) as coherent.

Stories

1. The test was not difficult. Even Mary, who is usually not that good, passed the test. And she was the only one.

2. George rarely cleans the house. This time he even cleaned bathroom. And he did not clean anything else.

3. Mary organized a party. She even invited John, although she does not like him so much. And he was the only person that Mary invited.

4. Mary's grandmother baked a delicious cake. Even Mary, who normally does not eat sweet things, ate it. And she was not the only one who did it.

8.3 Nature of Semantic Effect

Likewise, in the cases of other focus sensitive particles, we would like to ask about the semantic effects of the introduction a scalar additive into the sentence.

Kartunnen and Peters [Kartunnen and Peters, 1979] claim that *even* is associated with two kinds of implicatures: (1) existential (additive), and (2) scalar. Let us consider a following example:

(4) Tom even invited [Mary]$_F$.

From the sentence (4) we can conclude that (1) there were also other people such that Tom invited them (existential/additive part of the meaning of the sentence (4)) and (2) Mary is the least likely person (among all the persons under consideration) to be invited by Tom. For (2), Mary is a so-called *extreme case* (scalar part of the meaning of (4)). Additionally, we can, of course, distinguish a core-meaning of the sentence with *even*. In the case of (4), it is a proposition that Tom invited Mary.

We provide three tests to find out whether a core meaning, an additive component of the meaning, and a scalar component of the meaning of the sentence with *even* is asserted, conversationally implicated, or presupposed. We propose to use the same test as in the section 6.4. Namely: (1) failure of simple cancellation, (2) visibility to negation, and (3) projection out of *if*-clauses. The first test (1) allows to distinguish conversational implicature from presupposition and assertion, whereas the second (2) and the third (3) ones are designed to distinguish presupposition from assertion.

8.3.1 Failure of Simple Cancellation — Judgment Felicity Task

To check if the given meaning component of the sentence with *even* is asserted, conversationally implicated, or presupposed, first we propose conducting a judgment felicity task. Before conducting the test, look at the general methodological guidelines on this kind of elicitation tasks provided in section 4.

The design of this test is based on the observation that conversational implicature can be cancelled by the same speaker in the unembedded cases, whereas presupposition and assertion cannot.

The test consists of four sets of sentences with subsequent conditions: (a) cancelled additive part of the meaning of *even*, (b) cancelled scalar part of the meaning of *even*, and (c) cancelled a core meaning of the sentence with *even*. Present the sentences (a), (b), and (c) to an informant and ask him ot her for a felicity judgment. You can use the following questions: *Is this sentence correct?*, *Is this sentence ok?* or *Does this sentence make sense?*

If an informant judges the sentence as:

- felicitous — it means that the given part of the meaning of the sentence with *even* is conversationally implicated;
- infelicitous — it suggests that the given part of the meaning of the sentence with *even* is either presupposed or asserted.

Sentences

1. Even [Mary]$_F$ ate ice-cream.

    a) Even [Mary]$_F$ ate ice-cream and, in fact, nobody else ate ice-cream.

    b) Even [Mary]$_F$ ate ice-cream and, in fact, Mary eats ice-cream all the time!

c) Even [Mary]$_F$ ate ice-cream and, in fact, Mary did not eat ice-cream!

2. Paul even bought [bananas]$_F$.

a) Paul even bought [bananas]$_F$ and actually he did not buy anything else.

b) Paul even bought [bananas]$_F$ and actually he buys bananas every day!

c) Paul even bought [bananas]$_F$ and actually he did not buy bananas!

3. George even [went for a walk]$_F$.

a) George even [went for a walk]$_F$ and, in fact, he did not do anything else.

b) George even [went for a walk]$_F$ and, in fact, he goes for a walk every morning!

c) George even [went for a walk]$_F$ and, in fact, he did not go for a walk!

4. Mia even [wrote]$_F$ a book.

a) Mia even [wrote]$_F$ a book and actually she did not do anything else with the book (she did not read it, illustrate it etc.).

b) Mia even [wrote]$_F$ a book. She is a writer, so she writes books every day!

c) Mia even [wrote]$_F$ a book and actually she did not write a book.

8.3.2 Visibility to Negation — *Test*

Visibility to Negation belongs to the so called *Tests* elicitation tasks. In the section 5, general methodological guidelines are provided for these kinds of tasks.

The design of this test is based on the observation that the sentence negation allows to disitinguish assertion from presupposition — assertion is visible to negation, while presupposition is not.

We present four sentences and questions about its content. Question (a) is about the additive part of the meaning of the sentence with *even*, question (b) is about the scalar meaning component of the sentence with *even*, and question (c) is about the core-meaning of the sentence with *even*.

Have the stories, questions and answers translated into the object language. Present your informant all the material and ask him or her to give the answer to the questions. To brief your informant, you can use the following instructions:

> Now you will see four stories and questions to them. Please, read the stories carefully and answer the given questions.

If the informant gives the answer:

- 'no' (to the question (a), (b), or (c)) — it means that the given part of the meaning is visible to negation, and therefore it is asserted;
- 'yes' (to the question (a), (b), or (c)) — it means that the given part of the meaning is invisible to negation, hence it is presupposed.

Stories

1. It's not the case that even $[\text{John}]_F$ went to the mountains.

   a) Did somebody other than John go to the mountains?

- yes
- no

b) Was John expected to go to the mountains?

- yes
- no

c) Did John go to the mountains?

- yes
- no

2. It's not the case that Mary even [bake]$_F$ a cake.

a) Did Mary do anything else with a cake other than baking it?

- yes
- no

b) Was Mary likely to bake a cake?

- yes
- no

c) Did Mary bake a cake?

- yes
- no

3. It's not the case that John even ate [spinach]$_F$.

a) Did John eat anything other than spinach?

- yes
- no

b) Was it expected that John would eat spinach?

- yes
- no

c) Did John eat spinach?

- yes
- no

4. It's not the case that Mary even [played football]$_F$.

a) Did Mary do anything other than play football?

- yes
- no

b) Was it espected that Mary would play football?

- yes
- no

c) Did Mary play football?

- yes
- no

8.3.3 Projection out of if-clauses — *Test*

The *Projection out of if-clauses* task is designed as a *Test*. The general methodological advice on conducting this kind of elicitation tasks are provided in section 5.

The design of this task is based on the observation that embedding a sentence into the *if*-clause allows presupposition to be distinguished from assertion: presupposition projects out of *if*-clause, while assertion do not.

The test consists of four short stories. In each story there is a sentence with-vthe English scalar article *even* embedded into the *if*-clause. There are three questions to each story: (a) about the additive part of the meaning of the sentence with *even*, (b) about the scalar meaning of the sentence with *even*, and (c) about the core-meaning of the sentence with *even*. Each question is followed by three possible answers: *yes, no*, and *I do not know*.

Have the stories, questions, and answers translated into the object language. Present all the translated material to your informant and ask him to give the answers to the questions. To brief your informant, you can use the following instructions:

> Now you will see four short stories. Read them carefully and answer the questions which are below each story.

If the informant chooses an answer 'yes', it means that the given meaning component of the sentence with *even* projects out of *if*-clause, therefore it is presupposed. It is important to notice that only 'yes' answer gives us reliable results. If an informant chooses 'no' or 'I do not know', we cannot draw any conclusive conlusions.

Stories

1. Tom's grandmother invited him and his brothers for dinner. If even [Tom]$_F$ ate all of the meal, it must have been really tasty.

   a) Did anybody other than Tom eat all of the meal?

   - yes
   - no
   - I do not know.

b) Was Tom likely to eat all of the meal?

- yes
- no
- I do not know.

c) Did Tom eat all of the meal?

- yes
- no
- I do not know.

2. Jane organized her birthday party. If she even invited Mary, it must have been a good party.

a) Did Jane invite anybody other than Mary?

- yes
- no
- I do not know.

b) Was Mary likely to come to Jane's party?

- yes
- no
- I do not know.

c) Did Jane invite Mary?

- yes
- no
- I do not know.

3. Bill decided to clean all the house. If he even [cleaned the floor]$_F$, he must have been really determined.

a) Did Bill clean anything other than the floor?

- yes
- no
- I do not know.

b) Was it expected that Bill would clean the floor?

- yes
- no
- I do not know.

c) Did Bill clean the floor?

- yes
- no
- I do not know.

4. George went to Elton John's concert. He really wanted to see him. If George even [met]$_F$ Elton John, he must have had a lot of luck.

a) Did John meet anybody other than Elton John?

- yes
- no
- I do not know.

b) Was likely that George would meet Elton John?

- yes
- no
- I do not know.

c) Did George meet Elton John?

- yes
- no
- I do not know.

8.4 Scalar and Non-scalar Additives

As was already written in section 7, in English we can distinguish three kinds of additives: scalar additives (*even*), non-scalar additives (*also, too*) and vague additives (*similarly, likewise, analogously*). The question is how to distinguish scalar additives from non-scalar ones? In this part of the QUIS$_{SEM}$, we propose a test which helps to discover whether a given additive particle obtains a scalar reading or not.

8.4.1 Judgment Felicity Task

The test is based on the observation that *too* and *also* can obtain both scalar and non-scalar reading in English, whereas *even* gets always a scalar intepretation and cannot get a non-scalar reading. Hence, when we put *even* in the non-scalar context, we should obtain an infelicity.

To distinguish scalar and non-scalar additives, we propose conducting a *Judgment Felicity Task*. General methodological guidelines on this kind of elicitation tasks are presented in section 4.

The test consists of six sentences with an additive particle and their context descriptions. It is important to notice that in the case of the sentences (1) — (5), the context demands the use of a non-scalar additive particle (*even* is not licensed there). Whereas the sentence (6) is a filler; its context demands the use of a scalar additive particle — in this case both *too, also*, and *even* are licensed.

Have the sentences and the context descriptions translated into the object language.Instead of writing in the given additive particle, we use a variable *additive particle* which should be filled in with a particle you want to research.

Present a sentence with its context to your informant and ask him for a felicity judgment of this sentence in the given context. You can use, for example, the following questions: *Is this sentence correct in this context?*, *Is this sentence ok in this context?* or *Does this sentence make sence in this context?*.

If the sentence is judged as felicitous, it means that a given additive particle can occur in the non-scalar context, and hence it is supposedly more similar to English *too* and *also* than to *even*. If the sentence is judged as infelicitous, it suggests that the given additive particle cannot get a non-scalar interpretation, and therefore its semantics resembles more the semantics of English *even* than the semantics of *too* or *only*. To confirm your conclusions, you should check the semantics of the given additive particle in the sentence number (6), where the context demands the use of a scalar additive particle. If the sentence (6) is judged as felicitous, it means that the given additive particle can get a scalar interpretation. If you combine the results of the felicity judgments of the sentences (1) — (5) and (6) you can get reliable results according to the scalarity/non-scalarity of the given additive particle.

Sentences

1. John is a gifted musician. He can play all sorts of instruments including the violin which is very difficult. He can (*additive particle*) play flute, which is simple.

2. Anne is only five but she knows a lot of poems by heart. She can recite *Faust* which is really difficult. She can (*additive particle*) children poems by heart, which are very easy.

3. Many people came to John's birthday party. He never suspected that Mary would come. (*additive particle*) Jane came to his party, which was expected.

4. Paul loves eating sweets. On Sunday he went for dinner at his grandmother's. He ate a lot of delicious things, including chicken, which he rarely eats. He (*additive particle*) ate a dessert, which is quite normal because he eats sweets all the time.

5. Anne wanted to organize a birthday party for her boyfriend. She prepared a lot of good things to eat. She baked a cake, which was very complicated. She (*additive particle*) prepard drinks, which was very easy.

6. Jane wanted to organize a party. She ordered a cake and she (*additive particle*) baked cookies!

9 Adverbs of Quantification (*always*)

In many languages one can find more than one adverbial quantifier (AQ), such as, for example, *often*, *usually*, *rarely* in English, *od czasu do czasu*, *czasami*, *rzadko* in Polish, *sempre, di solito* in Italian, and so on.

Focus Sensitivity of Quantificational Adverbs In English, as in other languages, AQs show focus sensitivity: the meaning of the clause with the AQ alters with the change of the focus position [Zimmermann, 2006]. Let us consider the following sentences and their paraphrases:

(1) a. $[Mary]_F$ always visists Jane. (*Whenever somebody visits Jane, it is Mary.*)

part of the clause	**is mapped on**
adverbial quantifier	qunatificational operator
background (non-focal part) without AQ	restrictor
whole clause without AQ	nuclear scope (nucleus)

Table 3: Elements of the clause with AQ and their denotations

b. Mary always [visits]$_F$ Jane. (*Whenever Mary does something with Jane, she visits her.*)

c. Mary always visits [Jane]$_F$. (*Whenever Mary visits somebody, it is Jane.*)

As we can see, the interpretation of the sentence with an AQ depends on the position of focus accent. Hence, AQs are focus sensitive elements.

Denotation of Quantificational Adverbs The denotation of the clause with an AQ can be split up into three parts:

1. quantificational operator — a denotation of the quantificational adverb;

2. restriction of the quantifier (restrictor) — denoted by the non-focal (background) part of the clause; it is important to notice that the restrictor includes a free variable which can be resolved on the base of the context;

3. nuclear scope of the quantifier (nucleus) — denotation of the whole clause without the quantificational adverb.

The elements of the clause containing an AQ and their denotations are presented in table 3. Table 4 shows the restrictor and nucleus of the sentences (1-a) — (1-c) in a semi-formal way.

no.	**operator**	**restrictor**	**nucleus**
1	always$_e$	(∃x x visits Jane at e)	(Mary visits Jane at e)
2	always$_e$	(∃R Mary R-s Jane at e)	(Mary visits Jane at e)
3	always$_e$	(∃y Mary visits y at e)	(Mary visits Jane at e)

Table 4: Restrictor and nucleus of the sentences with AQ

In table 4 we can observe that the restrictor of the clause with an AQ depends on the focus position, whereas the nucleus is not influenced by these kinds of changes. What is more, the focus constituent is always mapped on the nucleus but not on the restrictor. On the other hand, non-focal material (i.e., not marked as focus) is not necessarily mapped on the restrictor.

Quantification over events/situations In the sentence with an AQ, when we replace the AQ with a determiner quantifier (DQ) of corresponding quantificational force, we obtain a sentence which has the same reading as the initial one (i.e., the one with AQ). This can be illustrated with the following example:

(2) a. A mouse is always timorous.
b. All mice are timorous.

The same holds for another DQs — AQs pairs: *most — usually*, *all — always*, *some — sometimes*, etc.

Let us now consider the following examples analyzed by Ebert and Hinterwimmer [Ebert and Hinterwimmer, 2010]:

(3) a. The people who lectured at the conference last summer were usually Japanese.
b. Most (of the) people who lectured at the conference last summer were Japanese.

(4) a. *The people who lectured at the conference last summer are usually Japanese.

b. Most (of the) people who lectured at the conference last summer are Japanese.

We can see that the sentences (3-a), (3-b) and (4-b) are felicitous, whereas (4-a) is not. This observation can be explained by the *tense agreement constraint*, which says that the same tense must be used in both the matrix clause and the subordination clause. Ebert and Hitnerwimmer [Ebert and Hinterwimmer, 2010] show that quantification over situations/eventualities has to obey this rule, whereas quantification over individuals does not have to. We can observe that AQ obeys the *tense agreement constraint*, whereas DQs do not. Therefore, we can conclude that AQs quantify over situations, and DQs over individuals.

The fact that the AQs quantify over events/situations can be observed in another example:

(5) Peter always sings.

The sentence (5) can be paraphrased: *Whenever Peter does something he sings*. This kind os paraphrase is possible in all sentences with AQs.

Syntax Indeterminability Another important difference between AQs and DQs concerns determination of the arguments of the clause with AQs and DQS: the restrictor and nucleus of AQs depend on information structure, whereas the arguments of DQs are determined by syntax. All the differences between AQs and DQs shown in these paragraps are summarized in table 5.

Although there are many adverbial qunatifiers, in the QUIS$_{SEM}$ we limited ourselves to *always*. On the basis of this AQ, we want to show in general how

	AQs	**DQs**
quantification over	situations/events	individuals
tense agreement constraint	obey	not obey
arguments determined by	information structure	syntax

Table 5: Differences in AQs and DQs

it is possible to elicit counterparts and the meaning of the AQs in the object language.

After conducting the tests concerning AQs, the following issues should be clear:

- What is the counterpart of *always* in the object language; (see 9.1)?;
- Do adverbs of quantification get an exhaustive reading (see 9.2.1)?;
- Do they show focus sensitivity?

9.1 Counterparts of Adverbs of Quantification

At the very beginning we propose to conduct translation tasks (see 9.1.1) which is to help get a general picture of AQs in the object language. Afterwards, we recommend confirming the obtained results using production tasks (see 9.1.2, 9.1.3). Notice however, that to make reliable conclusions about the semantics of AQs, it is necessary to conduct additional tests.

9.1.1 Translation Task

The tests consists of twelve descriptions of the context and the sentences to translate. In English, *always* can semantically associate with many elements: N,

V, DO, PP, as is reflected in the test. In the first two sentences (1)-(2), *always* associates with the subject, in sentences (3)-(4) with the V, in sentences (5)-(6) with the DO, and in (7)-(8) with the PP. Notice that in the object language there may be different expressions for *always* according to the association patterns.

Present your informant a description of the context. Then ask him or her to translate all sentences containing an AQ into the object language (the sentences that should be translated are written in boldface).

The general methodological advice on conducting translation tasks are provided in section 1.

Sentences

1. a) I want to organize a Christmas school performance and I am looking for the actors. Who usually takes part in the school performances?

   b) **[Mary]$_F$ always takes part in the school performances.**

2. a) Who wants to go fishing with me?

   b) **[Mike]$_F$ always wants to go fishing.** Ask him.

3. a) I know that John is an ornithologist, but what does he do exactly with all these birds? Does he sometimes feed them?

   b) **No, Tom always just [observes]$_F$ the birds.**

4. a) Julia says that she is interested in football, but I know that Julia does not play football, so what does she do?

   b) **Julia always [watches]$_F$ football.**

5. a) What does Mary eat for breakfast? Does she sometimeas eat cereal?

   b) **No, Mary always eats [yoghurt]$_F$ for breakfast**.

6. a) What does Alice read when she eats breakfast?

   b) **Alice always reads [the newspaper] when she eats brekfast.**

7. a) When does Mary go to the cinema? Does she go there on Mondays?

   b) **No, Mary always goes to the cinema [on Sundays]**$_F$

8. a) I want to propose to Tina to go on holiday together. Do you know when she normally goes on holiday?

   b) **Tina always goes on holiday [in summer]**$_F$**.**

9.1.2 Production Task

Th aim of the production task is to encourage an informant to utter a sentence with a given element without using linguistic stimuli to be translated. The general methodological guidelines on this kind of elicitation task are provided in section 2.

The test consists of six sets of pictures. Every set consists of five pictures. In all the pictures from one set there is the same person doing the same activity (in fact, in each set there is one picture copied five times). After each test there is a question about the pictures that were presented. The question forces the informant to answer the question with the use of quantificational adverb *always* (the person in the picture *always* does the same thing in all the pictures from the same set). The predicted answers to the questions are written in boldface ((b) sentences). Notice, that there are used proper names in the questions about the pictures and in the answers. Before conducting the test, write the given names under the appropriate persons in the pictures.

Present your informant a set of pictures. After the presentation, ask him or her the question about the content of the pictures.

To brief your informant, you can use the following instructions:

You will see eight sets of pictures. After each set I will ask you a question about the pictures. Please answer the question by using a full sentence.

Pictures and Questions

1. a) Does Mary usually eat lunch at 2 o'clock?
   b) **No, Mary always eats lunch at 2 o'clock.**
2. a) Does Tim sometimes start school at 7:00?
   b) **No, Tim always starts school at 7:00.**
3. a) Does Anne usually cook dinner?
   b) **No, Anne's mother always cooks dinner.**
4. a) Does Tom sometimes go for a walk with the dog?
   b) **No, Tom's father always goes for a walk with the dog.**
5. a) Does Paul sometimes play football in the afternoon?
   b) **No, Paul always plays football in the afternoon.**
6. a) Does Anne sometimes go to school by bus?
   b) **No, Anne always goes to school by bus.**

9.1.3 Story with Gaps — Anne's habits

The aim of this test is to find out the counterparts of the English quantificational adverb *always*.

Figure 16: Description 1

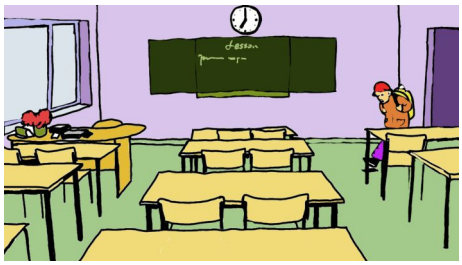

Figure 17: Description 2

Figure 18: Description 3

Figure 19: Description 4

Figure 20: Description 5

Figure 21: Description 6

The test consists of a text with eight gaps that should be filled in with the proper word. The gaps marked with numbers should be filled in with a quantificational adverb *always*, which is indicated by the context. The gaps signed with letters are fillers: the context does not demand the use of adverbs of quantification.

Have the text translated into the object language. In order to make the translation easier, we did not remove the words from the gaps, but they should be deleted from the target text.

Present your informant the text and ask him or her to fill in the gaps with the proper words. You can use the following instructions:

> You will get the a with gaps. Read the text carefully and then fill in the gaps with a proper word.

The general methodological guidelines on the *Story with Gaps* task are provided in section 3.

Anne's habits

> Anne is a 17-year old girl. Most of her friends are highly interested in fashion. But not Anne! Whenever Tom meets up with her, she has the same green dress. She (1) *always* wears it, every day. Tom would like to see Anne in color other than (a) *green*. Anne's mother keeps trying to (b) *go* shopping with Anne, all in vain! Anne is busy all the time, she (2) *always* has something to do. Her mother became a really anxious person. Anne's father keeps telling her that she should go to the doctor, but she never listens to him. She knows best what to do. Anne has a really hard life with her (c) *parents*. They have their own habits, and they never change! They (3) *always* get up at 7:00, than they eat breakfast. It is (4) *always* the

same! Anne is getting sick of eating pancakes with maple syrup every day. Still she tries being an optimist. She loves her parents. Whatever they do, she knows (d) *they* want the best for her.

9.2 Meaning of Adverbs of Quantification

9.2.1 Exhaustivity — Judgment Felicity Task

The notion of *exhaustivity* was already presented in the part devoted to exclusives (see 6.3.1). Let us recall briefly that the clause obtains an exhaustive reading when the denotation of the focused item is the maximal or unique entity satisfying the property denoted by the remainder of the clause. So if we add to the sentence that has an exhaustive reading another focused element satisfying the property denoted by the remainder of the clause, we should obtain infelicity (there cannot be two *maximal or unique* entities in the same clause). For more precise discussion, see: 6.3.1.

Description of the Test 1

The design of this test is identical to the one presented in 6.3.1. The test consists of eight sentences including either two AQs *always*, or an AQ *aways* and an additive *also*. To find out if clauses with *awalys* obtain an exhaustive interpretation, we have to check if the focused element denotes a maximal or unique entitiy satisfying the remainder of the clause. If it holds, than we should obtain an infelicity by adding another focused element satisfying the property of the remainder of the clause. If adding the additional focused element with the given properties does not cause infelicity, we can assume that the sentence does not get an exhaustive reading. That is why in each sentence there are two focus sensitive elements and two focused elements with the given properties.

Translate the given sentences into the object language. Then ask your informant whether the translated sentences are felicitous or not. You can use the following questions: *Is this sentence correct?*, *Is this sentence ok?* or *Does this sentence make sense?*.

If your informant classifies the full sentence as an infelicitous one (as incorrect, not ok etc.), you can assume that a compound sentence with *always* has an exhaustive reading. If the full sentence is accepted by your informant, it is highly possible that a compound sentence with *always* has a non-exhaustive interpretation.

Notice, that if you want to compare *only* and *always* you can get the minimal pairs by combining the examples from two tests: 6.3.1 and this one. The sentences in both tests differ only in the focus sensitive expressions used.

Sentences

1. *Always* [John]$_F$ visits Monica on Sunday and *always* [Tom]$_F$ visits Monica on Sunday too.

2. *Always* [Tina]$_F$ invites Tom and *always* [Mary]$_F$ invites Tom too.

3. George *always* [bakes]$_F$ cakes and he *always* [eats]$_F$ cakes too.

4. Hanna *always* [plays]$_F$ with children and she *always* [works]$_F$ with children too.

5. Mary *always* [goes to the market]$_F$ on Monday morning and she *always* [cleans the floor]$_F$ on Monday morning.

6. Pam *always* [visits her friends]$_F$ on Friday evening and she *always* [visits her grandmother]$_F$ on Friday evening too.

7. Jane *always* picks [mangoes]$_F$ and she *always* picks [bananas]$_F$ too.

8. Agnes *always* meets [Sabrina]$_F$ in the evening and she *always* meets [Clara]$_F$ in the evening too.

9. Natalie *always* watches tv [on Sunday]$_F$ and she *always* watches tv [on Monday]$_F$ too.

Part III

Distribution of Focus Sensitive Expressions

The translation tasks from the part *Counterparts of Focus Sensitive Particles* (see sections 6.1.1, 6.1.2, 7.1.1, 8.1.1, 9.1.1)can give us the first picture of the distribution of the focus sensitive expressions. In those tests, focus sensitive particles are attached to different syntactical elements: N, V, NP, VP, DP, etc. If there are some differences in the distribution of focus sensitive expressions in the object language, it should be visible in the results of these tasks. However, as in the case of the semantics of the focus sensitive expressions, translation tasks should be treated only as preliminary tests for more precise research.

In this part of the QUIS$_{SEM}$, while considering the distribution of focus sensitive expressions we are especially interested in finding out the answers to the following questions:

- Is the given focus sensitive expression adverbial or adnominal?
- Does it have to be an adjacent or is that not necessary?
- Can it follow or preceed the element it associates with?

To answer these questions we propose three tests which are mostly grammaticality judgments tasks (for the additional methodological guidelines for this kind of task see section 4).

10 Adverbial vs. Adnominal Focus Sensitive Expressions

To check if the given focus sensitive particle can be adnominal, adverbial, or both, we have to check if it can modify nouns (NPs), verbs (VPs) or both. Daniel Buering and Katharina Hartmann [Buering and Hartmann, 2001] define adverbial focus sensitive particles as

> immediately dominated by a node within the clausal projection line, or, using the words of Grimshaw (1991), by a node which is an extended verbal projection (EVP).

Non-adverbial (attribute, adnomimal) focus sensitive particles as

> (...) immediately dominated by the higher DP segment, which is not EVP.

Let us consider the following examples:

(1) a. Tom only met [Mary]$_F$.
b. Tom met only [Mary]$_F$.

We can see that in the sentence (1-a) the focus sensitive particle (*only*) is adjoined to VP and is dominated by an extended verbal projection. Hence, in (1-a) *only* has an adverbial function. On the other hand, in the sentence (1-b) the focus sensitive particle is dominated by a DP; since *only* is attached to the DP, it therefore has an attributive function.

To figure out if a given focus sensitive expression is adverbial or adnominal, it is necessary to have a general knowledge about syntax of the object language. First of all, it is necessary to be familiar with its word order. Second, it is important to be able to distiniguish syntactical elements of the language. What is more, it must be checked if adverbial and adnominal positions are distinguishable in the given object language. Only than is it possible to differentiate adverbial and adnominal focus sensitive particles. We assume that a researcher already has this knowledge.

10.1 Observation 1 — Morphological Markers

In many languages adverbs obtain special morphological markers, such as, for example, the suffixes *-nie* in Polish, *-ly* in English, *-ot* in Hebrew or *-ent* in French. First of all, therefore, one should figure out the morphological markers of adverbs in the object language and than look to see if the focus sensitive particles also obtain one of them. If a given focus sensitive particle has such a marker, it is plausible that this particle is adverbial.

For example, the adverbial French morphological marker is found in the word *soulement*, which is also one of the French focus sensitive particles. On the basis of this observation we can suppose that *soulement* is adverbial rather than adnominal.

It is important that the use of morphological markers as a diagnostic should be treated as a clue rather than a final result.

10.2 Test 1

Adverbials, by definition, can be attached to non-arguments, that is, VPs, IPs, Aps and root CPs, but they cannot be attached to the arguments themselves. In contrast, adnominals can be attached to arguments such as DPs, PPS, CPs and NPs, but they cannot be attached to non-arguments. Hence, we can use this property to get another clue whether a given focus sensitive expression is adnominal or adverbial.

To reach this goal, we propose conducting a judgment felicity task. Construct in the object language the sentences containing a focus sensitive expression. Notice that to obtain minimal pairs you should prepare two versions of each sentence. In version (a) the focus sensitive expression should be attached

sentence	**attachment**	**judgment**	**adnominal/ adverbial**
Mary invited only [John]$_F$.	argument	felicitous	adnominal
Mary only invited [John]$_F$.	non-argument	felicitous	adverbial

Table 6: The results of the test for English *only*

to the argument, and in the version (b) the focus sensitive expression should be attached to the non-argument.

Present the prepared sentences to your informant and ask him or her for a grammaticality judgment. If a sentence is judged as a felicitous one, it means that the given focus sensitive particle is either adnominal (in the (a) versions of the sentences) or adverbial (in the (b) versions of the sentences). If the sentence is judged as an infelicitous one, it means that the given focus sensitive particle is neither adnominal (in the (a) versions of the sentences) nor adverbial (in the (b) versions of the sentences). When sentences in both versions are judged as felicitous, it indicates that the given focus sensitive particle can be both adnominal and adverbial. On the other hand, if sentences in both versions are judged as infelicitous, it suggests either an influence of other factors or errors in the preparations of the test.

The results of the test for an English focus sensitive particle *only* are shown as an example in the table 6. They suggest that *only* can be both adnominal and adverbial.

10.3 Test 2

To confirm the results obtained in the test 1 (see 10.2), we propose conducting another grammaticality judgment task. The test consists of five minimal pairs

of sentences with focus sensitive expressions in different functions (adnominal or adverbial). Instead of writing the given focus sensitive expression, we use the variable (*focus sensitive particle*) that should be filled in with the expression that is being researched. For each pair, in the (a) sentences the focus sensitive particles are adnominal and in the (b) sentences the focus sensitive particles are adverbial. The adverbiality and adnominality is controlled for by (sentence-internal) grammatical factors, whereas the focus domain is controlled by the final phrases of the sentences, e.g., *not rice, not Sandy*, etc.

Translate the sentences into the object language. As has already been written, the variable (*focus sensitive particle*) should be filled in by the focus sensitive expression you are intrested in. Present to your informant the translated sentences with the focus sensitive expressions and ask him or her for a felicity judgment. You can use, for example, the following questions: *Is this sentence correct?*, *Is this sentence ok?* or *Does this sentence make sense?*. If the sentence in which the focus sensitive expression is supposed to be adnominal (the (a) sentences) is judged by the informant as felicitous, it means that this expression is indeed so. If the sentence in which the focus sensitive expression is supposed to be adverbial (the (b) sentences) is judged as felicitous, it suggests that this expression is adverbial. On the other hand, judging a sentence (either from group (a) or (b)) as an infelicitous one means either that a given focus sensitive expression is not adnominal (if it is an (a) sentence) or that a given focus sensitive expression is not adverbial (if it is a (b) sentence).

1. a) Mia cooks (*focus sensitive particle*) [beans]$_F$, not rice.

   b) Mia (*focus sensitive particle*) [cooks beans]$_F$ rather than sweep the floor.

2. a) John eats (*focus sensitive particle*) [bananas]$_F$, not apples.

b) John (*focus sensitive particle*) [eats bananas]$_F$ rather than cook couscous.

3. a) George met (*focus sensitive particle*) [Mary]$_F$, not Sandy.
   b) George (*focus sensitive particle*) [met Mary]$_F$ rather than watch football.

4. a) Mike plays (*focus sensitive particle*) [football]$_F$, not tennis.
   b) Mike (*focus sensitive particle*) [plays football]$_F$, not tennis.

5. a) I asked you to water (*focus sensitive particle*) [the roses]$_F$, not the daisies.
   b) I (*focus sensitive particle*) asked you [to water roses] rather than mow the grass.

11 Adjacency Requirement

Adjacency requirement says that the element α modifying element β must be attached to the element β. Let us illustrate it on the example of English sentences:

(1) a. Who invited John ?
   b. Only Mary invited John.
   c. #Mary invited John only.

We can observe that changing the position of the focus sensitive element causes infelicty: *only* cannot modify the subject when it is not adjoined to it. Hence, we can conclude that in this case the adjacency requirement holds.

On the other hand, let us consider the example from Bura [Hartmann and Zimmermann, 2008]:

(2) a. Who went to Biu?

b. [Mtaku]$_F$ daci an liha Biu.
Mtaku only PRT go Biu.

c. [Mtaku]$_F$ an liha Biu daci.
Mtaku PRT go Biu only.

We can see that both sentences are felicitous and changing the position of the focus sensitive expression (Bura exclusive particle *daci*) does not change the felitic y of the sentence. *Daci* does not have to be adjoined to the subject to modify it. Therefore, we can see that the adjacency requirement does not hold.

On the basis of this test one can observe that the adnominal particles must follow the adjacency requirement. Hence, it can help to detect if the given particle is adnominal or not.

Construct the sentences containing the focus sensitive expressions. The sentences should be either constructed in the object language or they can be translated by a native speaker of the language. However, you should control the syntax of the output sentences.

Present the sentences to your informant and ask him or her for a grammaticality judgment. The initial sentence should be judged as felicitous. If this is so, manipulate the location of the focus sensitive expression. Try to introduce an additional element between a modifier and a modifying element. Again, ask the informant for a grammaticality judgment. If the manipulation is possible (the sentence is judged as felicitous), it suggests that a given focus sensitive expression is rather adverbial rather than adnominal (adnominal particles must follow the adjacent requirement). However, if the sentence is judged as infelicitous one, you can not easily conclude that a given focus sensitive expression is ad-

nominal. It can be also an adverbial particle for which the adjacent requirement holds.

12 Preceeding or Following?

It may happen that in the object language there is the requirement that a focus particle should preceed or follow (or both) its focus associate. This property can be checked using a judgment task.

Construct the sentences containing the focus sensitive expressions. The sentences should be either constructed in the object language or they can be translated by a native speaker of the language. However, you should control the syntax of the output sentences. Of course you can use the sentences prepared for the previous tests.

The initial sentences should be presented to the informant and judged by him as grammatical ones. If this is the case, you can start manipulating the location of the focus sensitive particle. If in the initial sentence the focus sensitive particle preceeds the modifying element, you should change the position of it in such a way that in the output sentence the focus sensitive particle follows the modifying element. When in the initial sentence the focus sensitive particle follows the modifying element, in the output sentence this element should be preceeded by a modifier.

Ask for a grammaticality judgment of the output sentence. If it is judged as grammatical, it means that such a modification is possible. If it is judged as infelicitous, it suggests that either such a manipulation is not valid in the object language or that a manipulation violated other grammatical rules.

Part IV

Free, Quasi and Conventional Association with Focus

While researching the focus senstive expressions, it may be observed that they do not behave in a unique way. Beaver and Clark [Beaver and Clark, 2008] came to the conclusion that what is responsibile for different behavior of focus sensitive expressions are their different patterns of *association with focus*. According to them three kinds of association with focus can be distinguished: (1) quasi, (2) free and (3) conventional. The (3) is lexically encoded, whereas (1) and (2) constitute non-conventionalized epiphenomena.

1. Quasi Association with Focus A large group of propositional operators quasi associates with focus, such as, for example, negation, *neither,... nor...*, *either,... or...*, etc. In order to quasi associate with focus, the expression must have at least two properties: (1) it must be nonveridical, and (2) it must be a propositional operator. What is more, the argument of the operator must be congruent to the Current Question. The characteristic thing for this kind of association with focus is that the implicature produced by an operator in the interaction with the focused element is cancelable.

2. Free Association with Focus In a free way associate with focus those propositional operators which quantify, or compare within, an implicit domain which cannot be fully determined by the sentence itself, for example, adverbs of quantification and determiners. The expression with the quantifier can be devided into two parts: (1) a restrictor argument, and (2) a scope argument. Sometimes the restrictor, when it is reconstructable from the context, is omitted. In that case it forms a kind of free variable. And this is a crucial element for the free association with focus. What is important is that the choice of the variable does not depend grammatically on focus. Beaver and Clark [Beaver and Clark, 2008] give two ways of filling in the argument position: (1) anaphorically (with the before mentioned set of occurences) and (2) not anaphorically, by refering to the salient set which is not mentioned before. It is important to notice that, according to them, both ways of filling in the argument positions are pragmatic.

3. Conventional Association with Focus. In this case that the association with focus is encoded lexically, it means that focus sensitivity of the focus sensitive expressions is lexical dependant on the Current Question. Here we cannot find any element that could play the role of free variable, implicit domain, etc. The domains of possible operators are fully determined by the sentence itself. Beaver and Clark [Beaver and Clark, 2008] describe the main function of the elements conventionally associating with focus as a comment on the Current Question or as a way to define how the proffered answer is related to the expected one. In this group are exclusives, additives, scalars, among others.

Beaver and Clark ([Beaver and Clark, 2003], [Beaver and Clark, 2008]) claim that focus sensitive elements are not unified: they may be both conventionalized or non-conventionalized encoded, depending which focus sensitive expression is considered. What is more, they underline that their division is not between semantic and pragmatic elements but between elements that are lexically vs. non-conventionally encoded.

In the QUIS$_{SEM}$ we propose several tests which help to figure out whether a given focus sensitive expression associates with focus in a conventional or in a free way[11]. The tests are based on the differences between *only*, which conventionally associates with focus, and *always* which associates in a free way. It seems that observed differences are cross-lingustic.

First, the restrictor of *always* is determined contextually, and hence *always* does not have to associate with the stressd material in its scope. In contrast, with *only* the context cannot override the influence of the stressed elements in focus. Therefore, elements that conventionally associate with focus cannot associate with other elements (not being marked as focus), whereas the expressions which associate with focus in a free way can also associate with elements which are

[11] The designs of the tests base on the Beaver's and Clark's article [Beaver and Clark, 2003]

association with...	**...presupposition**	**...leaners**	**summary**
always	yes	yes	free assoc. with focus
only	no	no	conventionally assoc. with focus

Table 7: Free vs. Conventional Association with Focus

not marked as focus. This is the so-called *association with presupposition* effect (see section 13).

Second, *always* can associate with leaners, whereas *only* cannot. Leaners are defined as prosodically dependent material [Beaver and Clark, 2003] and are represented in languages by weak pronouns, among others. Hence, if a given focus sensitive expression can associate with a weak pronoun, then supposedly it associates with focus in a free way. In contrast, when it is impossible for a given focus sensitive particle to associate with a weak pronoun, than it is plausible that it conventionally associates with focus. (see section 14).

The summary of the differences between *always* and *only* are shown in the table 7.

13 Association with Presuppositions

13.1 Association with Presupposition vs. Focus Reading

Always and *only* differ according to the possibility of association with an unstressed material in their scope: *always* can associate with non-focal material (its restrictor is determined contextually), whereas *only* associates with a focused element and is not able to associate with non-focal material. Let us consider the following examples from [Beaver and Clark, 2003]:

1. Mary always managed to complete her [exams]$_F$.

    a) 'Whenever Mary took exams, she completed them.'

    b) ¿Whenever Mary completed something, it was invariably an exam.'

In the reading (a), there is presupposed material in the restrictor of *always*, whereas in sentence (b) all non-focused elements of sentence (1) are in the restrictor clause. We can observe that *always* can associate with the non-stressed material in its scope. What is more, the focal material is never mapped onto the restrictor.

Let us now consider similar sentences with *only*:

1. Mary only managed to complete her [exams]$_F$.

    a) *What Mary did when taking exams was complete them and do nothing else.

    b) What Mary completed was an exam and nothing else.

Similar to the previous example, the interpretation (a) of the initial sentence obtains an association with presupposition reading, and the interpretation (b) contains an association with focus reading. We can see that this time, reading (a) is not possible, whereas reading (b) is not only possible, but also a preferred one.

As was already written in the introduction to this part of the QUIS$_{SEM}$, the elements that conventionally associate with focus are not able to associate with anything other than focus, whereas the elements which associate with focus in a free way can associate also with non-stressed material (non-focal). Therefore, we can conclude that *always* free associates with focus, while *only* associates with focus in a conventional way.

13.1.1 Description of the Test

The aim of the test is to find out if in the given object language *always* and *only* associate with focus in a free or in a conventional way.

The test consists of two sets of sentences with focus sensitive expressions. The (a) sentences contain *always* and (b) sentences include *only*. The (i) and (ii) sentences are interpretations of (a) and (b). (i) is an association with a presupposition reading and (ii) is an association with a focus reading. The impossible readings in English are marked by '*' and not plausible readings by '?'. Before conducting the test, all the sentences must be translated into the object language.

The scenario of the test is as follows. First, the fieldworker presents to the informant sentence (a), where John makes several statements. Sentence (a) either can be written and the informant must read it or it can be said by an additional fieldworker playing a John's role. After presenting sentence (a) the researcher asks the informant a question about the interpretation of a John's statement using the following expression: *Did John mean that [sentence (i)] or did he mean that [sentence (ii)]*. Instead of a variable *[sentence (i)]* and *[sentence (ii)]* the researcher should use, of course, the full sentences (i) and (ii).

To explain this task to your informant, you can use for example the following instructions:

> Now you will read (hear) several statemants of John. Please read (listen to) them carefully. After each statement, You will be asked a question about John's claim. To each question two possible answers will be provided. Your task is to choose the correct one. It may happen that none of the answer is acceptable or both of them are correct.

If the informant chooses answer (a), it means that the given sentence obtains an association with presupposition reading. If the informant chooses answer (b),

it suggests that the given sentence gets an association with a focus reading. It may happen that the neither sentence (i) nor (ii) is judged as a possible reading of the given sentence. In this case it is good to ask why the given sentence cannot obtain any of these readings and how the sentence can be changed to obtain one of these readings.

The test is designed to figure out the association with focus patterns of *always* and *only*. However, the test can also be applied to other focus sensitive particles. If you want to conduct a test with use of other focus sensitive particles, you should do the following two steps: First, you should construct initial sentences inlcluding a verb with a presuppositional reading (e.g., manage, remember etc.). Second, you should provide two interpretations of the initial sentence: (i) with an association with a presupposition reading and (ii) with an association with a focus reading. The rest of the procedure is the same as for *always* and *only*.

1. a) John: 'I always remember to go to [church]$_F$.'
    i. Whenever it's time for church, John rememebers to go.
    ii. ?Whenever John remembers to do something, it's always to go to church.

   b) John: 'I only remember to go to [church]$_F$'
    i. *The only thing John does when it's time for church, is remember to go.
    ii. The only place John remembers to go is to church.

2. a) John: 'Germany always beats Poland in [football]$_F$.'
    i. When Germany plays football with Poland, Germany invariably beats Poland.

ii. ?When Germany beats Poland at something, it is invariably football.

b) John: 'Germany only beats Poland in [football]$_F$.'

i. *What Germany does when playing football with Poland is beat them and nothing else.

ii. Germany beats Poland at football and nothing else.

13.2 Association with Indefinites

The second thing to confirm that sentences with *always* obtain an association with a presupposition interpretation and sentences with *only* get an association with a focus reading is the observation that *someone* (and other indefinites) being in focus can be found in the argument to *always* but not to *only*. Let us consider the following examples [Beaver and Clark, 2003]:

1. Mary always took [someone]$_F$ to the cinema.

2. ?Mary only took [someone]$_F$ to the cinema.

The (1) sentence obtains the preferred association with a presupposition reading *When Mary went to the cinema, she always took someone*, which is uncontroversially uccepted by native-speakers of English, and hence felicitous. Since sentece (2) obtains an association with focus reading *The single person that Mary took to the cinema was someone*, it is infelicitous (sentence (2) is not informative). Furthermore, sentece (1) — including *always* — cannot obtain in English the association with a focus reading (which is infelicitous in this case) and the sentence (2) — including *only* — cannot get the association wih presupposition reading (which is felicitous in this case).

Hence, if a sentence with an indefinite and a focus sensitive expression is judged as felicitous, it means that the given sentence obtains an association with presupposition interpretation. The given focus sensitive expression does not have to associate with stressed material in its scope. Therefore, it freely associates with focus.

On the other hand, if a sentence with an indefinite and a focus sensitive expression is judged as infelicitous, it suggests that the given sentence gets an association with a focus reading, hence the given focus sensitive expression has to associate with focal material in its scope. Therefore, it conventionally associates with focus.

13.2.1 Description of the Test

Taking into consideration all of the things above, indefinites in the argument to the focus sensitive particle is a good test for detecting whether the given focus sensitive particle associates with focus in a free or conventional way.

Let us recall that the focus sensitive expressions that accept indefinites as an argument freely associate with focus. In contrast, adding an indefinite as an argument to the elements that associate with focus in a conventional way causes infelicity.

This test detecting association with focus is designed as a felicity judgment task (for additional methodological guidelines, see section 4). It contains of four sentences with focus sensitive expressions and the indefinites. Instead of writing the given expression, we use a variable *focus sensitive expression* that should be filled in with the particle you are interested in.

After translating the sentences into the object language, present the sentences (one by one) to your informant and ask him or her for a felicity judgment.

You can use the following questions: *Is this sentence correct?*, *Is this sentence ok?* or *Does this sentence make sense?*.

If the informant judges a given sentence as felicitous, it suggests that the sentence obtains an association with pressuposition reading, and hence the focus sensitive expression from this sentence associates with a focus in a free way.

If the sentence is judged by the informant as an infelicitous one, it means that the sentence gets an association with focus interpretation, and therefore the focus sensitive expressioon from this sentence conventionally associates with focus.

1. John (*focus sensitive expression*) invites [someone]$_F$ to the theatre.
2. George (*focus sensitive expression*) goes [somewhere]$_F$ in Paris
3. Mary (*focus sensitive expression*) does [something]$_F$ in the afternoon.
4. Mike (*focus sensitive expression*) [somehow]$_F$ manages to do his homework.

14 Association with Leaners

Leaners are *prosodically dependent material* [Zwicky, 1982], including, but not limited to, the so-called weak pronouns, e.g., weak *'im* versus strong *him* in English, weak *es* versus strong *das* in German, weak *go* versus strong *jego* in Polish, and so on. The claim is that elements conventionally associating with focus cannot associate with non-focal material, while elements that freely associates with focus can associate with material that is nor marked as focus. Since leaners cannot be stressed, in many languages weak pronouns cannot obtain focus markers. Hence, we predict that elements free associating with focus (for

example, *always*) associate with weak pronouns, whereas those conventionally associating with focus (for example, *only*) do not associate with leaners. Let us consider the following example taken from Beaver and Clark's work [Beaver and Clark, 2003]:

1. **Context**: You had many discussions with Sandy, but what I want to know is the extent to which you talked about Fred. Of all the times you talked with Sandy, how often was Fred the person you talked about?

   a) I [always]$_F$ discussed'im with Sandy.

   b) ? I [only]$_F$ discussed'im with Sandy.

Sentence (a) can obtain the reading *whenever I discussed someone with Sandy, it was Fred*. Since *always* can associate with leaners, the sentence (a) is felicitous. On the other hand, the sentence (b) cannot obtain the interpretation *I only discussed Fred (and no one else) with Sandy*. What is more, (b) itself is not a felicitous sentence; hence, *only* cannot associate with weak pronouns. From this observations we can conclude that *always* freely associates with focus, while *only* conventionally associates with focus.

14.1 Test 1

In order to check if the given focus sensitive expression can associate with leaners, we can use a felicity judgment task (for methodological guidelines, see section 4). The test consists of two sets. Every set includes a context description and two sentences: (a) with *always*, and (b) with *only*. Both sentences also contain weak pronouns.

Translate both the descriptions of the context and sentences into the object language. Present the context description and sentences (a) and (b) to your

informant and ask him or her whether in this context these sentences are felicitous or not. You can use the following questions: *Is this sentence correct?*, *Is this sentence ok?*, *Does this sentence make sense?*. If the sentence in the given context is felicitous, it means that the focus sensitive expression can associate with a weak pronoun, and hence it freely associates with focus. If the sentence is judged as infelicitous, it suggests that the focus sensitive expression cannot associate with a weak pronoun, and therefore conventionally associates with focus.

If an informant judged a given sentence as infelicitous, it is good to ask him why this is so. You can also ask him how to correct the sentence in order to obtain a felicitous one.

1. **Context:**I know that you often meet friends at the restaurant, but I want to know how often you meet John there. Of all the times you were at the restaurant, how often was John the person you met there?

   a) I [always]$_F$ met'im at the restaurant.

   b) I [only]$_F$ met'im at the restaurant.

2. **Context:** I know that you often meet your neighbours at the shop. But tell me, of all the times you were at the shop, how often was Goerge a person you met there?

   a) I [always]$_F$ saw'im at the shop.

   b) I [only]$_F$ saw'im at the shop.

14.2 Test 2

To confirm the results obtained in the preceding test, we propose to conduct a second felicity judgment task (general methodological guidelines on this kind of elicitatotion task is provided in section 4).

To conduct this test it is necessary to fulfill one precondition: namely, there must be an adnominal particle in the object language.

The test consists of four sets of sentences. In each set there is one sentence with *always* and one sentence with *only* (they create a minimal pair). In every sentence a focus sensitive particle is associated with a leaner.

Have the sentences translated into the object language (for guidelines on making translations see: page 7). Present the translated sentences to your informant and ask him or her for a felicity judgment. You can use the following questions: *Is this sentence correct?*, *Is this sentence ok?*, *Does this sentence make sense?*.

If the sentence is judged as felicitous, it suggests that a given focus sensitive expression can associate with a weak pronoun, thereofre it freely associates with focus. If the sentence is judged by na informant as infelicitous, it means that the focus sensitive expression cannot associate with a weak pronoun, hence conventionally associates with focus.

Sentences

1. a) I only met'im, I didn't meet anybody else.
   b) I always met'im, I didn't meet anybody else.
2. a) I only liked it, I didn't like anything else.
   b) I always liked it, I didn't like anything else.
3. a) I only invited'im to the cinema, I didn't invite anybody else.

b) I always invited'im to the cinema, I didn't invite anybody else.

4. a) I only loved'im, I didn't love anybody else.

b) I always loved'im, I didn't love anybody else.

Bibliography

Beaver, D. and Clark, B. (2003). Always and only: Why not all focus sensitive operators are alike. *Natural Language Semantics*, 11:323–362.

Beaver, D. and Clark, B. (2008). *Sense and Sensitivity: How Focus Determines Meaning*. Blackwell, Oxford.

Buering, D. and Hartmann, K. (2001). Tne syntax and semantics of focus-sensitive particles in german. *Natural Language and Linguistic Theory*, 19:229–281.

Ebert, C. and Hinterwimmer, S. (2010). Quantificational variability effects with plural definites: Quantification over individuals or situations? *Journal of Semantics*, 27(1):139–176.

Hartmann, K. and Zimmermann, M. (2008). Focus asymmetries in bura. In *Interdisciplinary Studies on Information Structure (ISIS) 10. Working Papers of the SFB 632.*, pages 45–92. Universitaetsverlag Potsdam.

Kartunnen, L. and Peters, S. (1979). *Syntax and Semantics 11: Presupposition*. Academic Press.

Koenig, E. (1991). *The Meaning of Focus Particles. A Comparison Perspective*. Routledge, London, New York.

Matthewson, L. (2004). On the methodology of semantic fieldwork. *International Journal of American Linguistics*, 70(4):369–415.

Zimmermann, M. (2006). Adverbial quantification and focus in hausa. In Ebert, C. and Endriss, C., editors, *Proceedings of Sinn und Bedeutung SUB 10*, Berlin.