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Questionnaire on Focus Semantics

2nd Edition

Agata Renans, Malte Zimmermann, Markus Greif

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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

The present Questionnaire on Focus Semantics (Quis$_{SEM}$) was developed to elicit the equivalents to focus sensitive expressions, their semantics, distribution, and their way of association with focus. Three types of tasks are implemented:

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*

This section of QUIS$_{SEM}$ puts forward some general information on semantic fieldwork[1]: first, general advice is provided for all tasks in the QUIS$_{SEM}$ manual, and second, methodological guidelines are presented for these tasks.

Language — Meta-Language Note that all 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 instructions and descriptions of the contexts may be made in a meta-language, e.g., English [Matthewson, 2004].

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

In the first case, a linguist should check the translation made by the native speaker. For semantic elicitation tasks, it is important to control the information structure 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 precisely.

Although in order to conduct some tasks (e.g., felicity judgment tasks) it is necessary to have sentences in the object language that are infelicitous, note that you should never ask for a translation of infelicitous (ungrammatical) sentences [Matthewson, 2004]. Instead, it is recommended that infelicitous sentences are divided into two parts (when possible, of course) and a translation of each part is asked for separately. Such a division is possible, for example, in the felicity judgment task from section 6.3.1. The infelicitous sentence *Only [John]$_F$ visits Monica on Sunday and only [Tom]$_F$ visits Monica on Sunday too* can be divided 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, in which the translation is made by a linguist, a native-speaker of the object language should check all translated material — it should be grammatically correct and sound natural.

Task Mixing Each task checks for one characteristic of focus sensitive expressions; as a result, the examples from the tasks throughout QUIS$_{SEM}$ are more or less similar. This makes QUIS$_{SEM}$ easy to use. Note, however, that although the examples should be mixed when conducting fieldwork, they should not all come from the same task. Otherwise, an informant could get used to the given task and no reliable conclusions can be drawn from his or her answers.

Informant's Answers All of the informant's answers should be either jotted down or recorded; for tone languages, the latter is recommended. Furthermore, it is worth jotting down or recording all additional comments made by the informant too. Although these comments cannot be treated as a solution to the problem you are working on, they may be a helpful clue [Matthewson, 2004].

1 Translation Tasks

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. Note, however, that the results of this kind of elicitation cannot be treated as a final answer to the research question. Translation tasks are too vague for this, as it is difficult to control all of the factors that can influence the informant's answers. The results obtained in the translation task should be treated rather as a clue [Matthewson, 2004] for further investigations — in other words, 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 functions of the context are (1) to eliminate possible ambiguities, and (2) to determine the focused element in the sentences to be translated. Contextual descriptions do not have to be given in the

object language; in this case, a meta-language (e.g., English) is fine [Matthewson, 2004].

You should only ask for translations of sentences that are grammatically correct [Matthewson, 2004]. In order to make the presentation of the test more transparent, 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 receive a plain text with the contextual description and a sentence to translate.

While interpreting the results obtained in this task, it is necessary to assume that the translations made by the informant are grammatically correct.

Summary

- Every sentence to be translated should be preceded by a contextual description;
- descriptions of the context may be provided in a 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.

2 Picture Tasks

Picture tasks are designed to elicit the given linguistic elements in semi-spontaneous speech without further stimuli to be translated. These tasks typically consist of a set of pictures with descriptions of the pictures or questions about them. The informant should either (1) correct the description if it does

not correspond to what he 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 full sentences only.

Have the descriptions of the pictures and the questions about them translated into the object language.

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

Summary

- The informant should be instructed to use full sentences only;
- descriptions of the pictures and the 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 initial descriptions of the pictures in English and the descriptions of the pictures in the object language should be obtained by the same words.

3 *Story with Gaps* Tasks

A *Story with Gaps* task consists of a text with gaps that should be filled in with the appropriate word by the informant. The correct word is determined by the context.

In QUIS$_{SEM}$, all texts are presented in English. Before conducting the test, you should have the text translated into the object language.

In order to facilitate translation, the appropriate words for the gaps — written in italice — are not deleted in the original English text; after translating the original text, however, elements in italics ultimately should be removed from the target text. Note that in every text there are two kinds of gaps: (1) *normal* (marked with numbers), which should be filled in with the words under investigation, and (2) *fillers* (usually marked with letters).

Summary

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

4 Judgment Tasks

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

In the case of (1), the 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. For example, consider example (1): There is one contextual description (1-a), and three answers to the given question (1-b)–(1-d).

(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.

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

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

First of all, you should have the target sentences translated into the object language. In the case of felicity judgment tasks, it is especially important to control the information structure of the target sentence in the object language — it should precisely reflect the information structure of the original sentence in English. In the case of the grammaticality judgment tasks, the grammatical structure of the sentence needs to be controlled.

To make the presentation of the tasks more transparent, focus is marked in the original English sentences. However, the informant should get the sentences without any metalinguistic information-structure markers; furthermore, syntactical elements should not be marked metalinguistically either.

If an informant judges a sentence as infelicitous, it is a good idea to ask what is wrong with the sentence or why it is infelicitous. You can also ask the informant to correct the infelicitous sentence in order to obtain a felicitous one.

This information can be helpful in drawing reliable conclusions about both the information structure and the grammatical structure of the sentence.

Summary

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

5 Tests

Tests check the semantics of the linguistic elements in an indirect way. These tasks consist of a contextual description (usually a short story) and questions about its content. Additionally, 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 contextual descriptions, questions, and answers translated into the object language.

To make the design of the *test* as clear as possible, focus elements are marked by means of metalinguistic symbols; however, informants should obtain all *tests* without any markers that 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 receive a plain *test* without any metalinguistic markers.

Part II

Equivalents to 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 changes the meaning of the sentence. Consider the following example:

(2) 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*.

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

One can see that they differ according to their truth-conditional meaning. Sentence (3-a) is true if and only if Brian invited Mary and did not do anything else with Mary, whereas sentence (3-b) is true if and only if Brian invited Mary and nobody other than Mary. Since the different positioning of focus in sentences (3-a) and (3-b) changes the truth-conditional meaning of these sentences, *only* is a focus sensitive expression.

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

In QUIS$_{SEM}$ only a subset of them is considered, that is, exclusives, additives, scalars, and adverbs of quantification. This 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. Specifically, the main characteristics of the

following English focus sensitive particles will be considered: *only* (exclusive), *too, also* (additives), *even* (scalar), and *always* (quantificational adverb).

QUIS$_{SEM}$ should at least in part answer the following questions:

- In the given language, are there equivalents to the English focus sensitive expressions (*only, always, even, too, also*)? Finding this out is one of the main objectives of QUIS$_{SEM}$.
- What is the syntactic distribution of these focus sensitive expressions?
- How do the focus sensitive expressions effect 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 QUIS$_{SEM}$ dedicated to focus sensitive expressions is organized by type of expression, not by properties. Once the focus sensitive expressions used in the given language are known, the properties they have can be checked. From the organization of the questionnaire, it follows that the same characteristics (exhaustivity, for example) may be tested for more than one expression in different parts of 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, zaledwie* in Polish. In this part of QUIS$_{SEM}$, the semantics of three English exclusive particles are considered, that is, *only, merely*, and *exclusively*. However, the tests are concentrated mainly 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[2]. For illustration, consider the following example:

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

The relevant open sentence has the form *John invited x*, where $x = \{Mary,\ John,\ Bill,\ Mary\,and\,John,\ Mary\,and\,John\,and\,Bill, ...\}$[3]. In this case, the value of x is not constrained to *Mary*: it is possible that John also invited other people apart from Mary. In contrast, the sentence

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

gets the interpretation that John has invited Mary and no one else. All of the alternative values to x in the formula *John only invited x* are excluded: in this case, $x = \{Mary\}$.

[2] It is important to note 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.

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

One characteristic property of exclusive particles is their reference to salient scales. The proper scales are created by ordering the possible answers to the Current Question. One 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, consider the following sentences with *only*:

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

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

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

Sentence (6-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 (6-a). The weaker answer is the singleton, i.e., either $\{The\,Magic\,Mountain\}$ or $\{Faust\}$, whereas the stronger one is any proper superset $\{The\,Magic\,Mountain,\ Faust\}$.

The scale that *only* refers to in sentence (7-b) is a logically entailing scale with total order. The weaker answers to the Current Question include all numer-

als whose value is less than three (i.e., *he caught one fish, he caught two fish*), whereas the stronger answers contain a numeral whose value is more than three (e.g., *he caught four fish, he caught twenty fish, etc*).

The exclusive particle in sentence (8-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 (8-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, etc*.

It is important to note that *only, exclusively*, and *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* receives not only 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* and *merely* can refer to all three kinds of scales mentioned above. Note, 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 (9) and the non-entailing scales in predicative environment (10):

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

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

(10) 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 *exclusively* is replaced by *only* or *merely*, one obtains a felicitous sentence[4]. The reply to the first question: *John ate only/merely [three]$_F$ cookies* is correct, as is the answer *John is only/merely [a lieutenant]$_F$* for the second question[5].

As discussed, 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 (which is very common in the literature), but rather about three types of exclusives: (a) the only-type (the general exclusives), (b) the merely-type, and (c) the exclusively-type. It is important to

[4] Notice, however, that both *merely* and *exclusively* are not easily licensed in the corrective statements when the sentence with an exclusive refers to the entailment scales with total order, as in, 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.

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

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

The characteristic behavior 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; because of this it cannot be used in non-pejorative (positive) contexts. Consider the following example, in which the second clause suggests a positive interpretation of the sentence:

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

Given the contradictory meaning of *merely* together with the second clause *which is good*, this sentence is infelicitous in English.

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

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

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

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

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

b. She is merely [a cleaner]$_F$.

The answer to the question has a strict pejorative meaning. On the salient scale of the jobs that can be done in the hospital, the cleaner is visibly at the lower end of the scale.

Exclusively behaves differently in comparison to *merely* in all of the above-mentioned cases (i.e., (a)–(c)). However, these observations do not allow one to distinguish *exclusively* 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* can. Consider the following examples:

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

Sentence (14-b) is correct, whereas sentence (14-a) is ungrammatical.

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

Summing up, there are three types of exclusives: (a) the only-type, (b) the merely-type, and (c) the exclusively-type. The most general type (i.e., which can be used in all contexts demanding the use of an exclusive) is the only-type, while the distributions of *exclusively* and *merely* is significantly limited. Moreover, the distribution of *exclusively* and *merely* does not usually coincide. The differences between *merely* and *exclusively* are presented above. There are in fact two types of contexts demanding the use of *exclusively* or *merely*; however, in either case, both particles can be substituted by *only*.

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

- What are the equivalents to the English exclusives, and what is the main exclusive particle in the object language? (see 6.1)
- How can one distinguish the three types of exclusives: the only-type, the merely-type, and the exclusively-type? (see 6.2)
- Do the 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 greatly on the discourse in which they occur. That is why every sentence is preceded by a short contextual description. You should present the context to your informant and then ask him or her to translate the sentence containing the focus sensitive expression; note that the sentence which should be translated is written in boldface. For methodological advice on conducting translation tasks, see section 1.

Based on the English sentences, two groups of sentences can be distinguished: in the first group, there are sentences in which exclusively-type exclusives are used, and in the second there are sentences in which merely-type exclusives are used. Note that in English, *only* (in comparison to *exclusively* and *merely*) can be used for both groups. Thus, it is highly possible that the informant will use the same exclusive particle in both contexts, namely the most frequent one.

Furthermore, English exclusives can associate with a range of syntactic constituents of various grammatical functions, including NPs, VPs, PPs, etc. In this test, various association patterns of *only* with focus are presented. Furthermore, sentences 13–16 include negated *only*. In the first group of sentences, the following is observed:

- 1 – 2 *only* associates with a Subject,
- 3 – 4 *only* associates with a V,
- 5 – 6 *only* associates with a VP,
- 7 – 8 *only* associates with a Direct Object,
- 9 – 10 *only* associates with a PP,
- 11 – 14 *only* associates with an N, a VP, a V, and a Direct Object.

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

It is important to note the following regarding the object language: (1) there may be two separate expressions for negated and non-negated exclusives, and (2) the different syntactic elements that *only* associates with may demand the use of different exclusives, even though in English this is not the case.

Exclusively-type *only*

1. a) There were four children. Tom, George, and Angela went to kindergarten. 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 the cow, and so...

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

6. a) Yesterday evening, Mary read a book, but 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 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 but nothing else.

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

9. a) In the Christian tradition, people should have Christmas trees in their homes in December and in no other month.

   b) **Christians only have a Christmas tree in their homes [in December]$_F$.**

10. a) Margaret is a very busy person. She has time to go to the market on Monday but not on any 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 she also washed the dishes.**

13. a) Mary washed and brushed her hair.

    b) **Mary not only [washed]$_F$ her hair, but she 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 the American president to 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 his teacher 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 to England on vacation. 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 favorite fruit is watermelon. He likes bananas a lot but mangoes 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, the weather was really bad.
    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) provide the context, whereas those marked by (b) should be translated by an informant. Present the contextual information to your informant and then ask him or her to translate the sentences in the given contexts.

Exclusively-type *only*

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

   b) **No, only [Tom]$_F$ is going on 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 writes poems.

   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 production tasks, informants are forced to utter a sentence without linguistic stimuli to translate. The picture task helps discern the counterparts of exclusives in spontaneous speech. For general methodological advice regarding this type of test, see section 1.

Description of the Test

The test consists of pictures and descriptions of 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 require corrections: they should be used randomly as fillers while conducting the test.

Present a picture to your informant and read the 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 see in the picture, please correct it using a full sentence.

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

Figure 1: Description 1

Figure 2: Descriptions 2, 4, and 6

Figure 3: Description 3

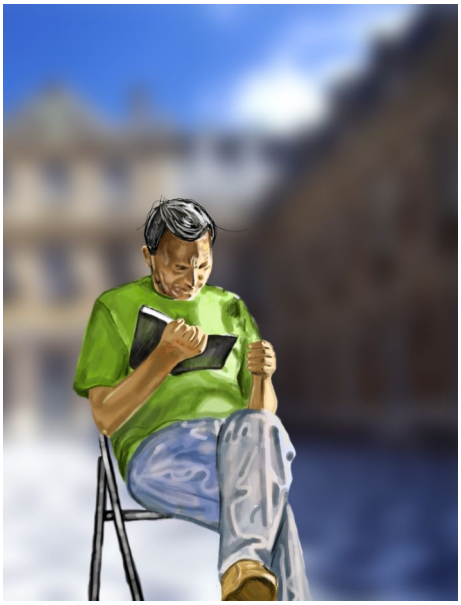

Figure 4: Descriptions 5, 7, and 9

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 in spontaneous speech with the use of stimuli different from those in the previous tasks: in this test, linguistic stimuli is presented in the form of a short text.

Following the text are questions about its content. The story and the questions are designed in such a way that when providing the correct answers to the questions it is necessary to use either an exclusive or an additive particle.

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.

The predicted answers are provided after each question.

Story

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

The girls are really good at math, whereas John is interested in literature. He hates studying physics and math, and so he has bad grades in these subjects. Anne and Mary have tried to help him in math, but he is not willing to spend his time studying when he could be reading books.

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's swimming club*. Anne and John do not like swimming very much, but they always come to swimming competitions to cheer for Mary. Anne also has interesting hobbies. She collects stamps and postcards. John is a typical man. He often plays football and goes fishing.

1. a) Who lives near the school? Do both Mary and Anne live near the school?

   b) No, only Anne lives near the school.

2. a) Who goes to school by bus? Does anybody else beside John go there by bus?

   b) Yes, Mary also goes to school by bus.

3. a) Who is interested in literature? Are both Mary and John interested in literature?

   b) No, only John is interested in literature.

4. a) Which school subject does John hate? Does he hate studying anything else beside physics?

   b) Yes, he also hates studying math.

5. a) Is anybody else beside Mary good in math?

   b) Yes, 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 collect anything else beside stamps?

   b) Yes, she also collects postcards.

8. a) What is John's hobby? Does he play anything else beside football?

   b) Yes, he also goes fishing.

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

As discussed, three types of exclusives can be distinguished in English: (1) the only-type, (2) the exclusively-type, and (3) the merely type. All of them refer to salient scales; 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. Moreover, usually the distribution of *merely* and *exclusively* do not coincide. Briefly recall the differences in the behavior 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 negated clauses;
- is easily licensed in the predicative sentences with a pejorative meaning.

Exclusively:

- cannot operate on an entailment scale with total order;
- presupposes the prejacent in negated clauses;

- is not licensed in the predicative sentences with a pejorative meaning.

In all cases *merely* and *exclusively* can be substituted by *only*.

From these observations it follows that the use of exclusively-type exclusives in contexts that demand the use of merely-type exclusives causes infelicity. Consider the following examples:

(15) 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.

(16) 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 happy about it.
b. *He merely invited [Mary]$_F$, but he was happy about it.
c. He exclusively invited [Mary]$_F$, but he was happy about it.

In example (15), it is necessary to use an exclusive that can operate on an entailment scale with total order, and therefore exclusively-type exclusives cause infelicity here as they cannot operate on such scales. In example (16), there is a visibly positive context (Bill was happy about his choice), and therefore the use of *merely*, which has a pejorative meaning component, is not licensed. These facts can help identify if a given exclusive particle is a merely-type, an exclusively-type, or both (i.e., an only-type). In this section, tests which help determine this are presented.

6.2.1 Story with Gaps

The aim of the test is to determine if there are separate exclusively-type and merely-type exclusives in the object language.

There are eleven gaps in the text that should be filled in with the appropriate 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, the exclusive particles and the filler words from the text are not removed. Nonetheless, the words that should be removed are written in italics. Additionally, the gaps in which a merely-type exclusive should be used are marked with a letter, whereas the gaps in which an exclusively-type exclusive should be used are marked with a number. The 'filler gaps' are marked with a roman numeral.

By observing which particles are used in which gap (i.e., in which context), it can be determined whether a given particle is a merely-type or an exclusively-type. Looking at the text globally, one can see if there are different particles used in different contexts. Note, however, that the only-type exclusives can be used in contexts licensing both the exclusively-type and merely-type exclusives. Hence, it is possible that all gaps, except the fillers, will be filled in with the same particle. However, this is also a conclusive result, since it shows that in the object language there is a particle with a similar distribution to *only* in English.

For methodological advice regarding this kind of task, see section 3.

Description of the Test

Have the text translated into the object language. Remove all words marked in the initial text as exclusive particles or fillers from the text. The additional

markers indicating exclusively-type 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 a 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 hike in 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* Pati. All of the girls except Megan began to panick. (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 deer. It will not bite us.' Although nothing bad had 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 before 7 o'clock. We don't have 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. Two hours later they became really hungry. They wanted to find something to eat because they (c) *merely* had two sandwiches with them, but they couldn't find anything to eat. (3) *Exclusively* Sharon was lucky — she found some blueberries. They were so happy! (d) *Only* one of them was not satisfied because she got a stomach ache after eating the fruit. The time had come to go back to the camp. The 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 determine if a given exclusive particle is either a merely-type or an exclusively-type. For methodological advice for this type of test, see 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 conducting translation tasks (see 6.1.1, 6.1.2) and production tasks (see 6.1.3, 6.1.4) before conducting a *Felicity Judgment Task*. A *Story with Gaps* task (see 6.2.1) is recommended first, since it provides you a preliminary idea as to which exclusives in the object language are the merely-type and the 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* the following two scenarios are proposed: (1) one for languages with one exclusive, and (2) one 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). Recall briefly that using an exclusively-type exclusive in contexts licensing a merely-type exclusive (and vice versa, that is, using a merely-type exclusive in contexts licensing an exclusively-type exclusive) causes infelicity (see section 6.2).

The *Judgment Task* consists of twenty sentences with the exclusive particles removed: instead of writing a specific exclusive, the variable *exclusive particle* is used. Ten sentences require the use of exclusively-type particles, and ten sentences require the use of merely-type exclusives.

Have the sentences and the contextual 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 that this is the case), then, of course, you have to use the same particle in all contexts. In this case, the test can help determine which interpretations the given particle can have: the merely-type, the 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 exclusives. To obtain minimal pairs, fill in the same sentence with different particles. Only then will you be able to draw a reliable conclusion about the types of exclusives in the object language.

Present the translated sentences (filled in with the particles) to your informant and ask him or her 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?* In the event that the context is provided, first present the context to your informant and then ask for a judgment. If your informant decides that the given sentence is infelicitous, you can ask him or her 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*. Note that there is

no variable *exclusive particle* in the translation tasks, but you can put different exclusives in place of *only*.

If a given particle causes infelicity in contexts licensing a merely-type exclusive, whereas this same particle is felicitous in contexts demanding an exclusively-type exclusive, you can assume that the exclusive is an exclusively-type. In contrast, when a particle causes infelicity in contexts demanding exclusively-type exclusives, but it is felicitous in contexts licensing merely-type exclusives, then the given exclusive is a merely-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 patted 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*) studied [math]$_F$ yesterday.

9. a) Tom's sister went on vacation in May and July.

   b) No, Tom's sister (*exclusive particle*) went on vacation [in May]$_F$.

10. a) Claire goes to church at 6 in the morning and again at 2 in the afternoon.

    b) No, Claire goes to church (*exclusive particle*) [at 2 in the afternoon]$_F$.

Sentences — merely-type *only*

1. a) How many fish did John catch?

   b) John caught (*exclusive particle*) [ten fish]$_F$.

2. a) How many pages did Jim read?

   b) Jim read (*exclusive particle*) [eight pages]$_F$.

3. a) Is this man who just entered the room 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 come to the meeting.

   b) Instead (*exclusive particle*) [a bishop]$_F$ came.

6. a) The vice-chancellor was supposed to visit the exchange students.

b) (*exclusive particle*) [the 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 exclusives consists of two elements: (1) the prejacent (the positive part of the meaning of exclusives), and (2) the universal (the exclusive, negative part of the meaning of exclusives). Consider the following example:

(17) Only Jane went to the zoo.

The prejacent (the positive part of the meaning of exclusives) is the proposition that Jane went to the zoo, whereas the universal (the negative part of the meaning of exclusives) is the proposition that nobody other than Jane went to the zoo.

In this test, Beaver and Clark's observations about the scalarity of exclusives are adopted [Beaver and Clark, 2008]. This test will determine whether a given exclusive is a merely-type or an exclusively-type. Namely, an exclusive is a merely-type when its negation can be used without making an implication that

the prejacent holds. Note, however, that it relates to the non-entailing scales with contextually given pre-ordering. Consider the following examples:

(18) 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.

In sentence (18-a) it is not necessary that John met a lieutenant, so the prejacent does not have to hold. Moreover, there are no examples in which one is forced to conclude from a sentence with *merely* that the prejacent holds.

In the case of *exclusively*, the reverse phenomenon can be observed. Sentence (18-b) implies that John must have met both a lieutenant and a general, so it follows that the prejacent holds. Furthermore, it is difficult to find a context in which the prejacent does not hold when a negated *exclusively* is used.

Sentence (18-c) can imply that John met both a lieutenant and a general (i.e., the prejacent holds), so *only* can be treated as a merely-type exclusive. However, it is also possible to conclude from (18-c) that John did not meet a lieutenant, but rather 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 the conclusion that *only* can be a substitute for both merely-type and exclusively-type exclusives.

Description of the Test

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

Instead of writing a specific exclusive in the texts, the variable *exclusive particle* is used. Replace it with the exclusive you want to research. In order to

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

obtain a minimal pair, use two (or more) particles in the context of the same text.

After translating all of the material and filling in the variables, present the story to your informant and ask him or her to answer the questions.

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

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

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

(19) Dennis only eats [vegetables]$_F$.

Sentence (19) has a reading that Dennis eats nothing else other than vegetables: *vegetables* constitute the maximal and unique entity that fulfills the statement *Dennis eats it*. It is also possible to interpret *only V* in this way:

(20) Dennis only [eats]$_F$ vegetables.

Sentence (20) gets the reading that what Dennis 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 exhaustive and non-exhaustive interpretations. One of them is the adverb of quantification *always*. Consider the following example:

(21) Dennis always eats [vegetables]$_F$.

It is possible to interpret sentence (21) in such a way that Dennis eats vegetables and also something else; hence, *always* can get a non-exhaustive reading.

Below a test is presented which helps determine if the exclusives in the object language obtain exhaustive or non-exhaustive interpretations. In a later part of 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 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 only be one. Hence, if another focused item(s) having an exhaustive interpretation is added to a sentence already including a particle with an exhaustive interpretation, one obtains a sentence in which the first focused item (which should denote a unique or maximal entity satisfying the property denoted by the remainder of the clause) is neither unique nor maximal. This is because another focused item also denotes an element satisfying the property denoted by the remainder of the clause; hence, by adding the second focused item, infelicity is obtained.

Consider the following example:

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

In order to know whether this sentence obtains an exhaustive reading, one can check if another focused element that satisfies the property denoted by the re-

mainder of the clause can be added to this sentence without obtaining infelicity. Consider the following sentence:

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

By adding such a focused element to sentence (22), sentence (23) becomes infelicitous. Therefore, it can be concluded that the focused element in the first clause (i.e., *rolls*) denotes a unique or maximal entity satisfying the property denoted by the remainder of the first clause. Hence, the sentence fulfills 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 that satisfy the remainder of the clause. If these focused items denote maximal or unique entities of the 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. If you want to ask one of your informants for translations, the following strategy is recommended: Since it is predicted that the sentences from this task are infelicitous, you cannot ask an informant to translate full sentences (you should never ask for translations of unacceptable sentences [Matthewson, 2004]). Instead, divide sentences into two parts and ask for a translation of each part separately. For example, the sentence *Only [John]$_F$ visits Monica on Sunday and only [Tom]$_F$ visits Monica*

on Sunday too can be divided 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 infelicitous (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.

For additional methodological guidelines regarding judgment tasks, see 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 too.

6. Pam *only* [visits her friends]$_F$ on Friday evening and she *only* [watches TV]$_F$ 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 favorite 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 favorite 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 kilometers. During a run he decided that if his pace was too fast 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 [ran normally]$_F$ for 10 kilometers too.**

12. a) Tom fell 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 dance 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 sentences with exclusives consists of the following two elements: (1) a positive element (prejacent), and (2) a negative element (universal, exclusive)[6].

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

In order to find at least a partial answer to the above question, three tests are recommended: (1) cancelability in unembedded context, (2) visibility to negation, and (3) projection out of if-clauses. The first test enables one to distinguish conversational implicature from assertion and presupposition. This is possible because only conversational implicature can be canceled in unembedded clauses by the same speaker. The second and third tests help distinguish assertion from presupposition: assertion is visible to negation (while presupposition is not), whereas presupposition projects out of if-clauses (while assertion does not). The summary of this paragraph is shown in table 2.

[6] For an explanation, see section 6.2.3

6.4.1 Failure of Simple Cancellation — Felicity Judgment Task

Since (1) presuppositions and (2) assertions cannot be canceled in unembedded contexts, whereas (3) conversational implicatures can, this test enables (3) to be distinguished from (1) and (2). In order to check if the given exclusive particle can be canceled in unembedded contexts, a felicity judgment task is recommended. For methodological guidelines regarding this kind of test, see section 4.

The test consists of six sentences with the following conditions: (a) a canceled prejacent, and (b) a canceled universal. In addition, the intended meaning of the initial sentence is provided along with the original sentence.

Have the sentences with canceled 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 the 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. = *No one other than 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. = *No one other than 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. = *No one other than 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 other than 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 no one other than 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 petted [a cat]$_F$. = *John petted nothing else other than a cat.*

   a) John only petted [a cat]$_F$ and, actually, he did not pet a cat.

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

6.4.2 Visibility to Negation — *Test*

Visibility to negation is one of the most well-known tests for distinguishing presupposition from assertion: an assertion is visible to negation, while a presupposition is not.

Five short stories are presented along with two questions about each of them. In each case, question (a) is about the prejacent and question (b) is about the universal.

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

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

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

For general methodological guidelines on this kind of elicitation task, see section 5.

Stories

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

   a) Did Mary drink alcohol at the party?

      - yes
      - no

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

      - yes
      - no

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

   a) Did Mary dance at the party?

      - yes
      - no

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

      - yes
      - no

3. Yesterday John could not sleep because there were 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 anybody other than John sleep poorly last night?

      - yes
      - no

4. John and his friends went to play football on Sunday. It is 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 anybody 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 went diving, and some of them just bathed in the sun. It is not the case that John only swam.

   a) Did John swim?

      - yes
      - no

   b) Did John do anything else beside swimming?

      - yes
      - no

6.4.3 Projection out of if-clauses — *Test*

Embedding the sentence in the *if*-clause allows presuppositions to be distinguished from assertions: presuppositions project out of *if*-clauses, while assertions do not.

Four short stories including sentences with exclusives are provided. After each story there are two questions: one about (a) the prejacent, and one about (b) the universal.

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

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

If the informant chooses the answer ‘yes’ to question (a), it means that a prejacent is presupposed. However, if the informant chooses ‘no’ to question (b), it can be concluded that a universal is presupposed. In fact, these are the only answers from which reliable conclusions can be drawn. 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 the English exclusive particle *only* may not give clear results. Therefore, all results should be checked through the use of other tests from *Nature of Semantic Effect* (see 6.4.1, 6.4.2).

Stories

1. Mary and Jim had a party. If only John had eaten [the ice-cream]$_F$, they would have had a lot of extra dessert.

   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 [had only 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 eat the cake?

- yes
- no
- I do not know.

3. Every Wednesday Paul and his 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 play 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 George had invited only [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, such as, 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)[7] is partially answered[8]. To illustrate this, consider the following examples:

(24) [Bill]$_F$ likes bananas too.

(25) Bill likes [bananas]$_F$ too.

[7] 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.

[8] Compare the Q-A pairs:

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

It is commonly assumed that the sentences with additives have existential presupposition: in sentence (24), that somebody likes bananas, and in sentence (25), that Bill likes something. However, just existential presupposition is too weak for the proper interpretation of the meaning of sentences with an additive particle. It seems that the sentences with additives presuppose much stronger propositions, namely, in the case of sentence (24), that there is a salient instance of someone other than Bill liking bananas, whereas in the case of sentence (25), that there is a salient instance of such a thing that it is not a banana and Bill likes it. That is why one can assume that sentences with additive particles indicate that a partial answer to the Current Question has already been provided.

In English, there is a distinction between scalar additives (*even*), non-scalar additives (*also, too*)[9], and vague additives (*similarly, likewise, analogously*). However, QUIS$_{SEM}$ will only concentrate on the semantics of scalar and non-scalar additives: a separate part of QUIS$_{SEM}$ (see section 8) is to dedicated the scalar additive *even*, whereas this section focuses on the counterparts and meaning of the 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, whereas *too* associates with its left elements.

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

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

[9] 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 non-scalar contexts, whereas *too* and *also* are.

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

7.1 Counterparts of Additives

This part of QUIS$_{SEM}$ presents tasks which help 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 provides 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

With translation tasks one can get the first general picture about the counterparts of the English additive particles in the object language. For the general methodological advice on conducting translation tasks, see section 1.

The test consists of twenty sentences to be translated. If needed, the sentences are preceded by a description of the context. When provided, present a description of the context to your informant and then ask him or her to translate the target sentence (written in boldface).

English additive particles associate with a range of syntactic constituents of various grammatical functions, which is visible in the sentences to be translated. Furthermore, additive particles in sentences with negation are also included.

- 1, 2, 11 the additive particle associates with a Subject;

- 3, 4, 12 the additive particle associates with a V;
- 5, 6, 13 the additive particle associates with a VP;
- 7, 8, 14 the additive particle associates with a Direct Object;
- 9, 10, 15 the additive particle associates with a PP;
- in the sentences with negation (16, 17, 18, 19, 20), the additive particle associates with a Subject, V, VP, Direct Object, and PP.

It is important to note that in the object language different additive particles may be used in the sentences with and without negation, as is the case in English. Moreover, 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 in their family going to Italy next week?

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

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

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

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

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

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

   b) John also met [Mary]$_F$ yesterday evening.

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

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

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

    b) **Brenda also goes to the market [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 dinner]$_F$ too.**

14. **Anne plays the piano, and she also plays [the 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 write poems, and he does not [read]$_F$ 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 discover the counterparts of the given linguistic elements (in the case of this test, additive particles) in spontaneous speech without use of linguistic stimuli to be translated. For the general methodological guidelines for picture tasks, see 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 being presented to the informant.

Present a picture to yout informant 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 in that they do not demand the use of an additive particle in the corrective statement.

You can use the following instructions to brief your informant:

> You will see several pictures, each of which will be followed by a short description. Please correct the description if it does not correspond to what you can see in the picture. Use full sentences only.

Jot down or record the informant's answers. Note all additional comments made by your informant as well, as 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.**
4. a) Only Mary is eating a banana.
   b) **No, [Anne]$_F$ is eating a banana too.**
5. a) Only a girl is playing the guitar.
   b) **No, [a boy]$_F$ is playing the guitar too.**
6. a) The girl is only eating an apple.
   b) **No, she is also [reading a book]$_F$.**
7. a) Ben is only drinking water.

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

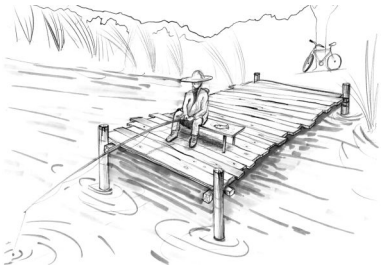

Figure 7: Descriptions 1, 2, and 3

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

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

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

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

9. a) The man is only sitting.

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

10. a) Mary is only eating an apple.

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

11. a) Jane is only holding a flower.

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

7.2 Meaning of Additives — Additivity

Additivity is the characteristic feature of the meaning of additive particles, as the name suggests. Consider the following example for the additive particle *also*:

(26) Anna also plays football.

Sentence (26) obtains the reading that not only Anna but somebody else plays football as well. The proposition that there is a salient instance of somebody other than Anna playing football constitutes the additive part of the meaning of also.

This part of QUIS$_{SEM}$ presents a test to check whether the given particle in the object language has an additive meaning.

7.2.1 Berger and Höhle's Task

The aim of this task [Berger and Höhle, 2011] is to check whether or not 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 this kind of elicitation task, 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. This is to suggest that, despite what Mary says she did, she did something else as well. Of course, such an effect can be observed only when the particle in Mary's statement is indeed additive. This observation can be used to detect whether the given particle is additive or not. The task of the informant is to answer the question about what Mary did. For each question there are 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 or her 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 object language. The answers 'a' and 'b' suggest that the given particle does not have an additive meaning component, whereas the answer 'c' means that the given particle has an additive meaning. 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 them while I'm at work.
   (*Mary's mother has just come 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) a banana

     b) an apple

     c) a banana and an apple

2. MOTHER Mary, go to the shop and buy bread and butter.
   (*Thirty minutes later*)
   MOTHER Hello, Mary! I guess you bought butter.
   MARY Guess what? 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 back some apples and pears.
   (*After thirty minutes*)
   MOTHER Hello, Mary! I guess you brought some apples.
   MARY Guess what? I only brought some pears.

- What did Mary bring?

  a) apples

  b) pears

  c) apples and pears

7.3 Nature of Semantic Effect

As with exclusives (see section 6.4), the nature of the semantic effect of introducing an additive particle into a sentence can be checked.

The meaning of the sentence with an additive particle can be divided into two parts: (1) the core-meaning, and (2) the additive meaning. Consider the following example:

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

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

This part of QUIS$_{SEM}$ checks if the given component of the meaning of the additive particle is asserted, presupposed, or conversationally implicated. To reach this goal, the same tests are used as those for checking the nature of the semantic effect when introducing other focus sensitive particles into a sentence (see sections 6.4 and 8.3): that is, (1) failure of simple cancellation, (2) visibility to negation, and (3) projection out of an *if*-clause.

The first test (1) allows conversational implicature to be distinguished from presupposition and assertion. The two other 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 canceled by the same speaker in unembedded contexts, whereas presupposition and assertion cannot.

The test consists of four sets of sentences: First, the initial sentence (marked by a number) is presented. Then, the same sentence with (a) the cancelled core-meaning, and (b) the cancelled additive meaning is presented. Additionaly, the intended meaning of the initial sentence is provided in italics.

Have sentences (a) and (b) translated into the object language (see page 7). Present a sentence in version (a) or (b) your informant and ask him or her whether it is felicitous. 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 means 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 test, 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]$_F$ the soup. = *Megan ate the soup and she did something else with the soup.*

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

    b) Megan also [ate]$_F$ the 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]$_F$. = *Sam 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 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

Four negated sentences with additives are presented along with descriptions of the context. For each sentence, there are two questions: (a) one for the core-meaning, and (b) one for the additive meaning.

Have the context, sentences with additives, 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 see several short stories and questions about them. Please answer the questions.

If an informant chooses the answer:

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

For additional methodological advice on conducting this kind of elicitation task, see section 5.

Stories

1. Children were supposed to bring their favorite toy to kindergarten. It is not the case that also [Mary]$_F$ brought a teddy bear.

   a) Did Mary bring a teddy bear to kindergarten?

      - yes
      - no

   b) Did anybody else beside Mary bring a teddy bear to kindergarten?

      - yes
      - no

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

   a) Did Mary read a newspaper?

      - yes
      - no

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

      - yes
      - no

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

   a) Did Julia bake a cake?

      - yes
      - no

   b) Did Julia do anything else other than bake a cake?

      - yes
      - no

4. During the family picnic, mom and dad 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 anything else beside play football.

- yes
- no

7.3.4 Test 2

Six short stories are presented along with questions about them. Each story contains a negated sentence with an additive particle, and each story is followed by a question regarding its content with two possible answers. The (a) answers are in accordance with the core-meaning, and the (b) answers are in accordance with the additive part of the meaning of the sentence with the 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 invisible to negation, and is hence presupposed. Notice, that in this test *wh*-questions are used, whereas in the preceding test there are only 'yes/no' questions.

Have all the stories, questions, and possible answers translated into the object language. 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 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. In contrast, if the informant chooses the answer 'b,' it means that the additive part of the meaning is presupposed.

For additional advice on conducting this kind of elicitation task, see section 5.

Stories

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

    - Who wore a tuxedo?

        a) Mark

        b) Someone other than Mark

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

    - To whom did John give flowers?

        a) To the bride

        b) To the groom

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

    - What did the guitarist do?

        a) He sang the songs

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

4. Anne's parents love dancing, especially her mother. It is 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 the cancan.

7.3.5 Projection out of an if-clause — *Test*

As mentioned in section 6.4.3, embedding the sentence in an *if*-clause allows presupposition to be distinguished from assertion: the presupposition projects out of the *if*-clause, while the assertion does not. This test is designed to establish whether the given part of the meaning of the sentence with an additive (i.e., the core-meaning or the additive part of the meaning) is presupposed or asserted.

Four short stories are presented . Each story contains an *if*-clause with an additive particle. For each story there are two questions: (a) a question regarding the core-meaning, and (b) a question regarding the additive part of the meaning of the sentence with the additive particle. The informant's task is to answer the given questions. If the informant answers 'yes' to one of the questions, it means that the given part of the meaning projects out of the *if*-clause, and hence it is presupposed.

Have the 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 receive several short stories and questions about them. Please answer the given questions.

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

For general methodological guidelines on this kind of elicitation task, see section 5.

Stories

1. At Natalie's school, an anniversary performance was organized. If [Natalie]$_F$ also 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 beside 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) Has Bill read the manual?

      - yes
      - no

- I do not know.

b) Has Bill read anything else other 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) Has Jessica put pepper in her soup?

- yes
- no
- I do not know.

b) Has she done anything else with her soup other than put 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 König, the focused element in a sentence with *even* is the least likely object to have a given characteristic. Consider the following example:

(28) Even [Maggie]$_F$ came to school today.

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

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

According to Kartunnen and Peters, the English scalar particle *even* also has a second component of meaning, namely *existential implicature*; this corresponds to the additive component of the meaning of additive particles. Consider the following example:

(29) Even [Tom]$_F$ likes football.

From this sentence, one can conclude not only (1) that 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 (2) that there are other people beside Tom who like football (the additive part of the meaning of *even*).

By analogy, the sentence

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

gets the interpretation (1) that football was the least likely thing to be liked by Tom, and (2) that Tom also likes other things beside football. Additionally, one can also identify 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 sentence (30) is the proposition that Tom likes football.

In sum, three components of the meaning of the English scalar particle *even* can be identified: (1) scalar, (2) additive, and (3) core-meaning. All of them will be invoked when considering the meaning of scalar additives.

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

- What are the counterparts of the English scalar particle *even* in the object language?
- Do the scalar particles in the object language also have an 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

The translation task is designed to get a general view of scalars in the object language. Note, however, that it is necessary to check their semantics in further tests.

The English scalar additive *even* can associate with a range of syntactic constituents of various grammatical functions, and this is reflected in the sentences to be translated. In sentences:

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

Present the context to your informant and ask him or her to translate the sentences containing a scalar additive. Note that the sentences the informant should translate are written in boldface. For general methodological guidelines on translation tasks, see 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 presents only to 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 at 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 playing sports. He not only learned to swim, but...

   b) **he even learned [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 in 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 loves [naughty]$_F$ children.**

8.1.2 Story with Gaps — *Megan's Family*

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

Have the text translated into the object language. Note that in the text the gaps are filled in with the appropriate words written in italics. Before presenting the text to the informant, all italicized words should be removed.

Present the text with empty gaps (i.e., without the italicized words) to your informant and ask him or her to fill in the gaps with the appropriate 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.

For general methodological advice on conducting *Story with Gaps* tasks, see 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 both 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. One time they didn't (3) *even* have (b) *a tent* — they had to build a funny shelter made out of their sleeping bags! Megan 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 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 they enjoyed, (5) *even* Megan's children, who are usually very picky. 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 object language the scalar particle does not have the additive meaning component. This test checks that.

The test is designed as a judgment felicity task. For general methodological guidelines on this kind of task, see section 4.

The task consists of four stories. In each story, a scalar particle is used. Stories (1)–(3) describe the scalar context and negate the additive reading of the scalar particle. If the story is still coherent after canceling the additivity, this means that the given scalar particle is not additive. Otherwise, the given particle

has an additive property. Story (4) is filler. It describes the scalar context and confirms the additive meaning of the 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 coherentt. 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.

After each story you should repeat one of the following questions: *Is this story ok?*, or *Does this story make sense?* If the given story is judged as incoherent (the story is not o.k., it does not make sense), you can ask your informant why this the case.

For stories (1)–(3), if the informant says that the given story does not make sense, it means that the scalar particle used in the story is additive. If the story is judged as ok, it means that the given scalar particle is not additive.

We predict that the informant will judge stories (1)–(3) as incoherent and (4) as coherent. Note, however, that story (4) is coherent in English, because in this story the additive reading of the scalar particle is not canceled.

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 the 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 so.

8.3 Nature of Semantic Effect

As for other focus sensitive particles, it is useful to research the semantic effects of introducting a scalar additive into the sentence.

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

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

From sentence (31) it can be concluded (1) that there were also other people such that Tom invited them (the existential/additive part of the meaning of this sentence), and (2) that Mary is the least likely person (among all the people under consideration) to be invited by Tom. For (2), Mary is a so-called *extreme case* (the scalar part of the meaning). Additionally, one can distinguish the core-meaning of the sentence with *even*; in the case of sentence (31), it is the proposition that Tom invited Mary.

Three tests are provided to determine if the core meaning, the additive component of the meaning, or the scalar component of the meaning of the sentence with *even* is asserted, conversationally implicated, or presupposed. The same tests as those in section 6.4 are recommended, namely (1) failure of simple cancellation, (2) visibility to negation, and (3) projection out of *if*-clauses. The first test (1) allows conversational implicature to be distinguished 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 a sentence with *even* is asserted, conversationally implicated, or presupposed, a judgment felicity task is recommended first. For general methodological guidelines on this kind of task, see section 4.

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

The test consists of four sets of sentences with the following conditions: (a) the canceled additive part of the meaning of *even*, (b) the canceled scalar part of the meaning of *even*, and (c) the canceled core meaning of the sentence with *even*. Present sentences (a), (b), and (c) to an 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 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 means 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. For general methodological guidelines on this kind of task, see section 5.

The design of this test is based on the observation that negation of a sentence allows assertion to be distinguished from presupposition: assertion is visible to negation, whereas presupposition is not.

Four sentences are presented along with questions about their 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 all the material to your informant and ask him or her to provide an answer to the questions. To brief your informant, you can use the following instructions:

> Now you will receive four stories and questions about them. Please read the stories carefully and answer the given questions.

If the informant provides the answer:

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

Stories

1. It is not the case that even [John]$_F$ went to the mountains.

   a) Did anybody 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 is not the case that Mary even [baked]$_F$ a cake.

a) Did Mary do anything else with the 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 is 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 is not the case that Mary even [played football]$_F$.

a) Did Mary do anything other than play football?

- yes
- no

b) Was it expected 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*. For general methodological advice on conducting this kind of task, see section 5.

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

The test consists of four short stories. In each story there is a sentence with the English scalar article *even* embedded in the *if*-clause. There are three questions to each story: (a) one about the additive part of the meaning of the sentence with *even*, (b) one about the scalar meaning of the sentence with *even*, and (c) one 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 or her to provide 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 below each story.

If the informant chooses the answer 'yes,' it means that the given meaning component of the sentence with *even* projects out of the *if*-clause, and therefore it is presupposed. It is important to note that only the answer 'yes' provides reliable results. If an informant chooses 'no' or 'I do not know,' no definite conclusions can be drawn.

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]$_F$, it must have been a good party.

a) Did Jane invite anybody other than Mary?

- yes
- no
- I do not know.

b) Was Jane likely to invite Mary to the party?

- yes
- no
- I do not know.

c) Did Jane invite Mary?

- yes
- no
- I do not know.

3. Bill decided to clean the whole 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 it 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 discussed in section 7, three kinds of additives can be distinguished in English: scalar additives (*even*), non-scalar additives (*also, too*), and vague additives (*similarly, likewise, analogously*). The question focused on here is how to distinguish scalar additives from non-scalar ones. Thus, this part of QUIS$_{SEM}$ presents a test which helps determine whether a given additive particle obtains a scalar reading or not.

8.4.1 Judgment Felicity Task

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

To distinguish scalar and non-scalar additives, a *Judgment Felicity Task* is recommended. For general methodological guidelines on this kind of task, see section 4.

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

Have the sentences and the contextual descriptions translated into the object language. Instead of writing in the additive particle, the variable *additive particle* was used which should be filled in with the particle you want to research.

Present the sentences with their context to your informant and ask him or her for a felicity judgment of these sentences 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 sense 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 means 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 sentence number (6), where the context demands the use of a scalar additive particle. If 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 sentences (1) – (5) with (6) you can get reliable results regarding 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 the 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 is 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*) prepared 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 more than one adverbial quantifier (AQ) can be found, 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]. Consider the following sentences and their paraphrases:

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

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

Denotation of Quantificational Adverbs The denotation of the clause with an AQ can be split 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 note that the restrictor includes a free variable that can be resolved on the basis 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 sentences (32-a) – (32-c) in a semi-formal way.

In table 4 it can be observed 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. Moreover, the focus constituent is always mapped onto the nucleus but not onto the restrictor. On the other hand, non-focal material (i.e., not marked as focus) is not necessarily mapped onto the restrictor.

part of the clause	**is mapped onto**
adverbial quantifier	quantificational 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

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

Quantification over Events/Situations In a sentence with an AQ, when the AQ is replaced with a determiner quantifier (DQ) of corresponding quantificational force, one obtains a sentence that has the same reading as the initial one (i.e., the one with the AQ). This can be illustrated with the following example:

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

The same holds for other DQ-AQ pairs: *most – usually*, *all – always*, *some – sometimes*, etc.

Now consider the following examples from Ebert and Hinterwimmer [Ebert and Hinterwimmer, 2010]:

(34) 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.

(35) 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.

Sentences (34-a), (34-b), and (35-b) are felicitous, whereas (35-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 subordinate clause. Ebert and Hinterwimmer [Ebert and Hinterwimmer, 2010] show that quantification over events/situations has to obey this rule, whereas quantification over individuals does not have to. AQs obey the *tense agreement constraint*, whereas DQs do not. Therefore, it can be concluded that AQs quantify over situations, and DQs over individuals.

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

(36) Peter always sings.

Sentence (36) can be paraphrased: *Whenever Peter does something he sings*. This kind of 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 discussed here are summarized in table 5.

Although there are many adverbial quantifiers, QUIS$_{SEM}$ is limited to *always*. On the basis of this AQ, we want to show in general how it is possible to elicit counterparts and the meaning of the AQs in the object language.

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

Table 5: Differences in AQs and DQs

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

In order to get a general picture of AQs in the object language, a translation task is initially recommended (see 9.1.1). Afterwards, the results can be confirmed using production tasks (see 9.1.2, 9.1.3). Note, however, that it is necessary to conduct additional tests in order to make reliable conclusions about the semantics of AQs.

9.1.1 Translation Task

This test consists of eight contextual descriptions and sentences to be translated. In English, *always* can associate semantically with many elements, such as, Ns, Vs, Direct Objects, PPs, as is reflected in the test. In sentences (1)–(2), *always* associates with the subject, in sentences (3)–(4) with the V, in sentences (5)–(6)

with the Direct Object, and in (7)–(8) with the PP. Note that in the object language there may be different expressions for *always* according to the association patterns.

Present a description of the context to your informant and 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.

For general methodological advice on conducting translation tasks, see section 1.

Sentences

1. a) I want to organize a Christmas school performance and I am looking for 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 sometimes eat cereal?

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

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

b) **Alice always reads [the newspaper]$_F$ when she eats breakfast.**

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 vacation together. Do you know when she normally goes on vacation?

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

9.1.2 Production Task

The aim of the production task is to encourage the informant to utter a sentence with a given element without using linguistic stimuli to be translated. For general methodological guidelines on this kind of task, see section 2.

The test consists of six sets of pictures. Each set consists of five pictures. In all of 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 the quantificational adverb *always*, since the person in the picture *always* does the same thing in all the pictures from the same set. As filler you can use pictures 16 and 21 together and description number six. In this case, the informant is not forced to use the quantificational adverb *always* in the response. The (b) sentences, written in boldface, are the predicted answers to the questions. Note that proper names are used in the questions about the pictures and in the predicted answers. Before conducting the test, write the names under the appropriate people in the pictures.

Present a set of pictures to your informant. 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 Anne sometimes go to school by bus?
   b) **No, Anne always goes to school by bus.**
6. a) Does Mary sometimes eat dinner at 2 o'clock?
   b) **Yes, Mary sometimes eats dinner at 2 o'clock.**

9.1.3 Story with Gaps — Anne's habits

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

Figure 16: Description 1

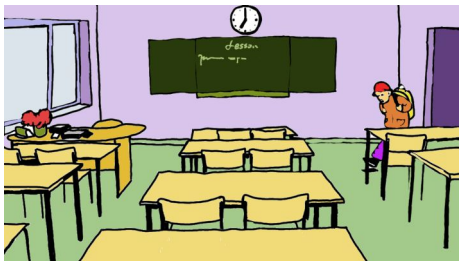

Figure 17: Description 2

Figure 18: Description 3

Figure 19: Description 4

Figure 20: Description 6

Figure 21: Filler

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

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

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

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

For general methodological guidelines on the *Story with Gaps* task, see 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 a 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 is 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, and then they eat breakfast. It is (4) *always*

the same. Anne is getting sick of eating pancakes with maple syrup every day. Still, she tries to be 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). 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. Thus, if another focused element satisfying the property denoted by the remainder of the clause is added to a sentence that has an exhaustive reading, one should obtain infelicity; this is because there cannot be two *maximal or unique* entities in the same clause. For a more precise discussion, see 6.3.1.

Description of 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 the AQ *always* two times, or the AQ *aways* together with the additive *also*. To find out if clauses with *always* obtain an exhaustive interpretation, it is necessary to check whether the focused element denotes a maximal or unique entity satisfying the remainder of the clause. If it holds, then an infelicity should be obtained 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, one 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 sentences into the object language, and then ask your informant whether the translated sentences are felicitous. 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 (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.

Note that if you want to compare *only* and *always* you can get 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. $[John]_F$ *always* visits Monica on Sunday and [Tom]$_F$ *always* visits Monica on Sunday too.

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

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 *Counterparts of Focus Sensitive Particles* (see sections 6.1.1, 6.1.2, 7.1.1, 8.1.1, 9.1.1) can provide the first picture of the distribution of the focus sensitive expressions. In these 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 further research.

This part of QUIS$_{SEM}$ is especially focused on providing 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 precede the element it associates with?

To answer these questions, three tests — mostly grammaticality judgments tasks — are recommeded. (For additional methodological guidelines on these kinds 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, it is necessary check if it can modify nouns (NPs), verbs (VPs), or both. Daniel Büring 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 (attributive, adnominal) focus sensitive particles are defined as

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

Consider the following examples:

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

In sentence (37-a), the focus sensitive particle *only* is adjoined to the VP and is dominated by an extended verbal projection; hence, in (37-a) *only* has an adverbial function. On the other hand, in sentence (37-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 whether a given focus sensitive expression is adverbial or adnominal, general knowledge about the syntax of the object language is essential. First of all, it is necessary to be familiar with its word order. Second, it is important to be able to distinguish the syntactic elements of the language. Moreover, it must be checked if adverbial and adnominal positions are distinguishable in the object language. Only then is it possible to differentiate adverbial and adnominal focus sensitive particles. It is assumed that the 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, therefore, one should determine the morphological markers of adverbs in the object language, if any exist, and then look to see if the focus

sensitive particles also combine with one of them. If a given focus sensitive particle has such a marker, it is plausible that this particle is adverbial.

For example, the aforementioned adverbial morphological marker in French is found in the word *soulement*, which is also one of the French focus sensitive particles. On the basis of this observation, one 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, this property can be used to get another clue as to whether a given focus sensitive expression is adnominal or adverbial.

To reach this goal, a judgment felicity task is recommended. Construct sentences containing a focus sensitive expression in the object language. Note that in order to obtain minimal pairs you should prepare two versions of each sentence: in version (a) the focus sensitive expression should be attached to the argument, and in 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 felicitous, 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 infelicitous, it means that the given focus sensitive particle is nei-

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*

ther adnominal (in the (a) versions of the sentences) nor adverbial (in the (b) versions of the sentences). When the 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 preparation of the test.

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

10.3 Test 2

To confirm the results obtained in test 1 (see 10.2), another grammaticality judgment task is recommended. The test consists of five minimal pairs with focus sensitive expressions in different functions (either adnominal or adverbial). Instead of writing the given focus sensitive expression, the variable (*focus sensitive particle*), which should be filled in with the expression being researched, is used. For each pair, the focus sensitive particles are adnominal in the (a) sentences, and the focus sensitive particles are adverbial in the (b) sentences. The adverbiality and adnominality is controlled for by sentence-internal grammati-

cal 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 already written, the variable (*focus sensitive particle*) should be filled in with the focus sensitive expression you are interested in. Present the translated sentences with the focus sensitive expressions to your informant 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 (i.e., the (a) sentences) is judged by the informant as felicitous, it means that this expression is indeed adnominal. If the sentence in which the focus sensitive expression is supposed to be adverbial (i.e., the (b) sentences) is judged as felicitous, it means that this expression is adverbial. On the other hand, judging a sentence from group (a) or (b) as infelicitous 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]$_F$ rather than mow the grass.

11 Adjacency Requirement

The adjacency requirement says that the element α modifying element β must be attached to element β. This is illustrated in the following English sentences:

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

It can be observed that changing the position of the focus sensitive element causes infelicity: *only* cannot modify the subject when it is not adjoined to it. Hence, it can be concluded that in this case the adjacency requirement holds.

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

(39) 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.

Both sentences are felicitous, and changing the position of the focus sensitive expression (Bura exclusive particle *daci*) does not change the felicity of the sentence. *Daci* does not have to be adjoined to the subject in order to modify it. Therefore, one can see that the adjacency requirement does not hold.

On the basis of this test it can observed that the adnominal particles must follow the adjacency requirement. Hence, it helps to determine whether the given particle is adnominal or not.

Construct sentences containing focus sensitive expressions. The sentences should be constructed either in the object language or they can be translated by a native speaker of the language. In either case, the researcher 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 the modifier and the modified element. Again, ask the informant for a grammaticality judgment. If the manipulation is possible (i.e., the sentence is judged as felicitous), it means that a given focus sensitive expression is adverbial rather than adnominal; this is because adnominal particles must follow the adjacent requirement. However, if the sentence is judged as infelicitous, you cannot easily conclude that a given focus sensitive expression is adnominal. It can also be an adverbial particle for which the adjacent requirement holds.

12 Preceding or Following?

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

Construct sentences containing focus sensitive expressions. The sentences should be constructed either 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 sentences prepared for previous tests.

The initial sentence should be presented to the informant and judged as grammatical. 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 precedes the modified element, you should change its position in such a way that in the output sentence the focus sensitive particle follows the modified element. If in the initial sentence the focus sensitive particle follows the modified element, you should change its position in such a way that in the output sentence the focus sensitive particle precedes the modified element.

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 means that either such a manipulation is not valid in the object language or that the manipulation violated other grammatical rules.

Part IV

Free, Quasi, and Conventional Association with Focus

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

1. Quasi-Association with Focus A large group of propositional operators quasi-associates with focus, such as, for example, negation, *neither... nor...*, *either... or...*, and so on. 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. Furthermore, the argument of the operator must be congruent to the Current Question. The unique characteristic 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 The propositional operators that quantify or compare within an implicit domain that cannot be fully determined by the sentence itself (for example, adverbs of quantification and determiners) associate with focus in a free way. The expression with the quantifier can be divided 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 previously mentioned set of occurrences, and (2) non-anaphorically by referring to the salient set which is not mentioned before. It is important to note that according to them, both ways of filling in the argument positions are pragmatic.

3. Conventional Association with Focus In this case, the association with focus is encoded lexically, which means that the focus sensitivity of the focus sensitive expressions is lexically dependent on the Current Question. Here one 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 there are exclusives, additives, scalars, among others.

Beaver and Clark [Beaver and Clark, 2003] claim that focus sensitive elements are not unified: they may be both conventionally or non-conventionally encoded, depending on which focus sensitive expression is under consideration. Moreover, they underline that their division is not between semantic and pragmatic elements but between elements that are lexically vs. non-conventionally encoded.

In QUIS$_{SEM}$, several tests are proposed to help figure out whether a given focus sensitive expression associates with focus in a conventional way or in a free way[10]. The tests are based on the differences between *only*, which associates with focus in a conventional way, and *always*, which associates in a free way. It seems that the observed differences are cross-linguistic.

First, the restrictor of *always* is determined contextually, and hence *always* does not have to associate with the stressed material in its scope. In contrast, for *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 marked as focus, whereas the expressions which

[10] The designs of the tests are based on 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

associate with focus in a free way can. This is the so-called *association with a 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 it supposedly 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, then it is plausible that it conventionally associates with focus (see section 14).

The summary of the differences between *always* and *only* is shown in 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 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. Consider the following examples from Beaver and Clark [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 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. It can be observed that *always* can associate with the non-stressed material in its scope. Moreover, the focal material is never mapped onto the restrictor.

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, interpretation (a) obtains an association with a presupposition reading, and interpretation (b) contains an association with a focus reading. One can see, however, that this time reading (a) is not possible, whereas reading (b) is not only possible, but also preferred.

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

13.1.1 Description of the Test

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

The test consists of two sets of sentences with focus sensitive expressions. The (a) sentences include *always*, and the (b) sentences include *only*. Sentences (i) and (ii) 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 the implausible readings by '?'. Before conducting the test, all sentences must be translated into the object language.

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

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

If the informant chooses answer (a), it means that the given sentence gets an association with a presupposition reading. If the informant chooses answer (b), it means that the given sentence gets an association with a focus reading. It may happen that 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 either of these readings, and how the sentence can be changed in order 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 the use of other focus sensitive particles, you should do the following two steps: First, you should construct initial sentences including 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 remembers 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 to is church.

2. a) John: 'Germany always beats Poland in [football]$_F$.'

i. When Germany plays football against Poland, Germany invariably beats Poland.

ii. ?When Germany beats Poland in 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 in football and nothing else.

13.2 Association with Indefinites

The second characteristic to confirm that sentences with *always* get an association with a presupposition reading, and sentences with *only* get an association with a focus reading, is the observation that *someone* (and other indefinites) in focus can be found in the argument of *always*, but not in the argument of *only*. 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.

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

(with *only*) cannot get an association with a 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 a 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 means that the given sentence gets an association with a focus reading, and 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 the above into consideration, having 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 a conventional way.

Recall that the focus sensitive expressions which 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, used for detecting association with focus, is designed as a felicity judgment task. (For additional methodological guidelines on this king of task, see section 4.) It contains four sentences with focus sensitive expressions and indefinites. Instead of writing the given expression, the variable (*focus sensitive expression*) is used and should be filled in with the particle you are interested in researching.

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 means that the sentence obtains an association with a presupposition reading, and hence the focus sensitive expression from this sentence associates with focus in a free way.

If the informant judges a given sentence as infelicitous, it means that the sentence gets an association with focus interpretation, and therefore the focus sensitive expression from this sentence associates with focus in a conventional way.

1. John (*focus sensitive expression*) invites [someone]$_F$ to the theater.
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, whereas elements freely associating with focus can associate with material not marked as focus. Since leaners

cannot be stressed, weak pronouns cannot obtain focus markers in many languages. Hence, one can predict that elements freely associating with focus (for example, *always*) associate with leaners, whereas those conventionally associating with focus (for example, *only*) do not. 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, sentence (a) is felicitous. On the other hand, 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 these observations one 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, a felicity judgment task is used. (For methodological guidelines on this kind of task, see section 4.) This test consists of two sets. Every set includes a contextual description and two sentences: (a) a sentence with *always*, and (b) a sentence with *only*. Both sentences also contain a weak pronoun.

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

your informant and ask him or her whether these sentences are felicitous in this context. You can use the following questions: *Is this sentence correct?*, *Is this sentence ok?*, or *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 means that the focus sensitive expression cannot associate with a weak pronoun, and hence it conventionally associates with focus.

If an informant judges a given sentence as infelicitous, it is good to ask why this is so. You can also ask 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 neighbors at the shop. But tell me, of all the times you were at the shop, how often was George 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, a second felicity judgment task is recommended. For general methodological guidelines on this kind of task, see 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*. This creates 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?*, or *Does this sentence make sense?*

If the sentence is judged as felicitous, it means that a given focus sensitive expression can associate with a weak pronoun, and hence it freely associates with focus. If the sentence is judged as infelicitous, it means that the focus sensitive expression cannot associate with a weak pronoun, and hence it 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.

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