FOCUS ON WEAK ISLANDS[1]

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Weak islands in negative manner and degree questions attracted a significant amount of attention in the semantics literature as they seem to provide an evidence in favor of rather abstract semantic and logical concepts such as contradiction, density of scales, and impossibility to define certain logical operations on the semantic objects corresponding to manners and degrees. We argue that these theories while correct in some essential observations fail to provide an explanation for weak islands as such as the same problem in principle arises for *any* negative question. Furthermore, as we show, these theories fail to account for a different degree of a cross-linguistic variation in different types of weak islands.

The empirical motivation for the claim comes from the observation that weak islands in negative manner and degree questions are not a cross-linguistically robust phenomenon. Concretely, we argue that weak islands in negative manner and degree questions in English are a result of an English specific property, namely, a restriction on second-occurrence focus. If a language may simultaneously focus negation and the *wh*-adjunct (for instance, Czech or Korean), no weak island effect arises. To account for these facts, we explore the contribution of the focus-within-focus structure and argue that English weak islands in negative manner and degree questions fall under Beck's (2006) intervention effects.

Our proposal predicts that weak islands should be subject to a cross-linguistic variation only if they stem from independent restrictions on focus placement. If focus is not the relevant contributor, no cross-linguistic variation arises. As we will see, this prediction is borne out.

1 The two puzzles

1.1 The empirical puzzle

Even though the literature on weak islands is rather vast, it is rarely acknowledged that the phenomenon is subject to a significant degree of cross-linguistic variation.[2] Interestingly, the cross-linguistic variation is attested only in some types of weak islands but not in others. One of the goals of this paper is to partially fill the description of the cross-linguistic variation by closely investigating a contrast in negative manner and degree questions in Czech and English.

For English speakers, negative manner questions, i.e., questions in which

[2] Schwarz and Shimoyama (2011) investigated a possibility to obviate weak islands in Japanese. Beck (2006) mentions a high degree of variation in the broad domain of weak islands without giving further details.

wh-adjunct moves overtly over negation such as (1)-(3), sound distinctly odd. The effect persists irrespectively of whether the negative question is in the matrix or in an embedded clause. Interestingly, unlike in other cases of ungrammaticality speakers typically identify the problem as being that of meaning.[3]

(1)   *How didn't John cook eggplant?

(2)   *Do you know how John didn't behave at the party?

(3)   *Do you know how Peter didn't come to Prague?

In contrast, as can be seen in (4)-(6), a parallel structure in Czech is perceived as felicitous.[4] Interestingly, the questions may be answered with an *exemplar* answer. In other words, a maximal answer is not necessary which is going to be relevant for the analysis.

(4)   Víš,   jak   John   nevařil   lilek?
        know-you   how   John   not-cooked   eggplant
        'Do you know how John didn't cook eggplant?'
        (A possible answer: 'Well, you know John. He definitely didn't steam it because he hates steamed vegetable.')

(5)   Víš,   jak   se   Petr nechoval   na večírku?
        know-you   how   REFL Petr not-behaved   on party
        'Do you know how Petr didn't behave at the party?'
        (A possible answer: 'Well, you know Petr. He definitely didn't throw chairs around or dance.')

(6)   Víš,   jak   Petr nepřijel   do Prahy?
        know-you   how   Petr not-arrived   to Prague
        'Do you know how Petr didn't come to Prague?'
        (A possible answer: 'Well, he definitely didn't drive because he hates the highway.')

It is important to notice that the cross-linguistic contrast arises only if we look at *wh*-adjuncts that are syntactically high (Spec,CP) but semantically must be interpreted low (within vP or VP). If the *wh*-adjunct may be base-generated high, for example, *why* (Ko 2007, among others), neither English nor Czech displays the weak-island effect.

(7)   Why didn't Peter come to the party?

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[3] A typical reaction of speakers we interviewed was "How am I supposed to know?" "My head hurts when I'm trying to think about this." "I don't understand what you mean."

[4] The reported data were collected from undergraduate and graduate students at Marasyk University in Brno. Each example was judged by approximately 20 students. The data were collected through structured questionnaires. Some data were asked to be judged either as being grammatical or ungrammatical without any supporting context. Other data were presented with an elaborate context and the participants were asked to make truth-value judgments with respect to the given context.

(8)　Proč　nepřišel　　Petr　　na večírek?
　　　why　not-came　　Petr　　to party
　　　`Why didn't Peter come to the party?'

　　　A cross-linguistic variability arises in acceptability of negative degree questions as well, though the attested pattern is more complex. As noticed in Obenauer (1984/1985), degree questions are systematically ambiguous between a reading in which the *wh*-degree adjunct is interpreted high (i.e., in the Spec,CP) and a reading in which the indefinite part of the adjunct is interpreted low.
　　　Interestingly, in English negative degree questions only one of the readings is attested, namely, the indefinite part of the *wh*-adjunct cannot be interpreted in the scope of negation, as can be seen in (9). The relevant scenario is a situation in which John read 30 out of the 36 Dialogues of Plato. The Czech counterpart, exemplified in (10), under the same scenario allows for both scopes. Thus, while one of the scopes is blocked in English, both of the scopes are accessible in Czech.

(9)　How many dialogues of Plato did John not read?
　　　a.　　6
　　　b.　　#31 (≈ no felicitous answer)

(10)　Kolik　　　　Platonových dialogů　　　John nepřečetl?
　　　how-many　　Plato's dialogues　　　　John not-read
　　　'How many dialogues of Plato did John not read?'
　　　a.　　6
　　　b.　　31 (or 32, 33...)

　　　What is even more puzzling, once we consider Czech questions displaying negative concord, triggered, for instance, by a negative phrase in the subject position, the ambiguity reported for (10) disappears and speakers strongly prefer the reading in which the *wh*-adjunct is interpreted below negation. In other words, the only reading is the so-called weak-island reading in English. An example is given in (11).

(11)　Kolik　　　　Platonových dialogů　　　nikdo nepřečetl?
　　　how-many　　Plato's dialogues　　　　nobody not-read
　　　'How many dialogues of Plato did nobody read?'
　　　a.　　#6 (≈ no felicitous answer)
　　　b.　　31

(12)　Summary of the differences between Czech and English in negative manner questions

	High scope	Low scope
English	OK	*
Czech default	OK	OK
Czech negative concord	(*)	OK

One way of looking at the pattern is to see it as a restriction on scope of the *wh*-adjunct with respect to negation. We will provide more arguments for this position in section 2 but observe that if it is indeed the case that exactly as in negative degree questions, the *wh*-adjunct in negative manner questions cannot be interpreted below negation, the semantic anomaly of negative manner questions wouldn't come as a surprise as it is not clear what such a question would mean.[5] If we assume this line of reasoning, the observed pattern can be summarized as in (13). While the unacceptability of high scope in negative manner questions follows straightforwardly from semantics of manners, the unavailability of low scope in English (highlighted in gray) requires an explanation.

(13)   Summary of the available scopes in Czech and English

	High scope	Low scope
English degree	OK	*
Czech degree	OK	OK
English manner	*	*
Czech manner	*	OK

To summarize, while in English the *wh*-adjunct in negative manner and degree questions cannot be interpreted below negation, this possibility is freely available for Czech speakers. If the *wh*-adjunct may be interpreted above negation without any semantic anomaly, weak islands do not arise. Finally, plausible answers to the low readings of negative manner and degree questions are exemplar answers, not maximal answers (Rullmann 1995, Beck and Rullmann 1999, among others).

The attested pattern is rather puzzling for the existing theories of weak islands. If weak islands arise as a result of a maximization failure (Fox and Hackl, 2006), intrinsic contradictions (Abrusán, 2007) or impossibility to define certain logical operations on manners and degrees (Szabolcsi and Zwarts, 1993), the question is why these semantic problems do not arise in Czech and why the exemplar answer strategy is not available to English speakers.

We believe that a part of the problem is that existing semantic theories of weak islands are custom-tailored for the English data at hand. In other words, we are not aware of any general semantic theory that would predict the existence of weak islands on independent grounds. In fact, general semantic theories for questions, most prominently Beck and Rullmann (1999), predict that weak islands of the English type should not exist at all.

We take the empirical observations made in this section as our starting point. Our general strategy is to consider general semantic theories modeling the semantics of manner and degree questions and identify where exactly their limitations lie with respect to the Czech and the English data.

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[5] A *how*-manner-question would have to be interpreted as if asking for a speaker-oriented adverb. I.e., the following dialogue would be felicitous under this reading: *How did John cook the eggplant? #Frankly.*

1.2   The semantic puzzle

The purpose of this section is to model semantics of negative manner and degree questions and while doing so to investigate how the semantic model relates to the data pattern described in the previous subsection. As we will see, there is indeed an intrinsic problem with the interpretation of negative manners and degrees, however, the very same problem arises in principle for *any* negative question. In section 2, we will argue that what makes English negative manner and degree questions special is that the general strategy used to resolve the intrinsic problem with the interpretation cannot apply in English questions for an independent reason.

Before we can approach to the semantics of negative manner and degree questions, we need to first decide on semantics of manner and degrees and only then we can proceed to questions.

In this paper, we model semantics of manners in a neo-Davidsonian event semantics.[6] We model cumulativity and distributivity as pluralization of thematic roles, following Landman (2000). As for manners, we essentially treat them as theta roles in Landman's system (functions from events to manners). We argue that exactly as agents, manners are cumulative and distributive. In our formalization the denotation of the pluralized semantic roles lies in a structured domain -- join semi-lattices. Examples in (14) and (15) provide a basic demonstration. The example in (14) shows the distributive and cumulative properties of agents, the example in (15) uses the same type of denotation to account for the semantics of manners.

(14)   John walked and Bill walked. ↔ John and Bill walked.
$\exists e[*WALK(e) \wedge *Ag(e) = j] \wedge \exists e[*WALK(e) \wedge *Ag(e) = b]$
$\leftrightarrow \exists e[*WALK(e) \wedge *Ag(e) = j \oplus b]$

(15)   John walked quickly and John walked nervously. ↔ John walked quickly and nervously.
$\exists e[*WALK(e) \wedge *Ag(e) = j \wedge *Man(e) = q] \wedge \exists e[*WALK(e) \wedge *Ag(e) = j \wedge *Man(e) = n]$
$\leftrightarrow \exists e[*WALK(e) \wedge *Ag(e) = j \wedge *Man(e) = q \oplus n]$

Finally, we assume with many others (for example, Carlson 1984) that thematic roles can only be defined for atoms (regular atoms or group atoms), which means that there can only be one semantic role per event. In other words, if there was more than one manner per event, it would have to be pluralized (as in *Peter behaved curiously and nicely* vs. *#Peter behaved curiously nicely*).

Let's demonstrate the semantics on the following example. Let's consider a scenario in which the following three sentences are true: (i) *John behaved nicely,* (ii) *John behaved politely,* and (iii) *John behaved kindly.*

If we restrict the denotation to a situation which only contains these three

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[6] Once we introduce our semantics for focus, we will essentially formulate our hypothesis in terms of situational semantics. Even though we are aware that events and situations cannot be used interchangeably, we believe that in our case study the step from event semantics to situational semantics is essentially harmless. More precisely, one could model the focus interpretation as an instance of anchoring events into situations. We will not do it here but the reader is welcome to think of introducing the focus values either as a situational anchoring or as a type shift from events to situations.

sentences, the mapping of events to manners (= thematic roles) generates the following semi-lattice, where *e* is the event of John behaving nicely, *f* the event of John behaving politely and *g* is the event of John behaving kindly.

(16)
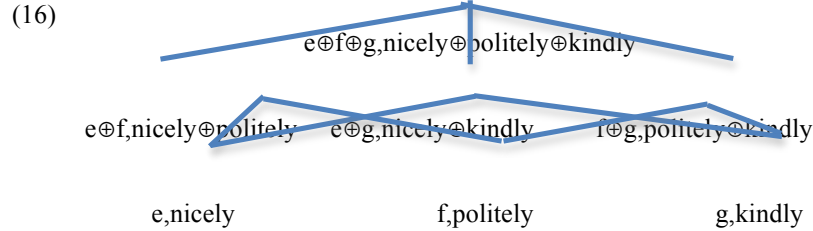
With these assumptions in place we can proceed to spelling out the first version of the semantics of negative manner and degree questions. Let's start with modeling the denotation for (1)/(4). The denotation of the only available reading is given in (17). We need two distinct denotations for (7)/(8) as we need to take into account two scopally distinct readings. The low scope of the degree corresponds to (18a) and the high scope to (18b).

(17) $\lambda p \exists m[p(w) \wedge p = \lambda w' \neg \exists e[{}^*\text{COOK}(w')(e) \wedge {}^*\text{Ag}(w')(e) = j \wedge {}^*\text{Man}(w')(e) = m]]$

(18) a. $\lambda p \exists n[p(w) \wedge p = \lambda w' \neg \exists ex[{}^*\text{READ}(w')(e) \wedge \text{Ag}(w')(e) = j \wedge {}^*\text{DIA of PLATO}(w')(x) \wedge \text{Th}(w')(e) = \uparrow (x) \wedge |x| = n]]$
b. $\lambda p \exists n[p(w) \wedge p = \lambda w' \exists x[{}^*\text{DIA of PLATO}(w')(x) \wedge |x| = n \wedge \forall a \in \text{ATOM}(x) : \neg \exists e[\text{READ}(w')(e) \wedge \text{Ag}(w')(e) = j \wedge \text{Th}(w')(e) = a]]$

From the formal semantics point of view there is no problem with modeling two scopes for negative manner questions as well. Analogically to (18b), the denotation would be as in (17').

(17') $\lambda p \exists m[p(w) \wedge p = \lambda w' [\text{Man}(w')(s) = m \wedge s = \neg \exists e[{}^*\text{COOK}(w')(e) \wedge {}^*\text{Ag}(w')(e) = j]]$

Even though the denotation in (17') is logically possible, it lacks a natural-language equivalent in the semantic domain of manners. The natural-language equivalent to (17') would correspond to a question asking for an even t modified by a subject-oriented adverbial or a speaker-oriented adverbial but not by a low adverbial, typically merged in vP or VP. Thus, a possible answer to the question *How didn't John cook eggplant?* under this denotation would be something like *Frankly*. Clearly, this is not how native speakers understand *how*-questions in English.

Yet, (17') is crucial for our understanding of weak islands in negative manner and degree questions. When we compare (17), (18), and (17'), we see that in Czech both high and low scopes are available (as long as they are semantically possible), while in English, the low readings are not acceptable, i.e., we are getting the same picture we suggested in the previous section in (13). We argue that this indeed is the crucial contrast necessary for our understanding

of the data. The summary of the correlation between the attested and expected readings and their semantic denotations is given in the table in (13'), adapted from the table in (13). If the contrast between English and Czech is a matter of availability of distinct scope readings, then the task is to explain the ungrammaticality of the low scopes in English, highlighted in gray.

(13')   Summary of the differences between Czech and English

	High scope	Low scope
English degree	OK [=(14b)]	* [=(14a)]
Czech degree	OK [=(14b)]	OK [=(14a)]
English manner	* [=(13')]	* [=(13)]
Czech manner	* [=(13')]	OK [=(13)]

In addition, one needs to keep in mind that (17) and (18) do not ask for a maximal answer as such. Instead, as we have seen, an exemplar answer is sufficient. Even though this seems to be appropriate for Czech, we will have to say something about the lack of exemplar answers in English.

We argue that the answer to both of these questions lies in the denotations given in (17) and (18a). When we carefully examine the truth conditions of (17) and (18a), we see that unlike their high-scope counterparts in (17') and (18b) these truth-conditions are very weak. The denotations ask for a proposition with a particular manner or a degree, respectively, for which it is true that a non-existence of a particular event holds. However, the set of such propositions is infinite. To see this, consider (19a) and its logical form given in (19b).

(19) a. Peter didn't behave kindly.
     b. ¬∃e[*BEHAVE(e) ∧ *Ag(e) = p ∧ *Man(e) = k]

With the negation scoping over the event variable, the denotation of (19b) is trivially true in any situation in which there is no event of Peter behaving kindly. For example, in a situation in which Emma sleeps and nothing else happens, the proposition would turn out to be true. Notice the proposition would be true also in a situation in which Emma doesn't sleep and nothing else happens. Crucially, the problem is not restricted to negative questions but pertains to declarative statements as well. In other words, this is an intrinsic property of our proposed semantics. The question is whether such weak semantics is empirically adequate.

2   Proposal

The previous section left us with an observation that existing theories of weak islands in negative manner and degree questions fail to account for the cross-linguistics variation in this domain and with a semantic proposal which predicts that any negative question in which negation scopes over the event variable should have an extremely weak semantics.

Notice that currently our proposed semantics assumes that the denotation of negative questions is evaluated with respect to a rather large situation, though intuitively the situation should be contextually restricted. Consequently, having such weak truth-conditions might not necessarily be a problem as long as we

had an independent way of restricting the evaluation of the truth conditions to a smaller situation.

We propose that such a situational restriction is achieved through information structure, namely, though restricting the situation by focus alternatives (Rooth, 1992). In other words, we propose that the weak semantics can be retained as long as the denotation is enriched with a statement restricting the set of alternatives relevant for computing the truth-conditions. As we will see, this enrichment is more than a local fix of our truth-conditions. In fact, we argue, language-specific restrictions on focus structures are indeed in the very core of the cross-linguistic variation attested in the domain of weak islands.

If we follow most of literature on focus in that negation associates with focus (for example, Kratzer 1991, Rooth 1992), we can use this observation to restrict the semantics of negative questions. We assume that every set of alternatives corresponding to the focus value of a proposition which associates with negation contains at least one proposition which is given and one alternative which is not. Negated propositions thus always contain (minimally) two propositions one of which is given and one of which is asserted:

(20)   When combined with the clause φ, *not* yields the assertion that the proposition $[\![φ]\!]^o$ is false, and the further assertion or presupposition that some proposition in $[\![φ]\!]^f$ is true.

Furthermore, we follow Rooth (1992) in that the focus presupposition which is necessary to build the set of alternatives[7] is introduced by a focus operator (~).

We demonstrate the effect of focus on negative declarative propositions first. Let's assume for concreteness that the only focus in (19a) is on negation and that negation takes a propositional complement. The denotation of (19a) is then as in (21) and the set of alternatives for (19a) is as in (22).

(21)   a. $[\![(19a)]\!] = ¬∃e[\,^*BEHAVE(e) ∧ \,^*Ag(e) = p ∧ \,^*Man(e) = k]$
       b. Focus presupposition: $∃p ∈ Alt([\![(19a)]\!])$

(22) $Alt([\![(19a)]\!])=\{$Peter behaved nicely, Peter didn't behave nicely$\}$

Recall that because of the presuppositional requirement of the ~ operator, one of the alternatives needs to be given. If we wanted to evaluate the truth conditions of (19a) in a situation in which, for instance, John sleeps and nothing else happens, none of the alternatives would be given and consequently focusing the complement of negation would yield presupposition failure. Consequently, since negation obligatorily associates with focus in English, the denotation of (19a) is restricted in a way which makes the utterance infelicitous, unless it is evaluated with respect to a relevantly restricted situation.

We have already established that negation associates with focus. In other words, the focus associate gets interpreted through a focus operator which requires a given antecedent. Interestingly, negative manner questions inherently come with another focus element, namely, the *wh*-adjunct itself. As argued in Beck (2006), this *wh*-element comes from the lexicon with a semantic focus value that needs to be reset to an ordinary semantic value either by a Rooth's

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[7] See Wagner (2010) for a related discussion.

style of focus operator or by a question operator. The caveat is that for the *wh*-element to be reset to its ordinary semantic value by the question operator there cannot be any focus element intervening between the question operator and the *wh*-word. If there is such an element, an intervention effect arises, i.e., the structure is semantically uninterpretable as it contains an element which lacks an ordinary semantic value. One way of avoiding such a problem is to introduce another focus operator that could bind such a *wh*-word. We argue that this is exactly what happens in Czech.

We propose that the focus structure of the Czech example in (4) is as in (23). In other words, we argue that a negative manner question in Czech forms a focus-within-focus structure. More precisely the so-called contrastive focus structure. Concretely, negation takes a propositional complement (associated with the focus operator labeled P9) and which in turn contains a focused *wh*-element (associated with the focus operator labeled as P7).

(23) a. [$_{CP}$ neg [John cooked eggplant how$_F$]$_F$]
      b. ⟦ [¬[John cooked eggplant [how]$_F$ ~P7]$_F$ ~P9] ⟧^{f}

That the structure in hand is a contrastive-focus structure is essential for two reasons. First, if we follow the line of semantics for contrastive focus which assumes that contrastive focus is compositional, for instance, Wagner to appear, which means that each of the focus elements comes with its own focus operator. Second, a contrastively focused element seems to freely reconstruct to its base-generated position. These two properties combined together mean that the *wh*-manner element can be in the scope of negation (where it should be for the relevant semantic interpretation to arise -- recall our discussion of scopal ambiguities in section 1) while still being in the scope of an operator which can reset its focus semantic value.

Once we construe the relevant set of alternatives for the embedded focus (i.e., the proposition in which the *wh*-manner adjunct is focused), we need to embed the set of alternatives under negation which results into each of the alternatives being present at least twice in the new set: in its positive (i.e., given) and its negative (i.e., asserted) form. The final set of alternatives is exemplified in (24).

(24) Alt(⟦(23a)⟧)={{John cooked eggplant m | m∈ *MANNER}, {John didn't cook eggplant m | m∈ *MANNER}} = {John cooked eggplant slowly, John didn't cook eggplant slowly, John cooked eggplant carefully, John didn't cook eggplant carefully,   ... }

The meaning of such a negative manner question then is: Provided that the questioned manner *m* belongs to some set of manners in which John (ever) cooked eggplant, what is the manner *m* such that, John didn't cook the eggplant in that manner in the particular situation?

If this reasoning is on the right track, why should English be any different? We argue that the difference between Czech and English is a result of an independent restriction on the information structure of English. Namely, in English – for independent reasons – the *wh*-adjunct cannot be contrastively focused in a negative question, meaning, the *wh*-adjunct cannot be associated

with its own focus operator.[8]

   If the *wh*-adjunct cannot be associated with its own focus operator then it follows that it must be above negation and its focus operator, i.e., it must be structurally high enough for the question operator to be able to reset its focus semantic value (Beck 2006). The only possible structure in which the intervention effect does not arise is as in (25).

(25)   a. $[_{CP}$ Q how [neg [John cooked eggplant t]$_F$]]
       b. ⟦ Q how [neg [John cooked eggplant] $_F$ ~ P8]]⟧^{f}

   We are now in a position to explain the facts reported in (13'). If the *wh*-adjunct cannot be contrastively stressed in English negative questions, then it always must be interpreted in its moved position, i.e., within CP. In turn, the *wh*-adjunct is expected to have only high scope which is exactly the data pattern described in section 1.

   If the type of negative *wh*-question allows for a high-scope reading, as in negative degree questions, then such a question may remain grammatical. If the high interpretation of the *wh*-adjunct is semantically impossible as in negative manner questions, such a structure is necessarily ungrammatical. Notice that the hypothesis proposed here correctly predicts that the ungrammaticality will stem from interpretational difficulties: If the *wh*-adjunct were interpreted high, the question would have to be interpreted as asking for a different type of event modification, i.e., it could never have an interpretation within the domain of manners. If the *wh*-adjunct were interpreted low its focus value could never be reset to an ordinary semantic value and consequently the meaning of the whole proposition would stay undefined.[9]

   Finally, notice that if weak islands arise because the focus variable in the manner *wh*-word cannot be bound in the scope of negation, such a structure should be rescued if another type of operator could be inserted. Following Beck's (2006) proposal for d-linked questions, we argue that this is exactly what happens in so-called list questions in English. List questions are based on a given set of manners/degrees, hence, the focus variable is bound by an existential closure introduced in order to satisfy the givenness nature of list questions. Hence, no weak-island effect is attested.

3   Further predictions

3.1   Cross-linguistic variation

The proposal presented here argues that weak islands in negative and manner degree questions arise only if the *wh*-adjunct cannot be focused within the complement of negation which itself associates with focus. This hypothesis makes certain predictions. First of all, the hypothesis predicts that if a language marks contrastive focus on the *wh*-adjunct, then there should be no weak island

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[8] This restriction manifests itself by an impossibility to contrastively stress the *wh*-adjunct in a negative manner question. We will leave the question of the connection between phonological realization of contrastive focus and its semantic counterpart aside for reasons of space.
[9] This reasoning is close to Szabolcsi and Zwarts 1993 who proposed that weak islands arise if none of the logically possible scopes is grammatical. However, their account does not address the question of where such a restriction on scope might come from.

effect. An interesting case to investigate is to look at a language which marks contrastive focus overtly, for example, by a special morpheme. The prediction is that if the morphological marker is present, there should be no weak island. On the other hand, if the morphological marker is absent, the language should exhibit weak islands of the English type. This prediction is borne out, for example, in Korean.

As we can see in (26), a negative degree question without a topic marker on the *wh*-item is considered ungrammatical.[10] In contrast, adding a topic marker makes the question grammatical, as seen in (27). Furthermore, as our informants suggested, (26) becomes acceptable if the *wh*-item is pronounced with a contrastive focus intonation.

(26)   *Taro-nun tokil-ey elmana olaystongan memwulci-anh-ass-sup-ni-kka?
        Taro-TOP Germany-in how long stay-not-PAST-HON-IND-Q
        'How long didn't Taro stay in Germany?'

(27)   Taro-nun tokil-ey elmana olaystongan-nun memwulci-anh-ass-sup-nik-
        Taro-TOP Germany-in how long-TOP stay-not-PAST-HON- IND-
        ka?
        Q
        'How long – at least – didn't Taro stay in Germany?'

Interestingly, the attested answers to this type of negative questions are exemplar answers, not maximal answers, thus supporting the hypothesis that weak islands cannot be reduced to an impossibility to semantically compute the maximal(ly informative) answer. Instead, the restrictions come from independent differences in the information structure. [11]

3.2   Other types of weak islands
There are other types of ungrammatical structures labeled weak islands. The question is what the proposal predicts about them. We predict that weak islands should be cross-linguistically varied only if focus can affect the semantics of the question in a way that is relevant for the semantic difficulties.

It follows that if contradictions arise from another source, for example, from a presuppositional conflict, as in presuppositional islands, such a type of weak island should be cross-linguistically robust.

This prediction is borne out as well as can be seen in the following examples from Czech. If a negative manner question, here the example in (28), is embedded under a factive predicate which presupposes existence of its presuppositional complement, as in (29), the result is ungrammatical as in English. Thus, no cross-linguistic difference is attested, exactly as predicted by the current proposal.

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[10] The exact semantics of so-called topic markers in Korean and Japanese is not entirely understood. Also, the relation between topic and contrastive focus is still very much open to a scientific investigation. We assume for purposes of this presentation that these types of topic markers correspond to a focus-within-focus structure.
[11] Similar data were reported for Japanese in Schwarz and Shimoyama 2011. However, Schwarz and Shimoyama did not report that, as in Czech and Korean, acceptable answers are exemplar answers. Instead, they tie the lack of weak islands to the familiar obviation of weak islands attested in modal environments.

(28) Jak   se   Petr nechoval   na večírku?
     how   REFL Petr not-behaved   at party
     'How didn't Peter behaved at the party?'

(29) *Jak Petr litoval, že   se   Karel nechoval   na večírku?
     how Petr regretted that   REFL Karel not-behaved   at party
     'How did Peter regret that Karel didn't behave at the party?'

4   Conclusion

We have argued that weak islands in negative manner and degree questions are a result of a language-specific property of English, namely its inability to contrastively focus *wh*-adjuncts in negative questions. The leading idea is that wh-word can be interpreted in the scope of negation only if it comes with its own focus operator. If there is no such operator available, the structure constitutes an intervention effect in the sense of Beck (2006). The only option is to interpret the adjunct above negation but this is not always semantically plausible.

A crucial piece of evidence comes from the fact that in languages that do not show weak-island effects for negative manner and degree questions, the attested answers are not maximal answers but they are exemplar answers. Thus, this observation supports the hypothesis that weak islands cannot be reduced to an impossibility to semantically compute the maximal(ly informative) answer, for example, because of density as has been proposed in Fox and Hackl (2006).

Furthermore, we disagree with Szabolcsi and Zwart (1993) in that the operation of negation cannot be defined on the domain of manners.

Similarly, we disagree with Abrusán (2007, 2010) in that the obtained partially ordered set of manners is by definition contradictory.

None of these approaches predicts the cross-linguistic distinction between Czech and English because none of them considers the role of the information structure on restricting the interpretation of manner and degree questions.

References

Abrusán, Márta. 2007. Contradiction and grammar: The case of weak islands. Doctoral Dissertation, MIT.

Abrusán, Márta. 2010. Presuppositional and negative islands: A semantic account. *Natural Language Semantics* 19(3):257–321.

Abrusán, Marta, and Benjamin Spector. 2011. A semantics for degree questions based on intervals: Negative islands and their obviation. *Journal of Semantics* 28:107–147.

Beck, Sigrid. 2006. Intervention effects follow from focus interpretation. *Natural Language Semantics* 14:1–56.

Beck, Sigrid, and Hotze Rullmann. 1999. A flexible approach to exhaustivity in questions. *Natural Language Semantics* 7:249–298.

Carlson, G. 1984. Thematic roles and their role in semantic interpretation.   *Linguistics* 22:259–279.

Fox, Danny, and Martin Hackl. 2006. The universal density of measurement. *Linguistics and Philosophy* 29:537–586.

Ko, Heekeong. 2007. Assymetries in scrambling and cyclic linearization. *Linguistic Inquiry* 38: 49-83.

Landman, Fred. 2000. *Events and plurality: The Jerusalem lectures*. Dordrecht: Kluwer Academic Publishers.

Obenauer, Hans-Georg. 1984/1985. On the identification of empty categories. *The Linguistic Review* 4:153–202.

Rooth, Mats. 1992. A theory of focus interpretation. *Natural Language Semantics* 1:75–116.

Rullmann, Hotze. 1995. Maximality in the semantics of Wh-constructions. Doctoral Dissertation, University of Massachusetts at Amherst.

Schwarz, Bernhard, and Junko Shimoyama. 2011. Negative islands and obviation by 'wa' in Japanese degree questions. In *Proceedings of SALT*, volume 20, 702–719.

Starke, Michal. 2001. *Merge dissolves into move*. Doctoral Dissertation, University of Geneva.

Szabolcsi, Anna, and Frans Zwarts. 1993. Weak islands and an algebraic semantics for scope taking. *Natural Language Semantics* 1:235–284.

Wagner, Michael. 2010. Prosody and recursion in coordinate structures and beyond. *Natural Language and Linguistic Theory* 28: 183–237.

Wagner, Michael. to appear. Contrastive topics decomposed. *Semantics and pragmatics*.