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Sabine Iatridou
University of Pennsylvania

David Embick
University of Pennsylvania

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Conditional Inversion

SABINE IATRIDOU AND DAVID EMBICK

UNIVERSITY OF PENNSYLVANIA

1. The Phenomenon*

In this paper we present and examine phenomena surrounding a case of I-to-C movement that has to this point not received a great deal of attention. The movement in question is what we will call *conditional inversion*. It is found in both *counterfactual* and *indicative* conditionals. Counterfactual conditionals are those in which the proposition expressed by the antecedent is believed by the speaker to be false,¹ indicative conditionals are those in which there is no such requirement made on the antecedent. Examples of conditional inversion are given for the English counterfactual conditional (1), and in the German indicative conditional (2) (uninverted conditional forms corresponding to the inverted forms are also given):²

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¹ Although it has been claimed that the falsity of the antecedent is cancellable under certain conditions (Karttunen and Peters (1979)): *If the patient were allergic to penicillin, he would be showing exactly the symptoms that he is showing now.*

² In addition to referring to antecedents in which conditional inversion has taken place as *inverted*

- (1) a. If John had eaten the calamari, he might be better now.
b. Had John eaten the calamari, he might be better now.
- (2) a. Wenn Hans kommt dann geht Susanne.
if Hans comes then goes Susan
'If Hans comes, Susan goes.'
b. Kommt Hans dann geht Susanne.
comes Hans then goes Susanne
'If Hans comes, Susan goes.'

V1 antecedent clauses in English have been argued to be a case of I-to-C movement (Pesetsky (1989) following Hans den Besten and Anders Holmberg), and this analysis may be extended quite naturally to other languages exhibiting conditional inversion.

The questions which we will address concern the cross-linguistic properties of conditional inversion, and the nature of the relationship between inverted and uninverted conditional antecedents. The latter issue is of particular theoretical interest for several reasons. For one, inverted and uninverted conditionals seem, at first glance, to stand in a relationship of optionality, with no substantive differences in interpretation.³ That is, (1a) and (1b) above would appear to be perfectly interchangeable. This raises questions of *optionality*. Furthermore, the question of the relationship between these types of clauses will determine whether or not the interpretation of conditionals is general, i.e. whether it involves the reduction of inverted and uninverted antecedents to uniform LFs.

2. Some Cross-linguistic Properties of Conditional Inversion

The first point of cross-linguistic significance is that, in all of the languages we have examined, V1 tensed adjunct clauses are *always* given a conditional interpretation. In other words, we have found no language in which word-order like that of (2b) means, e.g., *Because Hans comes Susan goes*. There is no *prima facie* reason why this should be true; we will return to this important point later.

Cross-linguistically, the languages that allow conditional inversion vary as to the type of conditional in which it is allowed. In addition to allowing inversion in indicatives like (2) above, German also allows inversion in counterfactuals:

- (3) Wäre Hans gekommen, dann wäre Susanne abgefahren
had Hans come then would-have Susanne left
'Had Hans come, then Susanne would have left'

antecedents, we will also refer to these clauses as *V1 antecedents*.

³ The qualification to *substantive* differences is meant to exclude from the scope of discussion the consideration that, for instance, the inverted conditional antecedent is often 'more formal' in English than its uninverted counterpart.

While English allows inversion in counterfactual conditionals as in (1),¹⁹¹ it does not allow inversion in indicative conditionals:⁴

- (4) a. *Has John eaten the calamari, there will be no food left for us.
 b. If John has eaten the calamari, there will be no food left for us.

Interesting from a comparative perspective is the fact that the languages allowing conditional inversion make a pattern when grouped according to the types of clauses in which such inversion is allowed: the set of languages that allow indicative inversion constitutes a proper subset of those allowing counterfactual inversion. In addition, the languages which exhibit counterfactual inversion also show inversion in questions as well. The behavior of a number of Indo-European languages with respect to these types of inversion is shown in the following chart:⁵

Table 1: Languages Allowing Counterfactual/Indicative Inversion

	<u>Inv. in Quest.</u>	<u>Counterf. Inv.</u>	<u>Indicative Inv.</u>
English	+	+	-
German	+	+	+
Dutch	+	+	+
Yiddish	+	+	+
Icelandic	+	+	+
Swedish	+	+	+
Old English	+	+	+
Middle Eng.	+	+	+
Greek	+	-	-
French	(-)	(-)	-
Italian	+	+	-
Spanish	+	-	-
Eur. Port.	??	+	-
Romanian	??	+	-
Galician	??	(-)	-
Russian	??	+	(+)
Bulgarian	+	+	-
Polish	-	(-)	-

A further cross-linguistic property of conditional inversion concerns the order of the antecedent and consequent clauses of the conditional. Not all clause orders (i.e. antecedent/consequent and consequent/antecedent) are possible in counterfactual and indicative conditionals in which conditional inversion has taken place. In German, for instance, a V1 counterfactual antecedent may appear

⁴ English does, however, allow inversion with *should* and *were* which, strictly speaking, are not counterfactual:

- (i) Should you wish to do so, please tell me before I leave.
 (ii) Were he to improve his manners, we might invite him for dinner.

⁵ Parenthesized entries in the table indicate points which are either disputed or not entirely clear. For instance, the (-) value for inversion in questions in French reflects the fact that this language allows inversion in questions only when pronominal clitics are the subjects of the clauses in which inversion takes place.

sentence finally, while a V1 indicative antecedent may not:

- (5) Susanne wäre abgefahren wäre Hans gekommen
 Susanne would have left had Hans come
 'Susanne would have gone if Hans had come.'
- (6) *Susanne geht kommt Hans
 Susanne goes comes Hans
 'Susanne goes if Hans comes.'

The following table provides a summary of legitimate clause orders:

Table 2: *Possible Clause Orders with Inversion*

	<u>S-initial position</u>	<u>S-final position</u>
English	count.	count.
German	count. & indic.	count
Dutch	count. & indic.	count
Yiddish	count. & indic.	-
Icelandic	count. & indic.	count. & indic.
Old English	count. & indic.	count. & (indic.)
Swedish	count & indic	count.
Italian	count	-
Br. Port.	count	-
Eur. Port.	count	-
Romanian	count	-
Russian	count	-
Bulgarian	count	count

The data in Table 2 show antecedents with counterfactual inversion being less restricted in their distribution than their indicative counterparts, in that they may appear in more positions. In general, then, inverted counterfactual antecedents are less restricted than inverted indicative antecedents, since they may appear in more structural positions, as well as in more languages (cf. Table 1).

Another interesting cross-linguistic point which deserves to be mentioned before we go on is that some languages show different agreement morphology on inverted verbs; in Icelandic, for instance, the verb that moves to C in an indicative conditional is in the present subjunctive (Old English probably behaves similarly):

- (7) a. Ef hann hefur faridh, eg kom
 if he has/PRES/IND gone I come
 'If he has gone, I will come'
- b. Hafi hann faridh, eg kom
 has/PRES/SUBJ he left I come
- c. *hefur hann faridh, ...
 has/IND he gone
- d. *Ef hann hafi faridh
 if he has/SUBJ gone

The following three statements and one conjecture summarize the findings so far:

- (S.1) *VI tensed adjunct clauses are always interpreted as conditional clauses, and not, e.g., as 'because' clauses.*
(S.2) *The languages allowing indicative inversion are a proper subset of those allowing counterfactual inversion.*
(S.3) *The languages allowing sentence final VI indicative antecedents are a proper subset of those allowing sentence-final VI counterfactual antecedents.*
(C.1)(?) *The languages which exhibit conditional inversion also have inversion in questions.*

3. Conditional Inversion, I-to-C Movement, and *If*-Clauses

Having presented some basic properties of conditional inversion, we will now compare this phenomenon with other cases of I-to-C movement which have been studied in greater detail. We will then compare VI antecedents with their uninverted counterparts, in order to determine more precisely how the two types of antecedent clauses are related.

The first point to be noted here is that there are syntactic environments in which the movement from I to C associated with conditional inversion is differentiated from other cases in which there is movement from I to C. One such case is that of contracted negation in English; as shown in (8a), contracted *n't* may move to C in questions. When conditional inversion has taken place, however, movement of contracted negation to C results in ungrammaticality:

- (8) a. Hadn't he seen the car coming?
b. *Hadn't he seen the car coming, he would have been killed
c. Had he not seen the car coming, he would have been killed

A related point is the correlation that *do*-support appears in positions into which auxiliaries can move. Once again, this pattern is broken in cases of conditional inversion (cf. Pesetsky 1989):

- (9) a. If he had said that he liked artichokes, we would have invited him....
b. Had he said that he liked artichokes
- (10) a. He did not say that he likes artichokes
b. He has not said that he likes artichokes
- (11) a. If he knew that Mary is sick, ...
b. *Did he know that Mary is sick

It is certainly worth pointing out, however, that sentences like (11b) were acceptable in English in the not too distant past (examples from Visser 1964):

- (12) Did they keep to one constant dress, they would sometimes be in the fashion
(1711, Addison, *The Spectator*, no.129)
- (13) As [Bohun] lay there he thought of what he would do did Markovitch really go off his head
(1919, Walpole, *Secret City*)

- (14) There are other articles, to which, did time permit, we might draw attention
(1931 Curme, Syntax, 327)

The main question to be addressed concerning the relationship between uninverted and inverted conditional antecedents is whether or not the two have the same Logical Form. That is, if (15) represents the surface form of an uninverted conditional antecedent, and (16) the surface form of an antecedent in which inversion has taken place, do (15) and (16) share the same LF in (17)?

- (15) IFV....
(16) V_it_i
(17) V_i/IFt_i

At least two considerations lead to the posing of the question in this way. One may be seen within a framework like that of Chomsky (1993); under the general assumption that, if an element moves to a certain position overtly in some cases, it makes the same movement covertly in other cases. A second consideration is one of generality. If (15) and (16) do in fact have different LFs, then the conditional interpretation is effected in two different ways: in one case by the presence of *if* in C, and in the other by the presence of V in C. Given that tensed V1 adjunct clauses are always given a conditional interpretation, one might want to hold that all conditionals are ultimately interpreted with V in C. But however tempting the position that these two antecedent types share the LF might be, it cannot be held. In the remainder of our discussion we show why.

Consider the following: If the verb does in fact move to C at LF (i.e. after Spell-Out in the terminology of Chomsky 1993) in (15), then (15) and (16) would share the same LF (17); as such, we should expect them to be indistinguishable by any LF phenomena.⁶ That is, since the two forms would share the same LF, any phenomenon active along the LF branch should affect the one form in exactly the same way as it affects the other; derivations with either type of antecedent should converge or diverge at LF under exactly the same circumstances.

In light of the preceding discussion, an analogy may be made between uninverted and inverted antecedents and the case of the relationship between existential *there* and its associate NP in (18a-b), with the corresponding S-Structures in (19a-b):

- (18) a. There was a man in the garden.
b. A man was in the garden.
- (19) a. There ... NP ...
b. NP_i ... t_i ...
c. NP_i/There ... t_i ...

⁶ That is, up to differences attributable to adjunction vs. substitution; arguably the verb substitutes into C in (16), while LF movement of V to C in (15) could be said to involve adjunction of the verb to *if*.

The question as to whether (15) and (16) share the LF in (17) is analogous to the question of whether (19a) and (19b) share the LF in (19c). The latter question has been answered affirmatively in a fair amount of the syntactic literature, which ignores to greater and lesser degrees the fact that (18a) and (19b) do not have the same range of interpretations. We want to duplicate the phrasing of this question without necessarily accepting the affirmative answer that has been given to the question for (19a-c), because it is unclear whether the two different interpretations of (18a-b) are compatible with the position that they share the same LF.⁷ With respect to our question about (15)-(17), we will proceed by posing the following empirical question: *are there linguistic environments that distinguish (15) and (16)?* Interestingly, there are indeed linguistic environments that differentiate (15) and (16). Consider the following cases in English and Dutch of the modification of uninverted and inverted antecedents by the focus adverbs *only* and *even*:

- (20) a. Even if she had been allergic to dill, he would (still) have served the stuffed grape leaves
b. Only if Peter had come would Susan have left
- (21) a. *Only had I thought that he was sick would I have called him
b. *(?)Even had Joe served truffles Kathy would not have been happy.⁸
- c. *Alleen had Jan aangeboden te helpen, (dan) had ik het gedaan. (Dutch)
only had John offered to help (then) had I it done
'Only if John had offered to help would I have done it.'
- d. *Zelfs had Jan aangeboden te helpen, (dan) had ik het gedaan.
even had John offered to help (then) had I it done
'Even if John had offered to help, I would have done it.'

The data in (20) and (21) show that uninverted conditional antecedents may be modified by these adverbs, while inverted conditional antecedents may not. This contrast is evidenced in all of the languages with conditional inversion, independent

⁷ As before, we are abstracting away from the issue of whether the movement is substitution or adjunction.

⁸ In these examples, the judgments given are for cases in which the entire antecedent is taken as the associate of the focal adverb; other constituents within the clause may be focused, sometimes affecting grammaticality:

- (i) Even had John read Milton Bill would not have been impressed.
(ii) Even had John read Milton Bill would not have been impressed.
(iii) Even had John read Milton Bill would not have been impressed.
(iv) Even had John read Milton Bill would not have been impressed.

Similarly, speakers seem to have mixed reactions to cases in which *not* precedes the focal adverb, as in *Not even had Bill danced would Mary have sung*. A second point to be made concerns the contrast in (21a-b) between sentence with *even* and inversion and sentences with *only* and inversion. The former were judged by native speakers of English to be better as a whole than the latter, and to have different focusing possibilities; for instance, *only* instead of *even* is not possible in (iv). The same contrast seems to hold in Yiddish, but has not been found in any other languages. An analysis of these differences is beyond the scope of this paper.

of indicative or counterfactual status. We address in the next section the question of why it should be the case that inverted and uninverted antecedents should be differentiated by the focus adverbs.

4. V1 Conditionals and Focus

An initial (and not very insightful) response to this question of why V1 conditionals cannot be modified by *only* and *even* would be to simply add V1 conditionals to the list of elements that cannot be modified by *only*, some of which are given here:

- (22) a. *The only drunk man
(on the reading 'the man whose only property was that of being drunk')
b. The only slightly drunk man
c. He (*only) admits it (*only) that he stole the tapes
d. He heard the rumour (*only) that Bill had stolen the tapes

Until a larger unification of the above patterns becomes available, however, we will seek a solution particular to the case at hand.

At first appearance, one might also think that the inability of *only* and *even* to modify V1 antecedents is reducible to a problem of space. It might be assumed that the adverbs in question appear in SPEC/CP. It can also be argued that V1 clauses are really well-behaved V2 clauses in disguise, with a null element appearing in the SPEC/CP:

- (23) [CP \emptyset [C V_i] [IP ... t_i ...]]

The inability of the focal adverbs to modify these clauses would then be a result of the fact that the adverbs and the null operator would be competing for the same structural position. Two separate considerations show that this line of reasoning cannot be correct. For one, *only* and *even* can in fact be used to modify clauses which have an overt element in SPEC/CP:

- (24) a. He asked only when we would have dinner.
b. She asked even how much we spend on food.

Furthermore, it is not only when the focus adverb is adjacent to a V1 antecedent that the sentence is degraded, but also when the adverb focuses the antecedent from a distance. The following pair from German shows that while an uninverted *if*-clause may be focussed from a distance, a V1 antecedent may not be so focussed:⁹

- (25) a. Ich wäre nur rechtzeitig angekommen wenn ich ein Auto gemietet hätte.
I was-SUBJ only on-time come if I a car rented had-SUBJ

⁹ This contrast obtains in languages other than German, but is weakened in English:

- (i) I would only have left if he had insulted me
(ii) ??/% I would only have have left had he insulted me

- b. *Ich wäre nur rechtzeitig angekommen hätte ich ein Auto gemietet.
 I was-SUBJ only on-time come had-SUBJ I a car rented

A further option to consider at this point is that focal adverbs may not be able to take associate clauses in which the verb is in C. But this is also incorrect, as seen in German (26), where embedded V2 is supposed to have the verb in C:

- (26) Er sagte nur morgen kommt Hans.
 he said only tomorrow comes Hans
 'He only said that Hans will come tomorrow' (= he said only one thing, ...)

Having now shown that some seemingly likely explanations for the behavior of *only*, *even* and V1 adjuncts are inadequate, we will proceed to argue that this phenomenon is the result of a more general property of V1 adjuncts; namely, that they may not be focussed at all. This hypothesis makes predictions which may be tested systematically by an examination of the behavior of V1 adjuncts in constructions involving focus.

First, consider the following contrast, which shows that while regular *if*-clauses may be clefted, V1 adjuncts may not:

- (27) a. It is if John had come that Mary would have left
 b. *It is had John come that Mary would have left
- (28) a. Padh er ef padh riguir sem Jón fer ut (Icelandic)
 It is if it rains that J. goes out
 b. * Padh er rigui ,.....
 It is rains,...

An additional contrast can be seen when the focus properties of questions are considered. Uninverted conditional antecedents may be used as answers to questions, but V1 antecedents may not:

- (29) a. Als een schepsel een mond heeft dan heeft het een neus (Dutch)
 if a creature a mouth has then has it a nose
 'If a creature has a mouth then it has a nose'
 b. Heeft een schepsel een mond dan heeft het een neus
 has a creature a mouth then has it a nose
- (30) A: Wanneer heeft een schepsel een neus?
 when has a creature a nose
 B: Als het een mond heeft
 B': #Heeft het een mond
- (31) A: When/under what circumstances would Mary have come?
 B: If she had been offered many artichokes
 B': #Had she been offered many artichokes

Negation has its own focal properties, and, once again, we find that V1 adjuncts

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cannot be focussed, while uninverted antecedents can:¹⁰

(32) a. Ich wäre nicht rechtzeitig angekommen wenn ich ein Auto
I would-have not on-time arrived if I a car
gemietet hätte
rented had

b. * Ich wäre nicht rechtzeitig angekommen hätte ich ein auto gemietet
had I

(33) a. Ef fer ekki i garðinn ef það er sól heldur ef það er rigning
he goes not to the park if it is sunny but if it is raining

b. *er...er.....

An additional focus construction involves *except for* phrases; in this context too uninverted and inverted antecedents are differentiated:

(34) a. Außer wenn Hans kommt bin ich morgen an der Uni.
except if Hans comes be I tomorrow at the university
'Except if Hans comes I will be at the university tomorrow.'

b. * Außer kommt Hans bin ich morgen an der Uni.
except comes Hans am I tomorrow at the university

The hypothesis, then, that makes these predictions about V1 adjuncts is stated succinctly in (35), thereby giving a preliminary answer to the question of the differences between (15) and (1):

(35) *V1 Conditionals cannot be focussed.*

But what can (35) be due to? And is this type of difference between V1 antecedents and IF-clauses found elsewhere? It seems to be in the case of *since* - and *because*-clauses. As discussed in Iatridou (1991), these adjunct clauses are differentiated in a number of linguistic contexts associated with focus; they therefore provide an interesting parallel to the inverted and uninverted antecedents under discussion here. The first thing to be noted is that, like V1 antecedents, *since*-clauses may not be clefted (while *because*-clauses can):

¹⁰ The fact that V1 antecedents cannot be focused by negation may be invoked to explain the data regarding movement of contracted negation to C, repeated here:

- (i) a. Hadn't he seen the car coming?
b. *Hadn't he seen the car coming, he would have been killed
c. Had he not seen the car coming, he would have been killed

The ungrammaticality of (i.b) can be explained along the same lines as that of (32b) and (33b), as resulting from the inability of V1 adjuncts to be focused. But for this reduction to be possible, it would have to be proven that the focal properties of contracted negation in C are different from the focal properties of negation left in its base position, which we leave for a different occasion.

- (36) a. It is because he was poor that he had to leave home.
b. *It is since he was poor that he had to go home.

In the case of modification by *only*, *because*- and *since*-clauses are once again differentiated, with the latter behaving like V1 adjuncts in not being able to be focussed by this adverb:

- (37) a. John left home only/just because he was short of money.
b. *John left home only/just since he was short of money.

Because- and *since*-clauses differ as well for the second diagnostic used above to show the non-focusability of V1 antecedents, the ability to be used as the answer to a question:

- (38) A: Why did John leave?
B: a. Because he wasn't feeling well.
b. *Since he wasn't feeling well.

Since-clauses, like V1 antecedents, may not associate with negation, while *because*-clauses can:

- (39) a. It is not the case that John left because he was sick. He left because he has to be home by 9 P.M.
b. #*It is not the case that John left since he was sick. He left since he has to be home by 9 P.M.

Accordingly, *because* and *since* are differentiated in environments like the following (see Linebarger (1987) for the interaction between negation and *because* clauses):

- (40) I didn't leave because I was sick.
(41) I didn't leave since I was sick.

(40) is ambiguous between a reading according to which the speaker, due to illness, did not leave, and one on which the speaker did in fact leave, but for a reason other than illness. The corresponding *since*-sentence, however, has only the former reading. Another difference between the two types of clause related to their different interaction with negation concerns the licensing of Negative Polarity Items; in a sentence with matrix negation, an NPI is licensed only in a *because*-clause:

- (42) a. He didn't go because he had to meet anybody (but because he was late.)
b. #He didn't leave since he had to meet anybody.
(43) a. I doubt that he left because anybody came.
b. #I doubt that he left since anybody came.

The difference between *because*- and *since*- clauses, as argued in Iatridou (1991), is that the latter are used when the proposition expressed by the clause is presupposed to be known or discourse-old. This might mean that propositions which are old information cannot be focussed.¹¹ The nature of such a constraint needs a lot of

¹¹ A few remarks are in order here. First, it should be emphasized that it is *propositions* which, if

further elaboration, which we will not attempt here. But as a further test for our derived hypothesis that clauses representing old information may not be the associates of focal adverbs, we may make use of a diagnostic adapted from Hegarty (1993). This paper shows that when there is extraposition with *it*, the extraposed clause represents old information in the discourse. It is not surprising, given our hypotheses to this point, that when one of these extraposed clauses is focussed by *only* the sentence is ungrammatical:

- (44) a. John admitted *only* that he stole the tapes.
b. *John admitted it *only* that he stole the tapes.

Assuming for the purposes of the discussion that clauses with old information cannot be focussed, (35) would follow if it were possible to maintain that V1 antecedents are old information whereas uninverted antecedents are not necessarily old. Such an assimilation seems conceivable at least for counterfactual conditionals in English. Linson (1993), a recent corpus-based study of the pragmatics of counterfactual conditionals in English conducted within our research project, divides the contexts in which counterfactuals appears into three types: (a) the falsity of the antecedent is common knowledge and has not been mentioned in the previous discourse (ex: *If WWII had not occurred,...*); (b) The falsity of the antecedent is asserted in the previous discourse (ex: *I don't have any money, but if I had any, ...*); (c) The falsity of the antecedent is not mentioned at all, but the counterfactual is used to convey it through presupposition accommodation (ex: *If I had any brothers, ...*). Linson found that 80% of V1 counterfactual antecedents were found in case (a), 20% in (b), and none at all in (c). Beyond these statistical findings, assessing the correlation between V1 antecedents and old information becomes difficult because of the extreme subtlety of judgments regarding their felicity in certain contexts. Consider, for instance, the following situation, adapted from a suggestion by Eric Reuland: You arrive at the house of friends, who know that you have just been to a job interview but do not know the results. Uttering (45a) at the dinner table, would be a (characteristically witty) potential conversational move, but (45b) would, as Bernhard Rohrbacher (p.c.) put it, leave some of the people present wondering why they had been left out on a previous announcement about the interview results:

- (45) a. If I had been offered the job, I would have brought champagne.
b. Had I been offered the job, I would have brought champagne.

Moreover, the implicature that the antecedent is false appears to be defeasible with an uninverted conditional but not with an inverted one (see fn. 1):¹²

discourse old, are not focusable; we do not mean to say anything about NPs here. Second, possibly the right way to state the relevant point is that propositions whose truth-value is known or discourse old cannot be focussed. This distinction will become relevant later in the text. Third, a potential counterexample might be thought to be provided by complements of so-called factive verbs, of which it is sometimes said that their truth is presupposed, but which can seemingly be focussed. Hegarty (1993) recasts the properties of such verbs and in his framework factive verbs would not be a problem. For reasons of space, we are unable to go into more detail on this.

¹² We have not tested this exhaustively in the languages in Table 1; however, in the languages in which it has been tested, the pattern is as in (46).

- (46) a. If he had broken his leg in his childhood, which, in fact, he did, he would have exactly this type of scar.
b. # Had he broken his leg in his childhood, which, in fact, he did, he would have exactly this type of scar.

This would follow if the parenthetical is taken to contradict a previously made assertion, which must have been present in the case of (46b).¹³

It is clearly difficult to make the claim about the connection between V1 counterfactual antecedents and old information more precise and more verifiable. But even if this were achieved, further conceptual questions arise. If there is a null element in [SPEC,CP] of the inverted conditional as in (23), it could be argued that this element is a topic or discourse operator.¹⁴ But why couldn't this be found every time a conditional antecedent contains old information? In other words, if a language permits such a discourse operator, why would its appearance be sometimes precluded in certain types of conditionals (cf. Table 1)? And why should counterfactual conditionals provide the environment which crosslinguistically permits this operator the most? Moreover, why couldn't this operator appear in a different adjunct, resulting in a V1 adjunct with something other than a conditional interpretation? These and other questions will have to be addressed before the claim that (35) follows from the inability to focus propositions whose content is discourse old can be made credible.

Finally, the question has also to be posed for indicative conditionals. In the case of counterfactuals it can be said that the falsity of the antecedent is discourse-old. Clearly nothing comparable exists for the truth-value of an indicative antecedent. Possibly, the requirement of old information would not apply to the truth-value of the antecedent, but just its status as having been previously part of the discourse, not necessarily as someone's belief. This was indeed the finding of Braun (1993) regarding the use of V1 indicative antecedents in Yiddish. Yiddish is a language with narrative inversion, and a perusal of Table 1 shows that the languages with indicative inversion are the languages that have some form of narrative inversion.¹⁵ A possible problem with reducing indicative inversion to narrative inversion (in addition to the one mentioned above about its restriction to adjuncts that are conditional in nature) is that cases of narrative inversion discussed in the literature (eg Thrainsson (1985), Diesing (1990)) always involve matrix clauses (example from Diesing (1990)):

- (47) Mayn tate iz geshtorben. Bin ikh beblibn aleyn.
my father has died. was I stayed alone.
'My father has died. So I was left alone.'

¹³ This could mean that the V1 effect is partly statable in terms of making the falsity of the antecedent a conventional rather than a conversational implicature.

¹⁴ The operator would clearly not be the one that the IF-clause restricts, as in the work of Lewis (1975) and Kratzer (1986).

¹⁵ Or possibly topic-drop.

In the conditional V1 antecedents, however, the topic operator is inside an adjunct, which would indicate that discourse operators would appear in the linearly first clause, not necessarily the matrix clause. This would also explain why indicative inversion is restricted with respect to word-ordering (Table 1). There is some evidence that this may, in fact, be the case. Consider the discourse-oriented element *however* in English. It can appear inside an adjunct, but the adjunct has to be sentence-initial:

- (48) I will give you some money
a...If, however, you run out, don't hesitate to call me
a #... (but) don't hesitate to call me, if, however, you run out.

Let us briefly return to the phenomenon found in Icelandic exemplified in (7), in which the verb in C must change to the present subjunctive, even though the conditional is not counterfactual. This pattern is also instantiated in Old English, but for present purposes we will restrict this speculative discussion to Icelandic. The subjunctive in Icelandic is very productive; according to Sigurdhsson (1990), the relevant property for the use of the subjunctive in Icelandic is that of the speaker's responsibility for the content of the utterance. The subjunctive mood is used when the speaker wishes to take no responsibility for the truth of the proposition expressed. But the subjunctive is also used in certain adverbial clauses like the concessives *although* and *even though*, where clearly it cannot be said that the speaker remains agnostic as to truthfulness. For such adverbials Sigurdhsson says, "The truth of these complements is indeed presupposed by the speaker, but rather than taking responsibility for or asserting their truthfulness, he or she is only admitting or accepting it (e.g. as a generally known "state of the world")" (p.325). Now, these are exactly the conditions under which we found inversion to be possible in English and other languages. In Icelandic, inversion and subjunctive go hand-in-hand in the case where the truth-value of the proposition in the antecedent is old information, i.e. part of the known "state of the world". This means that Icelandic indicative inversion¹⁶ is closer to counterfactual inversion in the other languages in that the old information requirement concerns the status of the truth value of the proposition, not just that the proposition has been under discussion (i.e. it is discourse-old). In other words, indicative inversion in Icelandic is not just a side-result of narrative inversion, but something stronger, in some sense. If this is correct, we can speculate further as to the correlations found in Tables 1 and 2. Possibly, the use of subjunctive mood correlates with the requirement that the truth of a proposition be known to be part of the world; this would encompass inverted counterfactuals (which use the past subjunctive) in general, and inverted Icelandic non-counterfactual conditionals (which use the present subjunctive). Moreover, it may not be a coincidence that Icelandic and Old English, which are the only languages in our sample to put the verb in C in subjunctive mood in non-counterfactual conditionals, are the only languages that permit inverted non-counterfactual antecedents in sentence-final position, as shown in Table 1. If we were right before that indicative inversion is a side-result of narrative inversion in languages other than Icelandic and Old English and that that type of inversion is strictly dependent on the position of the antecedent with respect to the narrative, as in the use of English *however* in (48), it is not surprising that inverted non-

¹⁶ And by this, of course, we mean inversion in indicative (i.e. non-counterfactual) conditionals, *not* just conditionals in the indicative mood.

counterfactual conditionals can appear in sentence-final position only in Icelandic and Old English. In the latter two languages, there is no constraint on inversion of the type that exists for English *however* and narrative inversion in the other Germanic languages.¹⁷ The use of inversion is meant to indicate the fact that the truth of the proposition in the antecedent is old, not just that the antecedent connects to previous discourse.

In this section we have tried to correlate conditional inversion with old information. Clearly more must be done before this assimilation can be considered anything near to complete. However, we hope that in the course of this discussion we have managed to show that inverted antecedents are different syntactic entities from uninverted conditionals and that no issue of optionality between them arises.

5. References

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¹⁷ No such constraint exist on counterfactual conditionals either, so it is not surprising that inverted counterfactual antecedents can appear sentence-finally in Germanic. The Romance languages remain mysterious on this point (for the time being.)

