

ON CORRELATIONS BETWEEN WORD ORDER AND PRAGMATIC FUNCTION OF CONDITIONAL SENTENCES IN GERMAN

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In German, the apodosis of conditional sentences may be syntacticized as either VS (integrative word order) or TOP-V (non-integrative word order). In this article, we attempt to provide a semantically and pragmatically based explanation for this syntactic variation. We shall demonstrate that the speaker's communicative intentions correlate with the word order in the apodosis. In general, 'content conditionality' is syntacticized through VS-order in the apodosis, whereas 'relevance conditionality' corresponds to TOP-V-order in the consequent clause. However, this tendency is overridden by two principles which we term *ego involvement* and *speaker's degree of certainty*. In those cases in which the speaker of a content conditional intends to convey a strong ego involvement, s/he will resort to TOP-V; conversely, a relevance conditional may be grammaticalized as VS if the speaker wishes to communicate that the content of the apodosis does not constitute an item of factual knowledge, but rather his/her personal opinion about the truth of some proposition.

1. Introduction

In this paper we want to explore the relationship between certain syntactic properties of conditional sentences in German and their pragmatic force, which, as we shall demonstrate, motivates these syntactic properties. More specifically, we shall show that certain communicative intentions of the speaker determine the syntactic form of the apodosis of a conditional sentence.

In German, conditional sentences can be expressed in various ways, e.g.

(a) by means of a conjunctionless antecedent clause, which may be either pre- or postposed such as in:

- (1) Schlägst du mich, schlage ich dich.
Hit you me hit I you
'If you hit me, I'll hit you.'

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(b) by means of a participial form in the antecedent clause, such as in:

- (2) Vorausgesetzt/gesetzt/angenommen Jürgen kommt, (dann) gehe ich.
 Presupposed/given (that)/assumed Jürgen comes (then) go I
 'Assuming that Jürgen comes, I'll go.'

and

(c) most frequently, the antecedent clause in German is introduced by a conjunction like *wenn* ('if'), *falls* ('in case of'), or *sofern* ('as far as'), as in:

- (3) Wenn Jürgen kommt, spiele ich nicht mit.
 If Jürgen comes, play I not with
 'If Jürgen comes, I won't play (with him).'

In what follows, we shall focus on the syntactic form and the pragmatic function of this latter type.

2. Syntactic properties of preposed conditional *wenn*-clauses

2.1. Integrative vs. non-integrative word order

Conditionals with preposed *wenn*-clauses exhibit the formal characteristics under investigation in the most obvious way. We shall deal exclusively with cases where the apodosis appears in the declarative mood.

The most frequent and natural type of a conditional sentence in German is exemplified by (3), which contains a preposed *wenn*-clause functioning as the topic of the complex sentence (cf. Haiman (1978)), and which iconically reflects the temporal order of a *cause-effect* relationship between the protasis and the apodosis (on the notion of causation in conditionals, cf. Sweetser (1984)). In sentence (3) the antecedent clause exhibits the typical word order S(X)V of a subordinate clause in German, and in the consequent clause the characteristic inversion of the subject and the finite verb element occurs (VS). We shall label this type of syntactic construction (following König and van der Auwera (1988)) the *integrative word order*. This is a special case of a more general rule of German syntax: Whenever a constituent, including whole clauses, is fronted, subject-verb inversion generally takes place. Compare the parallel structure of the following pair of sentences:

- (4) Wenn Werder Bremen verliert, wird Bayern München Meister.
 If Werder Bremen loses becomes Bayern München champion
 (V) (S)
 'If Werder Bremen is defeated, Bayern München will be the champion.'

- (5) Im Falle einer Niederlage von Werder Bremen wird
 In case of-a defeat of Werder Bremen becomes
 (V)

Bayern München Meister.

Bayern München champion

(S)

'In case Werder Bremen is defeated, Bayern München will be the champion.'

Consequently, the following strings, which do not exhibit integrative word order, are ill-formed:

- (6) *Wenn Werder Bremen verliert, Bayern München wird Meister.
 (S) (V)

- (7) *Im Falle einer Niederlage von Werder Bremen Bayern München
 (S)
 wird Meister.
 (V)

There are, however, sentences, mostly used in spoken German, with a different word order (cf. Davison (1981: 57f.)). Along with sentences such as:

- (8) Wenn du Hilfe brauchst, bleibe ich den ganzen Nachmittag zuhause.
 (V) (S)
 If you help need stay I the whole afternoon at home
 'If you need help, I'll stay home all afternoon.'

we find examples like:

- (9) Wenn du Hilfe brauchst, ich bleibe den ganzen Nachmittag zuhause.
 (S) (V)

In (9) the constituent order in the consequent clause is the same as that found in a simple declarative sentence. In contrast to (8), the apodosis of (9) collocates with particles like *eh*, *sowieso*, *ohnehin*, etc. ('anyway', 'anyhow'). In accordance with König and van der Auwera (1988), we shall henceforth call the word order in sentences like (9) *non-integrative*. This phenomenon has been discussed in a variety of descriptive studies (cf. Behaghel (1928), Fleischmann (1973), Faucher (1977, 1984), Van de Velde (1978), and König and van der Auwera (1988)). It has been claimed that there are prosodic differences between *integrative* and *non-integrative* conditional sentences. We do not question this point here, assuming that these suprasegmental differences (if they exist at all) are the result of different pragmatic (communicative) mean-

ings that the speaker intends to convey by means of either *integrative* or *non-integrative* word order in the consequent clause. Furthermore, the subjectively perceived pause between the protasis and the apodosis of *non-integrative* conditionals would perhaps not stand up to empirical verification, but may simply be the consequence of the main clause syntax of the apodosis. We shall not pursue this question any further here, but will concentrate on the correlations between syntactic form and pragmatic function. Note that *non-integrative* word order also occurs with preposed non-clausal constituents, such as:

(10) Ehrlich gesagt, ich habe die Nase voll von Konditionalsätzen.

(S) (V)

Frankly spoken I have the nose full of conditional sentences
'Frankly, I'm fed up with conditionals.'

Sentence (10), parallel to (8) and (9), also permits VS order, but, in contrast with this latter sentence pair, word order change in (10) does not entail a change in meaning.

Finally, the following example *only* admits SV order in the consequent clause:

(11) Wenn du es noch nicht wußtest, Hans ist wieder im Lande.

If you it yet not knew Hans is again in-the country
'In case you didn't know, Hans is back in town.'

(12) *Wenn du es noch nicht wußtest, ist Hans wieder im Lande.

If you it yet not knew is Hans again in-the country

Thus, we will have to deal with the following cases:

- (13i) Conditional sentences that only admit integrative word order in the apodosis.
- (13ii) Conditional sentences that allow both integrative and non-integrative word order in the apodosis, although they differ in their semantic interpretation and pragmatic force; see, however, sections 4.1 and 4.2 for a case in which different word order has no effect on meaning.
- (13iii) Conditional sentences that only admit non-integrative word order in the apodosis.

2.2. Some syntactic tests differentiating integrative from non-integrative conditionals

Integrative conditionals allow the insertion of a resumptive item *dann* ('then') in the consequent clause, whereas, not surprisingly, this is not possible with non-integrative word order:

- (14) Wenn du zuviel trinkst, dann hast du morgen einen Kater.
 If you too much drink then have you tomorrow a hangover
 'If you drink too much, then you'll have a hangover tomorrow.'
- (15) *Wenn du es noch nicht wußtest, dann ist Hans wieder im Lande.
 If you it yet not knew then is Hans again in-the country
 *'In case you didn't know, then Hans is back in town.'

The analysis of *dann* causes some problems. We suggest that in (14) *dann* should be interpreted as a resumptive proform being co-referential with the protasis. We will provide an explanation of the ill-formedness of (15) in section 3.3.

Furthermore, integrative conditionals can be used as the protasis of another apodosis, but non-integrative conditionals resist that kind of syntactic embedding (note that the canonical order of the protasis and the apodosis must be reversed):¹

- (16) Wenn morgen schönes Wetter ist, fahren wir nach Wien.
 If tomorrow nice weather is drive we to Vienna
 'If the weather is fine tomorrow, we'll drive to Vienna.'
- (17) Wenn wir nach Wien fahren, wenn morgen schönes Wetter ist,
 If we to Vienna drive, if tomorrow nice weather is,
 nehmen wir auch unseren Hund mit.
 take we also our dog with
 'If we drive to Vienna, if the weather is fine tomorrow, we'll take our dog along with us.'

The structure of a sentence like (17) could be represented as follows:

- (18) $\underbrace{\text{Apodosis}_1 + \text{Protasis}_1}_{\text{Protasis}_2 + \text{Apodosis}_2}$

In contrast, non-integrative conditionals cannot function as the antecedent clause of a complex conditional sentence:

- (19) Wenn du die Neuigkeit noch nicht kennst, Anna hat geheiratet.
 If you the news yet not know Anna has married
 'In case you don't know the news, Anna has married.'

¹ Wunderlich (1976:265ff.) distinguishes between strong and weak conditionals. According to Wunderlich, only strong conditionals allow unlimited syntactic embedding and also behave differently with respect to counter-factuality and negation.

- (20) *Wenn Anna geheiratet hat, wenn du die Neuigkeit noch nicht kennst,
 If Anna married has if you the news yet not know
 ist ihr Großvater außer sich vor Freude.
 is her grandfather out himself of joy
 *'If Anna has married, in case you don't know the news yet, her
 grandfather is mad with joy.'

Third, non-integrative conditionals allow the topicalization of constituents other than the subject in the apodosis, whereas integrative conditionals preclude that option:

- (21) Wenn du Interesse hast, unsere Party beginnt um acht Uhr.
 If you interest have our party starts at 8 o'clock
 'In case you are interested, our party starts at 8 o'clock.'
 (22) Wenn du Interesse hast, *um acht Uhr* beginnt unsere Party.
 If you interest have at 8 o'clock starts our party
 'If you're interested, *at 8 o'clock* our party will start.'

In contrast, in an integrative conditional construction like (23) the adverbial *nächstes Jahr* ('next year') cannot be topicalized:

- (23) Wenn er das Stipendium bekommt, fährt er nächstes Jahr nach
 If he the scholarship gets goes he next year to
 Amerika.
 America
 'In case he gets the scholarship, he'll go to America next year.'
 (24) *Wenn er das Stipendium bekommt, *nächstes Jahr* fährt er nach
 If he the scholarship gets next year goes he to
 Amerika.
 America

Fourth, similarly, left dislocation of constituents is possible in the apodosis of non-integrative structures, but cannot appear in integrative conditionals:

- (25) Wenn du Interesse hast, unsere Party, die beginnt um acht Uhr.
 If you interest have our party it starts at 8 o'clock
 'If you are interested, our party, it starts at 8 o'clock.'
 (26) *Wenn er das Stipendium bekommt, Paul, der fährt nächstes Jahr nach
 If he the scholarship gets Paul he goes next year to
 Amerika
 America

Finally, as is well-known, in integrative conditionals the tenses of the

Nevertheless, by and large, non-integrative conditionals are not subject to the rule of *consecutio temporum*. Compare e.g. the non-integrative conditional (33) with the integrative conditional (34):

- (33) Wenn du Hilfe gebraucht hättest, ich bin den ganzen Nachmittag
 If you help needed had I am the whole afternoon
 zuhause geblieben.
 at home stayed
 'If you had been in need of help, I was home all afternoon.'
- (34) *Wenn du Hilfe gebraucht hättest, bin ich den ganzen Nachmittag
 If you help needed had am I the whole afternoon
 zuhause geblieben.
 at home stayed

The above-mentioned examples show that a purely syntactically-based description of conditionals is incapable of making predictions about the acceptability of, for example, sentences (14), (17), (19), (22), (25), (28), (29), (33), and the non-acceptability of (15), (20), (24), (26), (31), (32), and (34). Table 1 summarizes the syntactic behavior of the two types of conditionals in German.

Table 1
 Syntactic properties of conditionals in German.

	Integrative conditionals	Non-integrative conditionals
Resumptive <i>dann</i>	+	-
Syntactic embedding	+	-
Topicalization in the apodosis	-	+
Left dislocation	-	+
Sequence of tenses	+	+/-

In conclusion, these observations demonstrate that, in contrast with the consequent clause of integrative conditionals, the apodosis of non-integrative conditionals behaves exactly like an independent principal clause, and as we shall argue below, the syntactic phenomena mentioned above are based on semantic and pragmatic principles.

3. Meaning and function of conditionals in German

In this section we shall propose a functional explanation of the syntactic characteristics of conditionals in German which we described in some detail in section 2. We shall start out with some very brief remarks on a truth-

conditional account of conditional sentences, but, in accordance with the literature on the subject (cf. Gazdar (1979), Posner (1979), Levinson (1983), Sweetser (1984)), we shall reach the conclusion that truth-conditional explanations are not fully sufficient to account for the different syntactic patterns discussed above. We shall therefore have to consider in some detail the role of conceptual and discourse-functional relationships, for example, the role of conversational implicature, between the protasis and the apodosis.

3.1. Logical properties of conditionals

It has been observed by many linguists and philosophers that the meaning of integrative conditionals, let alone non-integrative conditionals, cannot be reduced to what logicians call *material implication* (cf. Grice (1975)). Nevertheless, the prototypical cases of integrative conditionals are characterizable by a truth-conditional definition of the following sort: The truth value of the protasis determines the truth value of the apodosis, i.e. whenever the antecedent clause is true, the consequent clause is also true. In other words, the truth of the protasis is a sufficient condition for the truth of the apodosis. Moreover, again in the most typical cases, integrative conditionals allow the application of the law of contraposition, at least in generic cases, e.g.:

- (35) Wenn man Wasser auf 100 Grad Celsius erhitzt, kocht es.
 If one water up-to 100 degrees Centigrade heats up boils it
 'If water is heated up to 100 degrees Centigrade, it will boil.'

versus

- (36) Wenn Wasser nicht kocht, ist es nicht auf 100 Grad Celsius
 If water not boils is it not up-to 100 degrees Centigrade
 erhitzt (worden).
 heated (been)
 'If water does not boil, it has not been heated up to 100 degrees
 Centigrade.'

However, there is an important difference between integrative and non-integrative conditionals in terms of truth values. In sentence (11) the truth value of the protasis does not determine the truth value of the apodosis. The truth value of the consequent clause is given, whatever happens to be the truth value of the antecedent clause. This entails that contraposition is not possible with non-integrative conditionals. Consider e.g. the contraposed version of (11):

- (37) *Wenn Hans nicht wieder im Lande ist, du wußtest es (schon).
 If Hans not again in-the country is, you knew it (already)

Nevertheless, although in a non-integrative conditional the truth of the protasis is not sufficient for the truth of the apodosis, the *truth* of the protasis is a sufficient condition for the *relevance* of the speech act vehicled through the apodosis. The truth-conditional characterization is clearly not sufficient to describe the meaning and pragmatic function of conditionals. In addition, conditionals trigger certain conversational implicatures, which we shall deal with in the following section.

3.2. *Conversational implicatures*

The first observation to be made with regard to integrative conditionals is that they are associated with a conversational implicature of the sort that is exemplified in (38), which is an implicature of (4):

- (38) Wenn Werder Bremen nicht verliert, wird Bayern München nicht
 If Werder Bremen not loses becomes Bayern München not
 Meister.
 champion
 'If Werder Bremen is not defeated, Bayern München will not be the
 champion.'

In the case of (4), the speaker literally claims that the truth of the protasis (p) is a sufficient condition for the truth of the apodosis (q), but s/he implicates a stronger claim, viz. that the truth of p is also a necessary condition for the truth of q (cf. Geis and Zwicky (1971), Ducrot (1972)).

Furthermore, as far as the hypotheticality of the protasis is concerned, an implicature of the following sort holds: The speaker implicates that s/he is not certain about the truth of both the protasis and the apodosis. Thus, the feature of hypotheticality is not an inherent part of the core meaning of integrative conditionals, but a pragmatically invited inference. In fact, it may be cancelled given an appropriate context. Consider Levinson's (1983:142) example:

- (39) A: I've just heard that Chuck has got a scholarship.
 B: Oh dear. If Chuck has got a scholarship, he'll give up medicine.

In this example, the protasis is contextually given, and therefore conveys no invited inference of hypotheticality.

Non-integrative conditionals behave quite differently in pragmatic terms. First, there is no invited inference suggesting that the protasis is both a necessary and a sufficient condition for the truth of the apodosis. Thus, (11) does not trigger the conversational implicature:

- (40) *Wenn du es (schon) wußtest, Hans ist nicht wieder im Lande.
 If you it (already) knew Hans is not again in-the country

Second, the implicature concerning the protasis is the same as for integrative conditionals (hypotheticality). But, third, the apodosis of a non-integrative conditional does not induce the implicature that the speaker does not know whether the consequent clause is true. On the contrary, the consequent clause has the status of an independent illocutionary act (assertion), cf. König and van der Auwera (1988). Again, as we have demonstrated in section 3.1, the evidence seems to suggest the conclusion that the consequent clause in a non-integrative conditional leads a life of its own. In the next section we shall examine in more detail the relationship between the protasis and the apodosis of non-integrative and integrative conditionals.

3.3. *Conceptual and discourse-functional dependencies between the antecedent and the consequent clause*

The characterization of the two types of conditionals in terms of truth values and implicatures is clearly not sufficient to account for all the sentences we have presented so far. For integrative conditionals one must usually assume a conceptual link between the protasis and the apodosis, e.g. a cause-effect or an enablement relationship (cf. Sweetser (1984)). We label this kind of phenomenon *content conditionality*; compare for example sentences (3), (4), (16), and (23).

In fact, content conditionality is both signalled by VS-order and, more explicitly, by the resumptive *dann* (+ VS-order) in the consequent clause. This claim is supported by an acceptability experiment we conducted with 40 first-year students from the universities of Hamburg and Hannover. We found out that, in general, sentences with resumptive *dann* were only accepted if content conditionality between the antecedent and the consequent was obviously present, such as in sentence (23) expanded by resumptive *dann*. On the other hand, our subjects had a strong tendency to reject those sentences with resumptive *dann* in which the content of the consequent clause did not depend on the content of the antecedent clause, such as the *dann*-expanded version of sentence (11). Table 2 summarizes these results for the test sentences in their integrative version and integrative + resumptive *dann* version. Sentences are given from top to bottom in decreasing order with respect to the degree of their content conditionality. The subjects had to rate the sentences on an acceptability scale ranging from 1 (the sentence is acceptable without hesitation) to 5 (the sentence is not acceptable without hesitation). Obviously, our experimental subjects' decisions on the acceptability scale were almost the same for both versions.

Table 2
The experimental results.

	VS-order	dann + VS-order
Wenn du noch Fragen hast, kannst du mich telefonisch erreichen.	1.0	1.1
Wenn er das Stipendium bekommt, fährt er nach Amerika.	1.05	1.18
Wenn du zuviel trinkst, hast du morgen einen Kater.	1.08	1.33
Wenn Sie mich fragen, wird es bald schneien.	1.85	1.73
Wenn du Kummer hast, bin ich in der Universität zu erreichen.	2.05	1.9
Wenn du gehst, vergesse ich dich nicht.	1.83	2.15
Wenn du durstig bist, ist Bier im Kühlschrank.	2.68	2.73
Wenn du Hilfe brauchst, bin ich übers Wochenende in Hamburg.	3.0	2.9
Wenn du Interesse hast, beginnt unsere Party um 8 Uhr.	3.9	3.15
Wenn du es noch nicht wußtest, ist Hans wieder im Lande.	4.45	4.68

But what kind of relationship exists between the protasis and the apodosis of a non-integrative conditional? It is not a relationship between propositional contents, but must be sought on a discourse-pragmatic level. Note that in a non-integrative conditional, such as sentence (9), in contrast with (8), the speaker performs an independent assertion by means of the apodosis, i.e. s/he represents some state-of-affairs as true. The truth of the apodosis in (9) is maintained, irrespective of the truth or falsity of the protasis. König and van der Auwera (1988) call this phenomenon 'independent assertability'. Furthermore, the speaker presents the consequent clause as being a relevant continuation of the antecedent. In (9) the speaker asserts in the apodosis that s/he will be home all afternoon anyway, and s/he implies that this illocutionary act, including its propositional content, is a relevant continuation of the antecedent clause ('If you need help'). One might therefore call examples like (9) *relevance conditionals*, cf. Johnson-Laird (1986: 69). In this particular instance, the protasis almost automatically triggers the inference that the speaker is going to make an offer (in fact, s/he expresses a felicity condition for offers). Therefore, according to Grice's maxim of relevance, the apodosis ought to be related to that potential offer, and indeed it is: The apodosis simply states another felicity condition for offers, i.e. that the speaker is available for the listener, with the further implication that s/he can help the listener. Note that the overall force of the content conditional (8) and the relevance conditional (9) is virtually equivalent (offer of help). However, if in the integrative version the protasis turns out to be false, then the speaker is simply not committed anymore to the truth of the apodosis and her/his offer is rendered infelicitous, whereas in the non-integrative version the speaker's commitment to the truth of the consequent clause remains unaffected, irrespective of the truth value of

the antecedent clause. Nevertheless, the falsity of the protasis will result in the irrelevance of the apodosis and (9) will fail as an offer.

But how does a hearer recognize *content conditionality*? Let us briefly consider those cases of the experiment mentioned above where subjects accepted both integrative and non-integrative word order. The results of the experiment seem to suggest that in those cases where a need is expressed in the protasis, which can only be satisfied by an action expressed in the apodosis, an interpretation in terms of *content conditionality* is more likely to be accepted by our subjects if the speaker explicitly refers to that action in the apodosis. Consider the following sentences:

- (41a) Wenn du Hilfe brauchst, bin ich übers Wochenende in Hamburg.
If you help need am I during-the weekend in Hamburg
'If you need help, I'll be in H. during the weekend.'
- (41b) Wenn du Hilfe brauchst, ich bin übers Wochenende in Hamburg.
If you help need I am during-the weekend in Hamburg
'If you need help, I'll be in H. during the weekend.'
- (42a) Wenn du Kummer hast, bin ich in der Universität zu erreichen.
If you trouble have am I in the university to reach
'If you are in trouble, I can be reached in the university.'
- (42b) Wenn du Kummer hast, ich bin in der Universität zu erreichen.
If you trouble have I am in the university to reach
'If you are in trouble, I can be reached in the university.'
- (43a) Wenn du durstig bist, ist Bier im Kühlschrank.
If you thirsty are is beer in-the fridge
'If you are thirsty, there is beer in the fridge.'
- (43b) Wenn du durstig bist, Bier ist im Kühlschrank.
If you thirsty are beer is in-the fridge
'If you are thirsty, there is beer in the fridge.'

All of the above sentences (41)–(43) were accepted by our subjects. However, in all cases the (b)-versions (SV) were rated significantly higher than their (a)-counterparts (VS). We assume that the (a)-versions would have been rated higher if, instead of the semantically stative verb *sein* ('be'), the apodosis had contained an action verb with the corresponding agent-function of the grammatical subject, for example the verb *bleiben* ('stay') in (41), *anrufen* ('call') in (42), and *stellen/legen* ('put') in (43). Apparently, the causal nexus between the protasis and the apodosis is then more easily perceptible for the hearer. This conclusion is supported by another pair of test-sentences, which yielded the opposite results:

- (44a) Wenn du noch Fragen hast, du kannst mich telefonisch erreichen.
If you still questions have you can me by-telephone reach
'If you have any more questions, you can call me up.'

- (44b) Wenn du noch Fragen hast, kannst du mich telefonisch erreichen.
 If you still questions have can you me by-telephone reach
 'If you have any more questions, you can call me up.'

In this example the (b)-version (VS) received a significantly higher score than the (a)-version (SV). Although an action is not overtly signalled (... *kannst ... erreichen* '... can ... reach'), the apodosis foregrounds a necessary condition for an action, i.e. 'contacting someone' presupposes that s/he can be reached at some place known to the hearer.

3.4. Preliminary conclusions

Summarizing the observations made above, we are now able to list a set of semantic and pragmatic properties that distinguish integrative conditionals from non-integrative conditionals in German:

(i) In integrative conditionals, the truth of the protasis is a sufficient condition for the truth of the apodosis. In non-integrative conditionals, the truth of the antecedent clause is a sufficient condition for the relevance of the speech act expressed by the consequent clause.

(ii) Integrative conditionals allow contraposition, which is impossible for non-integratives, cf. also Cornulier (1985).

(iii) In integrative conditionals, the content of the protasis and that of the apodosis are often (but not always) connected, whereas in non-integrative conditionals the connection between p and q is located on the level of discourse organisation.

(iv) In integrative conditionals, the speaker invites the inference that the truth of the protasis is not only a sufficient but also a necessary condition of the truth of the apodosis. No such implicature exists for non-integrative conditionals. However, in non-integrative conditionals, there is an implicature that the falsity of the protasis will result in the irrelevance of the speech act expressed by the apodosis.

(v) Both integrative and non-integrative conditionals convey the implicature that the speaker does not know whether the protasis is true. A consequence of this is that the modality of the protasis may range from potentiality to factuality.

(vi) In integrative conditionals, the speaker implicates that s/he is not certain about the truth of the apodosis, whereas in non-integrative conditionals s/he considers the apodosis to be true.²

² Obvious exceptions are e.g. sentences expressing natural laws like (35) above. For a different view on the role of Speaker Knowledge, cf. van der Auwera (1983). Furthermore, we have not considered sentences like

(i) Wenn Jürgen anruft, bin ich im Garten.

'If Jürgen calls, I am in the garden.'

which, depending on the context, may either imply that the speaker does not want to talk to

For ease of presentation these findings have been condensed once more into the following matrix.

Table 3

Semantic and pragmatic properties of integrative and non-integrative conditionals.

	Integrative	Non-integrative
Sufficient condition	if p is true, then q is true	if p is true, then the speech act expressed by q is relevant
Contraposition	if not-q is true, then not-p is true	—
Content conditionality vs. relevance conditionality	conceptual link between p and q	p and q connected on the level of discourse organization
Implicatures: necessary condition	if p is false, then q is false	if p is false, the speech act expressed by q is irrelevant
speaker Knowledge (protasis)	speaker does not know whether p is true	speaker does not know whether p is true
speaker Knowledge (apodosis)	speaker does not know whether q is true	speaker knows that q is true

Note that some of these features are interdependent, for example the non-validity of the sufficiency condition in non-integrative conditionals entails the non-validity of contraposition and of the implicature of necessity.

4. Putative counterexamples

However, the situation is much more complex than table 3 suggests. In the following sections, we shall present and analyse data which are not compatible with the regularities summarized in table 3. On the one hand, we shall have to deal with content conditionals which exhibit non-integrative word order; on the other hand, we shall encounter relevance conditionals syntacticized as VS (integrative conditionals). These phenomena will oblige us to partially expand the schema given above.

Jürgen or that the speaker may be reached in the garden. In the first case the speaker knows that the apodosis is false and he instructs the hearer to violate Grice's Maxim of Quality. Note that non-integrative word order is also possible and seems to convey the same implicature.

4.1. Content conditionals with non-integrative word order

The following two sentences clearly exhibit similar meanings:

- (45a) Wenn er das erfährt, gibt es Ärger.
 If he that finds-out results-in it trouble
 'If he finds out about it, there will be trouble.'
- (45b) Wenn er das erfährt, das gibt Ärger!
 If he that finds-out that results-in trouble
 'If he finds out about it, there will be trouble!'

Sentence (45a) causes no problems and will be predicted by our table 3. However, (45b) satisfies all our criteria for content conditionality and should consequently not be well-formed: In (45b) the truth value of the apodosis obviously depends on the truth value of the protasis. Furthermore, there is a causal connection between the content of both clauses and the usual conversational implicatures associated with content conditionals are triggered: For example, the negation of the protasis will result in the negation of the apodosis. Note that both (45a) and (45b) implicate

- (45c) Wenn er das nicht erfährt, gibt es keinen Ärger.
 If he that not finds-out results-in it no trouble
 'If he doesn't find out about it, there will be no trouble.'

This implicature can only be verbalized by means of integrative word order for reasons which will be explained below. Furthermore, the speaker of (45b) does not accomplish an independent assertion by means of the consequent clause. This example seems to undermine our thesis that, through the apodosis of a non-integrative conditional, the speaker performs an independent illocutionary act. Nevertheless, we believe that the proposed analysis can be rescued on a closer inspection of the pragmatic force of the apodosis of (45b): It does not function as an assertive speech act, but rather conveys a high degree of *ego involvement*. This is overtly marked by the deictic element *das*, which confers to (45b) a stronger degree of emphasis than to (45a). It is not by accident that, if we replace *das* by non-emphatic *es*, (45b) will become unacceptable. Moreover, the implicature (45c) will not admit non-integrative word order, for the simple reason that it will be difficult for most speakers to figure out a context where *das gibt keine. . . Ärger* would be an appropriate utterance expressing *ego involvement*. It is however possible to expand the utterance in such a way that non-integrative word order is justified, e.g.:

- (45d) Wenn er das *nicht* erfährt, das gibt endlich mal
 If he that not finds-out that results-in at last MOD-PART

keinen Ärger.

no trouble

'If he doesn't find out about it, for once there will be no trouble.'

Consider the contrast between the following sentence pairs (all of which are content conditionals), where again the syntax reflects the opposition between a neutral speaker attitude (unmarked, integrative form, cf. version (a)) and the speaker's ego involvement (marked, non-integrative form, cf. version (b)):

- (46a) Wenn Deutschland verliert, wäre Marokko Weltmeister.
 If West Germany loses would-be Morocco world champion
 'If West Germany loses, Morocco would be the world champion.'
- (46b) Wenn Deutschland verliert, Marokko wäre Weltmeister!
 'If West Germany loses Morocco would be the world champion.'
- (47a) Wenn du mir 100 Mark borgst, gebe ich sie dir morgen zurück.
 If you me 100 marks lend give I them you tomorrow back
 'If you lend me 100 marks, I will give them back to you tomorrow.'
- (47b) Wenn du mir 100 Mark borgst, ich gebe sie dir morgen zurück.
 If you me 100 marks lend I give them you tomorrow back

In conclusion, these data suggest that the expected word order of content conditionals (integrative) may be overridden by the additional pragmatic parameter *speaker's ego involvement*, resulting in a word order which is usually reserved for relevance conditionals (non-integrative).

4.2. Relevance conditionals with integrative word order

Just as there are content conditionals that permit non-integrative word order there exist relevance conditionals that, contrary to the predictions made in table 3, allow integrative word order, e.g.:

- (48a) Wenn Sie mich fragen, es schneit bald.
 If you me ask it snows soon
 'If you ask me, it'll snow soon.'
- (48b) Wenn Sie mich fragen, schneit es bald.
 If you me ask snows it soon
- (48c) Wenn Sie mich fragen, dann schneit es bald.
 If you me ask then snows it soon

In the experiment mentioned above, subjects rated all three sentences very high on the acceptability scale, although, according to our set of parameters, which we assumed to determine word order in the apodosis, (48b) and (48c) should be unacceptable, cf. section 3.4. In all three versions of (48), the protasis is not sufficient for the truth of the apodosis, contraposition is

impossible, and a conceptual link, e.g. causality, between the contents of the protasis and the apodosis is lacking. In addition, in contrast with the canonical interpretation of content conditionals, the speaker of sentences (48a–c) seems to be fairly certain about the truth of the apodosis. Or to put it differently, the apodosis of (48a–c) is falsifiable on grounds which are independent of the truth of the protasis. The semantic/conceptual make-up of (48) is very similar to that of (11), (19), and (21). However, there is a slight but significant difference between the protasis of (48) and the protases of (11), (19), and (21). In the latter cases, the protasis either overtly or indirectly signals that the speaker intends to inform the hearer of an objective fact, i.e. about some item of knowledge that cannot be called into question, whereas the apodosis of (48) seems to be open to doubt. In our opinion, the formulaic clause *wenn Sie mich fragen* in contemporary German functions as a pragmatic indicator of a forthcoming expression of the speaker's *degree of certainty* about the state-of-affairs referred to in the apodosis.³ In other words, the utterance of (48) has a functional status analogous to that of example (49):

- (49a) Wenn du meine Meinung hören willst, die Aktien fallen bald.
 If you my opinion hear want the stocks go-down soon
 'If you want to hear my point of view, the stocks will go down soon.'
- (49b) Wenn du meine Meinung hören willst, fallen die Aktien bald.
 If you my opinion hear want go-down the stocks soon
- (49c) Wenn du meine Meinung hören willst, dann fallen die Aktien bald.
 If you my opinion hear want then go-down the stocks soon

Sentence (49) conveys in its (b)- and (c)-versions that the speaker does not exclude the possibility of being wrong about the truth of the apodosis. The (a)-version (non-integrative word order) implies the same possibility but to a lesser degree. We suggest that the factor *degree of certainty* influences the word order in the apodosis. The higher the degree of the speaker's uncertainty about the truth of the apodosis, the more likely s/he will resort to integrative word order in the consequent clause. Thus, although (49) is a clear case of a relevance conditional, integrative word order is possible. This is not the case

³ It should be noted that in sentence (48b) the speaker refers to some future event. Future events are normally taken to be less certain than past events; or, to put it differently, as a rule, the notion of futurity is associated with the modality of uncertainty (cf. Givón (1984: 393)). We therefore assume that native speakers of German would normally reject a sentence like
 (i) Wenn du mich fragst, habe ich Peter gestern in der Kneipe gesehen.

(V) (S)

'If you ask me, I saw Peter in the pub yesterday.'

The reason for the inappropriateness of this utterance seems to be that, in the protasis, the speaker signals that s/he is not absolutely certain about the truth of what is expressed in the ensuing apodosis; however, in the consequent clause, the verb (visual experience) and the tense (perfective) imply that the speaker reports a piece of factual knowledge.

in sentences (11), (19), and (21). All three sentences signal that the speaker disposes of factual knowledge. There is no doubt about the validity of the apodosis; therefore integrative word order is rejected.

In order to provide independent support for our intuitive interpretation we suggest the following test criterion: If a relevance conditional of the sort discussed above may be followed by an additional sentence such as *aber vielleicht irre ich mich/habe ich unrecht*, etc. ('but maybe I am mistaken/I am wrong', etc.) integrative word order should be possible. Intuitively, (48) and (49) do accept this sentential hedge, whereas (11), (19), and (21) do not.

5. Conditional *wenn*-clauses as independent speech acts

In the preceding sections we have only considered sentences in which the conditional *wenn*-clause expresses some hypothetical proposition that is either conceptually or discourse-pragmatically linked to the following apodosis. In the latter case, the consequent clause functions as an independent speech act connected with the preceding protasis by some relationship of relevance. In all the examples we have analysed so far, the protasis refers to a condition which must hold in order for the following apodosis to be true or to be pragmatically relevant. In all these cases the protasis is clearly 'incomplete', in the sense that it could not be used to accomplish an independent elementary illocutionary act; it could not be used in isolation to perform a speech act. Consider e.g. the protasis of the content conditional (4), repeated here as

(50) *Wenn Werder Bremen verliert.
 If Werder Bremen loses.'

Uttered with an unmarked intonational contour, (50) can clearly not function as an illocutionary act, nor can the protasis of the relevance conditional (11), repeated here as (51), be used in isolation:

(51) *Wenn du es noch nicht wußtest.
 If you it yet not know.
 'If you didn't know it.'

These data seem to suggest that *wenn*-clauses can never be used as independent speech acts, and it is this idea which seems to underlie a paper by Lakoff (1984) on the speech act properties of some subordinate clauses in English. Lakoff (1984:472ff.) noted that *because*-clauses (and other reason-clauses) may be used 'performatively' when following the main clause, e.g. in

(52) I'm leaving, because here comes my bus.

- (53) We should go on a picnic, because isn't it a beautiful day!
 (54) I'm gonna have breakfast now, because am I ever hungry!
 (55) The Knicks are going to win, because who on earth can stop Bernard!

Apart from providing a reason for the preceding assertion, the *because*-clauses in examples (52) to (55) either explicitly, see (52), or indirectly (in connection with an exclamation) convey a second assertion, and it is this functional property which, according to Lakoff, rules out the corresponding sentences with *if*-clauses as ill-formed:

- (56) *I'm leaving, if here comes my bus.
 (57) *We should go on a picnic, if isn't it a beautiful day!
 (58) *I'm gonna have breakfast now, if am I ever hungry!
 (59) *The Knicks are going to win, if who on earth can stop Bernard!

The facts which Lakoff reports for English are also true of German. The most natural translation for *because* in (52) to (55) is *denn*, a conjunction which requires main-clause syntax in German. Consider the following near-equivalents of (52) to (55):

- (60) Ich gehe los, denn hier kommt mein Bus. (*declarative sentence syntax*)
 (61) Wir sollten ein Picknick machen, denn ist es nicht ein wunderschöner Tag! (*interrogative sentence syntax*)
 (62) Ich frühstücke jetzt, denn ich bin vielleicht hungrig! (*declarative sentence syntax*)
 (63) Die Knicks werden gewinnen, denn wer in aller Welt kann Bernard aufhalten! (*wh-interrogative sentence syntax*)

The corresponding sentences with conditional *wenn* instead of *denn* are ruled out in German.

Note, however, that although *denn*-clauses have a syntax which Lakoff (1984) calls a 'speech act construction', this does not mean that the clauses as such can be used as independent illocutionary acts, for the simple reason that they provide a reason for a preceding assertive speech act. Thus we have:

- (60a) Hier kommt mein Bus.
 (61a) Ist es nicht ein wunderschöner Tag!
 (62a) Ich bin vielleicht hungrig!
 (63a) Wer in aller Welt kann Bernard aufhalten!

but:

- (60b) ?Denn hier kommt mein Bus.
 (61b) ?Denn ist es nicht ein wunderschöner Tag!

(62b) ?Denn ich bin vielleicht hungrig!

(63b) ?Denn wer in aller Welt kann Bernard aufhalten!

cannot be considered to be elementary illocutionary acts.

Let us now return to our initial question as to whether conditional *wenn*-clauses are really ruled out as candidates for elementary illocutionary acts. We are now going to show that, at least in German, whole *wenn*-clauses may indeed function as speech acts even though this pragmatic force has no direct impact on the syntax of the conditional clause. In this case, the following apodosis will also be an independent speech act and will consequently show the syntax of an independent clause.

Consider the following data, some of which are taken from the IDS-corpus of spoken German⁴ (paralinguistic features of the transcription have been omitted):

(64) Wenn Sie jetzt bitte zahlen wollen, wir schließen gleich.

(V) (S) (V)

If you now please pay will we close soon
'If you don't mind paying, we are closing.'

(65) Wenn Sie noch dranbleiben, Herr Seefeld hört zu und wird Ihre

If you still hang on Mr. Seefeld listens and will your
Frage gleich beantworten.

question immediately answer

'If you hang on a second, Mr. Seefeld is listening and is going to answer your question.'

(66) Wenn Sie noch eine (Herr Wolf), wenn Sie noch ein paar

If you still one (Mr. Wolf), if you still a couple
Minuten Zeit haben und Kosten und Mühe nicht scheuen,

minutes time have and expenses and effort not mind,

um bei uns am Apparat zu bleiben, um die
in-order-to with us on-the phone to-stay, in-order-to the

Möglichkeit zu haben, etwas dazwischenfragen zu können,

possibility to have something in-between-ask to can,

aus der Diskussionsrunde wurde bereits der Finger erhoben.

(TOP) (V)

from the panel was already the finger raised

'If you have one more (Mr. Wolf), if you have a couple of more minutes and don't mind expenses and the trouble to stay with us on the phone in order to have the chance to intervene and pose some questions, some of the discussants have already raised their hands.'

⁴ The corpus was provided by the *Institut für Deutsche Sprache* in Mannheim (IDS) and consisted of various oral discourse types, e.g. political discussions, teacher-student interactions, scientific debates, etc.

In these examples the *wenn*-clause has the syntax of a subordinate clause (V in final position); however, pragmatically, it clearly functions as an indirect request (to pay the bill in (64) and to stay on the phone in (65) and (66)). The apodosis has the force of an assertive speech act, and it furthermore expresses a reason why the preceding request was uttered. The assertive force results in TOP-V order, typical of independent clauses. In other words, (64)–(66) are non-integrative conditionals.⁵ In pragmatic terms, one might even argue that the subordinate-superordinate relationship of conditional sentences has been reversed in these examples: Pragmatically speaking, the apodosis, which provides a reason for the request, is subordinate to the request itself. Indeed, it is possible to insert *denn* in the apodosis of (64)–(66) without changing the overall force of the utterances:

- (64a) Wenn Sie jetzt bitte zahlen wollen, denn wir schließen gleich.
 (65a) Wenn Sie noch dranbleiben, denn Herr Seefeld hört zu und wird Ihre Frage gleich beantworten.
 (66a) Wenn Sie noch eine (Herr Wolf), wenn Sie noch ein paar Minuten Zeit haben (...), denn aus der Diskussionsrunde wurde bereits der Finger erhoben.

Our claim that *wenn*-clauses may function as independent speech acts is corroborated by the fact that they can stand alone:

- (64b) Wenn Sie jetzt bitte zahlen wollen!
 (65b) Wenn Sie noch dran bleiben!
 (66b) Wenn Sie noch eine (Herr Wolf), wenn Sie noch ein paar Minuten Zeit haben und Kosten und Mühe nicht scheuen, um bei uns am Apparat zu bleiben, um die Möglichkeit zu haben, etwas dazwischenfragen zu können!

In the above examples, the conditional propositions function as indirect requests. But we even find cases where a protasis may function as an exclamation with an implied assertive force. Consider e.g.:

⁵ Sentences (64)–(66) involve a ‘different speech act’ perspective (cf. Haiman and Thompson (1984), König and van der Auwera (1988)). It is therefore not accidental that we have TOP-V order in the consequent clause of this type of sentences. Among the seven characteristics which Haiman and Thompson (1984: 511) consider to be typical of “non-coordinate clause combinations” we find the criterion “identity between the two clauses of speech act perspective”. We assume that it is precisely the violation of this constraint which leads to non-integrative word order in the above-mentioned examples.

- (67) Wenn das kein Meisterwerk ist, (heiße ich Müller).
 If that not-a masterpiece is (call-myself I Müller)
 'If that isn't a masterpiece, (my name is Müller).'

Note that if the optional apodosis is realized, then it has to be syntacticized as V-S (integrative word order).

(67) has the formal characteristics of a content conditional (integrative word order) with the difference that the apodosis is optional. The protasis contains a negative element and closely resembles (negative) rhetorical questions with an implied assertive force. For example, (67) could also be phrased as:

- (68) Ist das $\left\{ \begin{array}{l} \text{kein} \\ \text{nicht ein} \end{array} \right\}$ Meisterwerk?
 'Isn't that a masterpiece?'

The apodosis of such conditionals is often highly formulaic (i.e. it admits only a close set of idiomatic expressions) and it always expresses a 'fake' consequence, i.e. a consequence that, literally speaking, the speaker will be unable to fulfill. E.g.:

- (69) Wenn das kein Meisterwerk ist, fresse ich einen Besen.
 If this not-a masterpiece is eat I a broom.
 'If this is not a masterpiece, I'll eat my hat.'

The exclamatory force and the assumed falsity of the *wenn*-clause is intensified by the obviously absurd content of the consequent clause. In this sense the apodosis functions as a marker of the speaker's attitude towards the content of the antecedent clause: Since the consequent clause is patently false, the speaker strongly suggests that the antecedent clause is also false and therefore its opposite reading is implied. This sort of pragmatic reasoning parallels the inference schema known as 'modus tollens' in propositional logic:

$$\frac{p \longrightarrow q \quad \sim q}{\text{conclusion: } \sim p}$$

6. Conclusion

In conclusion, we distinguish four pragmatically defined functions of conditionals, which are mapped onto two syntactic structures. Table 4 shows the correlation of pragmatic force and syntactic structure.

Table 4
Pragmatic force and syntactic structure of conditionals in German.^a

	p	Link	q	Syntactic structure of the	
				Protasis	Apodosis
1.	-SA	+content -relevance	-SA	Wenn S X V	V S Y
2.	+SA	+content +relevance	+SA	Wenn S X V	TOP V Y
3.	-SA	-content +relevance	+SA	Wenn S X V	TOP V Y / V S Y
4.	+SA	+content -relevance	-SA	Wenn S X (NEG) Y V	V S Z

^a p = protasis; q = apodosis; link = semantic/pragmatic connection between p and q; SA = Speech Act.

In table 4 the feature [+content] marks a conceptual link between the propositional contents expressed by p and q. The feature specification [-content] thus symbolizes the absence of such a relationship. However, it entails that the link between the protasis and the apodosis is of a discourse-pragmatic nature which we have termed [+relevance]. Conversely, the feature [-relevance] implies [+content]. This excludes the combination of the features [-content, -relevance].

In (1) neither p nor q are independent speech acts (-SA); however, they are propositionally linked (+content). In (2) both p and q are independent speech acts (+SA), and, furthermore, propositionally linked (+content, +relevance). In (3) the propositional content of p is connected to the speech act of q. Finally, in (4) we have the reverse of (3): the independent speech act p is combined with the propositional content of q.

Note, however, first that the transition from (1) to (2) and vice versa is gradual. If 'S' in the protasis of (2) refers to the addressee of the utterance and if 'X' contains particles like *bitte*, *mal*, *vielleicht (mal)*, *endlich (mal)*, etc., a request reading is conveyed through the *wenn*-clause. In this case, cf. e.g. sentence (64), the apodosis provides a reason for this request. The content link between the antecedent and the consequent clause is weakly present; however, the speaker foregrounds the pragmatic link between the two illocutionary acts conveyed. The more the speaker intends to focus on the content link, the more likely it is that he will resort to integrative word order in the apodosis, see type (1) of table 4.

On the other hand, there is another transition from (1) to (2) which is controlled by the degree of the *ego involvement* of the speaker, e.g. sentence (45a,b). A completely neutral attitude will result in integrative word order in

the apodosis, e.g. sentence (47a); however, the stronger the *ego involvement*, the more likely it is that the speaker will select non-integrative word order.

In type (3) the apodosis is not at all conceptually connected with the protasis; however, it is a pragmatically relevant continuation of the latter, functioning as an independent assertive act, e.g. sentence (11). In some exceptional cases (see sentence (48b)) integrative word order is a possible alternative if the apodosis does not express an objective fact, but the speaker's personal opinion about some state-of-affairs.

Finally, type (4) conditionals are related to type (1) conditionals, differing from the latter with regard to the pragmatic status of the protasis, e.g. sentence (67). In type (4) the protasis has speech act properties closely resembling those of rhetorical questions. We will therefore call them 'rhetorical conditionals'.⁶

It should be noted here that the intonation of (2) and (4) supports the suggested readings. While the protasis of (2) when uttered in isolation is pronounced with falling intonation typical of imperatives, the final tone group of the protasis in (4) remains on approximately the same level with no noticeable rise or fall, suggesting 'incompleteness' of the utterance. These prosodic features correlate with non-integrative word order in the apodosis (falling pitch) on the one hand, and integrative word order (pitch remains on a steady level) on the other hand.

From another perspective, these results could be interpreted as a continuum reflecting the syntactic modes which speakers of German tend to use in actually occurring speech. We assume two gradients for content conditionals and relevance conditionals, respectively, where the former is associated with a scale of *ego involvement* (attitude) and the latter with a scale of *degree of knowledge* about the truth of the apodosis. These two parameters are seen to have an influence on the choice of the different available syntactic patterns.

As for the first parameter, we shall call the neutral attitude of the speaker the unmarked case, which will result in integrative word order. In contrast, the *scale of knowledge* is organized in the opposite direction, leading from the unmarked case of factual knowledge (resulting in non-integrative word order) to the marked case of a mere assumption about the truth of the apodosis.

⁶ It should be noted that only type (1) forms an open class. Type (2) is also non-restricted in cases concerning emotional involvement, but it is fairly constrained in its syntactic potential whenever the protasis conveys a request reading. In type (3) the protasis is restricted to a fairly limited set of conventionalized phrases. In (4) the apodosis is limited to a closed set of hyperbolic idiomatic expressions.

This line of reasoning is summarized in figure 1:

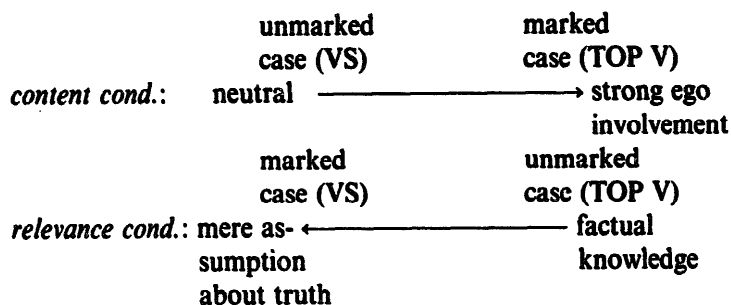


Fig. 1. Correlations between word order and speaker attitude.

We thus hypothesize that, in the case of content conditionals expressing a neutral attitude and in the case of relevance conditionals conveying a mere assumption about the truth of the consequent clause, speakers of German will strongly tend to use integrative word order. On the other hand, one would expect non-integrative word order whenever a content conditional expresses strong ego involvement or whenever a relevance conditional contains a piece of factual information in its apodosis. Between these two extreme scalar points we assume different degrees of the use of integrative vs. non-integrative word order depending on the degree of ego involvement on the one hand, and the degree of certainty on the other hand. In all these cases, the content of the protasis provides a frame which sets up certain expectancies about the emotional or factual value of what follows in the apodosis. Linguistic devices in the protasis guiding the semantic and pragmatic interpretation of the apodosis are e.g. certain degree particles (cf. König (1986)) like *sehr* 'very' or *alles* 'totally', etc. and types of predicates such as *irren* 'to be mistaken', *sich täuschen* 'to be wrong', *wissen* 'to know', etc. In conclusion, if the protasis of a relevance conditional expresses or implies that the speaker is going to present his/her own personal view (which is not necessarily correct), s/he will tend to use a syntactically marked pattern, i.e. integrative word order. If, on the other hand, a content conditional signals a strong emotional bias on the part of the speaker, s/he will choose the marked pattern of this conditional type, i.e. non-integrative word order.

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