

Floating Conjunctions and the Syntax-Prosody Interface

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Introduction

Goals of the talk:

- Introduce the phenomenon of floating conjunctions on the basis of a case study on the German adversative conjunction *aber* ('but').
 - ↪ I will present evidence that *aber* is a conjunction even when it appears deeply embedded into the second conjunct.
- Argue that the phenomenon is to be modelled as a dislocation process that applies at the level of prosodic phrasing rather than in the syntax proper.
- Explore the consequences of this phenomenon for the syntax of coordination, the structure of spell-out domains, their mapping to prosody and prosodic phrasing.

What is a floating conjunction?

- A conjunction that appears linearly embedded inside one of its conjuncts.
- An example from German of this phenomenon is already found in Ross (1967):

(1) [CP₁ Sie will tanzen] aber [CP₂ ich will nach hause gehen].
 she wants dance but I want to home go
 'She wants to dance but I want to go home'

- The conjunction '*aber*' can also occur in various positions inside the second conjunct.

(2) [CP₁ Sie will tanzen] [CP₂ ich will aber nach hause gehen].
 she wants dance I want but to home go
 'She wants to dance but I want to go home' (Ross, 1967, 163)

- Ross did not provide an analysis for these kinds of structures but merely took them to show that the conjunction forms a constituent with the second conjunct to the exclusion of the first.
- And even though these facts have been known for quite a while, hardly anyone has actually looked at them in more detail or provided an analysis.
- And if we look around, we actually find that phenomena of this sort actually seem to be attested in quite a variety of languages including Polish, Hungarian, Mandarin Chinese, some Bantu and Niger-Congo languages.

- The phenomenon of floating conjunctions is interesting since word order changes are often thought of as syntactic movement. But at the same time, conjunction structures are also known to be inflexible wrt. to syntactic movement.
- Further, we seem to find a number of interesting generalizations about the phenomenon:
 - It always seems to be the second conjunct which is the target of conjunction float.
 - It (almost) always affects adversative conjunctions such as 'but' but not neutral coordinative 'and' or disjunctive 'or'.
 - It seems to be ignorant with respect to syntactic islands.

A Case Study of German 'aber'

- As noted above, the German adversative conjunction *aber* can occur inside various positions inside the second conjunct.

(3) Peter will nach hause ('Peter wants to go home') ...
 ... (aber₁) Maria (aber₂) will ihm (aber₃) den DJ (aber₄) vorstellen
 ... but Maria but wants him but the DJ but introduce
 '... but Maria wants to introduce him to the DJ.'

- *aber* can occur in between the conjuncts (pos. 1), after the element in the prefield (pos. 2), after the verb (including weak pronouns) (pos. 3) or after scrambled DPs in the middlefield (pos. 4).

- Buring & Hartmann (2015) briefly discuss the placement of *aber* and claim that *aber* is in fact a modal particle rather than a conjunction when it occurs clause-internally (see also Zhang (2006)).
- In what follows, I provide three arguments that clause-internal *aber* is an actual conjunction even when it is deeply embedded into the second conjunct and not a modal particle.

- ① Modal particles cannot occur in the prefield, *aber* can.
- It is well-known that modal particles such as *wohl* (\simeq presumably) are banned from the preverbal position in V2-clauses (see e.g. Bayer & Trotzke (2015) and references therein). As we have seen, *aber* is not.
- (4) *Peter wohl will nach Hause
Peter MOD.PART wants to home
'Peter presumably wants to go home.'
- (5) ... Peter aber will nach Hause
... Peter but wants to home
'... but Peter wants to go home.'

- ② The scope of modal particles is clause-bound, the scope of *aber* is not.
- Just like with adverbials, the scope of modal particles such as *wohl* (\simeq presumably) is clause-bound (Zimmermann (2004)).

(6) Weil die Fabrik wohl dicht gemacht wird, wurde jeder der
 Because the factory MOD.PART tight made PASS PASS.PAST every the
 Arbeiter entlassen.
 worker fired

'Because the factory presumably shuts down, every worker was fired.'

not: 'Because the factory shuts down, every worker was presumably fired.'

cf. Zimmermann (2004)

- ↪ In (6), the uncertainty expressed by *wohl* only affects the adverbial clause. The assertion made in the matrix clause is certain.

- With *aber*, the situation is different. The contrast expressed by *aber* always takes scope above the matrix clause, even if *aber* is located inside an adverbial clause:

(7) Die Arbeiter waren eigentlich alle auf Lebenszeit angestellt...
weil die Fabrik aber dicht gemacht wird, wurde jeder der Arbeiter
because the factory BUT tight made PASS PASS.PAST every the worker
entlassen.
fired
'The workers all had lifetime contracts but because the factory shuts down,
every worker was fired.'

- In other words: *aber* always takes scope in the position in between the two clauses regardless of its surface position.
- The scope properties of *aber* are fundamentally different from that of modal particles.

③ Clause-internal *aber* licenses coordination-specific processes.

- Clause-internal *aber* cannot be a modal particle because it licenses coordination-specific processes such as ATB-movement, Right Node Raising

- (8) Was hat sich Peter zum Geburtstag gewünscht Maria ihm *(aber) nicht
 What has SELF Peter to.the birthday wished Maria him but not
 gekauft?
 bought
 'What did Peter wish for for his birthday and Maria didn't buy him?' ATB
- (9) ...dass Peter Tennis, Tischtennis *(aber) nicht spielt
 ...that Peter tennis table.tennis but not plays
 'that Peter plays tennis but not table tennis' RNR

Interim Conclusion:

- Clause-internal *aber* is an actual conjunction, not a modal particle:
 - *aber* has distributional properties different from regular modal particles.
 - It takes scope in the syntactic position of the conjunction, clause-externally. Its surface position is irrelevant for its scope.
 - It licenses coordination-specific processes such as ATB-movement or Right Node Raising that are not licensed in its absence.

- So what causes its unusual surface position(s)?

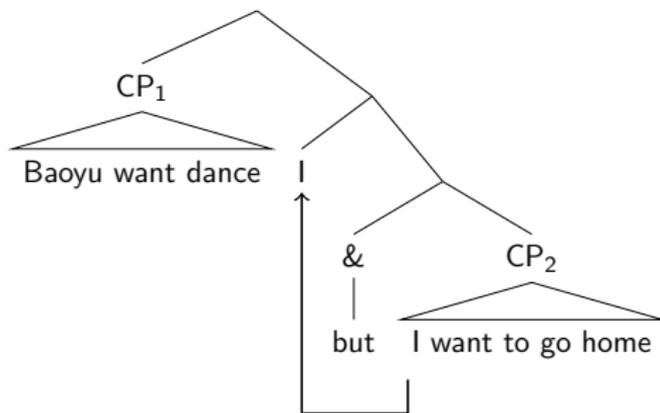
Syntactic movement?

- For a similar case of conjunction float in Mandarin Chinese, Zhang (2006, 2010) proposes that a topical XP of the second conjunct can move across the conjunction and tuck in below first conjunct.

- (10) Baoyu yao tiaowu, wo ke(shi) yao hui-jia
 Baoyu want dance I but want return-home
 'Baoyu wants to dance but I want to go home.'

Zhang (2006)

(11)



- But such an analysis seems very implausible for German:
- We have seen that *aber* often follows the finite verb, which is unlikely to undergo such movement.
 - Further, *aber* can follow complementizers or modal particles, which are notoriously bad movers.
 - Finally, we find that *aber* can appear inside various strong islands. A movement analysis would be very hard to motivate for cases of this sort:

➤ Adjunct Islands:

- (12) Peter liebt Maria sehr... ('Peter loves Mary very much')
weil er ihr das aber nicht sagt, ist sie sehr traurig.
because he her that but not says, is she very sad
'Peter loves Maria very much but because he doesn't tell her, she is very sad.'
- A syntactic movement analysis would need to move elements out of the adverbial clause into the matrix clause to a position above the conjunction.

➤ Complex-NP-Island:

(13) Maria ist total nett.... ('Maria is really nice...')

Peter (aber), der sich (aber) immer nur beschwert, geht mir auf die
 Peter but who SELF but always just complains goes me on the
 Nerven.
 nerves

'Maria is really nice but Peter, who constantly complains, annoys me.'

➤ Similar results can be constructed for factive islands, coordination islands, etc.

Conjecture

- ➡ In the light of these arguments (especially the island configurations), it seems unattractive to maintain a syntactic account for the placement of *aber* altogether.

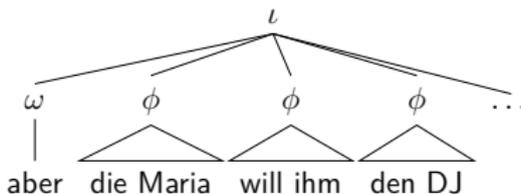
- Instead I want to suggest that clause-internal *aber* is syntactically merged in its base position in between the clauses (where it takes its arguments, where it takes scope, etc.)
- But at a later level, competing prosodic requirements may cause a syntactic tree to map to a number of potential linear orders.
 - ↪ Conjunction floating in this theory emerges as a possible repair operation to satisfy the prosodic wellformedness conditions of the language.

- The underlying idea is that the general Match Theory (Selkirk 2009, 2011 et seq.) can lead to a marked configuration for clausal conjunctions such as *aber* in certain configurations.
- Adversative conjunctions such as *aber* interact with the C-domain of a clause as they often require a component of unexpectedness, mirativity or a contrastive topic in the C-domain (see e.g. Lakoff (1971); Blakemore (1989); Sæbø (2003)).
- As a result, I argue, they participate in expressing illocutionary force and thus are parsed inside the intonation phrase of the lower conjunct as they fall under Selkirk's MATCH CLAUSE constraint:

(14) MATCH CLAUSE:
Intonational Phrases correspond to those clausal projections which have the potential to express illocutionary force.

- As a result, the conjunction *aber* is integrated into the intonation phrase of the second conjunct but since it is not contained in a phrase itself, it is not integrated into a phonological phrase.

(15)



- And this leads to a violation of STRONG START:

(16)

STRONG START:

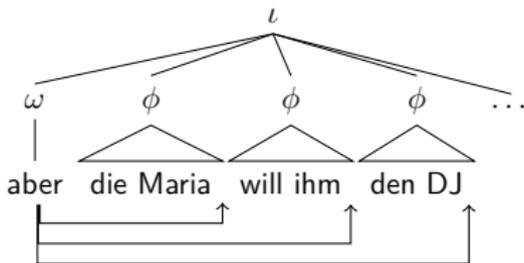
A prosodic constituent optimally begins with a leftmost daughter constituent which is not lower in the prosodic hierarchy than the constituent that immediately follows:

$$*(\pi_n \pi_{n+1})$$

Selkirk (2011)

- This violation of STRONG START can be repaired by floating the conjunction to a non-initial position in between any phonological phrase:

(17)



- Additional support for the prosodic approach comes from the fact that *aber* cannot be placed before a weak pronoun such as *ihm* above.

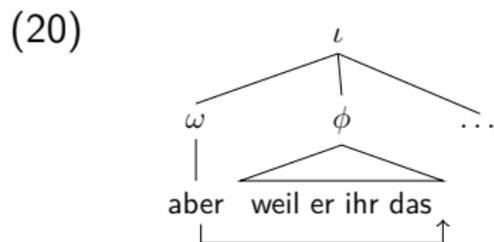
(18) Peter will nach hause ('Peter wants to go home') ...
 ... Maria will aber IHM/*ihm den DJ vorstellen
 ... Maria wants but him the DJ introduce
 'Peter wants to go home but Maria wants to introduce him to the DJ.'

- ↪ Weak pronouns are syntactically active elements that participate in syntactic movements as any other XPs.
- ↪ The minimal pair in (18) thus suggests that floating is sensitive to the prosodic/phonological properties of the underlying clause rather than to its syntactic makeup

- The insensitivity to syntactic categories also gives us a handle to derive the apparent island violations.

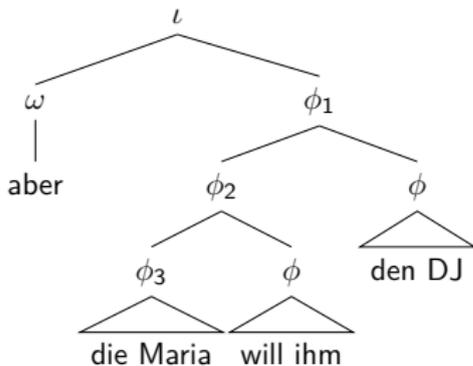
(19) Peter liebt Maria sehr... ('Peter loves Mary very much')
 weil er ihr das aber nicht sagt, ist sie sehr traurig.
 because he her that but not says, is she very sad
 'Peter loves Maria very much but because he doesn't tell her, she is very sad.'

- Since adjunct clauses do not have the potential to express illocutionary force, they do not map to intonation phrases.



- The optionality of *aber*-placement is reminiscent of the various placement possibilities of postposed pronouns in Irish discussed by Bennett et al. (2016).
- I will therefore follow them in attributing the optionality of *aber* placement to the nature of recursive phonological phrases so that the placement algorithm can choose each of the phrases ϕ_1, ϕ_2 and ϕ_3 .

(21)



- Unlike the postposed pronouns in Irish, floating of *aber* is not unbounded.
- *aber* never floats into a vP.

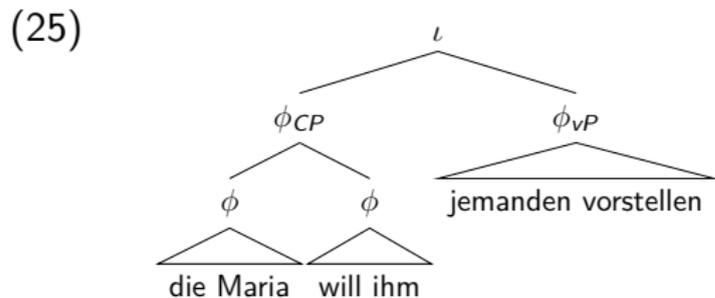
(22) Peter will auf Kohlenhydrate verzichten, ('Peter wants to cut back on carbs')
 Maria (aber) will (aber) [_{vP} Kuchen (*aber) essen (*aber)]
 Maria but wants but cake but eat but
 'Peter wants to cut back on carbs but Maria wants to eat cake.'

- The problem in (22) is not the potential clause-final surface position. *aber* can be clause-final if everything vacates the vP.

(23) Maria will ihn anrufen, Peter schläft aber [_{vP} t_{DP} t_V]
 Maria wants him call Peter sleeps but
 'Maria wants to call him but Peter is asleep.'

- I would thus like to argue that the recursiveness of prosodic phrasing is restricted to the elements above the vP-domain:

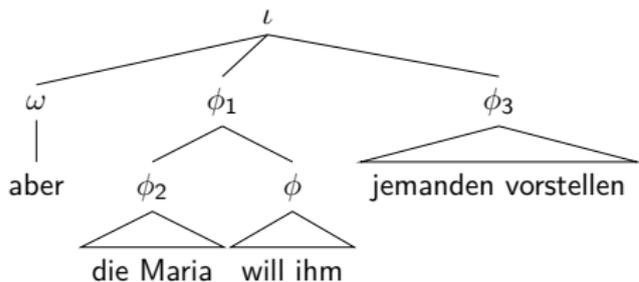
(24) [_{CP} Die Maria will dem Peter [_{vP} jemanden vorstellen]].
 The Maria wants the Peter.DAT someone.ACC introduce
 'Maria wants to introduce someone to Peter.'



- The prosodic phrasing in (25) ties in nicely with phase-based approaches to the syntax-prosody mapping (see e.g. Kahnemuyipour 2004; Ishihara 2007; Kratzer & Selkirk 2007).

- And, as a result, *aber* can only ever float inside the CP-domain.
- In (26), *aber* can float to a position after ϕ_1 or ϕ_2 but not further than that.

(26)



Conclusion:

- Conjunction Floating is an interesting phenomenon that can tell us something about the underlying syntax as well as its mapping to prosody.
- A detailed look at the syntactic and the semantic properties of the elements in question is required to figure out whether it is actually a floating conjunction or an adverb(ial modal particle).
- In the case study about floating *aber* in German, we saw that...
 - ... it does not behave distributionally like an adverb or a modal particle
 - ... it takes scope like a proper conjunction.
 - ... it licenses coordination-specific processes (ATB, RNR, ...)

- A syntactic analysis of the facts about German *aber* seems implausible given the violation of strong islands as well as the sensitivity to prosodic phrase boundaries.
- An account in terms of prosodic dislocation of *aber* to a position to the right of prosodic phrases is much more straightforward.
- The present analysis allows us to derive why...
 - ... Conjunction Float is restricted the second conjunct: It is caused by a violation of STRONG START and repaired by a shift to the right.
 - ... Conjunction Float is restricted to adversative coordination.
 - ... Even a floating conjunction takes scope in the position between the conjuncts.
 - ... It explains why syntactic islands do not seem to play a role in the placement of *aber*.

Contrastive Topics:

- Some sources such as Pasch et al. (2009) claim that *aber* in the prefield actually requires a contrastive topic to its left.
- In many cases, this is actually true. In (27), the first person pronoun in the prefield passes all tests for contrastive topics (Büring 2003, 2014).

(27) Sie will tanzen, ich aber will nach hause gehen.
she wants dance I but want to home go
'She wants to dance but I want to go home'

- And if we follow proposals by Truckenbrodt (2017) and Féry (2017) that (contrastive) topics receive an intonation phrase on their own, we can straightforwardly derive why *aber* remains in the prefield in these cases.

- But I also want to argue that a contrastive topic reading is not a necessary condition for *aber* attaching to the right of the prefield.
- In (28), the prefield is occupied by a sentential adverb, which according to Frey (2004) and others cannot receive a (contrastive) topic reading.

(28) Liverpool ist im Halbfinale... ('Liverpool is through to the semis')
 unglücklicherweise aber verloren sie Mo Salah durch eine rüde Attacke
 unfortunately but lost they Mo Salah through a brutal attack
 'Liverpool is through to the semis but unfortunately, they lost M.S. because of a
 rude attack...'

- I would therefore like to conclude that a contrastive topic in the prefield can be viewed as a potential source for preverbal floating *aber*, it is clearly not a necessary condition.

Why *and* does not float?

- A question only mentioned in passing above, is why conjunction float is only restricted to adversative conjunctions.
- Note that the floating is not a lexical property of *aber*. Other adversative conjunctions like *jedoch* behave (almost) alike.
- But crucially, neutral coordinators such as *und* ('and') and *oder* ('or') do not.
- The reason, I argue, is that neutral conjunctions such as *und* or *oder* do not interact with the C-domain of the second conjunct.
 - ↪ They do not require an unexpected/mirative component or a contrastive topic reading.
- Therefore, I argue, they are not parsed directly into the intonation phrase of the second conjunct.

- Note, that at some level though, it seems plausible that even these coordinators do attach to the second conjunct because that's what the prosodic phrasing suggests.
- I therefore assume that they are integrated into the ι -phrase of the second conjunct at a later level as a Last resort operation.
 - ↪ None of the MATCH constraints properly integrates them into a higher prosodic phrase.
 - ↪ However, due to an additional constraint such as EXHAUSTIVE PROSODIC PARSING, they are then less closely attached to the ι -phrase of the second conjunct.
 - ↪ This is reminiscent of the distinction of internal vs affixal clitics (see e.g. Selkirk (1996)).
- This would require us to restrict floating to minimal ι -phrases.

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