Chapter 13

Re-thinking re-categorization: Is *that* really a complementizer?

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Following Kayne's (2014) argumentation that the complementizer *that* is indeed a relative pronoun and with it the complement clause a special type of relative clause (explicative, i.e. without a gap), the paper contributes to the discussion whether *that*-complement clauses are also structurally relative clauses. One consequence of this would be that *that*-clauses should not allow long wh-extraction, contrary to what is observed in languages like English at first sight. However, the distribution of resumptive pronouns in Alemannic, a Southern German dialect, indeed points into that direction. Like the Celtic languages, Alemannic has a special particle for relative clauses but can use the d-pronoun strategy as well. Both strategies can be used to build long distance dependencies alike. But resumptive pronouns are nearly obligatory with *that*-clauses in sharp contrast to those involving relative clauses. This difference can find an explanation, if the particle-strategy creates a genuine gap in the embedded clause whereas a *that*-complement clause is always a full-fledged clause and the gap in it is only apparent, its appearance regulated by outer-syntactic criteria.

1 Introduction

The more or less established analysis of complementizers of the English *that*-type is that they evolved out of pronominal elements, most commonly the (distal) demonstrative pronoun:

(1) *That* guy over there gives me a headache (demonstrative)

(2) Do you believe *that*? (anaphoric)

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(3) I believe [*that*…] (complementizer)

The diachronic scenario, already proposed in very early[1] work, assumes that *that* (and its equivalents in the other Germanic languages) originated as a (cataphoric) pronoun to the following (independent) clause. A re-bracketing of the clausal boundaries posited the pronoun then to the left edge of the embedded clause, see e.g. Roberts & Roussou (2003) for an explicit proposal:

(4) I say *that*: [main clause] → I say [*that* embedded clause]

This process involves in addition to the re-bracketing a re-categorization of *that* such that the previously pronoun enters into the class of C-elements and thus belongs now to the "word class" of complementizers. As such it occupies the C^0-position, i.e. it has not only changed its word class but also its phrase structural status in that it is re-analyzed as a head. Van Gelderen (2004) takes especially this type of reanalysis (Spec-to-head) as a hallmark of the grammaticalization process. Evidence for the head-status of complementizer-*that* is seen in the fact that *that*-clauses allow already in the early stages (e.g. on Old High German) for long wh-extraction – a process which must rely on an empty specifier in the CP as an available intermediate landing site, see Axel (2009; 2017) for this line of reasoning. This scenario is assumed to not only be true of German; the same process has taken place in English and the other Germanic languages.

Now various authors have cast doubt on the assumption that there is indeed such a re-analysis process and ask whether speaking of a category C (in the sense of a word class) is at best misleading – in the worst case it is blurring the actual problem to be solved, e.g. Kayne (2014); Manzini & Savoia (2003; 2011). These authors suggest that we should follow the "WYSWYG-principle" and under this premise *that* (and its cognates in other languages) is indeed never something else than a pronoun. While Manzini & Savoia remain a bit vague about its actual status – besides the claim that Romance *che* ('what') is a quantificational element whose restrictor can also be a proposition (= acting then as a complementizer), Kayne states plainly that *that* is always a relative pronoun and accordingly complement clauses are always relative clauses, construed with a (possibly empty) correlate pronoun in the matrix clause.

This is essentially the analysis proposed in Axel (2009; 2017). She rejects the re-bracketing analysis, based on data in OHG.[2] Like Kayne (2014), she proposes

[1] For example Müller & Frings (1959), but the idea can already be found in very early work from the 19th century, see Axel (2009; 2017) for a survey and further references.

[2] Recall that in OHG, there is a clear distinction between root and embedded clauses due to the position of the finite verb (V2 order vs. verb final in embedded clauses).

that *that* is a relative pronoun, belonging thus to the embedded clause from the beginning on, and assuming that there is a (possibly silent) head noun in the matrix clause. This is in spirit very close to Kayne (2014).[3]

The scenario in (4) would then look like the one in (4′).

(4′) I say (*that/it*) [*that* …embedded clause (= relative clause)]

By showing that long wh-extractions already exist at this stage of the language, a crucial component for her analysis is the Spec-to-head reanalysis – as only in this configuration, long wh-extraction is possible, due to the now empty specifier.

On the other hand, if one follows the Kayne-analysis according to which the "complementizer" is indeed a relative pronoun, one would expect that long wh-extraction out of a *that*-clause cannot exist at all – given that relative clauses are for sure one of the strongest islands for extraction.

In this paper, I will show that there are good reasons to think that Kayne's position is actually correct: there is evidence from the Alemannic dialect, spoken in Southern Germany and Switzerland, that there is no long (cyclic) wh-movement out of *that*-type complement clauses and what looks like extractions – leaving behind a gap – consists of a base-generated wh-phrase in the matrix clause and an actually full-fledged complement clause with a pronoun filling the "extraction-site". This pronoun can be PF-deleted under a rather weak principle like e.g. the avoid pronoun principle (Chomsky 1981), giving thus merely the impression of actual movement.

However, the grammar has a strategy to build long wh-dependencies (LWDs) with real gaps – but this is only possible if the gap in the embedded clause is a genuine gap, coming into existence via a special type of complementizer, used normally in the formation of relative clauses, turning the embedded clause into a predicate. The situation I am referring to is described and analysed in Adger & Ramchand's (2005) work on LWDs in Gaelic (Celtic). I will present evidence here that the very same strategy is used in some variants of Germanic as well. But in contrast to Adger & Ramchand (2005) who suggest that there is a parametric difference between Celtic and Germanic (English in this case) which allows the derivation of genuine long wh-extractions in the latter, I will show that this is not

[3]The difference to a "usual" relative clause is that there is no overtly detectable gap in it. This has to do with the type of the head noun that is modified by the relative clause: it is clearly a kind of a direct object (realizable as a correlate pronoun). The semantic content of this pronoun is actually a proposition – and the relative clause is delivering the content of this proposition. This might be formally analysed in terms of an *aboutness relative*, i.e. a gap-less one, see van Riemsdijk (2003), Cheng & Sybesma (2005), as suggested in Brandner & Bucheli (2018), also Axel (2009; 2017).

true for at least Alemannic. Further and more detailed research – along the lines that will be presented here – will be necessary to make the point valid also for English and other Germanic languages – actually for all languages that have to be claimed to exhibit long wh-extractions. I am aware that this is a far reaching claim – still the data presented should be taken to be an invitation to re-think in general the issue of long wh-extractions.

The data that support this suggestion come from the Southern German dialect Alemannic (ALM). A large scale study about LWDs in the whole Alemannic speaking area revealed that this language uses the same strategy to build LWDs as the Celtic languages. In addition, however – and in contrast to the Celtic languages – Alemannic shows LWDs with *that*-clauses, indicating that a parametric solution as proposed in Adger & Ramchand (2005) is probably not the right way to look at it. Secondly, it will be shown below that these seemingly extractions are in reality no extractions at all. The main evidence comes from the distribution of resumptive pronouns that occur in these "extractions". They occur to such a high percentage that it leaves no room for an actual extraction analysis. Especially, if one assumes that resumptives are inserted to "rescue" an otherwise impossible structure (island violations) or reduce parsing complexity, see Chao & Sells (1983), it would remain a complete mystery why the very same complexity allows or even requires a gap when the LWD is built via relative clause formation.

2 The two strategies

LWDs in Alemannic show up in several versions. Besides the familiar strategies that are also found in Standard German (or at least the spoken variants of it), see the examples in (5a–c), there is a possibility that has to my knowledge not been noted until now, see for a first description Brandner & Bucheli (2018), illustrated with Standard German wording in (5d):

(5) German
Wen hast du gesagt…

a.	[dass Maria ____ gesehen hat]	*dass*-LWD
b.	[wen Maria____ gesehen hat]	copy const.
c.	(was) [wen Maria ____ gesehen hat]	*was*-*w*-constr.
d.	[wo Maria ____ gesehen hat]	*wo*-LWD

'Who did you say that Mary saw?'

The interesting thing about the strategy in (5d) is that the complementizer in the embedded clause corresponds to the one used regularly in relative clauses in this variety, cf. (6), glossed as RCI (relative clause introducer); note that the declarative complementizer in ALM is *dass*, glossed as CCI (complement clause introducer), like in Standard German:

(6) Alemannic
d'frau [*wo*-n-i geschtert ___ troffe ha]
the woman RCI I yesterday met have

(7) Alemannic
mir het er gseet [*dass* er erscht schpöter kunnt]
me has he told CCI he only later comes

Examples like (5d) showed up first during the survey period of SADS[4] where informants offered it as one possible version to express a LWD of the type given in (5a). In the project SynAlm,[5] these were then examined in more detail and contrasted with the "usual" strategy, i.e. *dass*-LWDs. It turned out that both strategies are possible in Alemannic and are in more or less free variation. The large scale investigation (about 580 speakers) in the whole Alemannic speaking area (Switzerland, Southwest Germany, Alsatian and Austria) conducted by SynAlm concerning *wo*-LWDs revealed the following main results:

- *wo*-LWDs were throughout accepted by more than 50% of the speakers, notably the acceptance/rejection is essentially the same as with *dass*-LWDs[6]
- no clear areal patterns could be detected, i.e. it is not the case that there are certain (areally definable) sub-dialects of Alemannic that allow for *wo*-LWDs whereas others do not. Instead, it seems that Alemannic speakers have simply both possibilities at their disposal.

[4] *Syntaktischer Atlas der deutschen Schweiz*, (http://www.dialektsyntax.uzh.ch/de.html).

[5] The study was conducted within the DFG-supported project SynAlm (https://ilg-server.ling.uni-stuttgart.de/synalm/html/). Its funding time was from 2011–2015. SynAlm gathered its data via written questionnaires, mostly using judgments (5-point scale) for examples constructed as minimal pairs. Seven questionnaires were sent out. The number of informants range from 580 to 1000. No informant was excluded but data concerning age, social status, and origin (also of the parents) were collected.

[6] LWDs are generally accepted only by a certain amount of speakers. This holds for Standard German as well as for the dialects. It should also be kept in mind that there are various strategies at the disposal (copy-construction, scope marking etc.). The informants had always the possibility to give an own version of the sentence asked for. In many cases, the informants judged the presented example as bad and chose a parenthetical construction as an alternative, i.e. where there is no extraction at all.

- there was no effect with respect to age: younger speakers accepted the construction to the same percentage as older speakers.

Now Alemannic is not the only language that has a special complementizer in relative clauses (RCs). The Celtic languages are well-known for using a similar strategy like Alemannic by employing a specialized particle in RCs, see e.g. (McCloskey 2001; 2002 and following work) for Irish. The "typical" complementizer for complement clauses is illustrated in (8a). (8b) illustrates an RC, compare these with the ALM clauses in (6) and (7):

(8) Irish

a. Deir siad [*gur* ghoid na síogaí í].
say they go-PST stole the fairies her
'They say that the fairies stole her away.'

b. an ghirseach [*a* ghoid na síogaí ____]
the girl RCI stole the fairies
'the girl that the fairies stole away'

The LWDs in (9) and (10) show that it is the RCI that occurs in LWDs, whereas LWDs out of a *go* (= *gun*)-clause are impossible:

(9) Irish

a. Cé a mheas tú *a* chonaic tú?
who aL thought you aL saw you
'Who did you think that you saw?'

b. Cén t-úrscéal a mheas mé *a* dúirt sé *a* thuig sé.
which novel aL thought I aL said he aL understood he
'Which novel did I think he said he understood?'

(10) Irish

*Dè a thuirt sibh *gun* sgrìobh i?
what C-REL said you that wrote she
'What did you say that she wrote?'

Welsh shows a comparable pattern – although the fact that the LWD is built on a relative clause can be seen here only indirectly since the relative particle does not show up overtly: however, the embedded verb in LWDs is in the so-called "relative form", the morpho-syntactic reflex of having a gap in the clause. Welsh examples taken from Willis (2000: 555).

(11) Welsh
Beth ych chi 'n gredu *sy* 'n wir bwysig miwn
what are you PROG believe-VN IS-REL PRED truly important in
cymdeithas?
society
'What do you think is truly important in society.'

Even other Germanic languages are reported to allow for structures similar to the one in (5d). The following pattern is from Norwegian (Westergaard et al. 2012):

(12) Norwegian
a. Hvem tror du [*som* ___ har gjort det]?
who think you RCI has done it
'Who do you think has done it?'
b. Hvem tror du [*at* ___ har gjort det]?
who think you *that* has done it
'Who do you think has done it?'

In sum, LWDs based on an RC-structure are quite common – also in the Germanic languages – and they occur as an alternative to the (until now) more widely attested *dass*-LWDs, together with the scope-marking and copying constructions – and of course with parenthetical constructions – which seem to be always a possibility.

In SynALm, the acceptance/rejection of resumptive pronouns was systematically tested against these various types of LWDs and it is this last set of data that gave the crucial clue for the claim from above, namely that in *dass*-clauses, there is merely an apparent "gap" and it is only in *wo*-LWDs where genuine gaps show up.

3 Distribution of resumptive pronouns

Until now, we have only seen that Alemannic is similar to the Celtic languages in that it allows LWDs based on RCs. However, the important difference is that Alemannic (together with Norwegian) allows LWDs based on *dass*-clauses as well – in sharp contrast to Celtic. Given the considerations from above, namely that *dass* is a real relative pronoun, it is the Celtic languages that behave as expected. The possibility of LWDs in the Germanic languages (including of course English) is then the fact to be explained.

In the following, I will use the distribution of resumptive pronouns in the various types of LWDs to show that "extraction" out of *dass*-clauses is indeed an illusion: all the extracted arguments can be realized as pronouns and whether they are spelled-out overtly or not is a matter of phonetic form (PF) – where (non-syntactic) factors like distance etc. play a role.

3.1 Resumptive pronouns in Alemannic relative clauses

Before going into the details of the distribution of resumptives in LWDs, a brief illustration of the occurrence of resumptive pronouns in simple RCs in Alemannic is necessary: it has often been claimed in the literature on Alemannic RCs (in this case specifically on Zürich German), that in case of datives and the oblique positions further down in the Keenan/Comrie hierarchy, resumptives occur obligatorily, see van Riemsdijk (2003), Salzmann (2006) among others. Thus, whereas with subjects and objects, resumptives never show up, they occur from the dative-position on, illustrated here only with a dative-argument and a subject-relativization:

(13) Zürich German

a. der Bue [wo ma *em* s'Velo verschprooche het]
the boy RCI one him the=bike promised has
'the boy, who was promised to get a bike'

b. der Bue [wo-n[7]-(**er*) zschpot kummen-isch]
the boy RCI he too late come is
'The boy who arrived too late'

In SynAlm, it could be shown, that this claim is empirically not tenable. Although it is true that there never occur resumptives with subjects and (direct) objects, one can hardly speak of "obligatoriness of dative-resumptives" in light of an acceptance rate ranging between 9–15%.[8] With the oblique-positions further down in the Keenan/Comrie hierarchy, the acceptance/requirement of a resumptive increases accordingly. So we can safely conclude that the occurrence of resumptives in simple RCs follows the expected distribution – whatever the ultimate (syntactic) reason behind the pattern described in the Keenan/Comrie hierarchy – may be.[9]

[7] *-n-* is an epenthetic consonant and is of no relevance here.

[8] Many more sentences with dative-resumptives were tested and the result was basically the same with some minor variation – having probably more to do with the general naturalness of the example and other linguistically insignificant factors.

[9] I will not take a stand here whether this has to do with the necessity to realize oblique/

3.2 Resumptive pronouns in simple LWDs

Equipped with this background let us now turn to the distribution of resumptives in LWDs, both based on *wo*-RCs and *dass*-clauses. The expectation for the *wo*-LWDs is that they show a comparable distribution of resumptives as in simple RCs – given that they have both the same underlying syntax.[10] In *dass*-clauses on the other hand, the assumption of an extraction strategy would one lead to expect that gaps are predominant. However, it turns out that the results are essentially the opposite: resumptives are accepted to a much higher degree in *dass*-LWDs. The results concerning the acceptance of resumptives are given in Table 13.1.

Table 13.1: Acceptance of resumptive pronouns in different types of LWDs and RCs ($n = 580$).

Type of "extracted" phrase	*dass*-LWD	*wo*-LWD	*wo*-RC
subject	70%	9%	–
direct object	30%	5%	–
dative object	43%	12%	15%
adjunct	60%	62%	51%

Although there occur resumptives also with *wo*-LWDs with subjects[11] and (direct) objects to a certain extent – whereas they are categorically excluded in genuine relative clauses – the important difference is the acceptance rate of resumptives in *dass*-LWDs. For subjects, it is evident. The lower acceptance of resumptives (or rather the possibility to have a gap) in direct object position may have to with the fact that many simple transitive verbs have a grammatical output when used as a mere activity verb (*I read a book* vs. *I read*). But this has to be investigated in more detail in future research.

On the other hand, resumptives for datives and obliques in *wo*-LWDs show a rather even distribution with their occurrence in *wo*-RCs. In *dass*-LWDs again,

morphological case – as suggested in Salzmann (2006) or whether different factors are at stake, see for some speculations Brandner & Bucheli (2018). It should be noted that informants who did neither accept a gap nor a resumptive in the relativization of oblique positions adhered simply to a bi-clausal structure, i.e. the formation of an RC was avoided.

[10] Recall that I assume with Adger & Ramchand (2005) that the wh-phrase in the matrix is base-generated there and the gap in the embedded clause is licensed by a local configuration with the respective complementizer whose internal lexical specification allows/requires a gap in its complement (the so-called lambda-feature). I refer to their work for the technical details.

[11] The high acceptance of a resumptive in subject-LWDs does not really come as a surprise – since – as is well known since the work by Engdahl (1985), resumptives in subject positions may occur to avoid an ECP-violation (*that*-trace-effect). In light of the discussion, this fact should be reconsidered again.

datives have a considerably higher acceptance whereas the adjunct behaves similar under all conditions. I will not go into a thorough discussion of these results – since I will take them here merely as a first hint that the resumptives in *dass*-LWDs are maybe not really "resumptives" – but that the embedded clause in a *dass*-LWD is full-fledged in the sense that there are no syntactic gaps – but that all positions are syntactically occupied by a co-referent pronoun – and its PF-realization is subject to non-syntactic conditions. The next set of data shows this difference very clearly.

3.3 Resumptive pronouns in LWDs across two clause boundaries

The acceptance of resumptives was also tested across two clause boundaries, i.e. a situation where the occurrence/acceptance of resumptives can more easily attributed to outer-syntactic (i.e. parsing) properties. The test sentence is given in English wording in (14):

(14) Who did you say [dass / wo Mary heard [dass/wo ___ had an accident]]

We varied the complementizers and resumptives as shown in Table 13.2.

Table 13.2: Acceptance of gap/resumptive in subject position in LWDs crossing two clause boundaries (n = 580).

Variation of comps	Acceptance (1–2)	Complete rejection (5)
dass…dass…gap	30%	22%
dass…dass…resumptive	70%	5%
wo…wo…gap	31%	23%
wo…wo…resumptive	8%	45%

The results show clearly that the acceptance of resumptives is directly connected to the type of the complementizer. Again: *dass*-LWDs nearly obligatorily require an overt pronoun on the "extraction-site" (70% with a rejection rate of 5%) whereas this is nearly impossible with subjects in *wo*-LWDs. The results of this test sentence reproduces nicely a similar result, asked in an earlier questionnaire. There, we didn't head for LWDs but rather what is called *long relativization*; the sentence is again given in English wording:

(15) This is the man [dass/wo I know [dass/wo (he) lives in D.]]

Table 13.3: Acceptance of gap/resumptive in long relativization (two clause boundaries)

Variation of comps	Acceptance (1–2)	Complete rejection (5)
wo…dass…gap	12%	50%
wo…dass…resumptive	87%	3%
wo…wo…gap	44%	19%
wo…wo…resumptive	5%	61%

The results are presented in Table 13.3.

The same template was used for long relativization of a dative argument and here, the acceptance of the resumptive in the *wo…wo*-configuration showed essentially the same result as with simple relativization, namely about 18% – whereas the *dass*-complement clause yielded a result of 83% acceptance for the dative resumptive.

These results are more interesting than the ones from the simple LWDs – since they show that the acceptance of a resumptive is not dependent on distance but rather on the choice of the complementizer. Note that in Table 13.2, all variants with a gap reach a result of only 30%. However, in the case of a *dass*-LWD, the sentence can be saved by inserting the resumptive (by a rejection rate of 5%). This possibility is essentially excluded for *wo*-LWDs.

3.4 Resumptive pronouns in different shapes

A final piece of evidence for the idea that the "extraction out of *dass*-clauses" is maybe an illusion comes from the type of pronoun used as a resumptive. In these test-sentences, we didn't offer the "usual resumptive pronoun", namely the simple personal pronoun as the least marked ones available in Alemannic, see Adger (2011) for discussion, but a pronoun of the *d*-series:

(16) simple pronouns: er – (s)ie – es; *d*-series: d-er – d-ie – d-as

The *d*-series pronouns normally force a disjoint reference interpretation in a binding configuration across a clause-boundary (Wiltschko 1998):

(17) German
Hans$_{i}$ glaubt, dass er$_{i/j}$ / der$_{*i/j}$ der Beste ist
Hans believes that he *d*-series the best (one) is

Anecdotal observations about a much higher rate of d-pronouns in Alemannic lead us to the idea to test systematically the acceptance of these pronouns as resumptives. And indeed, although the acceptance rate is by far lower than with personal resumptives, it is remarkable that they show up to a much higher degree in *dass*-LWDs, namely 35% acceptance – but only 15% with *wo*-LWDs, This difference in acceptance co-varying with the choice of the complementizer again hints at the conclusion that a *dass*-clause is more encapsulated with respect to its syntactic surrounding as a *wo*-clause, strengthening the idea that it is a full-fledged clause – even if construed with an LWD.[12]

3.5 Resumptives in Celtic

What I left out until now is a discussion of resumptives in the Celtic languages. As discussed in McCloskey's work, Irish exhibits two types of RCI, traditionally named aL and aN. While aL never allows resumptives in RCs, aN requires them. A classical example is given below:

(18) Irish

a. an ghirseach a ghoid na síogaí
the girl aL stole the fairies ___

b. an ghirseach a-r ghoid na síogaí í
the girl aN-PST stole the fairies her

As can be seen, the RCI requiring the resumptive has the tense morpheme attached to it, indicating that it occupies a different, probably lower position in the functional extension of the clause, i.e. closer to Tense, see also Roberts (2005) for such an assumption. Without committing myself to a detailed account in terms of a split C-projection in a Rizzi (1997)-style, it is of course striking that aN shows the same behavior as the complementizer *go* – which also combines with the tense morpheme, yielding these different forms shown above (*gu-r*, *gu-n*, etc. depending on the variant). Clearly, these pattern with the *dass*-LWDs in Alemannic whereas *wo* in Alemannic is the direct parallel to aL.

This would mean then that Alemannic *wo* and Irish *aL* are genuine complementizers – whereas *dass/that* are indeed relative pronouns with the head consisting of a possibly silent correlate pronoun, cf. the structure given in (4′). This then implies that a complement clause introduced by *dass/that/go* is always an island and that the seemingly extraction is not extraction at all. The data discussed here favor such an analysis.

[12]Clearly, the impossibility of binding of the d-pronoun in (17) must then find a different interpretation, see van Kampen (2012) for further observations with respect to these pronouns – where they can even act in some cases as bound variables.

The reason that there is no way in Celtic to build a LWD with a *go*-clause – in contrast to an Alemannic *dass*-LWD – has probably to do with the fact that *go* is originally a preposition (see Braesicke 2019; Elliot Lash, p.c.). As such, its "clausal complement" has probably still a nominal core in it and is thus an island for independent reasons. Furthermore, Celtic has to my knowledge never shown an RC-formation strategy using pronouns. In contrast, in Germanic (and also Alemannic) RCs can be built with pronouns – and indeed – if not used as an aboutness relative and thus a complement clause, as I suggested above, cf. footnote 3, it can occur with a clause-internal gap. Thus, this is a pattern which is encountered in Germanic – but not in Celtic:

(19) German
das Buch, das du ___ gelesen hast, …
the book that you read have
'The book that you've read, …'

The exact details have to be worked out in future work – but the difference in building clausal complements and relative clauses in Germanic in Celtic must be the clue to understand the different behavior when it comes to LWDs. Alemannic is interesting as it has both strategies at its disposal for building RCs and LWDs and the difference in behavior concerning resumptives shows that there are deep syntactic differences between these structures.

4 Conclusion and outlook

I started with taking seriously the doubts on *dass* as having been re-categorized to the word-class of complementizer (and with it its head-status, resp. belonging to the extended projection of the verb). I asked which kind of evidence could be relevant to show whether *dass* is still what it looks like, namely a *d*-series pronoun, resp. a relative pronoun, implying that the complement clause is essentially a relative clause, as assumed in Kayne (2014). The consequence of this view is that complement clauses introduced by *dass* should be opaque to extraction. And indeed, I showed that the unexpected high acceptance rates of resumptive pronouns hint to the conclusion that all arguments in these embedded clauses are syntactically present as pronouns in LWDS. However, they may be subject to a rather "weak" principle like the avoid pronoun principle in being merely not pronounced if too close to the antecedent. This was contrasted with constructions containing a genuine gap, coming into existence via a relative clause formation strategy involving a specialized particle, requiring a gap in its clausal

complement and thus resumptives are essentially not possible – besides in those cases where they appear also in relative clauses – for reasons that I did not discuss here. If this is on the right track, it may have far reaching consequences for a whole bunch of assumptions about the cyclic nature of movement (re-merge). What it essentially means is that there is no cross-clausal movement at all. In light of the idea that re-merge should obey the extension condition in a strict way, this is a welcome result – since long cyclic-successive movement is until now the problematic exception to this condition.

The task for the future will then be to find more languages of the Alemannic type to see whether the correlations outlined in §3.4 hold as well. The Scandinavian languages that allow LWDs with *som* immediately come to mind. Another area of investigation would be the wh-in-situ languages which have LWDs but arguably no clause-internal wh-movement. A base generation approach together with maybe different licensing conditions for gaps/resumptives could shed new light on these long standing issues in generative syntax.

Abbreviations

CCI	complement clause introducer
ECP	empty category principle
LWD	long wh-dependency
OHG	Old High German
PF	phonetic form
PRED	predicative
PROG	progressive
PST	past
RC	relative clause
RCI	relative clause introducer
REL	relative
VN	verbal noun

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