Discourse structure and information extraction to the left and right in translations (German-Norwegian)

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1. Introduction
1.1. Main goal and data
The main topic of the present article is the maintenance of the discourse structure of the original in translations of German non-fictional prose into Norwegian. As shown in works by Fabricius-Hansen (1996, 1999), Solfjeld (2000, 2004), and Ramm (2005) the typical information density in German non-fictional prose often triggers information splitting, rendering monosentential source versions as multisentential or multiclausal target versions, when translating into Norwegian. This sort of information splitting obviously presents the translator with the challenge of preserving the over-all discourse structure of the original. This article argues that certain choices of target structure form can be explained by the principle of preserving the discourse structure of the original. Observations and conclusions are based on data from 10 text pairs of German originals and authorised Norwegian translations, each text consisting of approximately 5000 words.

1.2. Information extraction to the left and information extraction to the right
Fabricius-Hansen (1999: 196ff) distinguishes between information extraction to the left and information extraction to the right. Information extraction to the left means that the extracted information is rendered as a separate sentence or as a conjunct in a coordinative structure to the left of the so-called principal counterpart (PC), i.e. the predicate.
corresponding most closely to the main predicate of the source sentence. (Cf. 'the state of affairs transeme’ in van Leuven-Zwart 1989: 156):

(1a) Das Flugzeug wurde auf geradem Kurs gehalten ... Da die Abtrift des Flugzeuges (aber) kein optimales Zielen zuließ, vollführte der Pilot ein S-Manöver, um die ursprüngliche Anlaufrichtung wieder zu erreichen. (dt1, 235)
     [The plane was kept on a steady course ... As the deviation of the plane allowed no optimal aiming, the pilot completed an S-maneuvre, to ...]

(1b) Flyet ble holdt på rett kurs .... Det var umulig å sikte på grunn av flyets avdrift. Piloten gjennomførte en s-sving for å komme tilbake til den opprinnelige angrepsposisjonen (nt1, 119).
     [It was impossible to aim because of the drifting of the plane. The pilot completed an S-curve to get back to the original attack position]

Information extraction to the right means that the extracted information finds its place in a separate sentence or a conjunct to the right of the PC.

(2a) Ich hörte ihre wie von weither kommende stockende Stimme (dt5, 62)
     [I heard her (lit.: ) as if from far away coming stammering voice]

(2b) Jeg hørte den stotrende stemmen hennes, den kom liksom langt borte fra (nt5, 56)
     [I heard her stamering voice, it came as if from far away]

The distinction between information extraction to the left and information extraction to the right gives a fruitful basis for the present study.

1.3. Degrees of information splitting
As implicitly stated above, information splitting in this context covers information splitting in a strict sense of the word, where one source sentence translates as two (or more) separate sentences in the target text (Fabricius-Hansen 1999: 180); cf. (1) (above). The term also covers information splitting in a looser sense, i.e. when the extracted information is rendered as a conjunct in a coordinative VP- or clause structure (Fabricius-Hansen 1999: 190); cf. (3):

(3a) Der abenteuerlustige Mann wollte seine neugewonnene Freiheit in vollen Zügen genießen. Aber er halste sich im Leben zu viele Abenteuer auf – im Traum lud er sich zu viele Mädchen ins Auto. (dt8, 24)
     [The adventurous man wanted to enjoy his new won freedom to the full]
Mannen er eventyrlysten og vil nyte sin nyvunne frihet til bunns. Men han har jaget etter alfor mange eventyr i livet – (mt8, 27).

[The man is adventurous and wants to enjoy his new won freedom to the full. But he has ...]

It can be argued that the use of punctuation marks like commas and dashes instead of full stops allows further distinction between information splitting in a strict sense and information splitting in a looser sense. Our data comprise many cases where commas and dashes are used more or less parallel to full stops: cf. (2) (above). Some remarks will be made on punctuation. However, individual habits of punctuation hardly allow too many conclusions to be drawn from such distinctions.

1.4. Theoretical basis
Theoretically, this article is primarily based on von Stutterheim (1997). Observations and conclusions also draw on the insights from works within the so-called relevance theory (Blakemore 1987, Carston 2002), and works within the framework of the so-called SDRT-theory (Asher 1993, Asher and Vieu 2005). Information structure, as captured in concept dichotomies like ‘given-new’, ‘topic-comment’, ‘theme-rheme’ and ‘presupposed-asserted’, has largely been described on sentence level (for an overview of such concepts, cf. e.g. Nølke 1995: 80). Generally it is claimed that constituents anchoring utterances in the preceding context (the first elements in the above concept pairs) tend to a front position in the sentence, whereas the new, the main informational contributions tend to an end position in the sentence. (Cf. e.g. Lambrecht 1994: 199; Baker 1992: 164; Dietrich 1994 and Fant 1995: 11-12). Criticising the monosentential perspective of many traditional models (cf. von Stutterheim 1997: 33), von Stutterheim tries to link the 'Textthema' (the over-all thematic or topic structure of the text) and the thematic structure of each individual utterance. Von Stutterheim (1997: 15ff) assumes that every text is an answer to a so-called 'quaestio' – a main question, normally implicit, formulating the communicative task which the text seeks to solve. This 'quaestio' serves as the fundamental guide line for the way the text is built up with regard to content as well as structure. This, in turn, makes it possible to view each sentence in relation to the quaestio of the text: Direct answers to the quaestio are part of the ‘main structure’ of the text (Hauptstruktur), whereas utterances not answering the quaestio belong to the ‘side structure’ (Nebenstruktur) of the text. Main structure utterances contain so-called focussed parts, containing the new contributions to answering the quaestio. A perspective bridging the gap between the information structure on sentence and on text level seems

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fruitful for a study like the present comparing mono- and multisentential/multicausal versions of the same informational content.

1.5. From subordination to coordination
The restructuring of one single source sentence as more target sentences or conjuncts in coordinative structures in the target version necessarily means that information given in a subordinate form in the original, is rendered in a non subordinate form in the target text – either as syntactically independent sentences or as conjuncts. Data used for the present study show how adjunctions on both VP or NP-level are sources of information splitting and extra sentences/conjuncts in the target text; see (1) for VP- and (2) and (3) for NP-adjunction as sources of information splitting respectively. The syntactic signals given by the subordination of the original, help guiding the reader as to what constituents of the sentence contribute to answering the quaestio of the text (part). Typically, subordination may signal that the information gives no direct contribution to answering the quaestio of the text (von Stutterheim 1997: 169). Hence, an important means of guiding the reader is lost in the translated version. The main topic of the present study is to show how the transfer of the overall information structure of the original can explain why certain target versions are preferred, compared to others. Although there is certainly much individual variation between the different examples forming the basis of the study, most cases of information splitting involve VP- or NP-adjointed structures, whose subordinate syntactic status signals that these source structures – giving rise to separate sentences/conjuncts in the target text – have a subordinate status also from an information structural perspective. So the compensatory strategies on the part of the translators generally involve maintaining the subordinate informational status in structures that have an equal status syntactically: series of syntactically independent sentences or conjuncts in coordinative structures. Interestingly, information extraction to the left and information extraction to the right seem to induce somewhat different strategies.

2. Information extraction to the left
2.1 Source structures
Data show that there is a strong tendency that source structures triggering information extraction to the left, are in a so called 'Vorfeld'-position (prefield position) – i.e. in the position to the left of the finite verb – in the original. Of the 77 cases of information extraction to the left, 67 (87%) are in the prefield. Data also suggest that the prefield structures that trigger information extraction to the left, are informationally dense,
consisting of an average of 7 words per non-clausal prefield – as compared to 3.2 words per non-clausal prefield as an average for a corpus of (relatively comparable) Norwegian newspaper texts (Fabricius-Hansen and Solfjeld 1994). The source structures widely contain nominal phrases with heavy pre- and/or postmodifying elements, partly in the form of participles and appositions of different kinds, i.e. source structures, for which analogous translations are not easily found in Norwegian. What triggers information extraction to the left (as well as information extraction to the right, as will be shown later), is a more or less clear structural obstacle, not allowing a parallel structure in Norwegian. For more details, see Solfjeld (2004: 115). Typically, participle forms in various functions, block analogous translations, like e.g. the expanded postmodifying attribute in the following source sentence:

(4a) Das Material, von den Kraakern aus der ganzen Stadt herbeigetragen, ist schon aufgeladen: ...

[The material, gathered by the kraakers from all over the town, has already been loaded.]

(4b) Kraakerne har samlet inn materialet fra hele byen, og de har lempet det oppå allerede ...

[The kraakers have gathered the material from all over the town, and they have loaded it already]

The strong correlation between front position in the source structure and position to the left of the PC in the target version suggests linear translation processes (cf. Hasselgård 2000: 36) – a finding also supported by the observation that information extraction to the right generally finds its sources at the end of the corresponding source sentences.

2.1. Target structures
By information splitting to the left there is a relatively strong tendency to use coordinative structures. In 30 out of the 77, i.e. in almost 40% of the sentence pairs in which an information splitting to the left takes place, we find VP or clause coordination in the target structures. Furthermore, in almost half of the remaining 47 sentence pairs – where the translators have chosen sequences of independent sentences – conjoined structures seem to give more or less equally acceptable alternatives. Thus, there is a strong affinity between information extraction to the left and coordination.

Coordinative structures – at least in narrative texts – induce inferences with regard to temporal or causal/enablement relations between the two conjuncts, to the effect that what is referred to in the first conjunct, temporarily precedes and/or causes or makes possible what is referred to in the second (Blakemore 1987: 116ff, cf. the concept of consequentiality in Sandström 1993: 140ff and 156). Sequences of full stop sentences, on
the other hand, are more open, allowing a wider range of discourse relations to hold
(Carston 2002: 246ff; cf. also Fabricius-Hansen e.a. 2005). Our data suggest that the
choice of coordination has discourse structural effects in the sense that coordination in
certain cases preserves an informational focus equivalent to that of the source sentence.
By choosing a conjoined structure the translators exploit the inference mechanisms
triggered by the structure (Blakemore 1987, Carston 2002: 242ff), ’reducing’ the first
conjunct to the discourse function of leading up to the second, i.e. entering into an (at
least weakly) causal or enablement relation with the second. This, in turn, establishes the
second conjunct as main focus, answer to the quaestio, equivalent to the source text,
securing that the content of the first conjunct – from a discourse structural perspective –
does not get a more prominent role than that of the syntactically subordinated phrase from
which it originated. Thus coordinated structures are chosen to block possible
interpretations arising from independent sentence alternatives – options that would not
preserve the focus of the source version and so might lead to reinterpretations with regard
to the quaestio of the text (part). To what extent independent sentences allow
interpretations that blur which information is to carry the main focus and serve as answer
to the quaestio (or whether so-called garden-path-effects arise), has to do with the
propositional content of the constituents. In (5) a causal sub clause has been split off as an
independent sentence in the authorised Norwegian target version; cf. (5a2) and (5b2). The
propositional content of the extracted sentence leaves, however, no doubt that the
extracted sentence does not answer the quaestio. It serves as an explanation for the event
conveyed in the PC (5b3). For this narrative text part the quaestio presupposes that a
chronologically ordered chain of successive event in the past is related (von Stutterheim
1997: 106), and the form chosen for the Norwegian target version does not cause any
interpretational problems. It is clear that (5b1) and (5b3) make up the main structure,
answering the quaestio and thus corresponding to (5a1) and the main predicate of (5a2) in
the original. In this case, the conjoined alternative (5c, rephrased by me) seems to present
a facultative version.

(5a)  (a1)... und bald zeigte das Rampenlicht des neuen Tages uns gänzlich den Blicken des Feindes. (a2) Da
unter den gegebenen Umständen an einen Überwassermarsch in das Operationsgebiet nicht zu denken
war, gab der BdU allen Nicht-Schnorchlern Befehl, nur noch zum Laden hochzukommen. (dt1, 233)
[(a1) and soon the limelight of the new day showed us completely to the eyes of the enemy. (a2) As
under the given circumstances a surface march was impossible, the commander ordered all submarines
without .snort tube to get to the surface only to load]
Under slike forhold var det ganske umulig å nå invasjonsområdet under vann, og alle ubåter som ikke hadde snorkel, fikk ordre fra staben om gå til overflaten for å lade, ellers ikke.

Sentence pair (1) (above) presents a very similar case.

In (6), however, the coordinative structure seems to play an important part in guiding the reader to an interpretation where the extracted information is downgraded to a function of leading up to the information of the principal counterpart, thus preventing that the extracted information is seen as an answer to the quaestio – an interpretation that would not correspond to the original. This narrative text sequence describes baby care in hospitals in the past. The original sentence giving rise to information splitting (6a2), elaborates on the preceding sentence, which is part of the main structure. So (6a2) can also be seen as part of the main structure. (It is not quite clear to me what status elaborations of different types have in the quaestio model; von Stutterheim (1997: 226) suggests, however, that elaborations can be seen as part of the main structure). In this case coordination is important to secure that the translated version gives the same answer to the same quaestio as the original; cf. (6b2). Full stop sentences (cf. the paraphrased version 6c) would rather induce a list interpretation, i.e. suggest that each sentence conveys separate measures, elaborating on the medical care given – especially if the connection between sterility and infection is not quite clear to the reader. Thus, the alternative of separate sentences might lead to an interpretation of what answer this text sequence gives to the quaestio not licensed by the original. By choosing coordination the translator preserves the downgraded informational status of the prepositional adjunct which forms the source of the extracted sentence:

(6a) Für die Trennung des Kindes von der Mutter wurden medizinische und pädagogische Begründungen angeführt und anhand einiger aus dem gesamten Zusammenhang des Wohlbefinden des Kindes herausergrissenen statistischen Daten, wie etwa die Verringerung der Säuglingssterbequote, begläubigt (a1) Eine perfekte medizinisch-technische Versorgung bekam die größte Bedeutung. (a2) Im Interesse der Infektionsverhütung [...] wurde die Sterilität groß geschrieben. (dt9, 55)
(a1) A perfect medical care was of vital importance. (a2) *In order to prevent infections* sterility was emphasized

(6b) Det ble anført medisinske og pedagogiske grunner til at mor og barn skulle skilles ad, og dette ble forklart ved henvisning til statistiske data angående spedbarnas velbefinnende, som var revet ut av sin sammenheng, såsom nedgangen i spedbarnsdødligheten. (b1) En perfekt medisinsk-teknisk omsorg ble av største betydning. (b2) *Infections should be prevented* [...], og steriliteten ble skjøvet i forgrunnen (nt9, 63)

[(b1) A perfect medical care was of vital importance. (b2) *Infections were to be prevented, and sterility was emphasized*]

(6c) En perfekt medisinsk-teknisk omsorg ble av største betydning. Infeksjoner skulle unngås. Steriliteten ble skjøvet i forgrunnen.

[A perfect medical care was of vital importance. *Infections were to be prevented. Sterility was emphasized*]

Our data supply many similar cases, where the preferred conjoined versions in the translations seem to reflect more effectively an answer to a quaestio corresponding to the original. In sentence pair (7), taken from a narrative (not part of our main corpus), the German version giving rise to sentence splitting, conveys an event of cursory reading, with simultaneous turning of leaves and reading. Coordination licenses or induces a causal/enablement relation between the conjuncts in the translation, and so the possible reading as two separate events is blocked in the translation. In this way, at least certain garden path effects are avoided; cf. the authorised version (7b) and my paraphrase (7c):

(7a) In der Bar bietet die hinterbliebene Leihbibliothek einen Wandschrank voller zerlesener Schwarten auf englisch an, darunter Bücher von Subhas Chandra Bose. *Beim Blättern* lese ich seinen Triumph über die militärischen Siege der Deutschen, 1940, kurz vor seiner Flucht nach Europa geschrieben. (dt11, 42)

[Paging through (the book), I read his triumphs due to the military victories of the Germans in 1940]

(7b) I baren finnes det etterlatte leiebiblioteket, som kan tilby et helt skap med istykkerleste gamle bøker på engelsk, deriblant bøker om Subhas Chandra Bose. Jeg blar fort igjennom og leser hans triumf over tyskernes militære seire, skrevet i 1940, kort før hans flukt til Europa. (nt11, 42)

[I page thorough the books quickly and read his triumph because of the military victories of the Germans, written in 1940...]

(7c) Jeg blar fort gjennom (bokene). Jeg leser hans triumf over tyskernes militære seire, skrevet i 1940.

[I page through (the books) quickly. I read his triumph due to the military victories of the Germans]

Similarly in (8): The NP-adjunct of the original – source of the extracted sentence in the target version – serves as background (or possibly necessary preconditions) for the main
predicate, which makes up part of the chain of events in the past that constitute the answer to the quaestio of this narrative text. Again coordination induces a causal/enablement relation, which blocks the possible reading that the extracted information gives an independent answer to the quaestio, an interpretation that might more easily result from sentences separated by full stop; cf. the authorised translation (8b) and the paraphrased version (8c). Hence, coordination ‘reduces’ the function of this information to some sort of background, conveying that the second conjunct – the PC – gives the answer to the quaestio, equivalent to the main predicate in the original.

(8a) Der Gegner, uns überhörend, faßte seine Beobachtungen präzise zusammen. (dt1, 232)
[The opponent, bugging us, gathered information carefully together]

(8b) Motstanderne våre avlyttet våre radiomeldinger og samlet omhyggelig sammen opplysninger (nt1, 116)
[Our opponents bugged our radio messages and gathered information carefully together]

(8c) Motstanderne våre avlyttet våre radiomeldinger. De samlet omhyggelig sammen opplysninger.
[Our opponents bugged our radio messages. They gathered information carefully together]

These findings seem to be in line with relevance theoretical approaches (Blakemore 1987, Carston 2002), assuming that conjoined structures are processed for relevance as units, whereas independent sentences are processed for relevance separately. As seen in the above examples, the translator – by choosing coordination – blocks the possibility that the propositional content of the first conjunct relates to the context separately. In this way readers are guided to interpretations which mirror the answer to the quaestio given in the original. Dependent on the propositional content, this guiding seems more or less necessary. Very often, as our data illustrate, the propositional content allows no alternative interpretation with regard to the function of the extracted information as part of the side structure (Nebenstruktur). It is clear that the extracted information is no answer to the quaestio of the text (part), and so the choice of coordination vs. sentences separated by full stop seems to be more or less facultative. In other cases the choice of an independent sentence allows interpretations, where the answer to the quaestio deviates from that of the original, and so coordination seems obligatory, if the discourse structure is to be preserved. Often differences are rather subtle. In sentence pair (3) (above) the translator by choosing coordination seems to prevent the garden path effect that the reader might think the text part summarises different qualities of the person in question. Coordination leads more directly to an interpretation mirroring the syntactic
subordination of the original source structure. The proposition of the first conjunct serves
as an explanation or cause for the wish to enjoy the newly won liberty.

It should, however, be added that not all information that is extracted to the left
allows coordination as a possible option. In many cases the establishment of a
causal/enablement relation is a necessary constraint. The lack of such a relation between
the extracted information (in italics) and the PC explains e.g. why the coordination seems
somewhat odd in the Norwegian version of the sentence pair 9:

(9a) Helmut, ein knapp dreißigjähriger Deutscher, der aussieht, als sei er bald fünfzig, erinnert sich: “...
(dt10 91)
[Helmut, an almost thirty-year-old German, who looks as if he is soon fifty, looks back]

(9b) Helmut er tysker og knapt 30 år. Han ser ut som om han snart blir 50 og tenker tilbake: (nt10, 79)
[Halmut is a German and almost 30 years old. He looks as if he is soon fifty and looks back]

Translations like (9b) do, however, raise the question what alternatives the translator is
left with. The more restricted use of syntactic subordination in Norwegian may e.g. lead
to a somewhat liberal use of coordination, allowing discourse relations to hold between
conjuncts, which would not be accepted in English or German; for a discussion of this,
see Fabricius-Hansen e.a. (2005).

Described in an SDRT-framework the contrast between the discourse relations
discussed for (6), (7) and (8) would (if I understand it correctly) be that a more narrowly
defined discourse relation (cause, enablement, background) inferred to hold between the
conjuncts of the conjoined structure – by full stop alternatives – mistakenly could be
interpreted as a more symmetric or prototypical coordinating kind of Continuation or

3. Information extraction to the right
3.1 Source structures
In our data information extraction to the right occurs somewhat more frequently than
information extraction to the left. There are roughly twice as many cases of information
extraction to the right, a total of 152. It should, however, be taken into account that
information extraction to the right presents a very heterogeneous picture. The information
extraction may e.g. exclusively amount to expanding some elliptic structure, separated by
a comma in the original, to a complete sentence, also separated by comma, just by adding
a verb in the translation – a translation process which can hardly be seen as information
splitting in a very strict sense; for examples of this, see e.g. Solfjeld (2000). Most cases,
however, represent information extraction in a more proper sense. The sources of the information splitting are NP- or VP-adjuncts in the originals, which are rendered as sentences separated by full stops or coordinative clauses in the target versions. 131 cases of information extraction to the right (86.75%) find their sources in structures to the right of a finite full verb predicate or to the right of an non-finite full verb in the case of a complex verbal forms the source sentence. It must be added that by finite full verbs more refined criteria might have allowed a distinction between information extraction from extraposed source structures and information extraction from source structures in the so-called 'middle field'. Still, this very rough division shows that information extraction to the right parallels information extraction to the left, in the sense that it is most frequently triggered by structures that are in an end position or at least relatively far to the right in the original sentence (complex). This confirms the picture that linear translation processes are frequent; the relative position of the information in the translation is kept constant compared with the original. It should, however, be added that very often the original sentences are complex sentences, and that the sources of the extracted information are sub clause constituents to the right of the predicate of the highest ranked matrix clause, but at the same time posited to the left of the predicate of the sub clause. In a majority of the cases the source of the information extraction is a complete sub clause; cf. 10 (below).

Furthermore, information extraction to the right often seems to be triggered by some sort of structural obstacle, in the sense that an analogous translation would result in a somewhat unfelicitous target version structure. Our data show that this structural hurdle can be of different kinds. A recurrent pattern is that a reordering of constituents on VP- or NP-level presents the translator with the challenge of establishing clear references for Norwegian relative pronouns showing no congruent features with its antecedent. Cf. the following typical example:

(10a) Auf der 4. Tagung der Politischen Konsultativkonferenz im Februar 1953 wählten ihn die Delegierten zu einem der stellvertretenden Vorsitzenden und somit zu einem direkten Mitarbeiter Mao Zedongs, der dem Volksfrontorgan vorsaß. (dt3 143)
[... the delegates elected him as vice chairman and hence one of the direct associates of Mao Zedong, who chaired the people’s front assembly]

(10b) På 4. kongress til den politiske rådgivningkonferansen valgte de delegerte ham til en av de stedfortrædende formenn, og dermed en av Mao Zedongs direkte medarbeidere. Mao førte forsetet i denne folkefrontorganisasjonen, (nt3, 131)
[... the delegates elected him as the vice chairman and hence one of Mao Zedong’s direct associates. Mao Zedong chaired the people’s front assembly]
A relative clause in the Norwegian text, as in (my paraphrased version) 10c, would – incorrectly – make medarbeiderne’s associates’ the antecedent for the relative pronoun, which – in turn – triggers the information splitting. Source structures like expanded premodifying participles; see (2) (above) or genitive forms of the relative pronoun, which are difficult to copy in Norwegian, are further recurrent structural challenges, which easily result in sentence splitting. Cf. e.g. (11).

(11a) In diesem Frühjahr ergoß sich ein Strom von Fremden in das verwandelte Land, von dessen dramatischen Veränderungen man so viel gehört, dessen gewalttätige Energie man von jeher gefürchtet, aber auch bewundert hatte. Mein Freund, Geoffrey, Korrespondent einer Londoner Zeitung, kam nach Berlin (dt5, 75)

[This spring there was a stream of refugees into the this transformed country, about whose dramatic changes one had heard so much, whose powerful energy one feared ...]

(11b) Denne våren kom en strøm av flyktninger til det forvandlede landet; man hadde hørt så meget om de dramatiske forandringene, om den kolossale energi man nok fryktet, men også beundret. (nt5, 67)

[This spring there was a stream of refugees into this transformed country; one had heard so much about its dramatic changes, about the powerful energy one certainly feared, but also admired ...]

3.2 Target structures
By information extraction to the right the translators in most cases do not add lexical markers, for which there are no counterparts in the original, to signal what function the extracted information has in the target version – i.e. whether it belongs to the main structure, answering the quaestio of the text part, or whether it is part of the side structure, not answering the quaestio. The propositional content seems to give the readers clear enough clues as to discourse structural interpretation. Very often syntactically dependent, but semantically rather independent clauses, like e.g. non-restrictive relative clauses, are split off in the translation process. Such clauses seem to give independent contributions to the main structure of the text; cf. Laux (2002) and Ramm (2005). Event predicates e.g. clearly signal that the extracted sentence gives an answer to the quaestio, and the syntactic separation in the translation does not seem to make much of a difference from a discourse structural perspective. In the narration in (12) the extracted sentence as well as the source clause are easily interpreted as part of the main structure. It is perhaps more
open whether the matrix clause in (12a) or the first sentence (PC) in (12 b) should be seen as part of the main structure or rather as some kind of background:

(12a) Im Sommer oder im Herbst 1933 saß ich in einem Berliner Café und betrachtete eine Gruppe junger eleganter Leute am Nebentisch, die abwechselnd in eine illustrierte Zeitung blickten und sie lachend und gehässig kommentierten. Ich hatte gleichfalls "Berliner Illustrierte" vor mir; die neueste Nummer des Millionenblattes brachte auf mehreren Seiten eine Reportage ... "Wir gehen mir dem Gesindel ja viel zu anständig um", sagte jemand am Nebentisch (dt5, 62)

[In summer or autumn 1933 I sat in a Berlin Café and watched a group of young elegant people at the neighbouring table, who alternatively looked in a magazine and commented it laughing and hatefully. I had also Berliner Illustrierte in front of me. The latest issue of the million magazine had a report on several pages ... "We are far too decent ...."]

(12b) Sommeren eller høsten 1933 satt jeg på en kafé i Berlin og så på en gruppe elegante unge mennesker ved sidebordet; avvekslende kikket de i en illustrert avis og kommenterte den leende og hatefullt. Jeg hadde også "Berliner Illustrierte" foran meg; siste nummer av millionavisen hadde på flere sider en reportasje ... "Vi behandler dette pakket alt for pyntelig", sa en ved sidebordet... (nt5, 56)

[In summer or autumn 1933 I sat in a Berlin Café and watched a group of young elegant people at the neighbouring table; alternatively they looked in a magazine and commented it laughing and hatefully. I, too, had Berliner Illustrierte in front of me. The latest issue of the million magazine had a report on several pages ... "We are far too decent ...."]

Conversely, equally clear signals that the extracted information is not part of a chain of temporarily successive events, may secure an interpretation as part of the side structure of a narrative text. Our data show that temporal markers like the perfect tense in (13) often make the discourse function as part of the side structure clear in the target text, where there is no syntactic subordination supporting this interpretation as there is in the original; cf. the following sentence pair as well as (11) (above).


[... he brings me a paper belonging to a Turkish colleague from Lünen, who has brought it with him from the "House of the Youth” – a municipal institution. In the guiding lines for foreign visitors it says that ...]

(13b) På et senere tidspunkt snakker jeg med Nedim om dette. Han har med seg er skriv fra en tyrkisk arbeider fra Lünen. Han har fått det fra "Ungdommens hus’, som er et kommunalt tiltak. . 1 "Regler for utenlandske besøkende står det at ...” (nt10, 80)
... he brings me a paper belonging to a Turkish colleague from Lünen. *Has brought it with him from the “House of the Youth” – a municipal institution. In the guiding lines for foreign visitors it says that ....*

Failure to recognise such discourse structural effects may open for interpretations not really compatible with the original, as in (14), where the event of the extracted sentence, translating past perfect as simple past, may be interpreted as temporarily succeeding the event of the preceding sentence.

(14a) *Die Bevölkerung, zwischen Furcht und Hoffnung schwankend, vermied jeden Schein des Einverständnisses mit den Deutschen. Jeder hörte auf die Resistance, die allen Kollaborateuren blutige Rache geschworen hatte. Und wie man weiß, wurden nach unserem Rückzug alte Rechnungen beglichen ...* (dt1, 226)

[The population avoided every impression of being on good terms with the Germans. Everyone obeyed the Resistance, who had sworn all collaborators violent revenge]

(14b) *Befolkningen som levde mellom frykt og håp, unngikk handlinger som kunne gi inntrykk av at de sto på god fot med tyskerne. Alle og enhver adlod ordrene fra motstandsbevegelsen. Kollaboratorene ble sverget en blodig hevn. Og som vi vet, kom det til mange blodige oppgjørr. (nt1, 108)*

[The population avoided every impression of being on good terms with the Germans. Everyone obeyed the Resistance. Collaborators were sworn a violent revenge]

In our data syntactically dependent, but semantically or discourse functionally rather independent clauses in end position of sentence complexes, primarily non-restrictive relative clauses, but also clauses with the connectives *wobei, während* and *da*, make up an important part of the sentence splittings to the right. It can be expected that cases where the VP- or NP-joined source structure giving rise to sentence extractions to the right, is stronger integrated syntactically, may be more challenging to the translators. The source structure is e.g. in some way linked with the main predicate or other constituents of the original, adding information to the main structure. Consider the sentence pairs (15) and also (2) above. In (15) *Zeit*’time’ seems to answer the quaestio in this descriptive text, but *Zeit* needs the information filled in by the relative clause to make up a full answer to the quaestio. Whether elaborations of main structures are seen as part of the main structure or not (cf. von Stutterheim 1997: 226 and also the discussion in Asher and Vieu 2005: 596), the crucial point is that the elaboration is conveyed equally clear in the translation as in the original.

(15a) *Eine weitere unbedingte Dimension des Ganzen ist die der Zeit, in der alle Entwicklungsprozesse in einer hierarchischen Stufenordnung nach und nach reifen.* (dt9, 60)
In (15) and (2), as in many sentence pairs of this kind in our data, the propositional content of the extracted sentence along with anaphoric links suffice to convey the elaboration, thus preventing an interpretation of the quaestio, deviating from that of the original. Frequently, elaborations of another kind, specifications of time, place and manner (in a wide sense) are extracted in separate sentences to the right of the PC. A strategy often used is to establish anaphoric links to event of the preceding sentence, containing the PC, often by repeating the main verb; cf. Solfjeld (2000).

As by information splitting to the left translators add lexical signals in those cases where the extracted sentence – without the added lexical marker – might lead to interpretations where an answer to a quaestio, not equivalent to that of the original, may be inferred, or where at least certain garden path effects may occur. Typically, adding lexical signals secures an interpretation by which some extracted sentence – which has a discourse functional role, traditionally considered as subordinate, like e.g. elaboration, or explanation (Asher and Vieu 2005: 596) – retains this interpretation, thus avoiding that it is mistakenly seen as having a more coordinating discourse function, adding a new constituent to the main structure, which in turn might lead to the inference of a quaestio, not matching the original. (Cf. the observations in von Stutterheim 1997: 256 about the deviation from the quaestio as ’marked’ cases, often requiring explicit linguistic signals).

Although, as shown above, most cases of information extraction to the right work well without these overt signals added, our material clearly suggests that translators are sensitive to where they should be supplied. In (16) the addition of altså signals that the proposition it modifies, is an event elaboration – a restatement. This is a useful guide for the reader, who in this complex context may well think that this sentence refers to a new event: Altså (paraphrased roughly as ’in this way’ in the English gloss) guides the reader to unify the referents for bestjal’stole from’ and tok’took’. After the reorganising of the information in the Norwegian target text it is not quite obvious that these verb forms refer to the same event.
Das Basisrelief präsentiert Szenen aus dem Leben von Arjuna, dem Helden des Mahabharata; dort wird überliefert, dass dieser Arjuna den "himmlischen Wagen" von Indra – dem altindischen Heldengott mit menschlichen Zügen, der gegen die Dämonen seine Geheimwaffe Wadscha, die tödliche Keule schleuderte, als "König der Götter" verehrte – nahm und damit ins Weltall fuhr. (dt2, 180)

The base relief presents pictures from the life of Arjuna, the hero of the Mahabharata; here it is told that this Arjuna took the "celestial cart" from Indra – the old Indian hero god with human traits, who flung his secret weapon, the deadly wedge wadscha at the demons, and honoured as the “king of gods” – and drove into space.

Relieffene viser scener fra Arjunas liv, karrieren til helten i Mahabharata. Her blir det fortalt at denne Arjuna tok Indras "himmelvogn" og for ut i verdensrommet; han bestjal altså den gammelindiske helteguden, som ble æret som "gudenes konge" og som kastet sitt hemmelige våpen, tordenkilen vajra mot demonene. (nt2, 180)

The reliefs present pictures from the life of Arjuna, the career of the hero of the Mahabharata. Here it is told that this Arjuna took the "celestial cart" from Indra and drove into space; he stole in this way from the old Indian hero god, who was honoured as the “king of gods” and who flung his secret weapon, the thunder wedge vajra at the demons.

In (17) nemlig (in the English version paraphrased as 'as I understood’) signals explanation, preventing an interpretation by which the extracted sentence – without nemlig – might seem to presuppose a quaestio, making the person’s knowledge a matter of interest in its own right, which the syntactically subordinate source structure of the original does not convey.

... er ... zeigte sich ohne Vorurteile: Er war daran interessiert, mehr über meine Theorien zu erfahren, wie ich in ihm begierig den Mann erkannte, der kompetent war, meine in der – oft widersprüchlichen – Literatur erworbenen Kenntnisse aus seinem profunden Wissen abzuklären. (dt2, 179)

[... as I in him eagerly recognised the man, who out of his profound knowledge was competent to clarify my knowledge, acquired from often contradictory literature.]

Han ... var helt uten fordommer. Han var interessert i å få vite mer om mine teorier, og jeg på min side oppfattet ham som en mann som var i stand til å avklare mine egne kunnskaper, som jeg har fra en ofte motsetningsfylt litteratur. Hans vite var nemlig meget velfundet (nt2, 179)

[I for my part recognised in him the man, who was competent to clarify my knowledge, acquired from often contradictory literature. His knowledge was – as I understood – very well founded]

4. Summary and outlook

We may now take stock and discuss briefly some of the points made in this article.

In translations of German non-fictional prose into Norwegian both information extraction to the left and information extraction to the right generally seem to work well in the sense that the translation answers the same quaestio as the original, even when the
translators add no overt signals of discourse function. Propositional content of the relevant clause/sentence sequences seems to give sufficient orientation points to reestablish a quaestio corresponding to the original (cf. Fabricius-Hansen 1999).

– Preserving the answer to the quaestio is still an important principle in the translation process, as discourse function signals are added in exactly those cases where the propositional content of the extracted sentence – in interplay with the adjacent sentences – open for interpretations where an answer to the quaestio deviating from the original, might arise. These findings seem to give support to the claim made by relevance theoreticians (Sperber and Wilson 1986, Blakemore 1987) that the cost of processing some linguistic item must be rewarded by a cognitive effect. The discourse guiding signals are introduced in those cases when there are corresponding cognitive effects, worth the cost of processing them.

– Information extraction is generally triggered by some structural feature in the source sentence which can not be transferred analogously into the target text. Obviously, there is much individual variation, where translators e.g may have very different toleration for informational density in Norwegian; cf. Solfjeld (2000).

– Information extraction to the left generally finds its source structure posited to the left of the main predicate of the original, and correspondingly, information extraction to the right finds its source structures to the right of the main predicate of the original. This suggests a rather linear translation process, where the relative position of information items of the original is kept intact in the multisentential/multiclausal target version. It can be assumed that this mapping of information items onto the target text in the same order as in the original facilitates the integration of the multisentential/multiclausal target version parallel to the source text with regard to anaphoric links etc. The cases where there is no such linear mapping – where the position of the extracted sentence relative to the PC is another than the source structure relative to the main predicate – might be a particular interesting object of further study; cf. the following sentence pair:

(18a) Sie fühlen sich wohl in ihrem Element (dt2, 175)

[They feel well in their element]

(18b) De er i sitt element og føler seg vel ved det (nt2, 175)

[They are in their element and feel well by that]

– Information extraction of the kind described here, involves rerendering in sentential/coordinative form a subordinate syntactic structure, signalling that it contains
information that is no main part of the answer to the quaestio. The sentence form of the translation carries no corresponding information as to the discourse subordination of the extracted information, which needs being conveyed to prevent incorrect or haltering transfers of the answer to the quaestio, conveyed in the original. This means that lexical items in the translation to some extent take over the information of syntactic structures of the original. For a thorough discussion of discourse subordination/coordination from a contrastive point of view, see Ramm and Fabricius-Hansen (2005).

– A particular interesting strategy of compensating for the loss of information given in syntactic structures, is the frequent use of conjoined VPs or clauses for syntactic subordinate original structures extracted to the left. As Norwegian non-fiction generally tends to a more paratactic forms than German, this seems to be a systematic way of compensating for the more sparse repertoire of means of syntactic subordination in Norwegian, as conjunction has the effect of downgrading the first conjunct to some sort of background function; see also Fabricius-Hansen e.a. (2005). Comparisons with non-translated Norwegian texts would be an interesting subject for further research.

– Very frequently the information of source structures posited to the left in the original sentence, are rendered as VP- or clause conjuncts in the target structure, or at least coordination is a possible option. As conjunction licenses inferences of temporal sequencing or consequence relations at least in narrative text passages, this, in turn, means that the initial constituents of the originals widely must have some of this consequential (causal/enablement) function. Traditional claims that sentence opening are the preferred sites for elements linking the sentence information to the preceding context and reactivating necessary background information, seem to gain some support from these recurring translation patterns. Although the information may not necessarily be introduced earlier in the text, the position of it in the original seems to signal a background role in the sentence. Obviously, further research into what syntactic structures in the originals correspond to what possible rephrasings in the translations might shed additional light on the function of the NP- and VP-adjunctions of the originals. Furthermore, future research should look into possible different constraints for VP- or clause conjunctions in translations, which are here treated non-differentiatedly. As our data show, extraction to the right often involves some kind of elaboration or specification, which can not be conjoined with the preceding sentence containing the PC (Carston 2002: 246, Fabricius-Hansen 1999). Explanations, extracted to the right, can e.g. not be part of a conjoined structures, as would have been the case if they had been extracted to the left. This may explain why for certain information items coordination – or
generally transfers to the left (cf. below) – may be preferred. If e.g. the information in 3 had been extracted to the right, it would not have conveyed the relation of explanation or background as efficiently as in the authorized version 3b; cf. the paraphrase in 3c:

(3a) *Der abenteuerlustige Mann wollte seine neugewonnene Freiheit in vollen Zügen genießen. Aber er halste sich im Leben zu viele Abenteuer auf – im Traum lud er sich zu viele Mädchen ins Auto.* (dt8, 24)

[The adventurous man wanted to enjoy his new won freedom to the full]

(3b) *Mannen er eventyrlysten og vil nyte sin nyvunne frihet til bunns. Men han har jaget etter altfor mange eventyr i livet –* (nt8, 27).

[The man is adventurous and wants to enjoy his new won freedom to the full. But he has chased too many adventures in life]

(3c) *Mannen vill nyte sin nyvunne frihet til bunns. Han er eventyrlysten. Men han har jaget etter altfor mange eventyr i livet –*

[The man wants to enjoy his new won freedom to the full. He is adventurous. But he has chased too many adventures in life]

Correspondences between sentences split out to the right and its corresponding source structures are – of course – an equally interesting object for further research as is the information extraction to the left.

– Many sentences or conjuncts extracted to the left contain so-called state predicates, giving information about the participating persons, objects or situations; cf. 3 (above) and so explaining or making plausible the events described. In this way they enter into a consequential (causal/enablement) relation with the following sentence (PC), as is reflected by the fact that they often are or can be rephrased as the first conjunct of a conjoined structure. Sandström (1993) claims that events in narratives are linked by ’consequentiality’ in so-called ’episodic structures’ (Sandström 1993: 156). Only event predicates forming ’episodic structures’ can be conjoined. The role of state predicates in conjoined structures is less discussed (cf., however, the example in Blakemore 1987: 113f and 117 and Carston 2002: 223f). Our data support the view that state predicates also often require some causal/enablement relation for being conjoined, which certainly in many respects parallels the consequentiality relation claimed to hold between events.

Sandström (1993: 160ff) claims that state predicates in narratives are evaluated for their relevance in relation to events – and typically in relation to subsequent events (Sandström 1993: 168). This seems to fit in with the observation that state predicates extracted to the left are in some way more self-explanatory than the same predicates extracted to the right.
Readers automatically tend to interpret them as being relevant for – leading up to – what comes next; cf. (3) (above) and the following example, without coordination.

(19a) Der Traum zeigt deutlich, in welcher Zwangslage sie sich befindet. Ohne ihre befriedigenden Berufserlebnisse fühlt sich die von Natur aus dynamische, ehrgeizige Frau einsam und isoliert. (dt8, 19)

[The dream clearly shows what a dilemma she is in. Without her satisfying professional experiences the by nature dynamic, ambitious woman feels lonely and isolated]

(19b) Drømmen viser tydelig hvilken tvangssituasjon hun befinner seg i. Av natur er hun en dynamisk, ærgjerring kvinne. Uten tilfredsstillende yrkesopplevelse føler hun seg ensom og isolert. (nt8, 22)

[The dream clearly shows what a dilemma she is in. By nature she is a dynamic, ambitious woman. Without her satisfying professional experiences she feels lonely and isolated]

Correlation between the information structures of single original sentences and the information structure of translated multi-sentence/multi-clause passages in narratives with their interplay between sequences of state and event predicates (and other predicate types) is certainly an interesting subject for further study.

– The claim that coordinations license consequential interpretations seem to hold for most of the sentence pairs discussed here, primarily excerpted from narrative texts. It should be noted that such relations cannot be inferred form all conjoined structures. The point is according to Blakemore (1987: 120) that in a coordinative structure the conjuncts are interpreted against the same set of contextual assumptions, thus giving e.g. a single answer to a single explicit or implicit question. Blakemore and Carston (2005) claim that the conjuncts in coordinative structures function together as premises in the derivation of a single cognitive effect. Much of the argumentation of the present paper hinges on the fact that by consequence (causal/enablement) readings of conjoined structures the first conjunct serves as background information for the second. Obviously, more theoretical perspectives and more text types would allow more perspectives to be taken into account. Whether coordination is a possible structural choice or not, is obviously a very context sensitive matter. In 20 the lack of a consequence relation between the conjuncts seems to justify the full stop version preferred by the translator: cf. 20b.

(20a) "Auf meinem heißen Eisen war ich einfach der Größte", erzählt ein vierundvierzigjähriger Versicherungskaufmann über einen Traum, in dem er sich auf einem Motorrad fahren sah. Dem gut aussehenden, dunkelhaarigen Wilfred L. war dabei durchaus bewusst, dass das Motorrad gar nicht sein Eigentum war. (dt8, 23)
(...) tells a 44-year old insurance agent about a dream where he saw himself drive a motorbike. The good looking dark-haired Wilfred L. realised that the motor cycle did not belong to him.

(20b) ”Jeg var den største i verden der jeg satt på en rask mc”, sa en 44 år gammel forsikringsagent, som fortalte om en drøm der han så seg selv kjøre motorsykkel. Willy L. hadde godt utseende og mørkt hår. Han var fullstendig klar over at motorsykken slett ikke var hans eiendom. (nt8, 25).

[... said a 44-year old insurance agent who told about a dream where he saw himself drive a motorbike. Willy L. was good looking with dark hair. He was perfectly aware of the fact that the motorbike did not belong to him]

(20c) ... sa en 44 år gammel forsikringsagent, som fortalte om en drøm der han så seg selv kjøre motorsykkel. Willy L hadde godt utseende og mørkt hår, og (han) var fullstendig klar over at motorsykken slett ikke var hans eiendom.

[...said a 44-year old insurance agent who told about a dream where he saw himself drive a motorbike. Willy L. was good looking with dark hair, and (he) was perfectly aware of the fact that the motorbike did not belong to him]

The felicity of a coordinative structure in this case seems, however, not exclusively to depend on the fact that it is hard to infer a causal/enablement relation. If a looser connection can be established from the context, the alternative of coordination seems more acceptable; cf. (20c). Here the conjuncts can be seen as giving parallel information to the implicit question of what the dream, referred to in the preceding sentence, is about. The claim that coordination in Norwegian is less restricted than English or German as to what discourse relations may hold between the conjuncts, is another relevant aspect in this discussion; cf. Ramm and Fabricius-Hansen (2005) and Fabricius-Hansen e.a. (2005).

– Finally, many of the sentence pairs in our data suggest that punctuation – e.g. the choice of commas/dashes vs. full stops – has discourse functional effects. Our data have not been studied systematically with regard to this, but the choice of dashes in the Norwegian translations of the following sentences (as well as the choice of comma in (2) above) seems to underline the extracted sentences as being close to the preceding sentences from a discourse perspective – conveying that they explain or elaborate and do not give a new contribution to answering the quaestio. Here comparisons with original Norwegian texts would be necessary.

(21a) Außerdem spielte er, als ein Schüler Wilhelm Kempffs, glänzend Klavier (dt5, 87)

[Furthermore he played, as a student of Wilhelm Kempff, the piano excellently]

(21b) Forøvrig spilte han utmerket klavér – han var elev av Wilhelm Kempff (nt5, 77)

[Furthermore he played the piano excellently – he was a student of Wilhelm Kempff]
Ich drücke den frischen Sandelholzkranz, den ich am gleichen Morgen geschenkt bekommen habe, unter meine Nase (dt2, 180).

I press the fresh sandeltree decoration, which I have received the same morning as a substitute for the old one, under my nose.]

Jeg presset den nye sandeltrekransen opp til nesen – jeg hadde fått en erstatning for den gamle samme morgen. (nt2, 180).

I pressed the fresh sandeltree decoration to my nose – I had received it the same morning as a substitute for the old one.

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**Source literature**


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