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**Causality in a cross-linguistic perspective.
So, therefore, and thus versus *så, derfor, and
således.***

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Table 6.2 Translations of *therefore* and *derfor* in the parallel samples taken from the ENPC

<i>therefore</i> n=72		<i>derfor</i> n=100	
derfor	59 (82%)	so	28
således	2 (3%)	therefore	24
Ø (word not transl)	2 (3%)	Ø (word not transl)	19
av den grunn	1 (1.4%)	thus	13
av dette	1 (1.4%)	that's why/that is why/that was why	6
dermed	1 (1.4%)	hence	3
det var derfor	1 (1.4%)	for that reason	2
ergo	1 (1.4%)	because of that	1
følgelig	1 (1.4%)	so that	1
i så fall	1 (1.4%)	so that's why	1
O (passage not transl)	1 (1.4%)	which is why	1

Here it can be seen that English *therefore* is most often translated by *derfor*. Moreover, *therefore* is translated in nearly all instances, most often as a conjunct of result with implicit reference (*således*, *dermed*, *ergo*, *følgelig*) or as a conjunct of result with explicit reference (*av den grunn*, *av dette*). Still, no other expression comes close to *derfor* in being the most common translation alternative, as in (6.5).

(6.5) He had a sense of his own life progressing to its conclusion and was *therefore* ruthless in dispensing with the past, since every minute of the present must be valued. (AB1)

Han hadde en følelse av at hans eget liv gikk mot sin avslutning og var *derfor* hensynsløs når det gjaldt å kvitte seg med fortiden, siden hvert minutt av nåtiden måtte nytes.

The story becomes more complicated when one looks at the translation expressions listed for *derfor*. Here, the preferred expression is *so* at 28% (see (6.6) below and (5.8)), followed by *therefore* at 24% (6.7). *Derfor* is not translated in 19% of cases, 11% of which concern *derfor* in mid-position, as in (6.8).

(6.6) Avtalen om den hensynsløse oppriktigheten gjelder naturligvis også meg, *derfor* vil jeg fortelle Dem om hvordan denne min Eurydice kom inn i mitt liv. (FC1)
When they had both drunk, slowly and with closed eyes, Robert Turner said gently: That agreement about utter frankness naturally applies to me too, *so* I'll tell you how this Eurydice of mine came into my life.

(6.7) Dessverre hadde han glemt nøkkelen, sa han, men han visste jo at tobakkshandlersken hadde stelt den syke, unge kvinnen, og at hun *derfor* måtte ha en nøkkel. (FC1)

Unfortunately he had forgotten the key, he said, but he knew of course that the tobacconist had taken care of the sick young woman and that she must *therefore* have one.

(6.8) Når jeg nå legger disse historiene ved min beretning om kunstneren, må jeg *derfor* tilstå at jeg har endret en og annen formulering. (JW1)

When I now put these versions beside my own account of the artist I have to admit that I've altered a few phrases. (Ø translation)

Derfor is found in mid-position in 34% of the 100 examples included in the sample, so approximately one-third of those instances simply remain untranslated. In addition, *thus* appears to be a viable translation option for *derfor*, represented in 13% of cases, as in (6.9).

(6.9) Begge har altså mannlige og kvinnelige trekk, de kan *derfor* forstås som bror og søster, tvillinger eller androgyne. (JEEH1)

That is to say, they both have masculine and feminine traits, and can *thus* be considered brother and sister, twins, or androgynes.

Otherwise, translators resort to various other means of expressing causality, including clause-integrated links (*that's why*, etc), conjuncts with implicit reference (*hence*) or explicit reference (*for that reason*), and subordinators (*so that*).

The MC between *therefore* and *derfor* is 48.8%, indicating that the *therefore/derfor* translation correspondence is greater than that between *so* and *så*. The MC calculated between *so* and *derfor* is 22%, whereas the *så/therefore* MC is an almost negligible 0.6%. Thus, although *so* and *derfor* are weak translation correspondents, *therefore* and *så* are not. This information is not reflected in the dictionary entries in all dictionaries (see Table 3.3), where for example Kunnskapsforlaget's 1995 dictionary lists *therefore* as a translation alternative for *så*.

6.1.3 *Thus versus således*

Table 6.3 presents an overview of the translations found for both *thus* and *således* in the sample taken from the ENPC.

Table 6.3 Translations of *thus* and *således* in the parallel samples taken from the ENPC

<i>thus</i> n=77		<i>således</i> n=67	
dermed	17 (22%)	thus	30 (45%)
derfor	13 (17%)	Ø (word not transl)	17 (25%)
på den/denne måten	10 (13%)	in this manner	4 (6%)
altså	7 (9%)	Ø (passage not transl)	3 (4.5%)
slik	7 (9%)	as such	2 (3%)
således	6 (8%)	in this way	2 (3%)
Ø (word not transl)	6 (8%)	as a result	1 (1.5%)
følgelig	4 (5%)	consequently	1 (1.5%)
så	2 (3%)	for instance	1 (1.5%)
Ø (passage not transl)	2 (3%)	hence	1 (1.5%)
noe som i sin tur	1 (1%)	however	1 (1.5%)
og	1 (1%)	now	1 (1.5%)
slik at	1 (1%)	so	1 (1.5%)
		therefore	1 (1.5%)
		which is why	1 (1.5%)

What perhaps first strikes the reader is that both terms are translated by a wide variety of lexemes, none of which are clearly preferred by translators. This is especially true for *thus*, where the most preferred translation option, *dermed*, is evident in only 22% of the studied examples, as in (6.10). Interestingly, no dictionary found lists *dermed* as an alternative for *thus*. Other than *dermed*, translators often choose another conjunct of result, such as *derfor*, *altså*, and *følgelig*. *Således*, as in (6.11), was chosen only 8% of the time. Moreover, *thus* is sometimes rendered as a manner adverbial (*på den/denne måten*) or as some other type of expression ranging from the coordinator *og* (lit: and) to *noe som i sin tur* (lit: something which in its turn).

(6.10) It was Fibich, at the suggestion of his analyst, who longed to return, but was fearful of doing so, and *thus* existed on the horns of a dilemma that would never be resolved. (AB1)

Det var Fibich som ifølge sin psykoanalytiker lengtet etter å reise tilbake, men var redd for å gjøre det, og *dermed* måtte han leve med et dilemma som han aldri ville komme ut av.

(6.11) *Thus* when I engaged him in a game of mental chess, he had no difficulty visualising the chessboard or the moves — indeed, no difficulty in beating me soundly. (OS1)

Da jeg spilte mental sjakk med ham hadde han *således* ingen vansker med å se for seg sjakkbrettet og brikkene. Han hadde heller ingen vansker med å slå meg grundig og solid.

The *thus/således* MC is 25%, pulled up by the 45% correspondence between *således* in the original Norwegian texts and *thus* in the translated English texts. Norwegian-English dictionaries tend to present *so* as a translation alternative before *thus* (see Table 3.3), and this does not seem to reflect reality, where *so* is chosen only 1.5% of the time. Apart from *thus* there is no other lexeme that clearly stands out as a rendering of *således*. Although most of the other expressions evident in the sample are conjuncts of result, such as *as a result* and *consequently*, other types of expressions are also found, such as *however*, *now* and *for instance*. The MC between *so* and *således* 1.8%, and the *thus/så* MC is 1.1%, indicating that these are not viable translation alternatives of one another in most circumstances. Moreover, 9% of the translated expressions are manner adverbials (*in this manner*, *in this way*). Actually, the second most common translation of *således* appears to be no translation at all, as in (6.12).

(6.12) Hovedtyngden av samene har *således* naturlig nok oppholdt seg ved kysten i hvert fall en del av året. (BAA1)
 Naturally enough, this is where the majority of the Sami lived, at least for part of the year. (Ø translation)

In 16 of the 17 instances where the translation of *således* is omitted, the word is found in mid-position. Omission accounts for approximately one-third of the cases of mid-position *således*, and thus appears to operate as a viable translation alternative for a *således* when it seems to be hidden away in the middle of a sentence and not a focus of the clause in question. This observation agrees with previous research noting a frequent zero correspondence in the translation of medial-position *likevel*, a Norwegian concessive marker. The conclusions reached in this case concerned how "...medial *likevel* does not offer the addressee unequivocal information about how to anchor it in the discourse..." (Fretheim and Johansson 2002: 98). The same might be true of mid-position *således*, as well as *så* in medial position.

6.2 Semantic, syntactic, and discourse cross-linguistic comparison

The information collected regarding translation equivalence reveals that the three pairs are not considered correspondents in all circumstances. Translators must thus perceive some differences between the pairs, which require the choice of other expressions in translation. In an attempt to explain possible reasons responsible for the MCs calculated for each pair of lexemes, the semantic, syntactic and discourse profiles of the six conjuncts developed in Chapters 4 and 5 are here compared.

6.2.1 Semantic considerations

First, the data concerning relational interpretations of each conjunct and how those relationships have been presented, discussed in sections 4.1 and 4.2 for the English conjuncts and 5.1 and 5.2 for the Norwegian conjuncts, has been consolidated and is presented in Table 6.4 and Figures 6.1 and 6.2. It must be noted, however, that no statistically significant difference emerged from a comparison of the type of consequence sequence co-occurring with the lexemes.

Table 6.4 Cross-linguistic comparison: relational interpretations
(*so-så* $p < 0.001$, *therefore-derfor* $p < 0.0001$, *thus-således* $p < 0.05$)

Relation	<i>so</i>	<i>så</i>	<i>therefore</i>	<i>derfor</i>	<i>thus</i>	<i>således</i>
Nonvolitional	4	2	12 (18%)	1	11 (14%)	11 (16%)
Volitional	28	44	22 (31%)	53	29 (38%)	16 (24%)
Caus epist	50	46	37 (51%)	46	31 (40%)	32 (48%)
Noncaus epis	2	-	-	-	6 (8%)	8 (12%)
Speech act	16	8	1 (1%)	-	-	-
Total	100	100	72 (100%)	100	77 (100%)	67 (100%)

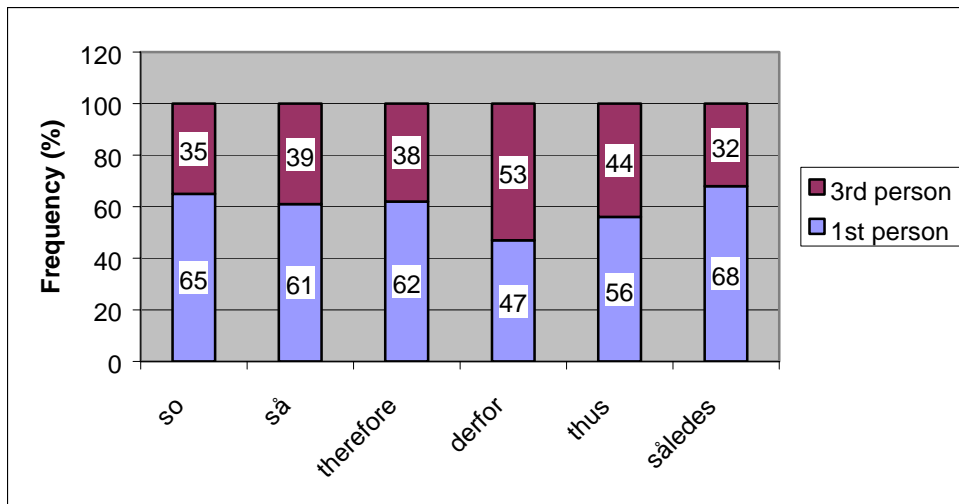


Figure 6.1 Cross-linguistic comparison: identity of the relational protagonist
(so-så p<0.5 NS, therefore-derfor p<0.005, thus-således p<0.05 NS)

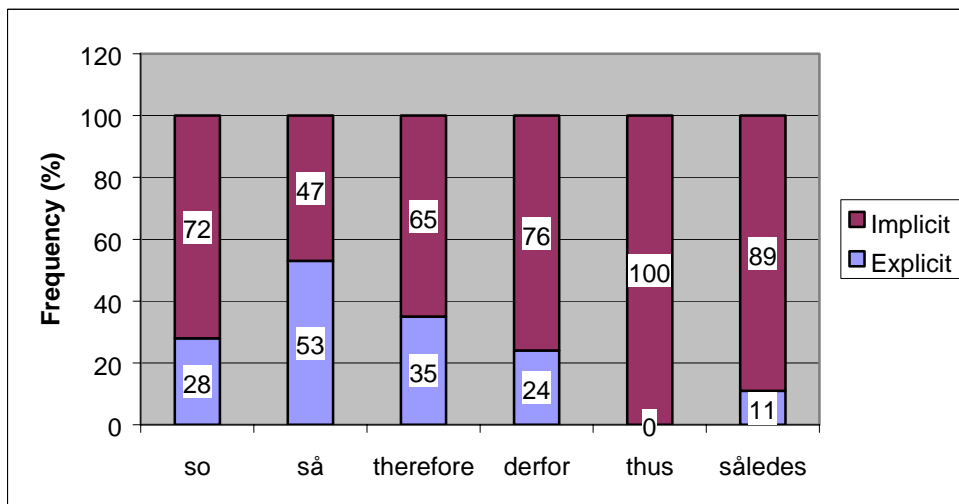


Figure 6.2 Cross-linguistic comparison: realization of protagonist in subjectively-presented epistemic S2 segments
(so-så p<0.05, therefore-derfor p<0.5 NS, thus-således p<0.5 NS)

Table 6.4 reveals that there are significant differences in the relational interpretations expressed by all three pairs. *So* appears to encode a higher level of speaker involvement than *så*, as there are more instances which express either causal epistemic or speech act relations. This impression is supported by *so* more often accompanying an implicitly-realized causal participant in subjectively-presented consequence statements, as seen in Figure 6.2.

Similarities between the two lexemes include that both are capable of expressing content, epistemic, and speech act relations.

The semantic difference between *thus* and *således* is not as wide as that between *so* and *så*. *Thus*, which less often expresses a causal epistemic relationship than *således*, as seen in Table 6.4, seems to be less subjective. Figure 6.2 also reveals that the identity of the causal protagonist in relationships involving *således* is more often in the first person, which indicates that *således* is higher on the speaker involvement scale. The two words are similar in that neither is utilized to express speech act causal relations.

The data in Table 6.4 indicates that the differences between *therefore* and *derfor* are also statistically significant, yet how they differ from one another is somewhat unclear. Figure 6.1 shows that *therefore* more often accompanies first-person causal protagonists, which leads to the conclusion that it is more subjective than *derfor*. Indeed, 51% of the instances of *therefore* involve the expression of causal epistemic relations, as opposed to only 46% for *derfor*. Moreover, the data examined yielded one example of *therefore* expressing speech act relations, already quoted in (4.3). No such corresponding example is evidenced in the *derfor* material. Of course, the existence of a sole example does not offer definitive proof, but it does tantalize.

But although many factors point towards *therefore* being the more subjective of the pair, a second glance at Table 6.4 shows that it also expresses nonvolitional causal relations far more often than *derfor*. Indeed, the most striking semantic difference between the two lexemes is that whereas *derfor* is mostly restricted to expressing either volitional content or causal epistemic causal relations, *therefore* seems far more versatile in its relational capabilities.

Overall, one may deduce that all six conjuncts are commonly used to express both volitional and epistemic causal relations, although in varying degrees. The expression of nonvolitional relations is mainly restricted to either *therefore* or *thus* in English, and to

således in Norwegian. The expression of the most subjective extreme on the speaker involvement scale, speech act relations, is even more limited, being virtually restricted to the domains of English *so* and Norwegian *så*.

As regards scope involved in the expression of causal linkage, the only one of the six conjuncts that invokes global scope to any large degree in the corpus sample studied is *so*, at 12% of instances. Hence, this factor points towards *so* as being the most subjective. This characteristic may help explain why 3 of the 4 cases where *derfor* involves global linkage are rendered in English by *so* rather than *therefore*, as in (6.13). Here, the speaker tells a long story which ends with the following:

(6.13) "Men de gode dinéene som dør om dagen, får leve videre i et annet land, et grønt og frodig land langt der nede under jorden. Dette landet er enda vakrere enn vårt. Der er vilt i massevis og krigerne som kommer dit, kan vinne store seire over fienden. Begge de to fedrene dine er i dette landet nå, Tordensønnen," avsluttet Cochise. "Og *derfor* skal du ikke sørge lenger." (SH1)

"But the good Diné who die in the daytime are allowed to live on in another country, a green and fertile land far down under the earth. That land is even more beautiful than ours. There is game in abundance and the braves who go there win great victories over their enemies. Both your fathers are in that country now, Son-of-Thunder," Cochise finished his talk. "And *so* you must not grieve for them any more."

6.2.2 Syntactic considerations

Figure 6.3 presents an overview of the frequencies with which the six conjuncts are found in initial position in the sample material. For purposes of comparison, this data is presented in terms of percentages, rather than actual occurrences.

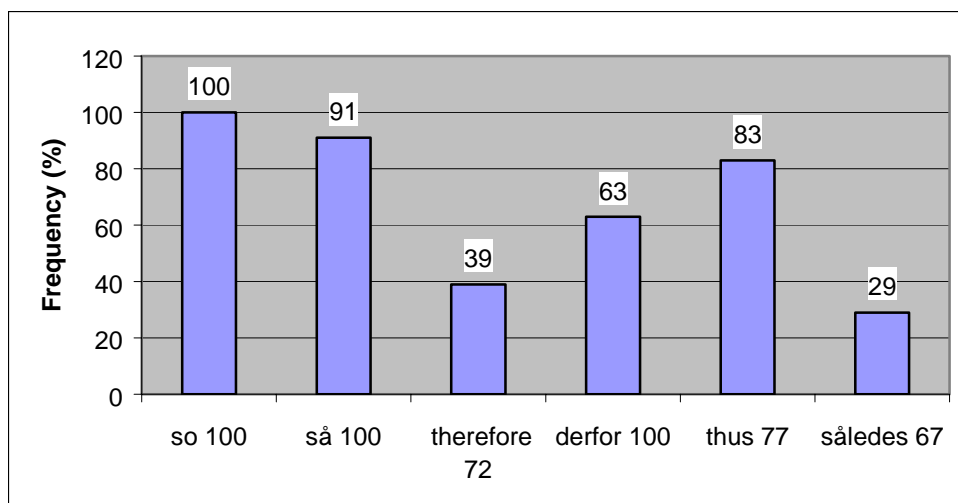


Figure 6.3 Cross-linguistic comparison: Occurrences of the six conjuncts found in initial position

The disparity between *so* and *så* is not all that great. The main difference lies in the ability of the Norwegian lexeme *så* to occupy mid-position where it is never translated by *so*, as already discussed in section 6.1. Mid-position *så* is represented in the sample by only 9% of instances, indicating that the word closely resembles *so* in being preferred in initial position. Moreover, both initial-position *so* and *så* usually introduce finite clauses.

The disparity between *therefore* and *derfor* is far greater, as *derfor* is more much more frequently found in initial position than is *therefore*. Furthermore, initial-position *derfor* introduces a finite clause more often than does initial-position *therefore*, 88 versus 71 percent of the time.

The pair with the greatest syntactic difference, however, seems to be *thus/således*. *Thus* is found in initial position in 83% of the cases examined, as opposed to *således* with only 29% of instances evident in initial position. Although *thus* is of course not uncommon in mid position, medial position is that which is preferred by *således*. Moreover, in those instances where *således* is positioned initially, it always introduces a finite clause. Initial-position *thus* is more versatile in this regard, with 19% of cases followed by something other than a finite clause.

It therefore appears that from a syntactic standpoint using sentence position as a measure, *so* and *så* are fairly well-matched. As for the remaining two pairs, it appears that *therefore* more closely resembles *således* than does *thus*. Similarly, the syntactic environment of *thus* resembles that of *derfor* to a larger degree than that of *therefore*.

6.2.3 Discourse considerations

Considerations of discourse, most especially in terms of the frequencies of occurrences of the various conjuncts are also of interest in a cross-linguistic comparison. It is doubtful, for example, that one would translate an extremely common expression with one that is relatively rare in the target language. Figure 6.4 presents the overall frequencies calculated on the basis of the data derived from the ENPC. Figure 6.5 presents the same frequencies, but divided into the categories of fiction and non-fiction.

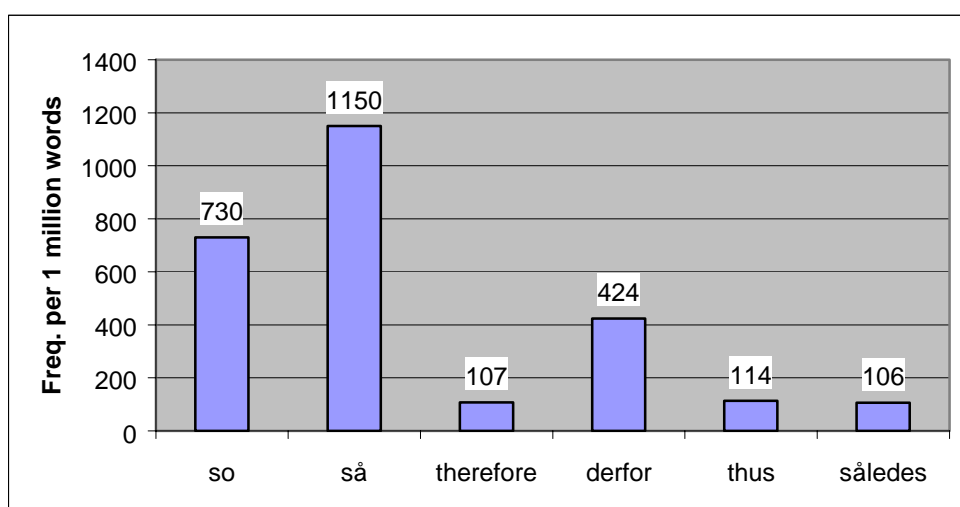


Figure 6.4 Cross-linguistic comparison: overall frequency in the ENPC

Both *so* and *så* are the most common in their two respective languages, of the conjuncts under study. That *så* is found more frequently in the corpus is perhaps mainly explained by its having the extra function of retrospective reinforcement and/or resumption in conditional statements, which is a function fulfilled by *then* or omission in English. The pair *thus* and *således* are among the least common conjuncts in both languages, and they match each other closely in their frequency. The greatest disparity is evidenced for *therefore* and *derfor*, where

derfor is more than four times as common as *therefore*. Indeed, the frequency of *therefore* is more on a par of that of *thus* and *således*. This incongruity may partially explain the imbalance revealed in Table 6.2, which shows that although *therefore* is often rendered as *derfor* (83% of cases), *therefore* is only the second most common translation option for *derfor*, with 24% of the examples studied.

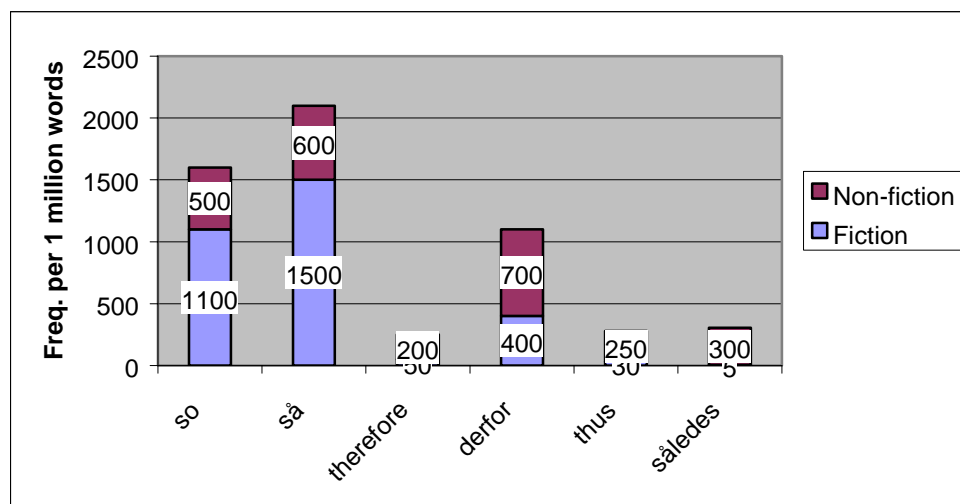


Figure 6.5 Cross-linguistic comparison: distribution in fiction and non-fiction in the ENPC

Figure 6.5, where the overall frequencies of the six conjuncts have been broken down to show their occurrence in fiction and non-fiction, supports the premise concerning the similarities in discourse between *so* and *så*. They are common in both fiction and non-fiction, although both more so in fiction. *Thus* and *således* are both much more common in non-fiction, although it is *således* which distinguishes itself by being restricted in its usage almost entirely to non-fiction. *Therefore* and *thus* are also similar in that both are more common in non-fiction, but the non-fiction/fiction ratio is quite different for the pair. The ratio for *therefore* is 4:1, meaning that for every one occurrence of the lexeme in fiction, there are four such occurrences in non-fiction. *Derfor*, by contrast, exhibits a 7:4 ratio, indicating that *derfor* is comparatively almost twice as common as *therefore* in fiction.

6.3 Translated texts

Another aspect of any cross-linguistic study involves closer examination of the discourse environment evident in the translated texts, as opposed to the original texts. The following sections first examine the correspondence between the semantic role of result expressed by the conjuncts in the original texts with the semantic roles expressed by their translations, in order to discover the extent to which Kortmann's scale of informativeness (see 2.3.2.2) may explain the translation process. Second, the results of comparisons between the speaker involvement levels apparent in the original and translated texts are presented. Such investigation is meant to determine the extent to which the subjectivity of the original discourse is preserved in translation. Afterwards, a comparison of the six conjuncts as they appear in the original and translated texts is discussed, with the purpose of determining whether the conjuncts are used in the same environments in the original and translated contexts.

6.3.1 Semantic roles in translation

Table 6.5 presents an overview of the semantic roles of the translated conjuncts, developed from the material shown in Tables 6.1 to 6.3. The roles are listed in order of the "most informative" (concession) to "least informative" (coordination) in accordance with Kortmann's scale of informativeness (see section 2.3.2.2). In only one instance does a translator choose a "more informative" expression as correspondent to the adverbials of result. In this one case (6.14), *således* is rendered by a conjunct of concession.

(6.14) Hvem som er barnets mor skaper normalt ingen problemer — her følger man helt ut de biologiske forhold. Det eneste spørsmål som kan oppstå her — og som fra tid til annen også faktisk oppstår — er om et bestemt barn i virkeligheten er født av den kvinne som påstås å være moren. Slike rene identitetstvil vil ha sin årsak i påstander om at barnet er blitt forvekslet etter fødselen.... Noe behov for å regulere hvem som er mor i lovs form er det *således* ikke. (LSPL1)

As far as the mother is concerned, there are usually no problems — it is done on an entirely biological basis. The only question that could arise — and which from time to time does come up — is whether a certain child was actually born to the alleged mother. Such doubts about the mother's identity may stem from allegations that the

child has been exchanged immediately after birth.... *However*, statutory regulation should not be necessary to decide who is the mother of a child.

Table 6.5 Semantic roles of the translations, listed in terms of percentages

	<i>so</i>	<i>så</i>	<i>therefore</i>	<i>derfor</i>	<i>thus</i>	<i>således</i>
Concession	-	-	-	-	-	1.5
Result	74	58	95	80	74	53.5
Time	1	-	-	-	-	1.5
Manner	10	-	-	-	13	12
Exemplification	-	-	-	-	-	1.5
Coordination	6	4	-	-	1	-
Other	-	-	-	-	1	-
Not translated	9	38	5	20	11	30

On the one hand, such data supports Kortmann’s attempt to systematically explain variation in interpretation with his contention that translators tend to require more information in order to choose a “more informative” expression in translation. By far the majority of translated expressions express either result or a “less informative” interpretation. On the other hand, in spite of being able to function as manner adverbials, both *thus* and *således* were more often translated by an adverbial expressing result, showing that translators more often than not preferred the “more informative” expression in these instances. The second most common interpretation alternative for these lexemes is that of manner, demonstrating that there is some semantic similarity between manner and result and that these two interpretations are semantic pairs in very many circumstances. The result interpretation attributed to the translations of these two words becomes further blurred with manner when one considers the ambiguity between result and manner of the expressions *dermed* and *således* which are frequently chosen as translation alternatives for the original *thus*, together with *thus* which is used to render the original *således*. Kortmann’s scale, as graphically presented in Figure 2.1, perhaps indicates a wider gap between the semantic categories of result and manner than is needed.

However, if Kortmann’s scale is to be reconciled with the data uncovered in this study, then it may be that the manner interpretation is misplaced on Kortmann’s scale, and should be considered a “more informative” expression than those of result.

As Table 3.3 indicates, entries in traditional bilingual dictionaries indicate such ambiguity by the variety of translation alternatives offered, most particularly for *thus* and *således*. Interestingly, although traditional bilingual dictionaries often list items such as *like this* and *like that*, the data taken from the ENPC does not support such a contention. These terms are not at all present as possible translation options.

6.3.2 Speaker involvement of the original and translation discourse environments

The relational discourse contexts of the translations of all six conjuncts were compared to the original contexts by means of a speaker involvement analysis of the translations of each occurrence of each conjunct included in the study. Statistically significant differences emerge only in relation to *so* and *thus*. Overviews of the data concerning these two lexemes are found in Figures 6.6 and 6.7.

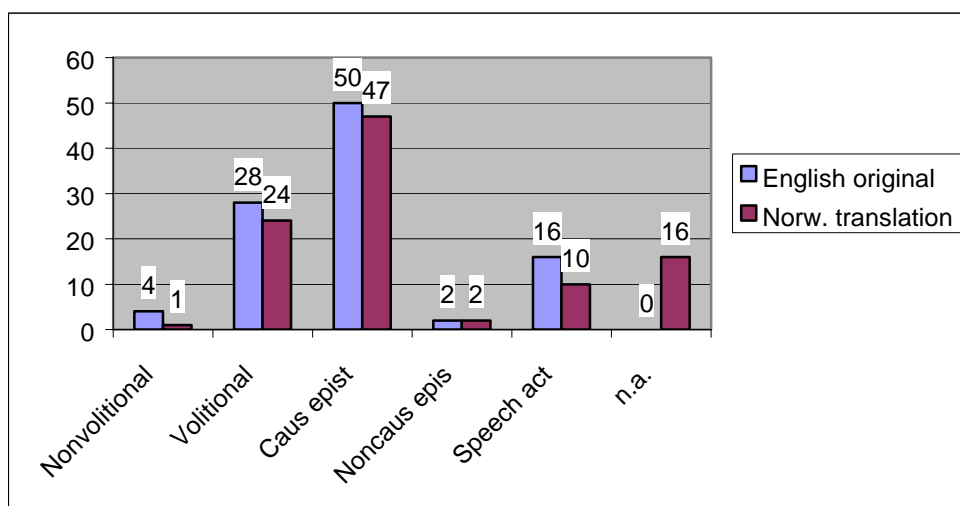


Figure 6.6 Relational discourse context of 100 occurrences of *so* and their Norwegian translations. (overall $p < 0.0001$, without “n.a.” $p < 0.01$)¹⁵

¹⁵ In both Figures 6.6 and 6.7, “n.a.” refers to those instances where the translator omits any expression of causality.

Here, the discourse environment of *so* in translation involves the extremes of both the objectivity of nonvolitional causal relations and the subjectivity of speech act relations to a lesser extent than in the original discourse environment. For instance, nonvolitional relations, evident in 4% of examples in the original English texts, are found in only 1% of translated texts. The frequency of speech act causal relations also drops from 16% in the original texts to 10% in the translated environment. While difficult to judge whether the translated discourse environment of *so* tends to be more or less subjective, it does seem to undergo a transformation to a less “radical” environment, lacking the spectrum of possibilities the original discourse environment displays.

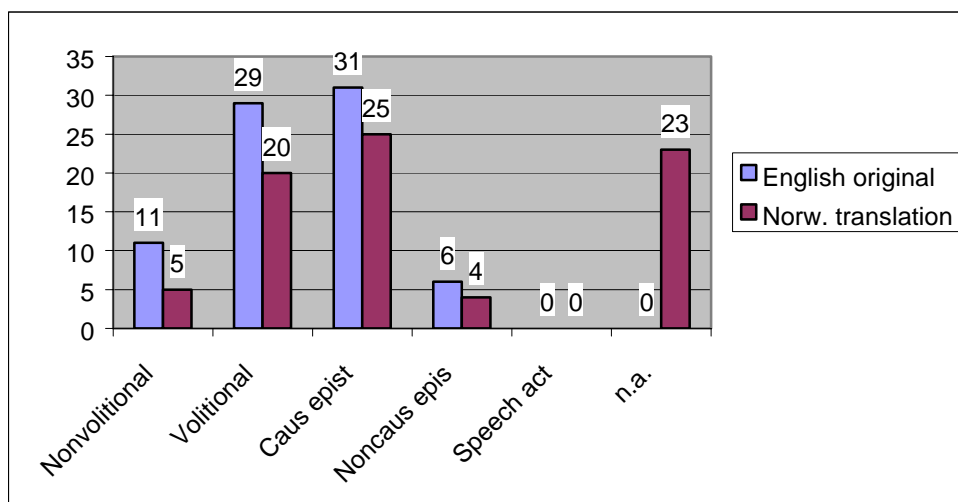


Figure 6.7 Relational discourse context of 77 occurrences of *thus* and their Norwegian translations. (overall $p < 0.0001$, without “n.a” $p < 0.005$)

Unlike *so*, the discourse environment of the translations of *thus* seems to involve greater subjectivity than that of the original texts. If one disregards the 23 instances where translation was omitted, then expression of nonvolitional relations drops from 14% of the original 77 examples of *thus* to 9% in the translated texts, and expression of causal epistemic relations rises from 40% to 46%.

No differences between the causal relations expressed in the original Norwegian texts and their English relations were uncovered. The comparison of the discourse environment of *therefore* with that in the Norwegian translations reveals slight differences, none of which are

statistically significant. One may perhaps conclude that the level of speaker involvement is generally preserved in translation, although there are some exceptions like *so* and *thus*.

6.3.3 Semantic analysis of the original and translated lexemes

The causal relationships expressed by the six conjuncts as they appear in the original texts were compared with the meanings expressed by the lexemes in the translated texts. The differences that emerged after evaluation of original and translated *therefore*, *thus*, *så*, and *således* include no statistically significant results, indicating that these conjuncts express a similar semantic content in the target language as in the source language. This generalization, however, may not be stated of either *so* or *derfor*.

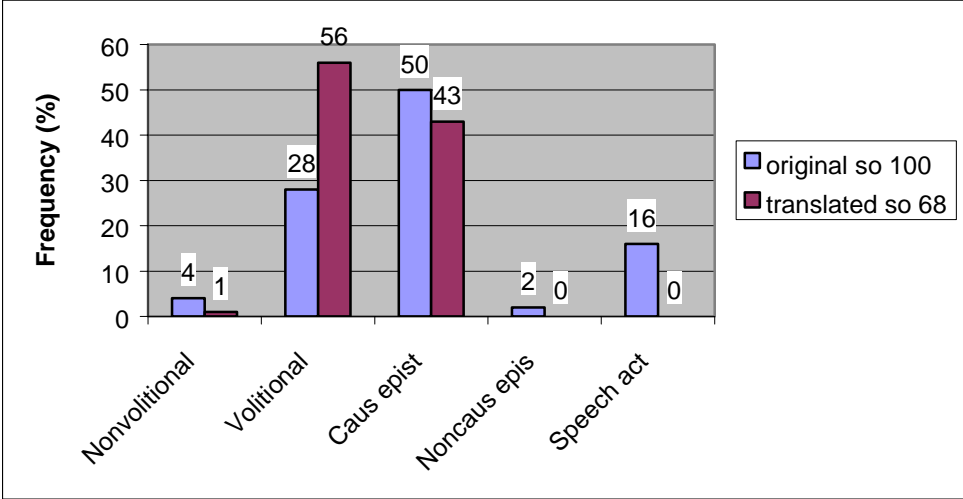


Figure 6.8 Relational context of original and translated *so* (p<0.0001)

Figure 6.8, comparing the relational context of original and translated *so*, seems to show that translated *so* encodes a lower level on the speaker involvement scale than original *so*.

Translated *so* is never used to express speech act relations, less commonly expresses causal epistemic relations, and much more frequently expresses volitional content relations than does original *so*. This discrepancy might help explain a possible underuse of *so* in translating the fairly subjective conjuncts *så* and *således*, as well as why *so* is the favored translation option of *derfor*.

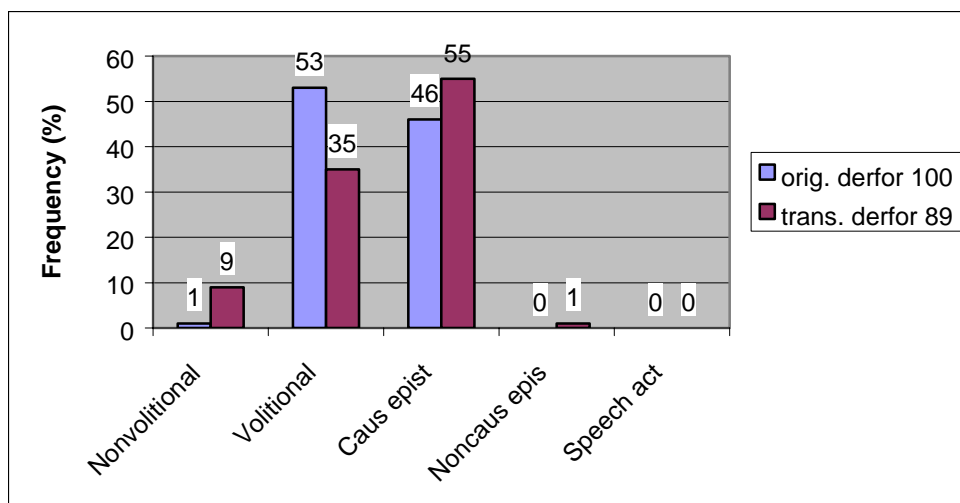


Figure 6.9 Relational context of original and translated *derfor* ($p < 0.0001$)

The trend indicated in Figure 6.9 seems to be in the opposite direction, where translated *derfor* seems to be more subjective than its original counterpart, as 55% of instances express epistemic causality rather than 46%. A paradox, however, appears when one considers the category of nonvolitional relations where translated *derfor* is much more common than original *derfor*. In this respect, translated *derfor* seems to function more similarly to English *therefore* than does original *derfor*, and thus represents a possible example of ‘translationese’ (see section 1.2). This apparent contradiction is also reminiscent of original *således* (see section 5.2.1), which also expresses nonvolitional relations despite displaying many features indicative of a higher subjectivity level.

6.3.4 Syntactic comparison of the translated lexemes

Figure 6.10 presents an overview of the frequencies with which the lexemes in the translated texts are found in initial position, together with a representation of the occurrences of initial-position conjuncts which introduce a finite clause. Here, the syntactic differences between *so* and *så* as they are found in translation are even smaller than with original *so/så*. Translated *so* is always found in initial position (again confirming previous research, see section 2.3.4), and it always introduces a finite clause. Translated *så* is found in initial position in 53 out of 54 cases (98%), more frequently than is original *så*. The lack of more

examples of medial-position causal *så* represents another possible case of “translationese” (see section 1.2). Both translated *therefore* and *derfor* appear more often in mid-position than their original counterparts. Moreover, initial-position *therefore* in the translations nearly always introduces a finite clause, and is thus less versatile than original *therefore* in this respect. Initial-position *således* (60% of the total) is more common than mid-position *således* as represented in the translated texts, whereas the opposite holds true with *således* in the original texts. By contrast, *thus* is more frequently placed in mid-position in the translations than in the original texts. It should be noted, however, that the numbers involved in this survey are relatively small. In order to confirm any trends indicated, a larger sample of translated texts should be consulted.

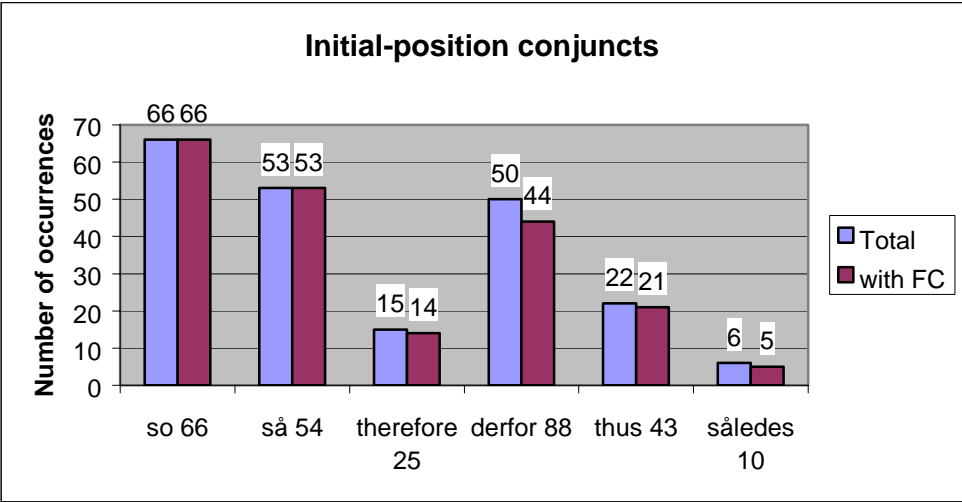


Figure 6.10: Cross-linguistic comparison: Frequency in initial position, accompanied by finite clauses

6.3.5 Discourse comparison of the translated lexemes

Figure 6.11 lists the overall frequency of the translated conjuncts in the studied sample, and graphically presents their distributions in fiction and non-fiction.

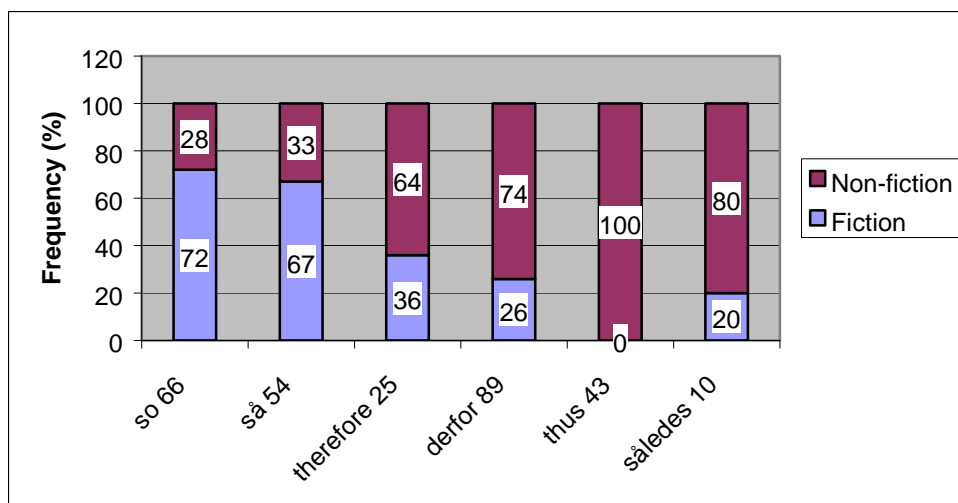


Figure 6.11 Frequency of the six conjuncts in the translated texts of the ENPC

It is not possible to directly contrast the information here with that in Figures 6.4 and 6.5, because the latter two graphs were created on the basis of the entire ENPC, whereas the data in Figure 6.11 is gathered only from a part of the whole corpus. Still, it can be seen that most of the same general tendencies exhibited by the conjuncts in the original texts are also displayed by the translated conjuncts. Both translated *so* and *så* are common in both fiction and non-fiction, yet more frequent in fiction. By contrast, translated *therefore* and *derfor* are both more frequent in texts of non-fiction. Translated *thus*, with not a single instance found in the fiction texts, differs in this respect from its original counterpart. However, if one takes into account that there are only approximately 30 instances of original *thus* per 1 million words (see Figure 6.5), then the absence of translated *thus* in fiction may possibly result from a too small sample. Similarly, *derfor* is the most common of the translated conjuncts, something which is not true of the original conjuncts where examples of both *so* and *så* are far more numerous. This discrepancy could point towards an overuse of *derfor* in translation, and/or an underuse of *so* and *så*. A more thorough examination of the ENPC or other similar corpora could resolve this question.

Instances of translated *således* are rather rare, as the corpus sample includes only 10 cases. It is interesting to note that 2 of these 10 examples are found in the ENPC translated fiction

texts. One case is a translation of *therefore*, and the other of *so*. This 20% frequency differs remarkably from the 3% frequency of original *således* in fiction, and seems to point towards an overuse of *således* in translated fiction. Indeed, in (6.15), the speaker is ruminating over the disadvantages of certain names:

(6.15) And with some appellations, the contrary applies. Like Walter, for instance. You can't be Walter in a pram. You can't be Walter until you're about seventy-five in my view. *So* they might call you Robin Bartholomew Walter, for example. (JB1)
Og for noen navn gjelder det motsatte. Som Walter, for eksempel. Du kan ikke være Walter i en barnevogn. Du kan ikke være Walter før du er omtrent femogsytti, etter mitt syn. De kunne *således* kalle deg Robin Bartholomew Walter, for eksempel.

The use of *således* in this type of monologue is not matched by similar usage in the original Norwegian texts, and seems inappropriate. A general examination of the entire ENPC reveals 19 total cases of translated *således*, 3 of which are found in the fiction texts. So while translated *således* is less common overall than original *således*, it appears to be overrepresented in the fiction texts.

7 Conclusion

A main goal of this study has been to develop profiles of six causal conjuncts in two languages: *so, therefore, thus* and *så, derfor, således*. Such profiles were meant to aid in a cross-linguistic examination of the two sets of connectors, in order to determine the extent of correspondence between them. An additional benefit of this study has been the opportunity to further test the validity of the speaker involvement scale in cross-linguistic research. This last point will first be addressed in the ensuing subsections, followed by discussion of the more central issues of profiles for and correspondence between the six conjuncts.

7.1 Speaker involvement scale

As stated in section 2.4.2, previous researchers have developed a scale of speaker involvement as a means of explaining the distribution of causal connectives in discourse. Application of their methods to corpus-based examples of Norwegian and English causal connectives has offered a good means to test their claim of cross-linguistic validity.

Results concerning the subjectivity levels of the six conjuncts as indicated by the methods designed to reveal speaker involvement level have been discussed in Chapters 4, 5 and 6. This analyst's judgment concerning the value of the speaker involvement scale as a diagnostic tool is, however, mixed. There is no denying that speaker involvement plays a role in the choice of causal connective. This study has detailed statistically significant differences in the causal coherence relations expressed by the six lexemes. Unfortunately, the finer analysis of factors meant to differentiate the conjuncts when they express volitional content and especially epistemic causal relations did not always make the differences clear. Factors would often point in opposite directions, leaving one to surmise which of the factors should weigh more in a judgment of speaker involvement level. This trend does not appear to have played a role in the previous research concerning Dutch and French causal connectives, where the results for the various areas under investigation either did not differ significantly or

pointed in the same direction on the subjectivity scale. These studies involved the examination of only 50 tokens of each causal connective, whereas the present study dealt with up to 100 of each. This suggests that the speaker involvement scale should be tested with greater numbers of examples before it can be declared a reliable cross-linguistic tool in explaining the distribution of connectives.

Moreover, because the ENPC is divided according to text category, it was possible to analyze the speaker involvement scale for each conjunct as they appear in fiction and non-fiction. Such analysis reveals no significant differences in the uses of either *therefore* or *så*. *Således* was not examined in this way, since only 2 of the 67 samples were found in fiction texts. However, the three remaining conjuncts, *so*, *thus*, and *derfor*, all display significant differences in their speaker involvement level in fiction as opposed to that in non-fiction. Specifically, all three lexemes show indications of encoding higher levels of speaker involvement when appearing in non-fiction. This observation coincides with the factors pointing towards a relatively high subjectivity level of *således*. Taken together, it appears that the speaker involvement level encoded by at least some causal conjuncts depends to a certain extent on text category. As previously discussed, perhaps a higher subjectivity level provides one way of compensating for the objective or formal environment that is more common to non-fiction. This particular aspect of the speaker involvement scale does not appear to have been previously investigated. The material in previous studies of Dutch and French came from non-fiction sources only, ranging from newspaper corpora to transcripts of European parliamentary debates.

In any case, the results of this study indicate that the comparison of the six conjuncts' levels of speaker involvement would, in isolation, provide an insufficient explanation of either the differentiation of the conjuncts in context or the correspondences between them. Subjectivity represents one valid and important factor worthy of study when it comes to

semantics, but a fuller explanation also requires analysis based on syntactic and discourse considerations. Moreover, a cross-linguistic study should take into account the potential for ambiguity in interpretation which is inherent in the translation process. Another approach, such as the scale of informativeness, could therefore prove useful as a supplement to the speaker involvement scale.

7.2 Profiles

Table 7.1 presents a general overview of some of the main findings discussed in Chapters 4 and 5. As such, it offers profiles of the six conjuncts based on syntactic, semantic, and discourse considerations. The format demanded by the layout of such a table calls for key words only, and thereby precludes any nuanced view. This table, where the primary similarities and differences between the six conjuncts are accessible at a glance, is intended as no more than an aid to the reader in recalling the main points of discussion, as is the brief summary which follows it.

First, although all six conjuncts are able to function in initial position while introducing a finite clause, this is most common of *so* and *så*. *Therefore* and *således* are both more frequent in medial position, although when in initial position it is *therefore* which shows more variation in terms of the type of clause which follows. Both *thus* and *derfor* are more frequently found in initial position than mid position, and both are capable of introducing clauses which are not finite. Of the three Norwegian conjuncts under study, it is only *derfor* which shows this type of flexibility when in initial position.

Second, the semantic considerations outlined in Table 7.1 refer to the speaker involvement scale. A plus symbol indicates that the factor following indicates a higher level of speaker involvement, whereas a minus symbol indicates the opposite. The “□” symbol indicates a medial position on the speaker involvement scale. As has been discussed, not all of the factors pointed in the same direction. Several factors indicate that *således*, for example, is the

	Syntactic considerations	Semantic considerations	Discourse considerations
<i>so</i>	<ul style="list-style-type: none"> • 100% initial position. <ul style="list-style-type: none"> ○ of which 98% introduce FC 	<ul style="list-style-type: none"> + expresses SA relations + present tense + global scope 	<ul style="list-style-type: none"> ○ most frequent of Eng. conjuncts ○ common in both text categories, especially F
<i>så</i>	<ul style="list-style-type: none"> • 91% initial position <ul style="list-style-type: none"> ○ of which all introduce FC 	<ul style="list-style-type: none"> + expresses SA relations higher SI than <i>derfor</i>: <ul style="list-style-type: none"> + 1st person CP + factually-presented S2 	<ul style="list-style-type: none"> ○ most frequent of Norw. conjuncts ○ common in both text categories, especially F
<i>therefore</i>	<ul style="list-style-type: none"> • medial position more common • 39% initial position <ul style="list-style-type: none"> ○ of which 71% introduce FC 	<ul style="list-style-type: none"> - expresses NV relations 	<ul style="list-style-type: none"> ○ roughly equivalent in overall freq. to <i>thus/således</i> ○ more freq. in NF than F
<i>derfor</i>	<ul style="list-style-type: none"> • 63% initial position <ul style="list-style-type: none"> ○ of which 94% introduce FC 	<ul style="list-style-type: none"> ⌘ virtually restricted to CE and VOL relations higher SI than <i>så</i>: <ul style="list-style-type: none"> + implicit realization of CP 	<ul style="list-style-type: none"> ○ second most freq. Norw. conjunct ○ most common Norw. conjunct in NF
<i>thus</i>	<ul style="list-style-type: none"> • 83% initial position <ul style="list-style-type: none"> ○ of which 81% introduce FC 	<ul style="list-style-type: none"> - no SA relations + expresses NC relations + factually-presented S2 + implicit realization of CP - passive voice - only local scope 	<ul style="list-style-type: none"> ○ roughly equivalent in overall freq. to <i>therefore/således</i> ○ more common in NF than F
<i>således</i>	<ul style="list-style-type: none"> • medial position more common • 29% initial position <ul style="list-style-type: none"> ○ of which all introduce FC 	<ul style="list-style-type: none"> - no SA relations - expresses NV relations + 1st person CP + implicit realization of CP + present tense 	<ul style="list-style-type: none"> ○ least freq. Norw. conjunct ○ virtually restricted to NF

Table 7.1 Profiles of the six conjuncts (for explanation of abbreviations, see List of Abbreviations)

most subjective of the three Norwegian conjuncts: it most often accommodates a first-person causal protagonist, and that participant is most often implicitly realized in subjectively-presented consequence segments. Furthermore, *således* most often appears in conjunction with the present tense. And yet, this same conjunct never expresses speech act relations and allows the most frequent means of expressing nonvolitional content relations.

Third, *so* and *så* are most frequently represented in their respective languages in the corpus. *Derfor* is the second most frequent Norwegian conjunct, more common than any of the three remaining expressions in either language. *Således* is clearly the least frequent of the Norwegian conjuncts, and its frequency is matched by both *therefore* and *thus* in the English original texts. *So* and *så* are common in both text categories, but most heavily represented in fiction. In contrast, the other four conjuncts are more common in non-fiction, with *således* in particular virtually entirely restricted to non-fiction.

7.3 Correspondence

7.3.1 Dictionary equivalence

The object of this study is the overt causal linkage provided by adverbials which contain implicit anaphoric reference. More specifically, the foundations rest upon the three most frequent English conjuncts of result, both as identified by previous research and as confirmed by the data found in the ENPC. The choice of the three Norwegian lexemes involved in the present study resulted from a survey of various traditional bilingual dictionaries.

This study has shown that such dictionary equivalence proves inadequate in many cases. Ordnett.no, for instance, lists both *således* and *følgelig* (in addition to *derfor*) as translation alternatives of *therefore*. The corpus findings suggest that although these two lexemes are found to be correspondents to *therefore* in a few sentences in the ENPC, they are not represented to a great enough degree to be listed in a dictionary as a proper translation. Exactly what degree is necessary to be “certified” as an equivalent is of course a matter of

judgment. But if frequency of translation is any measure, then the choice of only *således* and *følgelig* seems a random one. This same dictionary has also neglected to list *så* as a translation of *so*, which does not reflect the reality evident in the actual translations in the ENPC.

Dictionaries seem to have an especially difficult task when it comes to equivalents for *thus* and *således*. Part of the problem seems to be the ambiguity between a manner and result interpretation, which often leads editors towards making a clear division in translation alternatives for these two meanings. Others recognize some special factors entailed in the usage of these words, and label possible translations as “poetic/formal” or “spoken.” These are legitimate strategies, but the actual expressions chosen are not always appropriate. For instance, nearly all dictionaries choose *so* as a translation for *således*, yet the MC calculated on the basis of the material included in this study is less than 2%. Such a low MC does not seem to warrant so many dictionary entries. Or alternatively, if the threshold to entry in dictionaries is to be so low, then many more expressions should be listed.

The majority of dictionaries list *therefore* as the first translation alternative for *derfor*. Most also list *so* as the next option after *therefore*. However, several dictionaries also offer rather long lists of other expressions, and one may wonder at the logic behind such decisions. For instance, Ordnett.no’s listing of *consequently* as the second translation option seems forced, given both the rarity of this word (evident only ten times in the entire body of English original ENPC texts), and the fact that *consequently* never appears in the translations studied here. This same dictionary adds that *thus* as a translation for *derfor* is formal in style, whereas it makes no such comments concerning either *therefore* or *consequently*. The criterion used to evaluate formality is unclear, and differences between the usage of Norwegian *derfor* and English *therefore* go unremarked.

7.3.2 Corpus-based correspondence

It is relatively easy to criticize dictionaries for not providing adequate translations. More difficult is the provision of alternative proposals. The current study has nevertheless provided the basis for the suggestion of translation alternatives offered in Table 7.2. A few explanatory comments must first be noted. First, the translations offered in Table 7.2 are designed to provide the “essence” of the word, and are not intended for use in every possible situation. Second, omission is sometimes recommended as a translation alternative for a term, a strategy which is not favored by dictionaries. Still, it is hard to deny that in some cases, omission represents a better translation choice than some word whose usage might seem contrived. Third, Table 7.2 sometimes provides information not noted in most dictionaries, for instance with regard to position. The information uncovered in this study, however, has suggested that position at times plays a role in the choice of translation correspondent.

Lexeme	Translation
<i>so</i>	så, derfor (formal)
<i>therefore</i>	derfor, således (formal, esp. medial position)
<i>thus</i>	dermed, derfor, på denne måten (manner)
<i>så</i>	so, Ø/then (in conditional constructions and in medial position)
<i>derfor</i>	so, therefore (formal and/or in medial position)
<i>således</i>	thus, Ø (esp. in medial position)

Table 7.2 Corpus-based suggestion of translation alternatives

Syntactic, semantic, and discourse considerations all point towards *so* and *så* as being the matches for each other in most circumstances. Both are fairly frequent expressions in fiction and non-fiction, encode a fairly high level on the speaker involvement scale, and tend to be initially positioned, accompanying finite clauses. *Derfor* has been included as a translation alternative for *so*, especially in a more formal discourse environment (as measured by text

category). *Derfor* is not uncommon in the same preferred syntactic environment as *so*, and is actually the most frequent of the three Norwegian conjuncts in non-fiction. It therefore is oftentimes appropriate as a translation of *so*, although it should not be used to express speech act relations. Omission/*then* is offered as a second possible translation of *så*, when it appears in conditional constructions or in medial position, as neither of these circumstances are appropriate for *so*. Of the two options, the corpus findings show that omission is preferred to *then*.

Therefore is listed as the second translation alternative for *derfor*, especially in a formal environment or when *derfor* appears in medial position (the preferred position of *therefore*). The lower frequency of *therefore*, especially in fiction, does not warrant it being the favored translation option. Instead, this slot belongs to *so*, whose semantic and syntactic uses encompass those of *derfor*. The overall frequency of *so* is greater than that of *derfor*, but this imbalance does not preclude the appropriateness of *so* as a translation alternative. It seems better to choose a more common expression than a less common one, providing the former is suitable to both text categories, as *so* is.

Derfor seems to be the best translation option for *therefore* in most circumstances. However, leaving *derfor* as the only alternative would be inadequate, as this would trigger the use of translated *derfor* in circumstances that are not suitable to the conjunct. Notably, the use of *therefore* to express nonvolitional relations is not mirrored by the uses of original *derfor* (as opposed to *derfor* in the Norwegian translated texts). Such capability is however matched by *således*, which also shares with *therefore* the characteristic of more frequently being found in medial position. The choice of *således* is not entirely satisfactory, as the translation correspondence between *therefore* and *således* demonstrated in the ENPC sample is a mere 3%, despite *således* being the second most common translation alternative. Listing *således* as a translation option might lead to an overuse of the conjuncts in translated texts,

because the constraints under which *således* operates (particularly as regards text categories) might not be fully understood by the dictionary user. Unfortunately, no other expression stands out as a better choice.

Thus is chosen as the first translation alternative to *således* partly because of the 45% equivalence evident in the ENPC sample between *således* and *thus*. No other expression comes close to this correspondence. Moreover, the syntactic and semantic characteristics of *thus* encompass those of *således*. Although *thus* is more common in initial position, it is certainly not uncommon in the medial position favored by *således*. Also, both *thus* and *således* appear to preclude the expression of speech act relations, so translated *thus* would not be forced to appear in an environment unnatural to original *thus*. *Thus* also displays a frequency similar to that of *således*, and consequently does not risk overusage in translation. Omission is offered as a second translation option of *således* simply because translators prefer this option in one-quarter of all circumstances, especially in relation to mid-position *således*. The inclusion of *thus* as the only translation of *således* would have been unrealistic.

Perhaps the most difficult translation to decide upon was that of *thus*. In the final analysis, the three most common translation correspondents for *thus* represented in the ENPC sample were chosen. *Dermed* seems to offer an adequate blend of the semantics of manner and result. However, the actual appropriateness of this conjunct needs to be further evaluated through examination of the syntactic, semantic, and discourse characteristics surrounding its usage. The second translation alternative offered, *derfor*, is acceptable in the same syntactic environment as *thus*. *Derfor* may be either initially or medially positioned. It is also the only one of the three Norwegian conjuncts studied that may duplicate that syntactic environment of initial-position *thus* when it is followed by something other than a finite clause. Although the choice of *derfor* would normally be inappropriate in cases where *thus* expresses nonvolitional content relations, the semantic environments of *thus* and *derfor* otherwise match. Lastly,

when the translator wishes to highlight the manner interpretation of *thus*, then *på denne måten* [lit: in this way] may be appropriate.

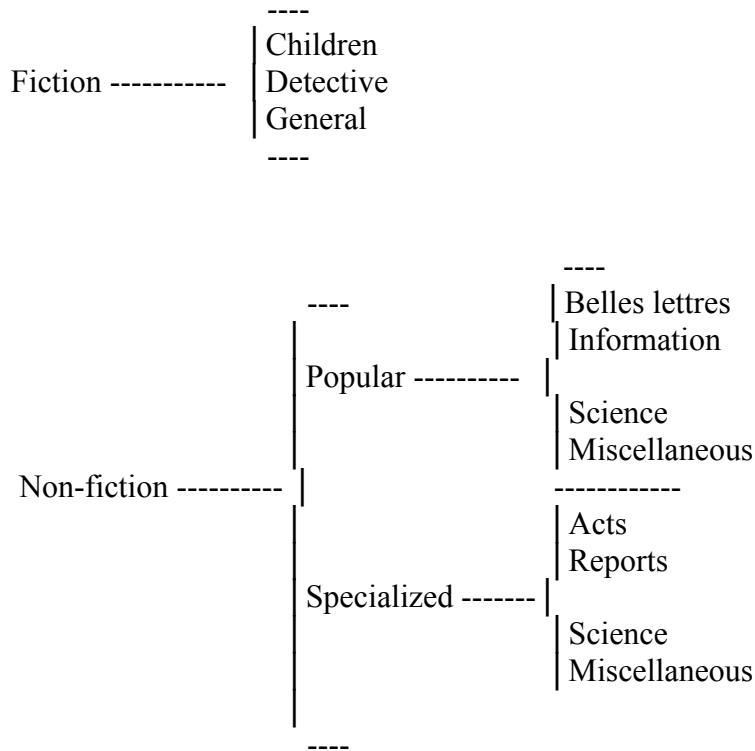
7.4 Suggestions for further research

There are many possible extensions of this study. First, this study has been limited to a subset of one type of overt causal linkage in English and Norwegian. An initial step might be to widen the scope and include samples of all the causal conjuncts evident in the ENPC, in order to further reveal any systematic ways the two languages have of explicitly expressing causality. Such a contrastive project also lends itself to a more in-depth study of the effects of the translation process upon the expression of causality, by taking advantage of a corpus of multiple translations of the same two English texts into Norwegian, an extension of the ENPC. A comparison of the ten translators' renditions of the same text could provide ample material to further research, particularly in the area of semantics which concerns the scales of both speaker involvement and informativeness. Furthermore, usage of a corpus such as the Oslo Multilingual Corpus would provide information not only about the expression of causality in Norwegian and English, but also in French and German. This would allow an expansion of the cross-linguistic aspect of the study of causality. Finally, future studies of causality could deal with other means of expressing causality in English and Norwegian. A previous study deals with subordinating causal linkage, and the present study involves adverbial causal linkage. The puzzle of causality in a cross-linguistic perspective is slowly taking shape, but still lacks many pieces.

Appendix 1

Composition of the English-Norwegian Parallel Corpus

A) Text type and genre



B) Number of words in the ENPC

	Norwegian original texts	English translations
Fiction (30 texts)	403,500	438,400
Non-fiction (20 texts)	226,400	261,000
Total	629,900	699,400

	English original texts	Norwegian translations
Fiction (30 texts)	415,500	410,500
Non-fiction (20 texts)	256,200	250,800
Total	671,700	661,300

Source: Page 6 (of 7) of Handout “CA and corpora.” Collected during ENG4106 (Contrastive analysis: Lexis, syntax, discourse), Fall 2003, University of Oslo, taught by Stig Johansson.

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