Connecting conditionals: a corpus-based approach to conditional constructions in Dutch
Reuneker, A.

CHAPTER 5

Grammatical features of Dutch conditionals

5.1 Introduction

In the previous chapter, I presented the corpus-based approach to conditionals employed in this study, the data selection and the annotation of features in the corpus. Furthermore, I discussed, in general terms, the statistical procedures used for data analysis in this dissertation. In this chapter, I discuss each of the features identified in chapter 3 individually, to arrive at a thorough understanding of possible factors in licensing implicatures of unassertiveness and connectedness.

The main aim of this chapter is to present, analyse and discuss the distributions of features that were linked to implicatures of unassertiveness and connectedness in chapter 3. These features are discussed individually and in detail in this chapter. This is needed to enable discovering groups of conditionals using the data-driven, unsupervised analyses argued for in chapter 4, which take the collective feature set as input (see next chapter). Furthermore, I hope this chapter will be useful to other researchers in future studies of conditionals independent of the goals aimed at here, as it provides an overview of the grammar of conditionals in Dutch. Each relevant feature identified in the literature on English conditionals is inspected for Dutch conditionals, and in this sense, this chapter also functions as a bridge between a more theoretical approach, mostly on English conditionals, and a data-driven, corpus-based approach to conditional constructions in Dutch. Finally, I included a comparison of each feature distribution to results from previous studies on these features. Although this sometimes adds significantly to the magnitude of this (admittedly already

extensive) chapter, the reason for doing so is that a thorough understanding of possible factors in distributions of individual features must be taken into account in the multivariate analysis in the next chapter, which aims to finding clusters of features, which can subsequently be used for identifying possible implicatures of those clusters. This chapter therefore does not only maximise the understanding of features in their grammatical contexts, but it also minimises the risk of overlooking known factors involved in distributions which could influence the results presented in the next chapter. As such, this chapter completes the preliminary work for answering the second research question, namely to what extent the grammatical features of conditionals contribute to specific implicatures of unassertiveness and connectedness, and consequently, to what extent conditionals in Dutch form a network of constructions.

The features discussed in this chapter are clause order (section 5.2), syntactic integration (section 5.3), verb tense (section 5.4), modality (section 5.5), (lexical) aspect (section 5.6), person and number (section 5.7), sentence type (section 5.8), negation (section 5.9) and focus particles (section 5.10). In section 5.11, a summary of feature distributions in Dutch conditionals is presented as conclusion to this chapter.

5.2   Clause order

5.2.1   Introduction

The order in which the antecedent and the consequent of a conditional are presented, i.e., *clause order*, has been widely researched, mostly in discourse-oriented studies. In most cases, pragmatic effects are attributed to the different clause orders, and their distributions have been shown to differ between modes and registers.[1]

In this section, I discuss the clause orders occurring in Dutch conditionals in 5.2.2. I will discuss their annotation in 5.2.3, and in section 5.2.4, I will present the distribution of these orders in the corpus. After that, I will compare the results with insights from the literature in section 5.2.5 and, finally, I will provide a conclusion in section 5.2.6.

5.2.2   Clause orders

In the majority of studies on clause order in conditionals (see section 5.2.5 below), two orders are distinguished: conditionals with sentence-initial antecedents, as in (1), and those with sentence-final antecedents, as in (2).

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[1]Parts of this section have been extended and published as A. Reuneker (2020). 'Clause Order and Syntactic Integration Patterns in Dutch Conditionals'. In: *Linguistics in the Netherlands* 37, pp. 119–134. DOI: https://doi.org/10.1075/avt.00041.reu, This paper has been awarded the *Academische Jaarprijs van de Maatschappij der Nederlandse Letterkunde voor het beste artikel op het gebied van de Nederlandse taalkunde 2019-2020* 'Academic Year Award of the Society of Dutch Literature for the best paper on Dutch linguistics 2019-2020'.

(1) Als de partijen er dit weekend niet uitkomen dan zijn er maandag in hele land acties in de ziekenhuizen.   (fn002695)
If the parties cannot resolve their dispute this weekend, then there will be strikes in hospitals throughout the country on Monday.

(2) Je hebt gelijk als je bedoelt dat het eerder ons probleem is en niet die van onze dochter.   (WR-P-E-A-0004734842)
You are right if you mean that it is our problem rather than our daughter's.

The tendency in the literature is to present the sentence-initial antecedent as the default order. Greenberg, for instance, declares it as the following universal.

> Universal 14: In conditional statements, the conditional clause precedes the conclusion as the normal order in all languages. (Greenberg, 1966, p. 84)

Sentence-final antecedents are seen as 'syntactically marked' by Declerck and Reed (2001, pp. 39, 367–368), because they are 'post-script' remarks usually restricting the 'truth or applicability' of the consequent. In contrast to sentence-initial conditionals, as we will see in section 5.3, they are not or less integrated into the main clause, and, as such, they resemble a third order that has been distinguished in a small number of studies (Dancygier, 1998; Auer, 2000; Carter-Thomas & Rowley-Jolivet, 2008; Reuneker, 2017b), namely the insertion of the antecedent into the consequent, also called 'parenthetical positioning' (cf Auer, 2000, p. 10) and 'intercalation' (cf. Schelfhout, Coppen & Oostdijk, 2003).[2] In the examples in (3) and (4), this 'sentence-medial' position of the antecedent can be seen.

(3) Enige tijd na ontvangst van de cd-rom volgt, als u ons niet hebt gemachtigd, een acceptgirokaart voor de betaling voor een bedrag van de kosten van de special, verhoogd met 2,50 administratiekosten. (WR-P-P-D-0000000003)
Some time after receiving the CD-ROM, if you have not authorised us, a cheque will be issued for payment of the costs of the special, plus 2.50 administration costs.

(4) This tumor is very amenable if it's a carcinoma by biopsy to local excision. (Carter-Thomas & Rowley-Jolivet, 2008, p. 199)

The antecedents in these examples are clearly sentence-medial, as they are inserted into their 'host sentences' (cf. Schelfhout, Coppen & Oostdijk, 2003, p. 155). They resemble other parenthetical clauses, such as the example in (5)

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[2]See also Zwaan (1968, pp. 360–362), who does not mention intercalated conditional clauses, but discusses intercalation in general terms and argues that the only formal criterion for the so-called *tussenzin* 'parenthetical' is that it 'is "between", [and] breaks the order of *the sentence*', which is also the case for sentence-medial antecedents, which 'break' the consequent into two parts.

below, which illustrates the suggestion by Pollmann and Sturm (1977, p. 140) that such intercalated clauses often express certain types of modality (see section 5.5). As can be seen in the example in (6), we can easily replace the expression of modality *volgens mij* 'I think' by a conditional clause expressing the same type of evidential modality.

(5) Dat is, *volgens mij*, een hele verbetering.   (Pollmann & Sturm, 1977, p. 140)
    That is, I think, *quite an improvement.*

(6) Dat is, *als ik me niet vergis*, een hele verbetering.
    That is, if I am not mistaken, *quite an improvement.*

As can be seen in these examples, sentence-medial antecedents can be inserted between the two parts of the predicate, i.e., the finite verb *volgt* 'follows' and the subject *een acceptgirokaart [...]* 'a cheque [...]' in (3), or between parts of the predicate, as in (4) in (6). Sentences of the type in (7) are less clearly cases of sentence-medial conditionals, however.

(7) De Vries meldde wel *dat* als Soliman Rais niet zou zijn neergeschoten, hij eventuele Nederlandse christenslaven *zou hebben vrijgelaten*. (WR-X-A-A-journals-001)
    De Vries reported that *if Soliman Rais had not been shot, he* would have released *any Dutch Christian slaves.*

When *dat* 'that' in (7) is analysed as the first pole of the sentence, the example should be classified as a sentence-medial conditional, i.e., the *als*-clause is inserted into the subordinate clause. It is however also possible to classify this example as sentence-initial, as one could argue that the complete conditional is embedded in another clause and that the sentence-initial order is maintained within the embedded clause. In the remainder of this section, I will discuss how embedded conditionals are analysed with respect to clause order.

Reuneker (2017b) considers all cases such as the example in (7) sentence-medial antecedents. The arguments are the following. First, the embedded clause of the conditional has regular SOV order, as in (8), as opposed to subject-verb inversion typical in main clauses of non-embedded sentence-initial conditionals, as in (9). Consequently, deletion of the *als*-clause in (8) renders a grammatical result, as in (10), whereas deletion of the matrix clause would not. This shows that the word order in the *dat* 'that' clause is determined by being a subordinate clause, not by the fact that it is preceded by a (conditional) adverbial clause.

(8) Het eerste ziektejaar is zo verregaand geprivatiseerd dat, als het fout gaat, pas na een jaar duidelijk wordt hoe het zit. [...]   (Reuneker, 2017b, p. 140)
    The first year of illness is privatized to such an extent that, if it goes wrong, the situation will only become clear after a year.

(9) Als het fout gaat, wordt pas na een jaar duidelijk hoe het zit. (Reuneker, 2017b, p. 140)
If it goes wrong, the situation will only become clear after a year.

(10) Het eerste ziektejaar is zo verregaand geprivatiseerd dat pas na een jaar duidelijk wordt hoe het zit.   (Reuneker, 2017b, p. 140)
The first year of illness is privatized to such an extent that the situation will only become clear after a year.

Second, the intonation pattern of an embedded conditional resembles that of the non-embedded sentence-medial type in (3): *als* is stressed and there is an intonation break before and after the conditional clause, after which the intonation pattern of the matrix clause is continued. Finally, data from spoken texts in the corpus revealed that, after the *als*-clause, the speaker often resumes the embedded clause by repeating the subordinating conjunction *dat* 'that', as in (11) below.

(11) [...] u weet ook dat als je iets koelt dat dat je uh uh dat je warmte onttrekt [...]   (Reuneker, 2017b, p. 141)
[...] you also know that if you cool something that you extract heat [...]

Although no conversation-analytic approach is chosen here, such cases resemble a specific form of what Schiffrin (2006) calls 'type 1 repair', as in her example in (12) below.

(12) (a) And for some reason, *they* –
(b) whether or not she owed rent or something like that,
(c) *they* were putting her out.   (Schiffrin, 2006, p. 45)

Here the speaker 'begins a clause with *they* and then self-interrupts [...] to insert a qualification that intensifies the injustice about to be reported [...] then returns to the same referent and referring expression' (Schiffrin, 2006, p. 45). In the same vein, the speaker in (11) starts an embedded clause with *dat* 'that', then 'self-interrupts' to insert a conditional clause and then returns to the embedded clause by repeating the subordinating conjunction *dat* 'that'. According to Reuneker (2017b, pp. 139–141), when the complex sentence as a whole is taken into account, *als*-clauses following *dat* 'that' should be interpreted as sentence-medial conditionals, as should conditionals in embedded sentences without overt *dat* 'that' directly preceding *als* 'if', as in (13).

(13) Uh dus ik zou zelf van mening zijn als we het hebben over het groene Poldermodel dat dat veel breder zou moeten dan het model van de commissie van de SER.   (fn000162)
Uh so I would have the opinion if we are talking about the green 'Polder model' that that should be much broader than the model of the SER committee.

I note furthermore that the antecedent in this example (*als we het hebben over het groene Poldermodel* 'if we are talking about the green "Polder model"') is an adverbial clause occurring in the main (matrix) clause, but which should be interpreted in the embedded clause (cf. Barbiers, 2018, pp. 68–77; see also de Schepper et al., 2014), an issue that will return in the discussion of disagreements between annotators in this chapter.

In (14), the syntactic structure of the host sentence remains the same as in the original example in (13) when the antecedent is removed, although, with this alteration, the consequent becomes a statement in itself, without dependency on a conditional clause.

(14) Uh dus ik zou zelf van mening zijn dat dat veel breder zou moeten dan het model van de commissie van de SER.
Uh so I would have the opinion that that should be much broader than the model of the SER committee.

The removal of the antecedent from (13), as presented in (14), shows how the host sentence 'continues after the intercalation as if the intercalation were not there' (cf. Schelfhout, Coppen & Oostdijk, 2003, p. 155). This is, in a number of cases, also indicated by comma's in written texts, as in (15) below.

(15) Want het betekent dat, als je tussen de regels door leest, het Nederlandse en Belgische homohuwelijk eigenlijk door Europa wordt erkend. (WR-P-P-G-0000104844)
Because it means that, if you read between the lines, Dutch and Belgian same-sex marriage is actually recognised by Europe.

In this study, I will take a slightly different approach to embedded conditionals. I will consider a conditional of which the *als*-clause follows the subordinating conjunction *dat* 'that' directly, as in (16), to be sentence-initial.[3] Conversely, a conditional of which the consequent rather than the antecedent directly follows *that*, as in (17), will be considered sentence-final.

(16) Plato laat op meesterlijke wijze zien dat als een goed iemand verliefd is, zich een innerlijk conflict in zijn ziel afspeelt, om zijn hartstocht, de mania waaraan hij ten prooi is gevallen, in goede banen te leiden. (WR-X-A-A-journals-001)
Plato masterfully shows that if a good person is in love, there is an inner conflict in his soul to guide his passion, the hysteria to which he has fallen prey.

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[3]Note that in educational and prescriptive grammars, this so-called *dat/als-constructie* 'that/if construction' is considered a stylistic error. It is considered a *tangconstructie* 'plier construction' (literal translation) or *bijzin-tang* 'subordinate clause in the middle-field' (cf. Jansen, 2009), and the advice is to use sentence-final order in such embedded conditionals (see, for instance, the influential prescriptive grammar *Schrijfwijzer* Renkema, 2020, p. 104). See Reuneker and Boogaart (2021) for a comparative account of this construction in usage guides and in language use in corpora, and for the question whether this is indeed a 'stylistic error'.

(17) Hij zei dat maatregelen tegen de korpschef niet uitblijven, als diens wangedrag wordt bevestigd. (WR-P-P-G-0000023116)
He said that action will be taken against the chief of police, if the wrong-doing is confirmed.

In (16), the embedded conditional functions as a direct object of *showing*, and in (17), as a direct object of *saying*. The example in (16) resembles a sentence-medial conditional to the extent that the conditional clause is inserted between the subordinating conjunction *dat* 'that' and the embedded clause, like the sentence-medial antecedent in for instance (3) is positioned between the finite verb and the subject. In line with the 'repair' example in (12) above, repetition of *dat* 'that' and the use of *dan* 'then' are possible here, as can be seen in the corpus example in (18) below.[4]

(18) Friedman [...] suggereert dat als geen enkele reductie werkt, dat ops-chorting dan eerder moet worden gezien als een sui generis houding, een houding op zichzelf die niet verder uitgelegd kan worden. (WR-X-A-A-journals-001)
Friedman [...] suggests that if none of the reductions work, that suspension then should rather be seen as a sui generis attitude, an attitude in itself that cannot be explained any further.

In (17), the conditional clause is not positioned between conjunction and embedded clause, but it is post-posed to the main clause of the conditional. Still, in both cases, the complete conditional is embedded, and the connection between antecedent and consequent must be interpreted accordingly (e.g., in (17) there is a relation between actions taken and confirming of wrong-doing, not between this confirmation and saying). Cases in which the conditional is part of a direct-object clause are analysed in the same way. The example in (19) is thus considered to be a sentence-final conditional, as the complete conditional is part of the direct object of *toetsen* 'test' and is followed by the rest of the predicate of the matrix clause.

(19) De hypothese dat (volwassen) kinderen meer risicovol gedrag vertonen als hun ouders tijdens de socialisatiefase meer risicovol gedrag vertoonden toetsen we opnieuw aan de hand van model A. (WR-X-A-A-journals-002)
The hypothesis that (adult) children exhibit more risky behaviour if their parents showed more risky behaviour during the socialisation phase is tested again using model A.

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[4]In a small number of cases, resumptive *dan* is used in embedded sentence-initial conditionals, as in (a) below. See also section 5.3.

(a) Ik zal ze nooit gebruiken en als je... ze zijn zo flinterdun dat als je ze gebruikt dan buigen ze. (fn008197)
I will never use them and if you ... they are so wafer-thin that if you use them then they will bend.

We will now look at the last possible pattern in embedded conditionals, namely embedded sentence-medial conditionals, as in (20) below.

(20) Ik heb geleerd dat je, als je veilig een tweebaansweg wilt oversteken, eerst naar links, dan naar rechts, en ten slotte nog een keer naar links moet kijken.   (WR-X-A-A-journals-txt-antw-003)
I've learned that you, if you want to cross a two-lane road safely, first have to look left, then right, and finally look left again.

The embedded conditional in (20) has a sentence-medial antecedent, because the antecedent is inserted into the (embedded) main clause, i.e., it is positioned between the subject *je* 'you' and the predicate *eerst [...] kijken* 'first [...] watch' of the embedded clause. Although these complex structures have a low frequency, they do occur in the corpus.

To summarise, one can consider all embedded conditionals as sentence-medial conditionals based on their resemblance to intercalations (i.e., they do not influence the structure of the clause they are inserted into, they are intonationally differentiated), or one can consider clause order as a feature within embedded conditionals. While embedded conditionals are clearly different from non-embedded conditionals, in the current study, I will treat the order of antecedents and consequents in embedded conditionals the same as in non-embedded conditionals. Although this is a different approach than Reuneker (2017b) takes, the reason is not so much a disagreement, but the fact that in this study, the word-order argument discussed above will be dealt with in the next section on syntactic integration, a feature absent from the study by Reuneker (2017b).

A last remark in this section is that insubordinate antecedents (i.e., cases in which the main clause is omitted, Evans, 2007, cf.), as in (21) below, are mostly neglected in the literature on clause order.

(21) Zeker, maar Rademaker gaat niet mee, dus ik dacht, als je nog zin had. (WR-U-E-D-0000000038)
Certainly, but Rademaker is not coming along, so I thought, if you still felt like it.

In this study, insubordinate antecedents are included as a separate category, although, of course, there is no connection between antecedent and consequent, as the latter is not present in these cases, and I will refrain from formulating implicit consequents.

5.2.3   Inter-rater reliability

All sentences in the corpus were manually annotated for clause order based on the manual provided in Appendix A.3. As was presented in section 4.5, the agreement score of this feature was high ($AC1$=0.86). Still, there were disagreements, which were discussed in detail after annotation.

The most frequent cause of disagreement between annotators was due to the sentence type of the consequent (see section 5.8). In case the consequent was not a declarative sentence, but for instance an exclamation, as in (22) below, one annotator decided to code this sentence as 'NA' ('not applicable', see section 4.5.4), while the other annotator annotated the conditional as having a sentence-initial antecedent.

(22) En als je meewilt naar Pauls housewarming in Chillburg, *gezellig*!! (WR-U-E-D-0000000301)
And if you want to come to Paul's housewarming in Chillburg, fun*!!*

As it is good practice to keep coding of separate features independent, the final label for such cases was the order of antecedent and consequent, irrespective of the sentence type of the latter, so 'sentence initial' for (22) above.

Another source of disagreement were intercalated conditionals, as in (23) below.

(23) Het is volgens het ingeschakelde adviesbureau dan ook nog maar de vraag of een nadere analyse zal leiden tot de conclusie dat er geen sprake is van een toetredingsdrempel en als dat wel zo is of dit effect voldoende wordt gecompenseerd. (WR-X-A-A-journals-txt-nthr-010)
According to the consultants it is therefore debatable whether a subsequent analysis will lead to the conclusion that there is no entry threshold and if it is the case, whether this effect will be sufficiently compensated.

In such cases, the antecedent is inserted into the host sentence, but it does not modify its syntax.[5] The discussion concerned whether to code such sentences as sentence-initial antecedents, as the antecedent is presented right before the consequent, or sentence-medial antecedents, because the antecedent is inserted into the coordination of the two sentences embedded in the *dat*-clause. The latter option was chosen. Further disagreements mainly concerned mistakes in annotation, and situations that were not foreseen in the annotation guidelines.

5.2.4 Distribution of clause orders

The distributions of clause order by mode and register are presented in Figure 5.1 below. For a more detailed view on the data, the reader is referred to page 472 in Appendix B.

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[5]Note that this is not the same as an embedded conditional. See discussion in the previous section.

Figure 5.1:
Distribution of clause orders by mode and register
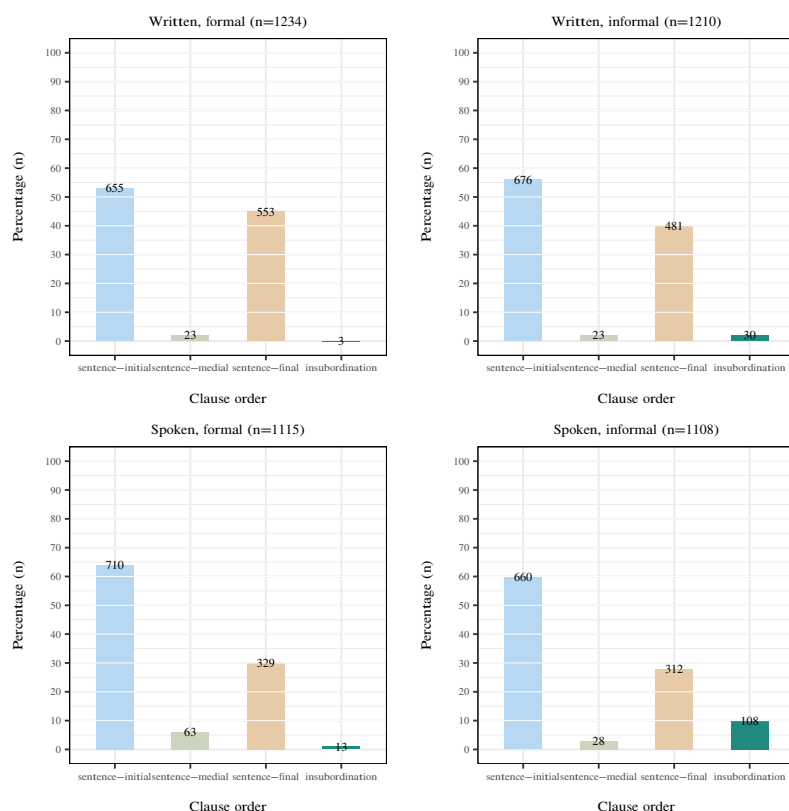
What we see in this figure is in line with what previous studies for English conditionals showed: consistently higher frequencies of sentence-initial antecedents as compared to sentence-final antecedents (see next section). Sentence-initial antecedents are most frequent in Dutch in both modes and registers. However, sentence-final antecedents are by no means marginal, as was shown earlier by Reuneker (2017b) based on data from the Condiv Corpus of written Dutch (Deygers et al., 2000), especially in written texts, as can be seen in the upper half of Figure 5.1. Combining all modes and registers, sentence-initial antecedents are featured in 57.87% of all conditionals, sentence-final antecedents in 35.89%, and sentence-medial and insubordinate antecedents 2.94% and 3.30% respectively (see also the aforementioned table on page 472).

To inspect associations between mode, register and clause order, a three-way loglinear analysis was performed, which produced a final model that retained the *mode × clause order* and *register × clause order* interactions. The likelihood ratio of this model was $\mathcal{X}^2$=7.43, *df*=4, *p*=0.11. The association between mode and clause order is stronger (Cramér's *V*=0.18) than the association between register and clause order (Cramér's *V*=0.15). The *mode × clause order* interaction was significant ($\mathcal{X}^2$=147.70, *df*=3, *p*<0.001), which indicates that the distribution of clause orders was different across the two modes. To break down this interaction, the residuals were inspected. These showed that all clause orders contributed to the overall significance. Sentence-initial antecedents occur more frequently than expected in spoken texts as compared to written texts (*z*=2.33, *p*<0.05; *z*=-2.22, *p*<0.05), as do sentence-medial antecedents (*z*=3.19, *p*<0.01; *z*=-3.04, *p*<0.01) and insubordinate antecedents (*z*=5.56, *p*<0.001; *z*=-5.31, *p*<0.001). Sentence-final antecedents showed a reverse preference (*z*=-5.55, *p*<0.001; *z*=5.30, *p*<0.001), i.e., this clause order occurs less frequently than expected in spoken texts as compared to written texts. The register × clause order interaction was significant as well ($\mathcal{X}^2$2=110.43, *df*=3, *p*<0.001). The residuals indicated that only the distributions of insubordinate and sentence-medial antecedents significantly contributed to the overall significance. Insubordination occurs less frequently than expected in formal texts as compared to informal texts (*z*=-6.99, *p*<0.001; *z*=7.03, *p*<0.001), whereas sentence-medial antecedents occur more frequently than expected in formal texts than compared to informal texts (*z*=2.05, *p*<0.05; *z*=-2.07, *p*<0.05). As this is somewhat surprising, these conditionals were inspected in more detail and results suggest they operate mostly on the pragmatic level, as in (24) below, in which the antecedent is used as politeness strategy (see also Reuneker, 2017b, p. 142; and for insubordination as independent speech acts, see Panther & Thornburg, 2005, pp. 61–66). This type does not make up for all results, however, as predictive relations are expressed in this pattern as well, as can be seen in (25).[6]

(24) En daarbij is enige normstelling als je die kunt geven ook wenselijk. (fn000211)
And in addition, some norms if you can give them are also desirable.

(25) En tot slot voorzitter dan neemt u eventueel als u negatief zou oordelen alle boetes voor lief? U die zegt dat u zo erg uh zo zich zo zorgen maakt om die administratieve lasten?   (fn000216)
And finally, chairman, would you possibly if you were to judge negatively accept all fines? You who says that you are so uh so worried about the administrative burden?

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[6]This example could also be analysed as a speech-act conditional, but then the antecedent should have been established in prior context and be an echoic utterance here. The prior context, however, suggests this is not the case, as does the distanced verb form.

From Figure 5.1 and the analyses, we see that clause order in Dutch conditionals is associated with mode and, to a lesser extent, with register. While all clause orders contribute to the significance of the association with modes, the latter association is mainly due to the distributions of insubordinate and sentence-medial antecedents. The preference for sentence-initial antecedents is stronger in spoken texts when compared to written texts. Sentence-final antecedents have a slightly higher frequency in formal texts in both modes as compared to informal texts. Insubordination is, as might be expected, most frequent in spoken, informal texts and least in written, formal texts (for insubordinate conditional clauses in informal spoken German, see Günthner, 2016; in informal spoken and written Italian, see Lombardi Vallauri, 2016; and in spoken British and American English, see Mato Míguez, 2016).

As mentioned in the introduction, clause order in conditionals is well-researched and before drawing further conclusions, the results are discussed in light of the literature available on this feature.

5.2.5 Comparison with previous studies

In this section, I compare the current results with those from earlier studies, in order to be able to interpret the distributions of clause orders in Dutch conditionals in light of what is already known from previous studies.

The most prominent difference between previous studies on English conditionals and the current study is that sentence-initial antecedents are less dominant in Dutch conditionals. In most studies, the sentence-initial clause order accounted for between 70% and 80% of all conditionals. In line with Greenberg's (1966) universal cited above, Comrie (1986, p. 84) calls the sentence-initial clause order the 'usual order' and Dancygier (1998, pp. 145–149) calls it the 'default order', arguing that this order 'reflects a common observation that in the majority of cases *if*-clauses precede the main clauses', and she suggests that this also holds in other languages. Quirk et al. (1985, p. 1089) include examples of sentence-final antecedents, but they do not offer a further analysis. Declerck and Reed (2001, pp. 367, 397) argue that sentence-final antecedents are 'syntactically marked', licensing pragmatic differences. For Dutch, van der Horst (1995, p. 144) remarks that 'when one would count in a large corpus, the order in (a) [sentence-initial antecedent] is much more frequent than the order in (b) [sentence-final antecedent]'. Sentence-final antecedents are thus viewed as the non-default order. As we have seen above, sentence-initial antecedents are indeed most frequent, but less dominantly so than is suggested in the literature.

Linde (1976, pp. 282–284) reports 79.4% sentence-initial and 20.6% sentence-final antecedents. She argues that the tendency to express antecedents sentence-initially follows from the 'fundamental principle' that the ordering of information follows the natural temporal order of events (i.e., iconicity).[7] Ford

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[7]Given her rather small corpus of 34 conditionals in 'a series of interviews with middle class New York City housewives' (Linde, 1976, p. 280), however, such claims must be interpreted with caution.

and Thompson (1986) too found that sentence-initial antecedents are more frequent than sentence-final antecedents in both written and spoken English (77%-23% and 82%-18% respectively). Ramsey (1987, p. 406) reports 65% initial, and 35% final antecedents and in her analysis, a sentence-final *if*-clause 'only adds something to the assertion made by the main clause or modifies part of what was stated there'.[8] The findings by Diessel (2005) corroborate these figures. In his corpus of 506 conditionals in spoken and written English, sentence-initial antecedents were more frequent than sentence-final antecedents in both modes (70.7% vs. 29.3% respectively). In a more recent study, Nall and Nall (2010) report 65.8% of 7,259 *if*-clauses were sentence-initial and 33.1% sentence-final. In spoken texts, 79.2% of all conditionals had sentence-initial antecedents, against 21.8% sentence-final, and in written texts, 61.3% of all conditionals had sentence-initial antecedents, against 38.7% sentence-final antecedents. Furthermore, they report significant deviations from these figures in face-to-face conversations (69.2%, 30.8%) and telephone conversations (74.9%, 25.1%)

Sentence-initial antecedents in Dutch conditionals make up for roughly 58% in this study (see Table B.1 on page 472), which is lower than the figures presented for studies on English conditionals. Comparing these data, however, is not entirely justified, as the majority of studies mentioned above excluded sentence-medial and insubordinate conditionals. When we exclude these orders from the results above, the proportions of sentence-initial and sentence-final antecedents are 68.13% and 31.87% respectively for spoken data, and 56.28 and 43.72% for written data. These findings corroborate those of Renmans and van Belle (2003), who found an even weaker dominance of sentence-initial antecedents. In their written corpus of 400 Dutch conditionals, only 50.75% of the conditionals had sentence-initial antecedents and 49.25% had sentence-final antecedents. Given the corpus design in the study of Renmans and van Belle (2003, pp. 147–148), however, another comparison might prove more reliable. Their corpus consists written texts only, mainly from Dutch and Belgian newspapers and university newspapers, which, in this study, would fall under the written-formal register. The balance between sentence-initial and sentence-final antecedents in this sub-corpus – ignoring sentence-medial and insubordinate antecedents, as Renmans and van Belle (2003) do – is 655 to 553 respectively, or 54.22% and 45.78%. It seems, then, that Renmans and van Belle's (2003, p. 148) observation still holds, namely that it is 'rather remarkable in that the conditionals with preposed protases obviously fail to significantly outnumber the ones with sentence-final *als*-clauses'.

Several explanations for preferences in clause orders have been suggested in the literature. First, however, the result reported by Diessel (2005) make clear that it is not the case that the preference for sentence-initial conditional clauses is a reflection of a more general preference of sentence-initial adverbial

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[8]As with Linde's study, these results too should be interpreted with caution, as Ramsay's corpus consists of only one, highly genre-specific source, namely a 'murder mystery novel' (Ramsey, 1987, p. 385).

clauses. From the 1032 temporal clauses, 36.6% occurred sentence-initially, and from the 496 causal clauses, only 12.8% occurred in sentence-initial position, while 70.7% of the conditional clauses occurred in sentence-initial position (see above). This is in line with observations by Ford (1993) and Dancygier and Sweetser (2000, p. 135), of whom the latter argue that adverbial *because*-clauses typically follow the main clause, because they 'do not set up new spaces, but establish causal relations in the base space'. Diessel (2013) argues that, in contrast to other adverbial clauses, antecedents of conditionals prefer sentence-initial position because they set up 'a specific semantic constellation', or 'mental model' (Johnson-Laird & Byrne, 2002 as cited by Diessel, 2013, p. 350), which provides the necessary instructions for interpreting the main clause. The antecedent establishes a specific (e.g., hypothetical) framework for interpreting the subsequent clause, while a sentence-final antecedent might mistakenly lead the reader or listener to interpret the sentence-initial consequent temporarily as an assertion.

Sentence-final antecedents do occur frequently, however, and Diessel (2013) shows that when the antecedent is postponed, the main clause often features other grammatical means of non-factuality (or non-assertability), such as *wouldn't* in the consequent of the example in (26) below.

(26) I wouldn't be sick if I were, excuse me, ... pregnant.   (Diessel, 2013, p. 462)

For sentence-final antecedents, Ramsey (1987) observes that the majority of antecedents refer to the subject in the main clause, whereas sentence-initial *if*-clauses often scope over many clauses in the preceding context. Ford and Thompson (1986, p. 367) too argue that sentence-initial clauses constitute 'pivotal points' in texts by their linking and background-creating function, whereas sentence-final *if*-clauses qualify their main clauses.[9] Lee (2001) suggests that discourse-related differences motivate the choice between a sentence-initial and sentence-final antecedent. Although no numbers are provided, Lee (2001, p. 484) observes that the choice of clause order in conditionals is 'closely related to the information status of the conditional antecedent in a local discourse context'. He argues that the antecedent is postponed when 'something in the main clause makes an inferential link with the preceding context as carrying the discourse-old or inferable information'.

Differences in clause order frequencies have been linked to mode as well. Ford and Thompson (1986, p. 367) suggest that, in spoken texts, speakers might 'produce conditionals as afterthoughts or reminders', due to the 'less planned nature of spoken discourse'. Another suggestion is that new and important information motivates postponing the antecedent (Ford & Thompson, 1986, p. 368). In spoken language, sentence-final antecedents can be signalled by the same grammatical means, but also by intonation (cf. Chafe, 1984; referred to

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[9]For reasons of space, I will not discuss the question whether or not conditionals are topics. See, for this discussion, Haiman (1978), Schiffrin (1992) and Akatsuka (1986).

by Diessel, 2005, pp. 462–463). According to Dancygier and Sweetser (2000, p. 132) clause order relates to mental-space set-up as follows. In the sentence-initial order, as in their example in (27), the antecedent sets up a mental space and makes 'a prediction within it', whereas (28) 'might be said to involve at least a potential pre-built P space, to which the utterance adds Q, subsequently confirming with a clause that yes, P was the intended space for elaboration by Q'. The example in (29) finally 'presupposes' *q* and links it to *p*.

(27) If the home computer breaks down, I'll work at my office. (Dancygier & Sweetser, 2000, p. 132)

(28) I'll work at my office, if the home computer breaks down. (Dancygier & Sweetser, 2000, p. 132)

(29) I'll work at my office if the home computer breaks down. (Dancygier & Sweetser, 2000, p. 132)

A last factor mentioned in the studies discussed here is the *syntactic weight* of the antecedent. Sentence-final antecedents are 'about 2.5 words longer' (Diessel, 2005, p. 453) than sentence-initial antecedents. Ford and Thompson (1986, p. 367) too remark that 'disproportionally long' antecedents seem to be avoided in sentence-initial position.

Remarkably, almost none of the studies mentioned above include sentence-medial antecedents. Ford and Thompson (1986, p. 356) explicitly exclude any sentence not adhering to the initial-final dichotomy, while they do find such sentences in which the condition 'appeared somewhere in the middle of the "consequent" clause'.[10] They argue this type of ordering is only represented by a small number of tokens, but the actual number is not reported. This observation is partially in line with findings in this study, Carter-Thomas and Rowley-Jolivet (2008) and Reuneker (2017b), as frequencies for sentence medial conditionals are low, especially in written discourse. However, this type of pattern does occur and should be taken into account without *a priori* disqualification. Dancygier's (1998, pp. 106–107, 152–154) and Dancygier and Sweetser's

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[10]An early example of a sentence-medial conditional is provided by van Haeringen (1946, pp. 13–15) in a discussion what he coined as *tangconstructie* 'plier construction' (see also remarks on *dat als* 'that if' in section 5.2.2 above). With respect to (a) below, he mentions that the separation of the finite verb *hak* 'chop' and the direct object *hout* 'wood' is 'very troublesome.

(a) Ik hak iedere avond, als het begint te schemeren, hout. (van Haeringen, 1946, p. 13)

He says, however, that it is quite common (*ja misschien wel de enig natuurlijke zinsbouw* 'maybe even the only natural syntax') in spoken Dutch to use this position for the conditional clause and to reiterate the finite verb, as in (b).

(b) Ik hak iedere avond, als het begint te schemeren, hak ik hout. (van Haeringen, 1946, p. 13)

Reuneker and Boogaart (2021), however, show that this is not the case for *dat als* 'that if', which features reiteration of *dat* 'that' in only a minority of cases. The corpus data analysed for this study also do not indicate that reiteration of any part of the consequent is common in sentence-medial conditionals in spoken Dutch.

(2005, p. 176) observation that the sentence-medial position is related to meta-linguistic use of conditionals can indeed be found in corpus data. For Dutch, Reuneker (2017b, pp. 142–143) found that sentence medial *if*-clauses, like *if*-clauses in other positions, are used most frequently to express content relations, but when the perspective is shifted from clause order to function, it becomes clear that almost all metalinguistic relations are expressed in sentence-medial position. Reuneker (2017b) compared these findings to an American-English corpus and found that English sentence-medial conditionals are found mostly in the metatextual domain, which corresponds to Dancygier's (1998, p. 152) observation that they 'frequently take a position as close as possible to the "text" commented on – which may mean a position within the main clause rather than preceding or following it'.

From this overview, we see that the current results deviate from results in previous literature on English conditionals. In Dutch too, sentence-initial antecedents are most frequent, but their dominance is clearly weaker, and more in line with earlier results by Renmans and van Belle (2003) on Dutch conditionals. The explanations discussed in this section suggest clause order to be associated with mode and register. Furthermore, the literature suggests that especially conditionals implicating a predictive connection between antecedent and consequent will feature high frequencies of sentence-initial antecedents, whereas other connections, such as speech-act and politeness connections, will relatively more frequently feature sentence-final antecedents. It is also worth noting that sentence-medial antecedents have already been linked to implicatures of meta-linguistic nature, although their frequencies in the current results may be too low to form stable ground for clustering. Finally, a connection between modal marking and clause order is suggested by Diessel (2013), and if they are indeed related in tandem to implicatures of unassertiveness, this should be picked up by the cluster analyses presented in the next chapter.

5.2.6   Conclusion

Having analysed the results and discussed the literature on clause order in conditionals, it seems fair to conclude that in Dutch, clause order in conditionals is associated with mode and, to a lesser extent, with register. The results show that sentence-initial position of antecedents is most frequent in written and spoken texts, both formal and informal. Sentence-final antecedents are more frequent than one would expect based on the literature, especially in written texts. The association between register and clause order is most strongly influenced by the distributions of insubordinate and sentence-medial antecedents. The frequencies of sentence-final order are higher than may be expected based on the literature on (English) conditionals. Sentence-medial and insubordinate antecedents take up the margins of the distribution, with the notable exception of a relatively high frequency of sentence-medial antecedents in spoken, formal texts and insubordination in spoken, informal texts.

In this section, we saw how clause orders in Dutch conditionals are distributed over mode and register. As I argued before, such detailed accounts of individual features are needed before we can subject it to the analysis in the next chapter. As we saw in this section, for example, clause order is not only associated with mode and register, but the literature also mentions associations with other features and implicatures, especially those of connectedness, as, for instance, speech-act connections are suggested to feature higher numbers of sentence-final antecedents. Discussing the distribution of this feature, and the insights gathered from the existing literature enable us to explore the role of clause order in licensing of implicatures by the grammatical features of conditionals combined. To arrive at this collective feature set, we will continue with syntactic integration in the next section.

5.3 Syntactic integration

5.3.1 Introduction

Related to clause order is the degree of *syntactic integration* of the subordinate conditional clause into the main clause. This feature is relevant to the current study, because the degree of syntactic integration has been linked to connections between antecedents and consequents before.[11]

In this section, I discuss the possible patterns of syntactic integration in Dutch conditionals and the annotation of this feature in 5.3.2 and 5.3.3 respectively. In section 5.3.4, I will present the distribution of these patterns in the corpus, after which I will compare the results with insights from the literature in section 5.3.5. In section 5.3.6, I will provide a conclusion.

5.3.2 Patterns of syntactic integration

Antecedents of *als*-conditionals in Dutch are adverbial clauses subordinated to the main clause that presents the consequent. In this section, we will look at the different patterns of syntactic integration of the subordinate clause into the main clause. First note, however, that this feature is not independent of clause order. In what follows, I will explain why only sentence-initial conditionals are included in this part of the analysis.

Word order in the surface structure of Dutch clauses is Subject-Verb-Object (SVO) in finite main clauses, as in (30) below, and Subject-Object-Verb (SOV) in other clauses (Zwart, 2011, p. 243), as in the subordinated clause in (31).

(30) Peter$_{SUBJ.}$ schenkt$_{FIN. VERB}$ sterke koffie$_{OBJECT}$.
     Peter$_{SUBJ.}$ serves$_{FIN. VERB}$ strong coffee$_{OBJECT}$.

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(31) Ik zei dat Peter$_{SUBJ.}$ sterke koffie$_{OBJECT}$ schenkt$_{FIN.\ VERB}$.
   I said that Peter$_{SUBJ.}$ serves$_{FIN.\ VERB}$ strong coffee$_{OBJECT}$.

In the generative tradition, there is discussion on which order is 'base generated' and which is derived.[12] In regular main clauses, the finite verb takes second position, as in (30) above and (32) below. When a main clause follows a subordinated clause, as is the case with sentence-initial conditionals, the antecedent takes first position in the sentence and is followed directly by the finite verb of the main clause, resulting in subject-verb inversion in the matrix clause, as can be seen in (33) below.

(32) *De regering-Balkenende* $_{SUBJ.}$ *komt* $_{FIN.\ VERB}$ met haar bezuinigings-beleid in Europa nog meer alleen te staan.
   The Balkenende government $_{SUBJ.}$ stands $_{FIN.\ VERB}$ *alone even more with its economic policy in Europe.*

(33) Als de regering-Schröder daartoe inderdaad besluit, *komt* $_{FIN.\ VERB}$
   de regering-Balkenende $_{SUBJ.}$ met haar bezuinigingsbeleid in Europa nog meer alleen te staan.   (WR-P-P-G-0000105269)
   If the Schröder government does indeed decide to do so, the Balkenende government $_{SUBJ.}$ stands $_{FIN.\ VERB}$ *alone even more with its economic policy in Europe.*

Two other word-order patterns are possible in conditionals, namely the resumptive word order and non-integrative word order (cf. König & van der Auwera, 1988), which can be seen in the examples in (34) and (35) below respectively.

(34) Als iemand werkelijk gelukkig is *dan* $_{RES.}$ *moet* $_{FIN.\ VERB}$
   deze persoon $_{SUBJ.}$ in het bezit zijn van het goede.   (WR-X-A-A-journals-001)
   If someone is really happy then $_{RES.}$ this person $_{SUBJ.}$ must $_{FIN.\ VERB}$ *be in possession of the good.*

(35) Als je kijkt wat er de laatste zes, zeven jaar over ons is geschreven: *ik* $_{SUBJ.}$ *ben* $_{FIN.\ VERB}$ niet anders gewend.   (WR-P-P-G-newspapers-115000)
   If you look at what has been written about us in the last six or seven years: I $_{SUBJ.}$ am $_{FIN.\ VERB}$ *not used to anything else.*

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[12]I do not wish to make any claim here as to whether this is indeed 'THE word order' of Dutch. Koster (1975, p. 133) argues that 'the word order of subordinate clauses (SOV) is more basic for Dutch' because the main clause word order is the result of a transformation from a deep structure to a surface structure. See van der Wouden and Foolen (2011) and van der Wouden and Foolen (2015, p. 222) for a short explanation, Zwart (2011) for an elaboration and alternative view, and, for instance, Duinhoven (1997) for a diachronic account.

What we see in (34) is the use of a resumptive element, *dan* 'then'. The word order in the main clause is the same as in (33), i.e., there is subject-verb inversion. In (35), however, no sign of subordination is visible in the main clause. The subordinate *als*-clause is not embedded into the main clause, because the latter does not feature inversion and the resumptive element *dan* 'then' is absent. In other words, the main clause has the same word order as a regular main clause in Dutch.

As noted above, these patterns are only applicable to conditionals with sentence-initial antecedents. Main clauses of sentence-final conditionals cannot be introduced by resumptive *dan* 'then', as was noted earlier for English by Dancygier and Sweetser (1997, pp. 130–131), although they also show that *then* can be used as reference to some prior context, as in (36) below.

(36) Then I'll do it, if you come to my office.   (Dancygier & Sweetser, 1997, p. 131)

The examples below show that there is basically one possible word order in resumptive conditionals. The word order in (37) is only possible if the example is interpreted as a question, and resumptive *dan* 'then' in (38) can only be interpreted as referring to prior context.[13] Because the regular main clause word order is the only possible word order, sentence-final conditionals are excluded from further analysis in this section.

(37) * *Gaat* FIN. VERB *het licht* SUBJ. aan, als je op de knop drukt.
? Switches FIN. VERB the light SUBJ. *on, if you press the button.*

(38) ? *Dan* RES. *gaat* FIN. VERB *het licht* SUBJ. aan, als je op de knop drukt.
? Then RES. switches FIN. VERB the light SUBJ. *on, if you press the button.*

(39) *Het licht* SUBJ. *gaat* FIN. VERB aan, als je op de knop drukt.
The light SUBJ. switches FIN. VERB *on, if you press the button.*

Sentence-medial conditionals can be analysed as parentheticals (see previous section), so by that definition they do not influence the structure of the clause they are inserted into (see also Schelfhout, Coppen & Oostdijk, 2003). This predicts that no signs of clause integration will be found in sentence-medial conditionals.

(40) * *Gaat* FIN. VERB *het licht* SUBJ., als je op de knop drukt, aan.
Switches FIN. VERB the light SUBJ., *if you press the button, on.*

(41) ? *Dan* RES. *gaat* FIN. VERB *het licht* SUBJ., als je op de knop drukt, aan.
Then RES. switches FIN. VERB the light SUBJ., *if you press the button, on.*

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[13]This can occur, for instance, in co-construction of utterances (cf. Jacoby & Ochs, 1995). For co-construction of conditionals, see Akatsuka (1997b), Akatsuka (1999).

(42) *Het licht* _{SUBJ.} *gaat* _{FIN. VERB}, als je op de knop drukt, aan.
       The light _{SUBJ.} switches _{FIN. VERB}, *if you press the button, on.*

As we see here too, only one word order seems possible. The word order in (40) again is only possible in case the example is interpreted as a question, and resumptive *dan* 'then' in (41) can only be interpreted as referring to prior context. The corpus data however reveal that natural-language data do not always adhere to neatly defined patterns. For instance, as we saw in the previous section, embedded conditionals sometimes feature resumptive *dat* 'that' instead of *dan* 'then', as in (43), which can be explained by the fact that the main clause of the conditional behaves as a subordinate clause and the subordinating conjunction *that* is repeated. As discussed, *dan* 'then' can be used in the remainder of the subordinated main clause, as in (44). Contrary to expectations the integrative pattern can also be found, as in (45).

(43) De eerste dag dat ik daar kwam kreeg ik een uh een stuk ijzer met een vijl erbij en de boodschap dat als stuk ijzer op was *dat* _{RES.} *ik* _{SUBJ.} in magazijn een nieuw stuk ijzer *kon* _{FIN. VERB} komen halen.   (fn008659)
       The first day I got there I received a uh a piece of iron with a file and the message that if a piece of iron was used up that _{RES.} I _{SUBJ.} could _{FIN. VERB} *come and get a new piece of iron in the warehouse.*

(44) Ik ben juist zo bang dat als we dit punt nu met elkaar vandaag keer op keer gaan staan aandikken *dat* _{REP.} *dan* _{RES.} iedereen hakken in zand uh steekt. (fn000217)
       I am scared that if we take this point and exaggerate it over and over that _{REP.} then _{RES.} *everyone will cut their heels into sand.*

(45) Nou is punt dat als die koningin eenmaal onbevruchte eieren gaat afzetten waar mannetjes uit komen *kan* _{FIN. VERB} *ze* _{SUBJ.} niet meer terug. (fn007331)
       Well, the point is that once that queen is going to drop unfertilized eggs from which males hatch, she _{SUBJ.} can't _{FIN. VERB} *she can't go back.*

Most of these patterns are found only in spoken texts in the corpus and their frequencies are low.

Although variation in word order is found in embedded conditionals, the word order in the consequent is mainly influenced by the fact that it is embedded. These conditionals were therefore also excluded from further analysis in this section. Conditionals with sentence types in the consequent other than the declarative kind were removed too, for instance interrogative consequents, as in (46) below, because word order patterns are influenced by the sentence type of the main clause (see section 5.8).[14]

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[14]Of course, this does not mean that there is no variation in syntactic integration in nondeclarative consequents of conditionals. For instance, imperative consequents can feature resumptive *dan* 'then', as in *Als je twijfelt, bel* dan 'If you're in doubt, *then* call' (see sections 5.7 and 5.8).

(46) Uhm *ben* _{FIN. VERB} *ik* _{SUBJ.} correct als uh ik er vanuit ga dat uh de ontwikkelingen in Nederland rond geregistreerd partnerschap eigenlijk een aanjaagfunctie in Europa hebben gehad?   (fn000196)
Uhm am _{FIN. VERB} I _{SUBJ.} *correct if uh I assume that uh developments in the Netherlands regarding registered partnership have actually provided a catalyst for Europe?*

As insubordinate antecedents have no explicit consequent, syntactic integration could not be annotated and such sentences were excluded from further analysis as well.

5.3.3   Inter-rater reliability

All sentences in the corpus were manually annotated for syntactic integration based on the manual provided in section A.4 of Appendix A. The agreement score of this feature was high (*AC1*=0.87). Disagreements were discussed in detail after annotation.

One source of disagreement was the embedding of conditionals, as exemplified in (47) below.

(47) Alleen het is tuurlijk wel zo dat uhm als het gaat om de besluitvorming je natuurlijk ook moet constateren dat er steeds minder mensen gaan stemmen.   (fn000162)
Only it is, of course, true that if it comes to decision-making you must of course also conclude that fewer and fewer people are going to vote.

The annotation guidelines include both the category *embedded* and several options for sentence-initial conditionals. However, the word order in consequents of embedded conditionals are influenced by the fact that they are subordinated clauses themselves (see previous section). In such cases, therefore, the conditional was labelled 'embedded'. Because of this, these conditionals were removed from further analysis of this feature (syntactic integration), thereby removing the largest source of disagreement.

Another recurrent source of disagreement was constituted by incomplete conditionals, such as those in (48) and (49) below.

(48) Kijk als niemand er last van heeft dan uh...   (fn007723)
Look if it doesn't bother anyone then uh...

(49) Vanmorgen zegt ze: we zouden de spenen toch doorknippen? Ja, zeg ik, maar alleen als jij het wil.   (WR-P-E-A-0005983263)
This morning she says: wouldn't we cut the pacifiers? Yes, I said, but only if you want it.

One annotator chose to annotate (48) as resumptive, because *dan* 'then' was explicitly mentioned before the end of the turn. It was decided, however, to ignore clauses without a verb phrase, because the majority of the features would

not be applicable. Although Elder and Savva (2018, p. 49) argue that such 'incomplete conditionals', are incomplete only in the sense that no main clause is uttered, while they are complete in the sense that 'the *if*-clause still succeeds at communicating a fully-fledged conditional proposition', for the current purposes, these cases were labelled 'NA'. In case of (49), the consequent is *ja* 'yes', which is a confirmation of the (modalised) clause 'wouldn't we cut the pacifiers?'. This case was labelled 'sentence-final', as the most direct relation was between *ja* 'yes' and the antecedent. It was also acknowledged that this difference would have no bearing on the analysis of syntactic integration, as only sentence-initial antecedents are liable for these patterns. As was the case with clause order, a number of disagreements concerned simple errors in annotation. These were discussed and taken care of in the full corpus.

5.3.4   Distribution of syntactic integration patterns

The results of the annotation are presented in Figure 5.2 below. For a more detailed view on the data, the reader is referred to page 473 in Appendix B. Please note that the total number of conditionals in the distribution presented is lower than the number of conditionals in the full corpus, because the syntactic integration patterns discussed can only be found within sentence-initial antecedents. Sentence-medial and sentence-final antecedents are therefore ignored in the remainder of this section.

Figure 5.2:
Distribution of syntactic integration patterns by mode and register
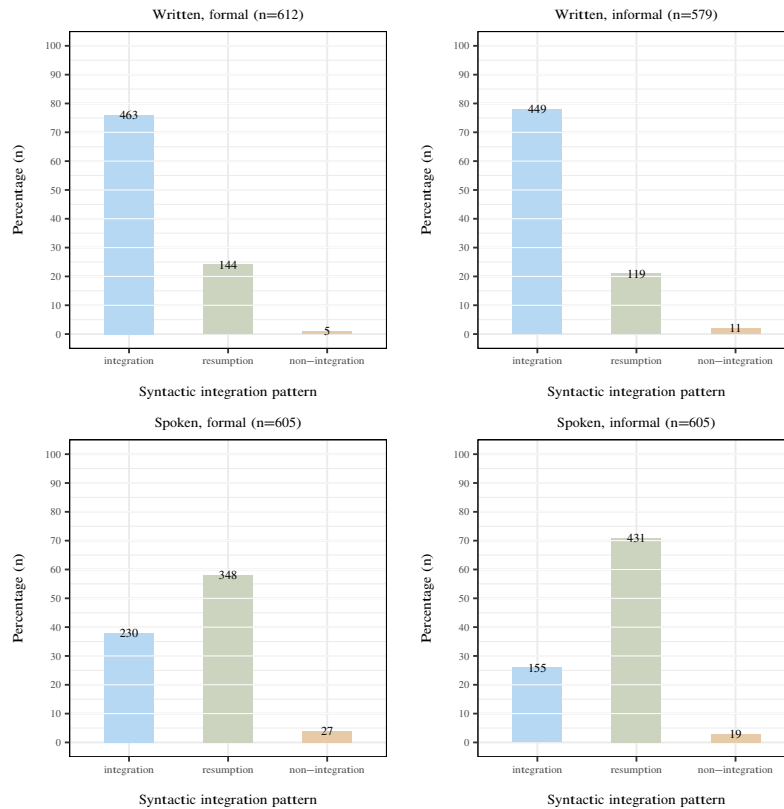
Looking at Figure 5.2, it seems that there is a clear difference between modes, i.e., in written texts, in the top section of the figure, there is a clear preference for the integrative over the resumptive pattern (76.57% vs. 22.08%), whereas in spoken Dutch, in the bottom section of the figure, we see resumption in the majority of conditionals and integration in a minority (64.38% vs. 31.82%). The non-integrative pattern has a low frequency in both the spoken mode (3.80%) and the written mode (1.34%). We can also see some differences between registers but they are less pronounced than those between modes. A three-way loglinear analysis was performed and produced a final model that retained all effects, indicating that the highest order interaction (*mode* × *register* × *syntactic integration*) was significant ($\mathcal{X}^2$=19.96, *df*=2, *p*<0.001). Comparing the two-way interactions against the model without the three-way interaction indicated that removing the *mode* × *syntactic integration* interaction

would significantly worsen the fit of the model ($\mathcal{X}^2$=522.59, df=4, p<0.001; $\Delta\mathcal{X}^2$=502.64, df=2, p<0.001) as would removing the *register × syntactic integration* interaction ($\mathcal{X}^2$=28.95, df=4, p<0.001; $\Delta\mathcal{X}^2$=8.99, df=2, p=0.01). As the largest contribution to the three-way interaction comes from the interaction between mode and syntactic integration, as is reflected in Figure 5.2, the dataset was split into written and spoken datasets, which were subsequently subjected to separate chi-square tests. For written Dutch, there was no significant association between register and syntactic integration ($\mathcal{X}^2$=3.93, df=2, p=0.14), for spoken Dutch there was ($\mathcal{X}^2$=24.85, df=2, p<0.001). The effect size of this association in spoken Dutch is small (Cramér's V=0.14), and both integration and resumption contribute to the overall significance. The integrative pattern occurs more frequently than expected in spoken formal texts as compared to spoken informal texts (z=2.70, p<0.01; z=-2.70, p<0.01), whereas resumptive conditionals occur less frequently than expected in formal spoken texts, and more frequently than expected in informal spoken texts (z=-2.10, p<0.05; z=2.10, p<0.05). The distribution of the non-integrative pattern does not contribute significantly to the overall association between register and syntactic integration in spoken Dutch.

When we look at register instead of mode, we see, unexpectedly, that non-integration is more frequent in the formal register than in the informal register in spoken Dutch, which is not the case for written Dutch. The examples below show that almost all non-integrated conditionals found in the corpus are of the type Rowley-Jolivet and Carter-Thomas (2008) call 'discourse management' conditionals, directing the addressee's attention to what is expressed in the consequent.[15]

(50) En wat ik altijd zo grappig vind van die twee als je nou kijkt daar rechtsboven dat is Wega die zit in sterrenbeeld de Lier en daar ietsjes linksonder van die heldere ster is Deneb in de sterrenbeeld de Zwaan.   (fn007465)
And what I always think is so funny about those two if you look to the top right there is Wega, which is in the Lyra constellation and a little lower left of that bright star is Deneb in the Cygnus constellation.

(51) Bovendien als u even concreet probeert te maken uh een bedrijf zal sowieso wel even extra uh vingers natellen voordat die aan iemand uh iemand [...] nou juist in die positie zitten omdat je al snel de verdenking op je laadt dat daarmee te maken zou kunnen hebben.   (fn000217)
In addition, if you try to make something concrete uh a company will count extra uh fingers anyway before they are placed in someone uh some [...] precisely in that position because you will soon be suspected that this might have something to do with it.

As frequencies of non-integrative conditionals are low overall, care should be taken in drawing any conclusions.

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[15]In Renmans and van Belle's (2003) terms, they have 'low semantic integration'.

5.3.5 Comparison with previous studies

König and van der Auwera (1988) argue that the three syntactic patterns described above correspond to three degrees of clause integration in Dutch (and in German). Renmans and van Belle (2003, p. 141) too argue that the three degrees of syntactic integration correspond to three degrees of 'semantic-pragmatic integration'.[16] Note, however, that, for reasons provided in section 4.3, annotation of types of conditionals was not part of this study, the aforementioned relation between syntactic and semantic integration will be discussed below, but could not be tested. This relation does however, as we will see, strengthen the expectation that syntactic integration as a feature will have discriminatory power in the cluster analysis in the next chapter.

The overall most frequent pattern in the corpus was full integration of the conditional clause into the main clause by means of subject-verb inversion and non-occurrence of a resumptive element, resulting in what König and van der Auwera (1988, p. 107) call the 'integrative word order', as in (52) below.[17]

(52) Als de proef een succes is *wordt* FIN. VERB *de digitale brievenbus* SUBJ.
     eind dit jaar landelijk ingevoerd.   (fn002955)
     In case of a successful test the digital mailbox SUBJ will FIN. VERB *be*
     introduced nationwide at the end of this year.

Here, the first clause is signalled to be a constituent of the main clause, or to be 'in [its] scope' (cf. Haiman & Thompson, 1984, p. 517). The integration is marked by the initial position of the finite verb in the main clause (cf. König & van der Auwera, 1988, p. 127). When the conditional as a whole presents 'the propositional content of just one speech act', the semantic integration is highest. Such conditionals indicate 'a content relationship because the protasis is an integral part of the predicate of the apodosis' (Renmans & van Belle, 2003, p. 146). In these cases, the antecedent can be replaced by a prepositional phrase or another constituent, as in the paraphrase of (52) in (53) below.

(53) Bij een succesvolle proef wordt de digitale brievenbus eind dit jaar landelijk ingevoerd.   (fn002955)
     If the test is a success, the digital mailbox will be introduced nationwide
     at the end of this year.

Although the second most frequent pattern, i.e., the resumptive pattern, has subject-verb inversion, it is less integrated, because the clauses are linked explicitly by the resumptive element *dan* 'then', as in (54).

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[16]See also Breitbarth, Delva and Leuschner (2016) for an analysis of integration of antecedents and consequents of V1-conditionals with *mochten* 'must' in Dutch. See Boogaart (2007a) for an analysis of Dutch *mochten* 'must' and *moesten* 'must' in combination with *dan* 'then'. See Hsu, Wang and Hu (2015) for the relation between the grammaticalisation of Chinese *yaoshi* 'if' and *yaobush* 'if not', and different degrees of subjectivity and intersubjectivity.

[17]According to van der Horst (2010, pp. 56–57), the non-integrative word order was the default order in Middle Dutch.

(54) Als bijvoorbeeld je overtuiging dat de trein om 15:15 vertrekt onwaar is omdat de trein in werkelijkheid reeds een uur eerder is vertrokken, *dan* RES. *heeft* FIN. VERB *dit* SUBJ tot gevolg dat je de trein mist. (WR-X-A-A-journals-txt-antw-008)
For example, if your belief that the train departs at 3:15 PM is false because the train actually departed an hour earlier, then RES. this SUBJ will FIN. VERB *cause you to miss the train.*

Inferential conditionals, as in example in (54), 'consist of two separate propositions' (Renmans & van Belle, 2003, p. 146) and do not allow reformulation with a prepositional phrase. Furthermore, reformulating the conditional into a question is possible only for conditionals with high semantic integration, and the inferential kind either features a modal element, such as epistemic *moeten* 'must' in the consequent, or allows for the insertion of such an element.

In the least frequent pattern, the non-integrative pattern, the clauses are simply juxtaposed without any sign of integration, as in (55) below.

(55) Als je vragen hebt... *ik* SUBJ. *zit* FIN. VERB naast een engels specialist. (WR-U-E-A-0000001292)
If you have any questions ... I SUBJ. am FIN. VERB *sitting next to an English specialist.*

Renmans and van Belle (2003) link this non-integrative pattern to the lowest degree of semantic integration, as in the pragmatic conditional in (56) below.

(56) Als je dorst hebt, er is limonade in de koelkast.
If you are thirsty, there is lemonade in the refrigerator.   (Renmans & van Belle, 2003, p. 142)

In the spoken corpus, the intonation pattern in such conditionals frequently provides a clue to the integration, as in (55) above. As can be seen in Figure 5.2, this pattern is highly infrequent in written discourse, in which such intonational information is absent. Examples are provided in (57) and (58) below.

(57) Als je kijkt wat er de laatste zes, zeven jaar over ons is geschreven: *ik* SUBJ [ben] FIN. VERB niet anders gewend.   (WR-P-P-G-0000125917)
If you look at what has been written about us in the last six or seven years: I SUBJ [am] FIN. VERB *not used to anything else.*

(58) Nu zegt hij: 'Als ik zie hoe Afrikaanse mensen hier bejegend en ontvangen worden, *dat* SUBJ [is] FIN. VERB zo weinig respectabel. Ik word er steeds meer Afrikaans nationalistisch door.'   (WR-P-P-G-0000106539)
Now he says: 'If I see how African people are being treated and met here, that SUBJ [is] FIN. VERB *so disrespectful. It makes me more and more African nationalistic.'*

We can see in (57) that the colon indicates the relation between antecedent and consequent. As this pattern only occurs a small number of times in the written part of the corpus, and the examples above are exemplary of these attestations, we can safely say that the non-integrative pattern is almost exclusively used in conditionals in spoken Dutch.

Renmans and van Belle (2003, p. 148) did not find (nor expected to find) a one-to-one relation between syntactic patterns and semantic integration. In the 203 sentence-initial conditionals in their corpus, 155 integrative conditionals, 48 resumptive conditionals and no occurrences of the non-integrative pattern were found, which, as we have seen in the previous section, may be due to influences of mode and register. From the 155 conditionals with the integrative word order pattern, 56% was of the predictive type, while 23% was of the inferential type.[18] The remaining 21% was a mixed set of what Renmans and van Belle (2003, pp. 153–154) call *focus* and *frame* relations, and a number of 'remaining' conditionals. For the resumptive word order pattern, 'only' 22% were classified as content conditionals, and 70% as either inferential or pragmatic conditionals.[19] Furthermore, they found that 58% of resumptive conditionals had antecedents in which one or more non-verbal constituents followed the finite verb. From this, they conclude that 'syntactic weight triggers the use of the resumptive particle *dan*' (Renmans & van Belle, 2003, p. 154).

A last factor that influences the use of the resumptive pattern mentioned in the literature is the biconditional implicature (*if and only if*) discussed in detail in section 2.6. Dancygier and Sweetser (1997, p. 116) argue that *then* in English conditionals 'points deictically to a particular [...] mental space, and locates the event or state described in the apodosis in that mental space' (see also Fortuin, 2011, p. 113) and they stress that *then* is anaphoric, because it restricts the possible mental spaces to which it refers to exactly one. They further argue that the biconditional implicature arises compositionally from the semantics of *if* and *then*. Dancygier and Sweetser (1997, p. 110) remark that *then* adds 'some bidirectionality' to the interpretation, in terms of presuppositions: *then* is a marker of the presupposition that $\neg p$ is compatible with $\neg q$ (cf. Iatridou, 1991; Iatridou, 1993, referred to by Dancygier and Sweetser, 1997, p. 110).

A number of scholars argue that pragmatic (or *biscuit, relevance, utterance*) conditionals do not allow for *then*. Iatridou (1991) and Bhatt and Pancheva (2005), for instance, provide the following examples (see also Geis & Lycan, 1993, p. 36).

(59) If I may be honest then you're not looking good. (Iatridou, 1991, p. 54)

(60) If you want to know then 4 isn't a prime number. (Iatridou, 1991, p. 54)

(61) If you are thirsty, (# then) there's beer in the fridge.   (Bhatt & Pancheva, 2005)

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[18]More specifically in their study, the argument-conclusion type.
[19]The remaining 8% was not classified as either one of these types.

Declerck and Reed (2001), however, argue that, in general, pragmatic conditionals may not feature *then*, as in (62) below, but certain sub-types indeed can, as in (63), because they have an 'actualizing-conditioning or purely case-specifying connotation' (see the classification by Declerck & Reed, 2001, discussed in section 3.3).

(62) If you want to go out and it's raining, (∗then) there is an umbrella in the wardrobe. [...]   (Declerck & Reed, 2001, pp. 321–322)

(63) If you are interested, then I can tell you more about it next time. [...]
(Declerck & Reed, 2001, pp. 321–322)

Zakkou (2017) too provides examples of situations in which pragmatic conditionals feature 'prohibited *then*', and do not seem to license the implicature that the consequent is not true in case the antecedent is not true, as in (64) below.

(64) If you care for my honest opinion, you look bad today. But if you want me to lie, then you look great.   (Zakkou, 2017, p. 86)

One could argue here that the latter conditional in (64) actually is predictive ('hypothetical'), but Zakkou shows how such examples behave in most respects like other pragmatic conditionals (for discussion, arguments and counterarguments, see Zakkou, 2017, pp. 86–90). According to Dancygier and Sweetser, *then* compatible with predictive, epistemic and speech-act conditionals (see section 3.3.7), but it occurs most frequently in epistemic conditionals. As we have seen, in the literature on Dutch and German conditionals the degree of syntactic integration is linked to the degree of semantic integration (cf. König & van der Auwera, 1988; Renmans & van Belle, 2003, pp. 141–142), and it is argued for Dutch as well that the resumptive pattern is used in inferential (i.e., argument-conclusion) conditionals most frequently. Verbrugge and Smessaert (2011) introduce a further distinction between inferential and meta-inferential conditionals and show how inferential conditionals, as in the example in (65) below, exhibit a lower degree of syntactic integration than meta-inferential conditionals, in which the inferential process is commented upon explicitly, as in the example in (65) (see also Reuneker, 2020, p. 123).

(65) Als de gordijnen dicht zijn, zijn ze op reis.
If the curtains closed are, are they on holiday. (Verbrugge & Smessaert, 2011, p. 3389)

(66) Als de gordijnen dicht zijn, dan mag je concluderen dat ze op reis zijn.
If the curtains closed are, then may you conclude that they on holiday are.   (Verbrugge & Smessaert, 2011, p. 3389)

The relation between syntactic integration and 'semantic-pragmatic dependence' of the consequent on the antecedent is corroborated by the findings of Vandergriff (2009, p. 209). However, she argues that syntactic integration in

German *wenn* 'if' conditionals 'marks neither the distinction between predictive and non-predictive conditionals, nor between content and speech-act conditionals'. In her analysis, non-integration is linked to König and van der Auwera's (1988, p. 126)'s 'separate assertibility'. Vandergriff (2009, p. 204) argues that syntactic integration should be linked to the notions of 'alternativity' (cf. Dancygier & Sweetser, 2005, p. 35) and 'contrastivity', in which the former presents $\neg p$ as the only situation in which q does not hold, whereas the latter presents $\neg p$ as one of multiple situations in which q does not hold. To illustrate this, she contrasts her analysis with Köpcke and Panther's analysis of the examples in (67) and (68) below.

(67) Wenn du meine Meinung hören willst, die Aktien *fallen* bald. [...]
      If you want to hear my point of view the stocks will go down soon. (Köpcke
      & Panther, 1989, p. 702)

(68) Wenn du meine Meinung hören willst, *fallen* die Aktien bald. [...]
      If you want to hear my point of view the stocks will go down soon. (Köpcke
      & Panther, 1989, p. 702)

Whereas in Köpcke and Panther's (1989, p. 702) analysis the non-integrative example in (67) expresses a higher degree of certainty in the antecedent, and the integrative example in (68) a lower degree of certainty, in Vandergriff's (2009, p. 202) analysis, the difference is that the example in (67) is 'unambiguously interpreted in the speech-act domain', whereas the example in (68) is not. This means that in (67) q is still true, but the prediction in the consequent is not performed in case the hearer does not want to hear the point of view of the speaker (the alternative scenario), whereas the example in (68) is ambiguous and can be either interpreted in the same vein, or, in case the antecedent does not hold, another contrasting q holds. Although the analyses differ, the insights they provide are of importance for this study, as the studies discussed here all relate the feature of syntactic integration (and, as we will see below, focus particles) to specific implicatures of connectedness.

A last remark on the factors at play in resumptive patterns is that Dancygier and Sweetser (1997) mention the incompatibility of the resumptive pattern with concessive conditionals (with or without overt *even*), because concessive conditionals are used to express that the antecedent is only one of the possible conditions for the consequent. Furthermore, *then* seems incompatible with necessary conditionals (*only if*). A full discussion of this observation is outside the scope of this study, but I note here that Dancygier and Sweetser's observation seems to hold for Dutch conditionals too, as the Dutch counterparts of *even if* and *only if* were found only five times in combination with the resumptive

pattern.[20] For an elaborate discussion of the incompatibility of concessive conditionals and necessary conditions, see Dancygier and Sweetser (1997, pp. 119–122, 124–125), and for recent views, see Tellings (2017) and Gomes (2020).

5.3.6 Conclusion

The results presented in this section show that the distribution of syntactic patterns is strongly associated with mode and to a lesser degree with register. Written texts show a preference for the integrative pattern, whereas in spoken Dutch, resumption is most frequent. Independent of mode and register, the integrative pattern is most frequent, followed by the resumptive pattern. The non-integrative pattern is infrequent in both modes, and occurs least frequently in written texts.

Next to the distributions of syntactic integration patterns, we discussed possible relations between patterns of syntactic integration and specific implicatures of connectedness, which is, of course, of importance to this study, as it suggests syntactic integration to be a promising grammatical feature in the analyses in the next chapter.

5.4 Verb tense

5.4.1 Introduction

As was the case with the previous features, verb tense is an important characteristic of conditionals with respect to connections between antecedents and consequents, as can be seen in Crouch's examples reproduced below.

(69) If the bimetallic strip bent, then the temperature rose.   (Crouch, 1994, p. 4)

(70) If the bimetallic strip bends, then the temperature rises. (Crouch, 1994, p. 4)

In (69), the antecedent can be either interpreted as the cause of the consequent, or as an argument, in turn reversing causality, while in (70), the antecedent can only be interpreted as cause of the consequent. In chapter 3, we saw that the classifications by, amongst others, Quirk et al. (1985), Nieuwint (1992), and Dancygier (1998), are (partly) based on tense. In other accounts, such as Kaegi's (1905) and Celce-Murcia and Larsen-Freeman's (1999) accounts, epistemic distancing expressed in English by past tenses is used to distinguish between indicative and counterfactual conditionals. As different tense patterns have been linked to different connections between antecedents and consequents, we will look in detail at their distributions.

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[20]I note here that in case of concessives, this was only investigated for overt cases (*zelfs als* 'even if'). Two occurrences of *zelfs als* 'even if' and three occurrences of *alleen als* 'only if' were found, which amounts to only 0.001% of all conditionals in the corpus.

In this section, I discuss the possible tense patterns in Dutch conditionals and the annotation of this feature in 5.4.2 and 5.4.3 respectively. In section 5.4.4, I will present the distribution of tense patterns in the corpus, after which I will compare the results with insights from the literature in section 5.4.5. In section 5.4.6, I will provide a conclusion.

5.4.2   Verb tenses

The feature *verb tense* represents the grammatical tense of the finite verb in a clause. For this study, Broekhuis, Corver and Vos's (2015a, p. 157) adaptation of te Winkel's (1866) and Verkuyl's (2008) 'Binary Tense Theory' is used. In this system, two binary features determine tense: ±past (*present, past*) and ±perfect (*perfect, imperfect*), which results in four basic tenses, namely simple present (present, imperfect), present perfect (present, perfect), simple past (past, imperfect), and past perfect (past, perfect), as in the examples in (71) to (74) respectively.

(71)   Als er genoeg water bij Lobith *binnenkomt*, *staat* de stuw open. (WR-P-P-G-newspapers-128000)
       If enough water enters *at Lobith, the weir* is *open.* (simple present, simple present)

(72)   U heeft uh als ik u goed *begrepen heb heeft* u dus *gezegd* dat u zich daar graag nog een keer over wilt buigen om te kij want dan heb je ook kwa over kwaliteit gehad van de rechtshulp.   (fn000149)
       You have if I have understood *you correctly you* have said *that you would like to think about it again because then you have also discussed quality of the legal aid.* (present perfect, present perfect)

(73)   De leraren *maakten* bezwerende gebaren als de uitbundigheid binnen of buiten te groot *werd*.   (WR-P-P-G-0000101700)
       The teachers made *bewildering gestures if there* was *too much exuberance inside or outside.* (simple past, simple past)

(74)   Maar dat zou net zo goed gelden voor de soorten die dan toevallig uitgestorven zijn: Als hun omgeving (waarbij ik dus ook alle interacties met andere soorten meereken) niet veranderd was, waren ze niet uitgestorven. (WR-X-B-A-discussion-lists-tweakers-96703)
       But that would just as well be the case for the species that happened to be extinct: If their environment (including all interactions with other species) had not changed, they would not have become extinct. (past perfect, past perfect)

The feature ±past represents whether the verb form is used to refer 'temporal domain i that includes n' (present) or not (past), whereas ±perfect represents whether the verb form is used to refer to a situation as completed within the temporal domain it is situated in (perfect) or not (imperfect) (cf. Broekhuis,

Corver & Vos, 2015a, pp. 104, 106–107; see also Fortuin, 2019, p. 8; de Haan, 1991, and references therein). In contrast to traditional approaches to tense, in this perspective, *zullen* 'will' is treated as an epistemic modal, not a future auxiliary (see Verkuyl & Broekhuis, 2013a). However, whether or not *zullen* 'will' should be seen as a future or modal auxiliary is subject to considerable debate, and discussed at large by Boogaart (2013) in reaction to Verkuyl and Broekhuis (2013a).[21] In short, the question is whether or not the meaning of *zullen* 'will' can be analysed in terms of both future-reference and epistemic modality, or should always be analysed in terms epistemic modality. Boogaart (2013) argues for the former by pointing out that the epistemic interpretation is not part of the meaning of the verb alone, but also depends on factors like finiteness, present tense and aspectual properties of the complement. Furthermore, from a diachronic perspective, the epistemic meaning of *zullen* 'will' has developed from the future meaning of the verb, and the distinction between these two meanings is frequently hard to make in actual language use. Finally, tense itself can be used to express modality. As discussed in section 2.5, past tense can be used not only to refer to past time, but also to create epistemic distance, which is not compatible with a strictly temporal difference between tenses in Verkuyl and Broekhuis's (2013a, p. 345) account. They reply that the 'epistemic interpretation of modal verbs, including *zullen* 'will', is inherent in the lexical meaning of the verb itself and has nothing to do with the meaning of PRES and PAST: from a semantic perspective there is temporality and modality'.

From the discussion only briefly outlined above, it becomes clear that the question of tense and modality with respect to Dutch *zullen* 'will' is complex, and no consensus exists among scholars. In line with Palmer (2001, p. 104), who argues that *will* and *shall* 'are formally modal verbs by the criteria proposed [...] they are often used to refer to future time', *zullen* 'will' will be treated as a marker of modality in section 5.5. This means that for a sentence such as in (75), the verb tense in both clauses is *simple present*, not, as is common in in traditional grammars *present future* for the consequent (see e.g., te Winkel, 1866, p. 70; Kollewijn, 1892, pp. 142–147; Paardekooper, 1957, p. 38; Overdiep, 1937, p. 58; Kirsner, 1970; Hermkens, 1974, p. 27; Geerts et al., 1984, p. 429; Janssen, 1989, p. 305).

(75) Als je dat gelooft zal het zeker zo lopen.   (WR-P-E-A-discussion-lists-470000)
      If you believe that it will definitely work out that way. (simple present, simple present)

As the traditional tense system, i.e., the eight tenses by te Winkel (1866), is still commonly used, I have included Table 5.1 below to show the relation between the four-tense system used and the original system by te Winkel.

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[21]See, for the full discussion, also Verkuyl and Broekhuis (2013b).

Table 5.1:
Verb tenses in Binary Tense and traditional tense system

±Past	±Perfect	±Future	Form	Binary Tense	Traditional
−	−	−	conjugated stem	simple present	o.t.t., presens
−	−	+	*zullen +* infinitive		o.t.t.t., futurum
−	+	−	*hebben/zijn* + participle	present perfect	v.t.t., perfectum
−	+	+	*zullen +* *+hebben/zijn* + participle		v.t.t.t., futurum exactum
+	−	−	conjugated stem	simple past	o.v.t., imperfectum
+	−	+	*zouden +* infinitive		o.v.t.t., futurum praeteriti
+	+	−	*waren/hadden* + participle	past perfect	o.v.t.t., plusquamperfectum
+	+	+	*zouden* *+hebben/zijn* + participle		v.v.t.t., futurum exactum praeteriti

One may wonder why I chose a system comprised of two binary features determining tense in this study, basically ignoring future tenses, especially given the aforementioned debate. The reasons for this are mainly methodological. First, tense, like conditionality, is a topic of much debate and involves a large body of literature that is outside the scope of this study, as becomes apparent in Comrie's remark below.

> We find discussions of future time reference ranging from the acceptance of the existence of a future tense as something self-evident to denial of the very existence of a distinct future tense, these latter usually arguing that the future time reference attributed to the auxiliaries *will/shall, werden*, or *zullen* is merely a special case of a more basic modal meaning. (Comrie, 1989, p. 51)

Determining whether the use of *zullen* in a given sentence is an expression of future time or of modality is affected by many factors (see Broekhuis, Corver & Vos, 2015a, pp. 135–141), and as Boogaart and Janssen (2010, p. 118) argue, the future tenses in Table 5.1 are 'so-called future tenses; so-called, for it

should be noted that they can serve to express not only the possibility that the situations [...] occur at a time later than the time of epistemic evaluation, but also the possibility that these situations are a fact at the time of epistemic evaluation' (see also Janssen, 1989; Smedts & van Belle, 1993, pp. 149, 152; Vandeweghe, 2000, p. 210; Nivelle, 2008, p. 41; de Haan, 2009). Such differences in interpretation are expected to lead to low reliability of annotation in a corpus whose size prohibits such detailed analysis of the specific contexts of each sentence. As this debate is ongoing, and annotation in which both the temporal and the modal meaning of *zullen* is more complex than can be dealt with in this large corpus study, *zullen* will be annotated as a modal auxiliary.

Second, as the future tenses are composed of one of the binary tenses plus the auxiliary *zullen*, the labels in the four tenses system can be relatively easily 'converted' into the eight tenses by including those sentences annotated for the use of that modal verb (see section 5.5), keeping in mind of course that there will be ambiguous cases.

Third, as I noted before, methodologically it is good practice to keep features both independent and indicative of one characteristic only. It could be argued that including the future tenses would amount, at least in some cases, to annotating both tense and modality in one and the same feature.

5.4.3 Inter-rater reliability

All clauses in the corpus were manually annotated for verb tense using the manual provided in section A.5 of Appendix A.[22] Please note that for each conditional sentence, this resulted in two annotations: verb tense in the antecedent and verb tense in the consequent. As presented in section 4.5, the agreement scores of this feature were high ($AC1$=0.94 and $AC1$=0.90 for antecedents and consequents respectively).

The small number of disagreements mainly concerned clauses which had a combination of the verb *zijn* 'to be' with a participle, in which case it can either be a copular verb or an auxiliary verb. In the first case, the predicate describes what the subject *is*, in the latter, what the subject *does*, as in (76) and (77) respectively.

(76) Het kasteel *is bewoond.*
    The castle is inhabited.

(77) Het kasteel *is geverfd* (door schilders).
    The castle has been painted *(by painters).*

As can be seen in these examples, the difference is not always easy to tell and needs interpretation. In other words, as Verhagen (1992, p. 309) argues, 'the Dutch *zijn*+participle construction [...] is ambiguous between the perfect of the

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[22]As an aid in annotation, the verb tenses were also indexed using the *Pattern* module for Python (de Smedt & Daelemans, 2012). As accuracy decreases by including other text modes and genres than those the module was trained on, manual annotation remained necessary.

passive and the simple present/past of the passive (or a statal passive)'. For instance, the example in (77) can mean that the state of the castle is 'painted', as opposed to 'unpainted', while the intended meaning here is that the castle has undergone a process of painting, which is the only meaning readily available when adding 'by painters', as exemplified in the matching translations in (76) and (77) above. Another clear example is provided by Aarts and Wekker (cited in Verhagen, 1992, p. 309). The Dutch example in (78) can be translated into English as (79) or (80), respectively reporting on 'the action of burying [...] or the resultant state'.

(78) Hij wist dat het lijk in de tuin begraven was.   (Aarts & Wekker, 1987, p. 275)

(79) He knew that the body had been buried in the garden.   (Aarts & Wekker, 1987, p. 275)

(80) He knew that the body was/lay buried in the garden. (Aarts & Wekker, 1987, p. 275)

The difference is important for the annotation of verb tense, because in case of a copular verb, tense is simple present or past, whereas in case of an auxiliary, it is present or past perfect. The annotation guidelines include tests to determine the most appropriate label (i.e., testing for the acceptability of the orders finite verb-participle and vice versa; possibility to add a duration to the clause; possibility to add a prepositional phrase indicating an actor), while I acknowledge these test to be less than perfect. Examples of disagreements concerning this notion are presented below.

(81) Die vrijheid is er zelfs als het onderscheid tussen wat wel en wat niet is gedekt, (in de woorden van het Hof:) 'gekunsteld' is, zie HR 16 mei 2008, NJ 2008, 284 (Chubb/Dagenstaed).   (WR-X-A-A-journals-txt-nthr-007)
    That freedom exists even if the distinction between what is and what is not covered (in the words of the Court :) is 'artificial', see HR 16 May 2008, NJ 2008, 284 (Chubb/Dagenstaed).

(82) Hierbij zijn vrouwelijke respondenten die drie tot zeven dagen in de week maximaal één standaardglas alcohol drinken tot de matige drinkers gerekend en tot de excessieve drinkers als zij twee of meer glazen alcohol drinken.   (WR-X-A-A-journals-txt-mem-006)
    Female respondents who drink a maximum of one standard glass of alcohol for three to seven days a week are considered moderate drinkers and excessive drinkers if they drink two or more glasses of alcohol.

For (81), it was agreed that the antecedent should be considered a case of simple present tense (i.e., *is* as copular verb), whereas for (82), which most likely concerned a simple coding error instead of disagreement concerning the analysis, the consequent was finally classified as having present perfect tense (i.e., *is* as an auxiliary verb).

Another source of disagreement involved embedded clauses, as in the examples in (83) and (84) below.

(83) Mohammed is van plan om zijn opleiding op te pakken als hij weer beter is en zich goed voelt.   (WR-X-A-A-journals-txt-ped-001)
Mohammed is planning to resume his education if [when] he is well and feels good again.

(84) De lowbudget-maatschappij Ryanair dreigt het populaire vliegveld Charleroi te verlaten als de Europese Commissie haar een boete geeft. (WR-P-P-G-0000032619)
The low-budget airline Ryanair threatens to leave the popular Charleroi airport if the European Commission hands out a fine.

Both in (83) and (84) the question is what the consequent of the conditional is. Is it the full complex clause, or only the embedded clause? In (83), it seems to be the case that Mohammed is planning to get back to school if or when he feels better. It does not seem plausible that he starts planning at the moment he feels better. The same goes for (84): does the airline company threaten 'to leave if the European Committee fines the company', or does the airline company 'threaten to leave if the European Committee fines the company'? Recall the issue discussed in section 5.2, namely that of adverbial clauses occurring in the main clause, while being interpretable in both the embedded clause (the first interpretation) and the main clause (the second interpretation) (see also Barbiers, 2018). Here too, the former seems more plausible, as it is the fining and leaving between which the conditional connection holds, not between fining and threatening. The discussion of these cases has resulted in a new category for the feature verb tense, namely *infinitival*, which was subsequently added to the annotation manual (see section A.5 of Appendix A). Further disagreements concerned simple errors in annotation, which were resolved by adding the correct annotation.

5.4.4   Distribution of tenses

The results of the annotation are presented in Figure 5.3 below. To limit the number of dimensions in the table, not the individual tenses per clause, but the tense patterns in the antecedent and consequent are combined in the presentation of the results. For a more detailed view on the data, the reader is referred to page 474 in Appendix B.

Figure 5.3:

Distribution of verb tenses by mode and register
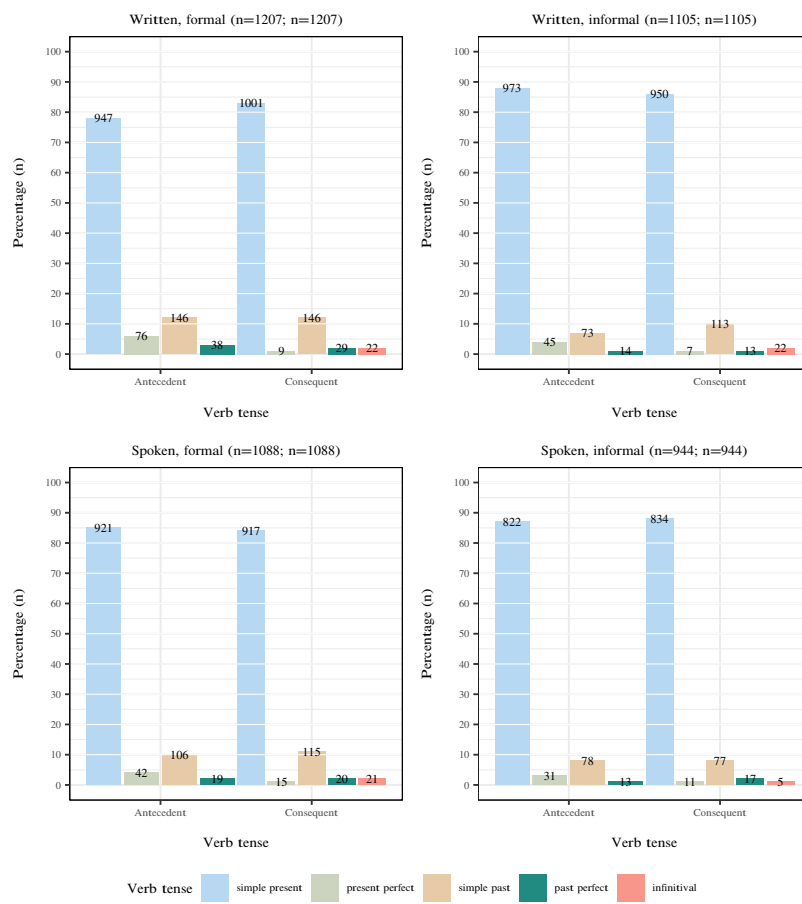
The picture concerning verb tense is clear: *simple present* makes up for the vast majority of antecedents (84.32%), consequents (85.22%) and their combination (78.27%). The *simple past* is the second most frequent tense, with a relative frequency of 9.28% in the antecedent, 10.38% in the consequent and 6.05% in both clauses. The prevalence of the simple tenses thus leaves only relatively marginal frequencies for the perfect tenses: present perfect in 4.47% of antecedents, 0.97% in consequents, and only 0.16% in both clauses; past perfect tense in 1.93% of antecedents, 1.82% of consequents, and 1.43% in both clauses.

Before subjecting the distributions of tense to any of the statistical procedures discussed in section 4.6, a remark is in order. As can be seen in Figure 5.3, the distributions of tense in both the antecedent and the consequent are strongly skewed towards the simple present. Furthermore, as may be expected, tense in one clause is strongly associated with tense in the other clause ($\mathcal{X}^2$=4018.30, *df*=12, p<0.001, Cramér's *V*=0.56). As one may expect with respect to tense patterns, simple present in both clauses is dominant, and accounts for 78.27% of all conditionals. By inspecting the residuals for this association, it becomes clear that the interaction between tense in antecedents and in consequents is largely influenced by two patterns: the simple past in both clauses (z=34.19, p<0.001), and past perfect in both clauses (z=48.93, p<0.001). Apart from these associations, only a small number of patterns adds significantly to the overall association: the past perfect in the antecedent is followed more often than expected by the simple past in the consequent (z=2.13, p<0.05) and less often by the simple present (z=-7,.75, p<0.001). The present perfect in antecedents is followed by the present perfect in the consequent more often than expected (z=3.74, p<0.001), at the cost of the simple past mainly (z=-3.37, p<0.001). Next to the simple past occurring in both clauses, the simple past in antecedents is followed by the past perfect in consequents more frequently than expected (z=2.10, p<0.05) and less by the simple present (z=-12.27, p<0.001). Finally, the simple present in antecedents is followed less often by the past perfect and simple past in consequents (z=-7.67, p<0.001; z=-10.89, p<0.001 respectively), and more often than expected by the simple present (z=-4.98, p<0.001), although we can see the strength of this association is weaker than for the association between simple past or past perfect in both clauses. The combination of simple past in both clauses accounts for 6.05%, and simple present-simple past in antecedents and consequents respectively make up for 3.87%. This leaves only very low frequencies for the remaining 17 possible combinations of tenses. A number of tense patterns, as we will see below in section 5.4.5, does not occur at all.[23] It is for these reasons that we will not analyse tense in antecedents and consequents as a pattern together, but I

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[23]Because of this, a Fisher's Exact test may be preferred as an omnibus test. A two-tailed Fisher's Exact test also indicates a highly significant association between tense in the antecedent and tense in the consequent (p<0.001).

will perform separate loglinear analyses to inspect their individual relations to mode and register, as was done for the previous features.[24] All results below should be interpreted keeping these remarks in mind.

For antecedents, a three-way loglinear analysis was performed, which produced a final model that retained all effects, indicating that the highest order interaction (*mode × register × tense*) was significant ($\mathcal{X}^2$=9.03, *df*=3, *p*=0.03). Comparing the two-way interactions against the model without the three-way interaction showed that removing the *mode × tense* interaction would significantly worsen the fit of the model ($\mathcal{X}^2$=19.81, *df*=6, *p*<0.001; $\Delta\mathcal{X}^2$=10.78, *df*=3, *p*=0.01), as would removing the *register × tense* interaction ($\mathcal{X}^2$=42.68, *df*=6, *p*<0.001; $\Delta\mathcal{X}^2$=33.65, *df*=3, *p*<0.001). As the largest contribution to the three-way interaction comes from the interaction between register and tense, we will split the dataset into the formal and informal registers. For formal texts, the association between mode and tense in the antecedent is significant ($\mathcal{X}^2$=16.72, *df*=3, *p*<0.001), but weak (Cramér's *V*=0.09) and none of the individual tenses contributes significantly individually to the overall significance. For informal texts, the association to tense is not significant ($\mathcal{X}^2$=2.85, *df*=3, *p*=0.42). For antecedents, we thus see that there is a small association with mode in formal texts which is not influenced significantly by any one tense distribution, and we see no significant association between mode and tense in the antecedent in informal texts.

For consequents too, a three-way loglinear analysis was performed, which produced a final model that retained the *mode × tense* and *register × tense* interactions. The likelihood ratio of this model was $\mathcal{X}^2$=9.77, *df*=5, *p*=0.08. The *mode × tense* interaction was significant ($\mathcal{X}^2$=10.08, *df*=4, *p*=0.04), which indicates that the distribution of tenses in consequents differed across the two modes. The effect size of this association is small (Cramér's *V*=0.05, *df*=3) and by inspection of the residuals, none of the tenses appears to contribute significantly individually to the overall significance. The *register × tense* interaction was significant too ($\mathcal{X}^2$=11.22, *df*=4, *p*=0.02), which indicates that the distribution of tenses in consequents differed across the two modes. The effect size of this association is small (Cramér's *V*=0.05, *df*=4) and by inspection of the residuals, none of the tenses appears to contribute significantly individually to the overall significance. This is in line with Figure 5.3, which shows roughly the same distributions over modes and registers. While tense distributions are significantly associated with mode and register, these associations are small. The largest association of tense in either clause is, as discussed, the tense in the other clause.

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[24]For sake of completeness, a four-way loglinear analysis was performed and produced a final model that retained the *mode × register × tense (a)*, *mode × register × tense (c)* and *mode × tense (a) × tense (c)* interactions. The likelihood ratio of this model was $\mathcal{X}^2$=28.91, *df*=24, *p*=0.22. Of course, breaking down this effect on mode reveals the dominance of tense patterns here: the interaction between tense in antecedents and tense in consequents in written texts is highly significant ($\mathcal{X}^2$=2156.50, *df*=12, *p*<0.001, Cramér's *V*=0.56), as is the corresponding interaction in spoken texts ($\mathcal{X}^2$=1913.31, *df*=12, *p*<0.001, Cramér's *V*=0.56).

Given the analyses of tense distributions in antecedents and consequents, it seems fair to conclude that the small differences in their distributions are only weakly attributable to actual differences between modes and registers. The more informative, albeit general conclusion is that the simple present is, irrespective of both dimensions, the dominant tense in both clauses of conditionals, and that tense comes in patterns. We will discuss this further in light of the available literature in the next section.

5.4.5 Comparison with previous studies

In this section, I will first briefly compare the results in Figure 5.3 to Biber and Conrad's (2009) findings. Next, I will discuss each tense pattern individually.

Biber and Conrad (2009, pp. 116–117) show that the present tense in English is most common in conversation and 'academic prose' and only slightly more common than past tense in newspapers. The results from the corpus of Dutch conditionals show a different picture, namely that in Dutch conditionals present tense is dominant overall. As the current corpus contains genre information too, we can make a more detailed comparison to Biber and Conrad's (2009) characterisations of conversations, newspapers and academic prose. In the current corpus, face-to-face conversations feature present tense in 88.22% of all antecedents and 88.64% of all consequents, newspapers 85.49% and 83.28% respectively, and academic journals 82.06% and 85.28% respectively. The remaining percentages are for the past tenses, which are characterised by Biber and Conrad (2009, p. 116) as uncommon in conversation, very common in newspapers, and rare in academic prose. As Biber and Conrad's figures concern not only conditionals, however, care should be taken in drawing conclusions these differences, as they could reflect a difference between Dutch and English, but also between conditional and non-conditional sentences.

Next, we will look at the tense patterns found, starting with those involving the present tense, as in the examples in (85) to (87) below, showing present tense in both clauses, in the antecedent, and in the consequent respectively.

(85) Als ze hun hele opleiding in het buitenland *volgen kunnen* ze vanaf het schooljaar tweeduizend twee tweeduizend drie *rekenen* op een Nederlandse studiebeurs.   (fn002896)
If they do *their entire education abroad, they* can count *on a Dutch study grant from school year 2002-2003.*

(86) Auto staat weer voor de deur:) Nee, als ie niet voor de deur *staat is* ie *gejat*:P   (WR-U-E-D-0000000321)
Car is back at the door:) No, if it is *not at the door it* is stolen*:P*

(87) Werknemers in strikt gereguleerde huishoudens *krijgen* dus *te maken* met additionele restricties in termen van kosten en risicos als ze meer uren *zouden willen werken*.   (WR-X-A-A-journals-txt-mem-001)

> *Employees in strictly regulated households* are *therefore* faced *with additional restrictions in terms of costs and risks if they* would like to work *more hours.*

The 'simple present, simple present' pattern in (85) was found in almost 80% of all conditionals in the corpus. In (86), the verb tense in the antecedent is simple present, and in the consequent it is present perfect, presenting the situation as completed. In (87), the antecedent's verb tense is simple past, and that in the consequent is simple present. Please note that this is a direct consequence of the tense system used in this study. While the past tense of *zou* 'would' of *zullen* 'will' can indeed express posteriority, as Boogaart (2013, p. 335) argues for the example in (88), in most cases it expresses epistemic distance.

(88) Vier jaar later zou hij de eerste democratisch gekozen president van Zuid-Afrika worden. (www.maandbladzuidafrika.nl) (Boogaart, 2013, p. 335)
Four years later, he would become South Africa's first democratically elected president.

It could be argued that *zou* 'would' is on its way on a path of grammaticalisation and that it is unclear to what extent precisely it should still be seen as the past tense of *zullen* 'will'. This is, of course, a debate in its own right, and in this study, I will consistently treat *zou* 'would' as the past tense of *zullen* 'will' (but see Boogaart, 2013; Verkuyl and Broekhuis, 2013a; Verkuyl and Broekhuis, 2013b, and, on grammaticalisation of English *will*, Bybee, 2013, pp. 65–66, cited in Boogaart, 2013, p. 335). Schouten (2000, p. 31) remarks that 'unlike English, Dutch usually has a present tense in both clauses of open conditionals'. As her tense system is different from the one used here, this must be interpreted as English frequently having *will* in the consequent, which is seen by Schouten (2000) as a marker of future tense, while consequents of Dutch conditionals do not. In fact, if we look at the corpus data, the 'simple future', comprised of *zullen* 'will' and an infinitive, as in (89), occurs in only 3.7% of consequents, whereas the present (simple) tense without *zullen* 'will' occurs in 82.92% of consequents.

(89) 'Als hij doorvecht *zullen* we hem *vermoorden*', kondigt de komende man alvast aan in interviews.   (WR-P-P-G-0000108221)
If he keeps fighting we will kill *him', the next man announces in interviews.*

Whereas English conditionals frequently feature *will* in the consequent, Dutch conditionals do not frequently feature *zullen* 'will', as it is far more frequent to refer to the future in the consequent of a conditional using a regular present tense without a modal verb, as in (90) below.

(90) Als alles goed gaat *wordt* volgend jaar een convenant *getekend* waarin staat dat een aantal middelbare scholen in de regio maar beperkt leerlingen uit de stad Utrecht aanneemt om te voorkomen dat alleen zwarte

leerlingen achterblijven en het voortbestaan van alle Utrechtse scholen wordt bedreigd. (WR-P-P-G-0000076623)
If all goes well, a covenant will be signed next year stating that a number of secondary schools in the region only accept pupils from the city of Utrecht to prevent only black pupils from being left behind and the continued existence of all schools in Utrecht being threatened.

This is not a characteristic of Dutch conditionals. As Broekhuis, Corver and Vos (2015a, p. 158) argue, future (i.e., 'non-actualized') events 'need not be marked by the presence of *will* (or some other modal verb); Dutch zullen "will" is optional in such cases', as in (91) below.

(91) Morgen *bak* ik koekjes voor je.
Tomorrow I will bake *cookies for you.*

Kirsner (1970, pp. 121–122) argues that Dutch *zullen* 'will' marks a situation expressed not as 'a neutral "fact"': *moeten* 'must' marks the situation as more likely, and *kunnen* 'can' as less likely when compared to *zullen*, as can be seen in Kirsner (1970, pp. 121–122)'s examples reproduced below in (92).[25]

(92) Piet *{werkt/zal werken/moet werken/kan werken}*.
Piet {works/is working/will work/will be working/must work/must be working/can work/can be working}. (Kirsner, 1970, pp. 121–122)

We thus see that *zullen* 'will' is not needed in Dutch for future reference, and, as we have seen, is not used frequently for future reference in conditionals.

We will continue by looking at the present perfect. Before discussing this compound tense, however, it is worth mentioning that two of the logically possible tense patterns did not occur at all in the corpus, as we saw already in section 5.4.4, and as can be seen in Table B.3 on page 474 in Appendix B, the patterns 'present perfect, past perfect' and its reverse, 'past perfect, present perfect', as exemplified in the constructed examples in (93) and (94) respectively, did not occur at all.

(93) If the drummer *has listened* to Deep Purple, he *had* not yet *decided* on joining the band.

(94) If the drummer *had listened* to Deep Purple, he *has* not yet *decided* on joining the band.

Although some other tense patterns, such as 'simple past, present perfect' have very low frequencies, it is striking that the two patterns above are absent from a corpus of more than 4000 conditionals having a finite verb in both clauses. The rest of the logically possible patterns were found. The patterns 'present perfect, present perfect', 'present perfect, simple present', and 'simple past, present perfect' are exemplified below.

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[25]This is not to say that *zullen* 'will' does not have other functions, such as expressing promises (see Kirsner, 1970, p. 137).

(72) U heeft uh als ik u goed *begrepen heb heeft* u dus *gezegd* dat u zich daar graag nog een keer over wilt buigen om te kij want dan heb je ook kwa over kwaliteit gehad van de rechtshulp. (fn000149)
You have if I have understood *you correctly you* have said *that you would like to think about it again because then you have also discussed quality of the legal aid.* (present perfect, present perfect)

(95) U heeft uh als ik u goed *begrepen heb heeft* u dus *gezegd* dat u zich daar graag nog een keer over wilt buigen om te kij want dan heb je ook kwa over kwaliteit gehad van de rechtshulp. (fn000149)
You have uh if I have understood you correctly, you have said that you would like to look at it again, because it also involves quality of legal aid.

(96) In eerste instantie zit er wel stoom in, maar als je het 2 minuten *hebt laten koelen komt* er bij mij geen stoom meer onder de deksel vandaan. (WR-P-E-A-0005795081)
On first instance there is steam in it, but if you have let it cool *for 2 minutes in my case no more steam* comes out *from under the lid.*

(97) Op basis van deze levensloopgegevens is er een variabele gecreëerd waarbij de waarde 1 *is toegekend* als een respondent in een jaar *startte* met een sport. (R-X-A-A-journals-txt-mem-007)
Based on these lifecycle data, a variable has been created to which the value 1 is assigned if a respondent started *exercising in a year.*

These patterns are infrequent, and, based on the corpus data, seem to be used in specialised settings mostly. The pattern in (95), for example, occurs mostly in spoken data and to express politeness or 'extralinguistic uncertainty' (see section 3.3.4 and Quirk et al., 1985, p. 1096). The pattern in (97) occurs only two times. The simple past is used here to describe a past situation and the present perfect to describe a completed action, together describing a procedure.

Next, we will look at the simple past, as exemplified in (97). Two examples of the 'simple past, simple past' pattern are included, as they show two frequent uses of this pattern. In (98) we see the simple past being used to express epistemic distance with respect to the situations expressed, with the antecedent clearly being counterfactual (see also e.g., Schulz, 2014; Mackay, 2015, 2017 on 'fake tense', as well as section 2.5 in this dissertation).

(98) Als ik jou *was liep* ik gewoon eens wat rond om te kijken waar er plek is en waar het er gezellig uitziet. (WR-P-E-A-0004631229)
If I were *you, I* would *just* walk *around to see where there is room and where it looks cozy.*

As Broekhuis, Corver and Vos (2015a, pp. 164–165) show, the antecedent does not have to be known to be counterfactual by world-knowledge (i.e., one cannot be someone else) to license an implicature of counterfactualilty.

(99) Als ik genoeg geld had, ging ik op vakantie.
{When/If} I had enough money, I {went/would go} on holiday.
(Broekhuis, Corver & Vos, 2015a, p. 164)

In (100) below, the simple past is used in both clauses to refer to past situations, frequently, though not exclusively, licensing an habitual interpretation.

(100) De verzoeker *kon* hoger beroep *instellen* bij de Afdeling Rechtspraak van de Raad voor het Rechtsherstel, een onafhankelijke rechter, als hij het voorstel van de notaris-bemiddelaar *afwees*. (WR-X-A-A-journals-txt-tvg-004)
The applicant could appeal to the Judiciary Division of the Council for the Restoration of Rights, an independent judge, if he rejected the proposal of the notary-mediator.

In (101) below, we see the 'simple past, simple present' pattern being used to express, as in (97) above, a recurrent pattern between a situation in the past, and a consequence in the present.

(101) Zonen *hebben* een groter risico dan dochters om een excessieve drinker te worden als hun vader een excessieve drinker *was*. (WR-X-A-A-journals-txt-mem-006)
Sons have a greater risk than daughters of becoming an excessive drinker if their father was an excessive drinker.

In (102), we see the past perfect in the antecedent being used to create epistemic distance to what is implicated to be a counterfactual situation (i.e., America did in fact intervene), while presenting this situation as completed before the moment of speech.

(102) Ik zeg niet de huidige duitsers maar als amerika niet *had ingegrepen* (waar ze overigens een goeie reden voor hadden er werden tenslotte passagiersschepen tot zinken gebracht door de duitsers) *zaten* wij vrolijk allemaal duits *te praten* nu.   (WR-X-B-A-discussion-lists-tweakers-647247)
I do not say the current Germans, but if America had not intervened (for which, incidentally, they had a good reason, as passenger ships were sunk by the Germans) we were all happily talking German now.

In the consequent, the simple past is used to express a consequence of this intervention. In these cases of 'non-past' past tense it is clear that the verb tense is used for epistemic distancing, as can be seen in Kirsner's 'typical examples' of this phenomenon reproduced in (103) below too.

(103) Als ik morgen wat geld *vond*, (dan *zou* ik naar Parijs *gaan*).
If I *found* some money tomorrow, (*I'd go* to Paris).   (Kirsner, 1970, p. 118)

As can be seen by the temporal adverb *morgen* 'tomorrow', the antecedent refers to the future, while the past tense *vond* 'found' is used to mark the situation expressed as 'hypothetical, less probable' (Kirsner, 1970, p. 118). For

Dutch, Balk-Smit Duyzentkunst (1963, p. 131) has described this difference between the simple present and simple past in terms not of reality and 'un-reality' (or *counterfactuality*), but in terms of 'reality A' versus 'reality non-A', or 'realis' versus 'hetero-realis', the former meaning a time and space of which the speaker is part, the latter meaning a different time and space than that of which the speaker is part. Janssen (1989) analyses tense in terms of one binary, non-time-based feature. In case of the present tense, the verb form signals 'verb-in-THIS-context-of-situation', and a verb in the past tense signals 'verb-in-THAT-context-of-situation' (see also Boogaart & Janssen, 2007). Schouten (2000, pp. 32, 35) mentions that the use of 'the preterite [excluding *zou(den)* 'would'] in hypothetical main clauses is rare' in Dutch. The figures however show that the simple past in both clauses, although largely overshadowed by the simple present, is one of the most frequent verb tense patterns. With respect to the foregoing discussion, it is perhaps not surprising that 64.75% of those consequents are modalised by means of a modal verb and the majority seems to refer not to past situations, but to express epistemic distance, especially by means of the past tense of *zullen* 'will', as can be seen in (104) and (105).

(104) Lizzy, je gaf aan dat je een dief van je eigen portemonnee *zou zijn* als je niet gebruik maakt van de overheidssubsidies die er zijn.   (WR-P-P-G-0000129541)
Lizzy, you indicated that you would be a thief of your own wallet if you would not use the existing government grants.

(105) Als je die van mij morgen naar de vergadering mee wil nemen *zou* dat fantastisch *zijn*!   (WR-U-E-D-0000000312)
If you want to take mine to the meeting tomorrow, that would be fantastic!

In the latter example, the past tense is used for purposes of politeness.

The 'non-past subjunctive conditional' (cf. Ippolito, 2003, p. 145) use of the past tense leads us to the past perfect, as it is seen often as the verb tense to implicate counterfactuality in conditionals (see Comrie, 1986; Athanasiadou & Dirven, 1997a; Wierzbicka, 1997; Ippolito, 2013; for Dutch, see Paardekooper, 1957, p. 44; Overdiep, 1937, p. 58; Balk-Smit Duyzentkunst, 1963, pp. 130–131; Janssen, 1989, p. 325; Haeseryn et al., 1997, p. 129; van Bart & Sturm, 1987, p. 57). In Ippolito's terminology, 'subjunctive' is used to refer to 'one layer of past morphology which is not interpreted temporally', i.e., it concerns a semantic notion of the subjunctive as counterfactual. As the current section concerns verb tense as a *grammatical* feature, I will not use the term 'subjunctive' here, as it refers to a mood, whereas Dutch uses tense rather than mood to indicate counterfactuality. Therefore, I will use the term 'counterfactual' in this section in order to refer to the modal notion of distancing p from the world of the speaker expressed by the grammatical means of verb tense (see also the discussion on terminology concerning subjunctives and counterfactuals in sec-

tion 2.5). The use of the past perfect in Dutch conditionals is exemplified below in (106) to (108), showing the 'past perfect, past perfect', 'past perfect, simple past', and 'simple present, past perfect' patterns respectively.

(106) 'Als ik een pistool of mes *had gehad*, *had* ik dat *gebruikt*', tekende de politie op uit de mond van Kahlid L.   (WR-P-P-G-0000009005)
'*If I* had had *a gun or knife, I had* would have *used it', police registered Kahlid L. saying.*

(107) De Amerikanen zelf *zouden* nooit akkoord *gaan* als Europa een dergelijk voorstel *had gedaan*.   (WR-P-P-G-0000125911)
The Americans themselves would *never* agree *if Europe* had made *such a proposal.*

(108) En als de VUT in klap *wordt afgeschaft zou* zelfs de spanning op de arbeidsmarkt in keer *zijn opgelost*.   (fn000242)
And if the VUT is abolished *at once, even the tension on the labour market* would be resolved *in one go.*

Wierzbicka (1997, pp. 29–30) has shown for English that the 'past perfect, past perfect' pattern is interpreted by her informants exclusively as a counterfactual expression. Fauconnier (1994, pp. 111–112) argues for the same, as can be seen in his examples reproduced below.

(109) If Boris comes tomorrow, Olga will be happy. (Fauconnier, 1994, p. 111)

(110) If Boris came tomorrow, Olga would be happy.   (Fauconnier, 1994, p. 111)

(111) If Boris had come tomorrow, Olga would have been happy. (Fauconnier, 1994, p. 112)

In contrasting the examples in (109) and (110), we see that (110) tense is not not used to refer a past situation, which would be incompatible with the time adverbial *tomorrow*, but rather expresses epistemic distance towards *p*. In Fauconnier's (1994, p. 112) words, (109) can be used only if it is 'established' or 'undetermined' that Boris comes, while (110) can only be used if it is established that Boris is not coming or it is undetermined whether or not he comes. Conversely, (111) 'can only be used counterfactually'. In section 2.5.4, I argued for the status of an implicature of the counterfactual interpretation of such conditionals (see also Fauconnier, 1994, Chapter 4). I note here that what we see in (106), namely that the 'past perfect, past perfect' pattern is used for counterfactual expressions, is, as far as the corpus data go, the case for all conditionals with this tense pattern. This suggest a strongly generalised conversational implicature, which can only be overruled by strong contextual clues contrasting the implicature.

5.4.6 Conclusion

The results presented in this section show that an overwhelming majority of Dutch conditionals has a simple present verb in both clauses, and does not occur with *zullen* 'will' in the consequent often, as would be expected when compared to English. Furthermore, looking at the minority of cases in which other tenses are involved, the simple past is most frequent, and, in case of the 'simple past, simple past' pattern, it is used to express either epistemic distance, as is the case with past perfect patterns, or to express recurrence in the past, as discussed in terms of implicatures of unassertiveness in section 2.5 and the accounts thereof discussed in section 3.2. These two tense patterns have an overwhelming influence on the overall association between tense in antecedents and in consequents, whereas tense distributions are significantly, but only weakly associated with mode and register.

Next to the distributions of verb tenses, we discussed tense in relation to previous studies, which showed strong relations between tense and specific implicatures of unassertiveness, i.e., epistemic distancing by means of tense. Even though a large majority of conditionals has simple present tense in both clauses, clustering should be able to use the deviations form this patterns together with other features, which brings us to the strong relation between tense and modality frequently mentioned in the literature discussed. Therefore, we will discuss modality in Dutch conditionals in the next section.

5.5 Modality

5.5.1 Introduction

The feature *modality* represents the type of modality,, i.e., 'the question of what is possible and what is necessary' expressed in the antecedent and consequent (cf. Bueno & Shalkowski, 2021). Like conditionality (see chapter 2), modality is not easily defined (see Declerck, 2011, for overview and discussion; for a recent discussion of modality in terms of possible worlds, see De, 2021; for a recent introduction, see Schulze & Hohaus, 2020), which means that we have to deal with that issue first.

In this section, I first discuss the notion of modality, and then the types of modality distinguished in the literature in section 5.5.2. Next, I will discuss the annotation of modality in antecedents and consequents of Dutch conditionals in section 5.5.3. In section 5.5.4, I will present the distribution of types of modality in the corpus, after which I will compare the results with insights from the literature on modality in conditionals in section 5.5.5. In section 5.5.6, I will provide a brief conclusion.

5.5.2   Markers and types of modality

Conditionals and modality have been suggested to be connected (see e.g., Over, Douven & Verbrugge, 2013; Kratzer, 2012; Over, Douven & Verbrugge, 2013; Sztencel & Duffy, 2019). Like modals, conditionals 'never expresses the factuality of either of its constituent propositions' (Comrie, 1976, pp. 79, 89). Similar views can be found in e.g., Sweetser (1990, p. 141), Dancygier (1998, p. 72), Huddleston and Pullum (2002, p. 741), and, Gabrielatos (2019), although analyses in terms of semantics and implicatures vary.[26] On defining the notion of modality, Nuyts remarks the following.

> 'Modality' is one of the 'golden oldies' among the basic notions in the semantic analysis of language. But, in spite of this, it also remains one of the most problematic and controversial notions: there is no consensus on how to define and characterise it, let alone on how to apply definitions in the empirical analysis of data. (Nuyts, 2005, p. 5)

As we in fact do need a characterisation of modality for application to empirical data, we have to arrive, at least, at a general definition to work with. In arguing that 'mood and modality are not so easily defined [as tense and aspect]', Bybee, Perkins and Pagliuca (1994, p. 176) mention that 'a definition often proposed is that modality is the grammaticization of speakers' (subjective) attitudes and opinions'. Modality, as characterised by Quirk et al. (1985, p. 219), reflects the 'manner in which the meaning of a clause is qualified so as to reflect the speaker's judgement of the likelihood of the proposition it expresses being true'. Palmer (1986, p. 189) argues that modality marks both non-factuality and the 'speaker's degree of commitment' to what is expressed. In this sense, modality is the view a speaker presents on the situation expressed, either in relation to reality, or to her attitude. Modality is a widely researched topic, both independently and in relation to conditionals. Sweetser (1990, p. 140) for instance links conditionality to 'causality and modality' (in different domains; see below), Dancygier (1998, p. 44) links 'predictive modality', as in future reference with *will*, to the predictive use of conditionals. As we saw in section 2.2, in Kratzer's (2012, pp. 64, 90–91) analysis, *if*-clauses 'restrict the modal base of the associated modal in the matrix clause', or, put differently, their function is 'to restrict the domain of the adverb', meaning a restriction on the 'modal base' or the set of available possible worlds the consequent applies to (as discussed in section 2.2.2, in Kratzer's (2012, p. 105) account, main clauses without explicit modals are 'implicitly modalized'). According to Palmer (1986, p. 189), a conditional does not assert any of the propositions it expresses, it 'merely

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[26]See also the recent corpus study of English and Russian by Trnavac and Taboada (2021, p. 8) in which they view conditionals as constructions similar to modals, both being used to 'engage in' and 'entertain' thoughts about non-factual situations (cf. Martin & White, 2005, pp. 104–111).

indicates the dependence of the truth of the one proposition upon the truth of another', introducing notions akin to modality, such as possibility, likelihood, permission and prediction.

Before going into the different types of modality distinguished in this study, it is important to note that, as Boogaart and Fortuin (2016, p. 534) argue, much of the research on modality has focused on modal *verbs* in particular. However, modality is not only expressed by means of (certain) verbs and tenses, but also by means of adverbs, predicative adjectives, modal auxiliaries, and mental-state predicates (cf. Nuyts & Vonk, 1999, p. 700). For the annotation of modality in this study, a number of markers were indexed using a custom Python script as a first step to annotation. These included adverbs like *waarschijnlijk* 'probably', *misschien* 'maybe', *naar verluidt* 'reportedly'. The list was based on Vandeweghe (2000, pp. 146–153), de Haan (2006), and Diepeveen et al. (2006) and Nuyts (2006). The same was done for modal auxiliaries (see the annotation guidelines in section A.6 of Appendix A, based on the publications mentioned above, and on Rijpma & Schuringa, 1972, p. 205). The automatic annotations were checked manually and used as aids for the manual annotation of modality type. Of special interest is the marking of modality by means of composed tenses with *zullen* 'will' as modals rather than future tenses. We will come back to this in section 5.5.5.

A complicating factor in modality marking in conditionals is that conditional constructions themselves can be viewed as markers of modality (see e.g., Kaufmann & Kaufmann, 2015, pp. 248–249). Gabrielatos (2010, p. 326) argues that *if*-conditionals do not only attract a higher degree of further modalisation than other clauses, but in his view 'the protasis [antecedent] acts as a modal marker for the apodosis'. Although the conjunction *als* 'if' is present in all conditionals in the current corpus, however, we will not include this as a modal marker of its own. In this view, in an example like (112) below neither clause is marked for modality.

(112) Als ze zich onbehoorlijk gedragen, jagen ze de klanten weg.   (WR-P-P-G-0000102311)
If they behave improperly, they scare away the customers.

Moving on to types of modality, the literature shows that not only is modality not easily defined, but also that no consensus exists on how many types of modality exist and which types should be distinguished. According to Sweetser (1990, pp. 49–53), for instance, modality can be described in terms of the three domains we have discussed earlier, namely root modality (i.e., in the content domain), epistemic modality, and speech-act modality. Sweetser (1990) provides the following examples of each type respectively.

(113) John *must* be home by ten; Mother won't let him stay out any later. (Sweetser, 1990, p. 49)

(114) John *must* be home already; I see his coat.   (Sweetser, 1990, p. 49)

(115) There *may* be a six-pack in the fridge, but we have work to do. (Sweetser, 1990, p. 70)

In this study, however, I distinguish between four types of modality proposed by Palmer (2001), which is both influential (see e.g., Nuyts, 2006, pp. 5–7) and can be brought down to two main types of modality distinguished in many other accounts. The main types are *propositional modality*, within which *epistemic* and *evidential* are distinguished, and *event modality*, which is further divided into *deontic* and *dynamic modality* (cf. Palmer, 2001, p. 22).

The first type of modality is propositional modality, which is 'concerned with the speaker's attitude to the truth-value or factual status of the proposition': the sub-type of epistemic modality marks the speakers judgements 'about the factual status of the proposition', whereas the sub-type of evidential modality marks the evidence for the proposition expressed (cf. Palmer, 2001, p. 24), as can be seen in the corpus examples below.

(116) Alleen gaat het *waarschijnlijk* fout als n-2 wel overlapt.   (WR-X-B-A-discussion-lists-tweakers-1550304)
However it will probably *go wrong if n-2 does overlap.*

(117) Als nou *zou blijken door de rechter of anderszins* dat dat absoluut niet kan dan neem ik aan dat kabinet dus geneigd is om tuurlijk naar de regelgeving te kijken.   (fn000237)
If through a judge or otherwise it would appear *that it is absolutely impossible, then I assume that the government is therefore inclined to look at the regulations.*

In (116), the consequent is marked for epistemic modality by the adverb *waarschijnlijk* 'probably'. The speaker expresses that she deems it likely that something will go wrong if the condition in the antecedent is met, but does not present it as a necessary consequence. In the example in (117), the antecedent is marked for evidential modality, as evidence for the expressed proposition comes from others (the judge).[27, 28]

The second main type of modality distinguished by Palmer (2001, p. 70) is event modality, which refers to 'events that have not taken place but are merely potential'. The two sub-types are deontic and dynamic modality, which differ in source of potentiality. Deontic modality refers to factors external to a person, resulting in notions such as permission and obligation, while dynamic modality refers to factors internal to a person, resulting in notions like ability and willingness, as in (118) and (119) respectively.

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[27]Here the antecedent is also marked for epistemic modality by the past tense of the modal verb *zullen* 'will'.

[28]Palmer distinguishes between further types of epistemic modality ('speculative epistemic modality', 'deductive modality', and 'assumptive modality'; see Palmer, 2001, pp. 29–30) and evidential modality ('reported evidential modality', and 'sensory modality'; see Palmer, 2001, p. 40). In this study, I will not use these further subdivisions of modality.

(118) Als ik zeg dat illegalen terug *moeten*, *moeten* ze terug.   (WR-P-P-G-0000035830)

    If I say that illegal immigrants must *return, they* must *return.*

(119) Mam, Joost *wil* ook graag mee als je kaarten *kunt* krijgen. (WR-U-E-D-0000000312)

    Mom, Joost also wants *to come if you* can *get tickets.*

In (118), the speaker expresses her view on illegal immigrants and expresses their obligation to return. In (119), the antecedent is marked for ability, while the consequent is marked for desire, both of which are internal to the subjects of the respective clauses. The former is a sub-type of dynamic modality, which not only concerns ability, but also 'need', as in Nuyts's example below.

(120) I have to clean up this room, I can't stand the chaos. (Nuyts, 2006, p. 8)

With respect to the modality in the consequent of (119), the expression of a wish is not part of Palmer's classification and is 'a little more obscure', because wishes are both deontic and epistemic (see Palmer, 2001, p. 13).[29] In line with Nuyts's discussion, I will treat wishes, as expressed by *wil* 'want' in (119), as examples of dynamic modality.

5.5.3   Inter-rater reliability

All clauses in the corpus were manually annotated for type of modality using the manual provided in section A.6 of Appendix A. Note that for each conditional sentence, this resulted in two annotations: the type of modality in the antecedent and the type of modality in the consequent. The reliability of annotations of modality in the antecedent and in the consequent is high ($AC1$=0.94, 0.89) with the 'regular kappa strategy', but decreases notably ($AC1$=0.60, $AC1$=0.68) with pairwise deletion. This is due to the number of conditionals without at least one clause being marked for modality. For details and discussion, see section 4.5.

When we look in detail at the cases in which annotators did not agree, we see the disagreements appear at the level of sub-types of propositional and event modality mostly, i.e., a clause being annotated for epistemic modality by one annotator, and evidential modality by the other, or deontic modality by one, and dynamic modality by the other. In (121), for instance, the antecedent refers to the source of the information (cf. Chafe & Nichols, 1986) presented in the consequent.

(121) Als ik Kelly *mag geloven* ga ik het feest van het jaar missen, maar ik heb 't er maar mee te doen.   (WR-U-E-D-0000000301)

    If I may believe *Kelly I am going to miss the party of the year, but there's nothing I can do about it.*

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[29]Palmer further subdivides deontic modality into 'obligative modality' and 'commissive modality', and dynamic modality into 'abilitive modality', and 'volitive modality' (Palmer, 2001, p. 184). Again, these further subdivisions are not used in this study.

As Nuyts (2006, pp. 11–12) shows, some accounts include 'evidentiality' in the category of epistemic modality, while others see both types as sub-types of a higher category. Palmer (1986), for instance, presents the former option, while Palmer (2001) chooses the latter. Cornillie (2009) presents an account in which evidential and epistemic modality are clearly separated. Here, the situation is complicated by the antecedent itself functioning as a modaliser of the consequent. However, as discussed above, we only look at modal markers within the clauses. The post-annotation discussion of (121) lead to the decision to annotate the antecedent for evidential modality, as the most viable interpretation seems to be 'according to Kelly', which is a reference to an information source, and in this case goes beyond the modality marked strictly by the modal verb *mag* 'may'.

Disagreements on the level of the two main types (propositional and event modality) occurred less often, but did occur. For the example in (122), the disagreement concerned whether the consequent is marked for deontic modality, or epistemic modality.

(122)   Als ik bijvoorbeeld evenveel reden heb om te denken dat mijn kat in Doos 1 kroop dan dat het Doos 2 was, dan *moet* ik het even *waarschijnlijk* achten dat de kat in Doos 1 zit, als dat ze in Doos 2 zit.   (WR-X-A-A-journals-txt-antw-007)
If I for example have as much reason to think that my cat crawled into box 1 as into box 2, then I must *consider it as* likely *that the cat is in box 1 as it is in box 2.*

Here, the consequent is marked for modality by *moet* 'must' and *waarschijnlijk* 'likely'. One could argue that the information presented in the antecedent *obliges* the speaker to consider it as likely that the cat is in the first box, as in the second box. This line of reasoning, however, would risk considering all uses of *moeten* 'must' as markers of deontic modality. Furthermore, in this case the adverb *waarschijnlijk* 'likely' marks the consequent not for deontic, but for epistemic modality, which is consistent with the complete utterance concerning knowledge, not obligation. For this reason, this consequent was annotated for epistemic modality, but the example shows that such matters are interpretative and open for debate.

Some disagreements showed signs of the difficulty of 'ignoring' the conditional as a whole. In (123) below, one annotator classified the consequent as being marked for dynamic modality, as 'making the trade' is dependent on the ability referred to in the antecedent.

(123)   Als we konden ruilen, *zou* ik het doen.   (WR-U-E-D-0000000050)
If we could trade, I would *do it.*

In isolation, however, the consequent is marked for epistemic modality by means of *zou* 'would', indicating epistemic distance. What is unfortunate in this situation is that one could argue that the antecedent here is also marked for epistemic modality by means of the backshifted verb *konden* 'could' (see also the

notion of '*modal backshifting* or *formal distancing*' in Declerck, 2011, p. 28). However, a consequence of the tense system used in this study is that the antecedent of (123) is annotated for simple past tense, and dynamic modality by means of the verb *kunnen* 'can', rather than epistemic modality.

5.5.4   Distribution of modality types

The results of the annotation of modality are presented below in Figure 5.4. For more detailed information, the reader is referred to page 476 in Appendix B.

Figure 5.4:
Distribution of modality types by mode and register
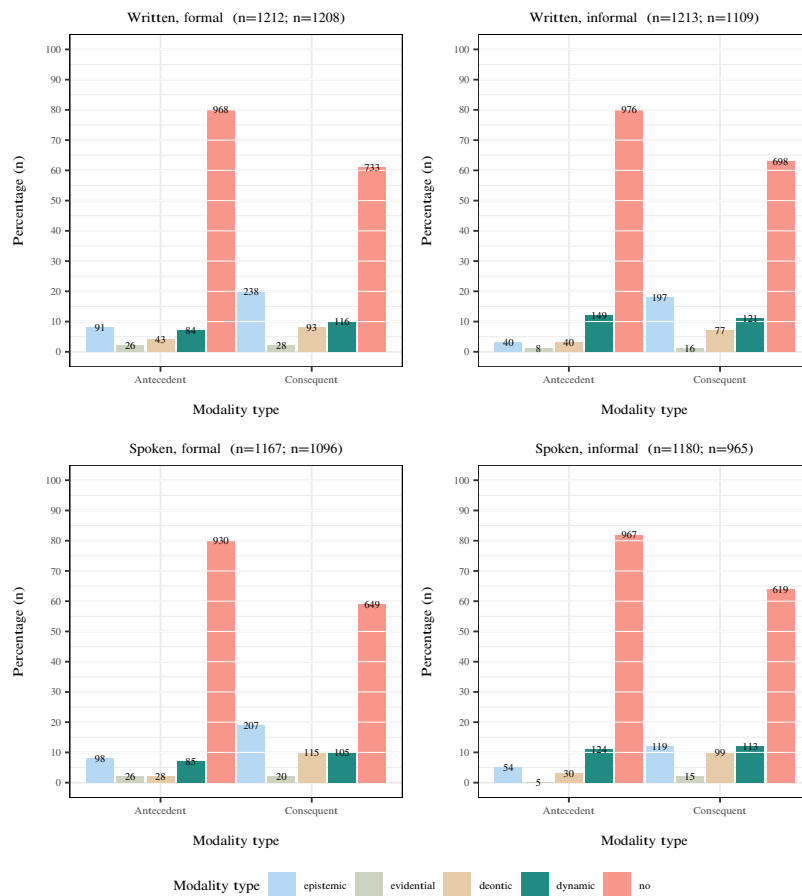
What we see in Figure 5.4 is that the distributions are very comparable between modes and registers. In all four mode-register combinations non-modalised clauses are most frequent in antecedents ($\pm 80\%$), and in consequents ($\pm 60\%$) too. This also shows that, as may be expected based on the inherent modal marking of antecedents by *als* 'if', consequents are more frequently marked for modality than antecedents. If we look at modalised versus non-modalised clauses, we see no differences in overall distributions for mode and only small differences for register. Antecedents are modalised in 19.17% of conditionals in spoken texts and 19.84% in written texts, and consequents are modalised in 38.48% of spoken texts and 38.24% of written texts. Looking at register, we see the same: antecedents are modalised in 20.22% of conditionals in formal texts and 18.80% of informal texts, and consequents are modalised in 40.02% of formal texts and 36.50% of informal texts. Whereas Biber and Conrad (2009, pp. 116–177) report that modals are 'uncommon' in newspapers and academic prose, and 'more common' in conversations, this is not observed in the data presented here. On the contrary, antecedents in conversations are modalised less often than in academic journals and newspapers (16.26% vs. 19.53% and 20.24%). The picture is less clear for consequents: 36.44% is modalised in conversations versus 40.83% in academic journals and 36.91% in newspapers. We thus see that modals are not uncommon in newspapers and academic journals, but as with tense, this might very well be an effect of the conditionals themselves. Before we look more closely at the modalised clauses, we will test the distributions over mode and register.

As can be seen in Figure 5.4, most clauses are not modalised. Like tense, modality in one clause is associated with modality in the other clause ($\mathcal{X}^2 = 149.56$, $df = 16$, $p < 0.001$), although, contrary to tense, the association is very weak (Cramér's $V = 0.09$). For that reason, I will include both clauses in the first (saturated) model, and I will work towards the most parsimonious model using backward-elimination. A four-way loglinear analysis was performed, which produced a final model with a likelihood ratio of $\mathcal{X}^2 = 66.71$, $df = 57$, $p = 0.18$. None of the three-way interactions were significant, but removing the two-way interaction *mode $\times$ modality (a)* would significantly worsen the fit of the model ($\mathcal{X}^2 = 6.73$, $df = 4$, $p = .015$; $\Delta\mathcal{X}^2 = 11.72$, $df = 4$, $p = 0.02$), as would removing the *register $\times$ modality (a)* interaction ($\mathcal{X}^2 = 80.26$, $df = 4$, $p < 0.001$; $\Delta\mathcal{X}^2 = 63.93$, $df = 4$, $p < 0.001$), the *mode $\times$ modality (c)* interaction ($\mathcal{X}^2 = 17.41$, $df = 4$, $p = .002$; $\Delta\mathcal{X}^2 = 18.50$, $df = 4$, $p < 0.001$), the *register $\times$ modality (c)* interaction ($\mathcal{X}^2 = 18.10$, $df = 4$, $p = 0.001$; $\Delta\mathcal{X}^2 = 14.06$, $df = 4$, $p = 0.01$), and the *modality (a) $\times$ modality (c)* interaction ($\mathcal{X}^2 = 149.56$, $df = 16$, $p < 0.001$; $\Delta\mathcal{X}^2 = 120.42$, $df = 16$, $p < 0.001$). We will break down these interactions, starting with the largest. Inspecting the residuals of the *modality (a) $\times$ modality (c)* interaction shows that the largest contribution to the overall association between modality in antecedents and consequents comes from the combination of epistemic modality in antecedents and in consequents ($z = 9.12$, $p < 0.001$), mostly at the cost of non-modalised consequents ($z = -4.22$, $p < 0.001$). In other words, antecedents marked for epistemic modality are more frequently followed

by consequents marked for epistemic modality than expected as compared to non- or differently modalised antecedents. Compared to non-modalised antecedents, we see less consequents marked for epistemic modality than expected (z=-2.25, p<0.05). Another significant contribution is found in antecedents marked for dynamic modality. The conditionals feature deontic modality in the consequent more often than expect (z=5.04, p<0.001), and are less frequently non-modalised (z=-2.09, p<0.05). For the *mode × modality (a)* association, none of the individual mode-modality type combinations significantly contribute to the overall association. For register, we see that antecedents in informal texts are more frequently marked for dynamic modality as compared to formal texts (z=3.45, p<0.001; z=-3.46, p<0.001), whereas epistemic and evidential modality are more frequent in formal texts (z=4.03, p<0.001; z=3.44, p<0.001) as compared to informal texts (z=-4.02, p<0.001; z=-3.43, p<0.001). Looking at consequents, we see that clauses marked for deontic modality are more frequent than expected in spoken texts as compared to written texts (z=2.47, p<0.05; z=-2.33, p<0.05). With respect to register, we see more epistemic modality than expected in formal texts as compared to informal texts (z=2.22, p<0.05; z=-2.34, p<0.05).

Given the analyses of modality distributions in antecedents and consequents, we can conclude that there are modality patterns between clauses of conditionals, especially in the case of epistemic modality marked by the paste tense of *zullen*, as in example (124) below.

(124) Strikt voorgeschreven methoden en toetsen *zouden* niet hoeven als we *zouden* accepteren dat niet elke leerling hetzelfde leert en de leraar zelf als enige capabel is om te bepalen wat goed voor de leerling is. (WR-X-A-A-journals-002)
Strictly prescribed methods and tests would *not be necessary if we* would *that not every student learns the same way and the teacher is the only one capable of determining what is good for the student.*

Next to this association, we see that dynamic modality in antecedents is associated with informal texts, as in (125) below, whereas epistemic and evidential modality occur more often in formal texts, as in (126) and (127).

(125) Zeg kom er niet eens tussen joh als ik *wil* wat zeggen.   (fn000957)
Hey, I can't even even intervene if I want *to say something.*

(126) Dat zal hem nog problemen opleveren, zeker als – *hetgeen waarschijnlijk is* – het straks de sociaal-democraten zijn die de regering gaan domineren. (WR-P-P-G-0000096824)
That will still cause him problems, especially if – which is likely – *it will soon be the Social Democrats who will dominate the government.*

(127) Hans Huisinga stapt op als *blijkt* dat het nieuwe verbeteringsplan 'Bestemming Klant Nu' niets oplevert.   (fn006507)
Hans Huisinga will step down if it turns out *that the new improvement plan 'Destination Customer Now' is unsuccessful.*

Formal texts feature more epistemic marking in consequents too compared to informal texts, as in (128) below. Deontic modality in consequents, as in (129) below, is associated with spoken texts more than with written texts.

(128) Het *zou* ook voordelig zijn om kritisch en voorzichtig te zijn in het vormen van een mening, en vatbaar te zijn voor mogelijke problemen en nieuwe overwegingen, zeker als de bewijsgronden ontoereikend zijn (in veel religieuze of politieke kwesties), of als de experts het oneens zijn (in de wetenschap).   (WR-X-A-A-journals-001)
It would *also be beneficial to be critical and prudent in forming an opinion, and susceptible to potential problems and new considerations, especially if the evidence is insufficient (in many religious or political issues), or if the experts disagree (in science).*

(129) Als je een compliment hoort dan *moet* je dat even doorgeven. (fn008285)
If you hear a compliment, you have to *pass it on.*

Again, epistemic modality in consequents is frequently expressed by past tense *zullen* 'will' (see previous section). In (129) we see a typical use of *moeten* 'must' combined with a conditional clause in spoken texts, i.e., an obligation is expressed, but on condition that one first receives a compliment.

5.5.5   Comparison with previous studies

In this section, I discuss the distributions of types of modality presented in 5.5.2 in light of the relevant literature on modality.

Epistemic modality is the most frequent type of modality in antecedents and consequents in both modes and registers, although the majority of epistemic modality is larger in consequents than in antecedents. When we look at how epistemic modality is marked, we see that a minority is marked by adverbs like *waarschijnlijk* 'probably', *echt* 'real(ly)', *natuurlijk* 'naturally/of course' and *misschien* 'maybe', as in (130) to (133) respectively.

(130) Als er dan nog geen akkoord is rijden morgen *waarschijnlijk* geen treinen. (fn001745)
If there is still no agreement, there will probably *be no trains tomorrow*

(131) Nee maar als ik zou kunnen zou ik ook *echt* mee gaan!   (WR-U-E-A-0000001248)
No but if I could, I would really *go too!*

(132) Maar het zou *natuurlijk* ook geen ramp zijn als hij vertrekt. (WR-P-P-G-0000042521)
But it would of course *not be a disaster if he left.*

(133) *Misschien* werkt whatsapp nog wel als je simkaart geblokt is, voor wifi heb je geen mobiel netwerk nodig...   (WR-U-E-D-0000000305)
Maybe *whatsapp still works if your SIM card is blocked, for wifi you don't need a mobile network...*

In all of these cases, the consequent is marked for epistemic modality, either in terms of uncertainty, as in (130), 'inference from observable evidence', as in the specific situations in (131) and (132), or in terms of 'inference from what is generally known', as in (133) (Palmer, 2001, p. 25).

As is exemplified in (131) and (132), modal adverbs are frequently used in combination with modal verbs, most frequently *zullen* 'will', as in the examples just mentioned. We also find modal verbs like *kunnen* 'can' and *moeten* 'must', as in (134) and (135) below.

(134) Als je je frustraties publiek maakt, *kun* je ook sarcasme terugkrijgen. (WR-U-E-A-0000000210)
If you make your frustrations public, you can *also get sarcasm back.*

(135) Als iemand werkelijk gelukkig is dan moet deze persoon in het bezit zijn van het goede. (WR-X-A-A-journals-txt-antw-005)
If someone is really happy then this person must *be in possession of the good.*

In (134), *kunnen* 'can' should be interpreted as 'it is possible that', while, as we will see in what follows, *kunnen* 'can' more frequently marks dynamic and, to a lesser extent, deontic modality in the current corpus, which is corroborated by the frequencies reported by Nuyts (2002, pp. 442–443). In (135), we see the epistemic use of *moeten* 'must', which has developed from deontic use (see e.g., Traugott, 1989; Sweetser, 1990, Chapter 3; see also Boogaart & Fortuin, 2016; Boogaart & Reuneker, 2017, pp. 199–201), indicating not 'real-world obligation', but, in this case, 'necessity [...] in reasoning' (cf. Sweetser, 1990, p. 49).

As the epistemic use of *zullen* 'will' requires a more detailed discussion, largely because of its interaction with verb tense as discussed in the previous section, we will first briefly discuss the other types of modality and their marking in the corpus, continuing with evidential modality. Evidential modality is marked in only a small number of cases by adverbs. Whereas Diepeveen et al. (2006, p. 5) mention *blijkbaar* 'apparently', this evidential adverb was very infrequent in conditionals in the corpus. An example is provided in (136). Although overall frequencies are low, the most frequent evidential adverb was *inderdaad* 'indeed', both in antecedents and consequents, as in (137) and (138) below, followed by *volgens* 'according to', as in (139).

(136) Maar ja dat krijg je dus *blijkbaar* als je met vijven iets organiseert. (fn008210)
But yes you get that apparently *when you organize something with five.*

(137) Als *inderdaad* sprake is van een gebrek aan morele lading, komt de handhavingspiramide op drijfzand te staan. (WR-X-A-A-journals-txt-tvc-005)
If there is indeed *a lack of moral charge, the enforcement pyramid will be put on quicksand.*

(138) Als je het halve huis wil laten trillen bij explosies en dergelijke ben je *inderdaad* beter uit met een subwoofer [...]. (WR-X-B-A-discussion-lists-tweakers-1547562)
If you want to make half the house vibrate during explosions and things like that you are indeed *better off with a subwoofer.*

(139) Als Kok in tweeduizend twee voor het premierschap beschikbaar is dan is dat *volgens hem* voor de volle vier jaar.   (fn005065)
If Kok is available for premiership in 2002, then it is according to him *for the full four years.*

For (137) and (138), I suggest *inderdaad* 'indeed' marks evidential modality, because it refers to what was previously established in the context, referring to 'the evidence [they have] for its factual status' (Palmer, 2001, p. 8), or 'the origins of the knowledge about the state of affairs' (Nuyts, 2006, p. 10), much like *blijkbaar* 'apparently' in (136). The context preceding the conditional in (137) is presented in (140), which indeed shows that the 'lack of moral charge' is already mentioned in terms of not making clear what the intentions and interests are.

(140) Dit wordt vergemakkelijkt als de overheid zelf niet duidelijk kan maken wat de bedoelingen van de regels en de te beschermen belangen zijn. (WR-X-A-A-journals-txt-tvc-005)
This is facilitated if the government itself cannot make clear what the intentions of the rules and the interests to be protected are.

Evidentiality is also marked by verbs, most notably *blijken* 'turn out' in antecedents, and *lijken* 'seem' in consequents, as in (141) and (142) respectively.

(141) Als *blijkt*, ambtshalve of op basis van een mededeling van de betrokkene, dat onjuiste gegevens of gegevens, die niet hadden mogen worden verstrekt, zijn verstrekt dan moet dit onverwijld aan de ontvangende Verdragsluitende Partij of de ontvangende Verdragsluitende Partijen worden meegedeeld.   (WR-P-P-F-0000000001)
If it turns out*, ex officio or on basis of communication with the involved party, that incorrect data or data which should not have been provided, has been provided, this must be notified immediately to the receiving Contracting Party or Parties.*

(142) Als het gaat om een keuze voor de organisatievorm *lijken* echter de sociale aspecten doorslaggevend.   (WR-X-A-A-journals-txt-mem-007)
When it comes to choosing the form of organization, however, the social aspects seem to be *decisive.*

In (141) the verb *blijkt* 'turns out' is used to refer to evidence that would indicate that incorrect or private data had been shared. The source is explicitly mentioned in the interjection following the verb. In (142), we see the evidential verb *lijken* 'appear/seem to' in the consequent, which refers to results of the study of which the report features this conditional.

Deontic modality is marked by the modal verb *moeten* 'must' most frequently, both in antecedents as in consequents, as is exemplified in (143) and (144).

(143) Ik heb zo de pest aan als je dan *moet* stofzuigen dan *moet* je alles aan de kant halen. (fn008068)
I hate it so much if you have to *vacuum and then you* have to *put everything aside.*

(144) Als KPN met nieuwe voicemaildiensten komt *moeten* de mensen die die gebruiken er maar voor betalen en niet iedereen zegt de bond. (fn002304)
If KPN comes up with new voicemail services, the people who use it must *pay for it and not everyone says the union.*

Nuyts, Byloo and Diepeveen's (2010) results show that *moeten* 'must' expresses dynamic modality most in their corpus, but this is not corroborated in this study. Dynamic use of *moeten* 'must', as in (145) below, accounts for only approximately 17.5% of modal *moeten* 'must' in antecedents when compared with deontic use, and 16.5% in consequents.[30]

(145) Het is voor mensen die slechtziend of blind zijn niet altijd even eenvoudig om een goede muziekleraar te vinden, vooral als je niet weet waar je moet zoeken. (WR-P-P-D-0000000005)
It is not always easy for people who are visually impaired or blind to find a good music teacher, especially if you do not know where you must/have to *look.*

Here *moeten* 'must' marks not an external force, but an internal 'need or necessity' (cf. Nuyts, Byloo & Diepeveen, 2010, pp. 22–23).

In consequents *mogen* 'may', *kunnen* 'can', and *hoeven* 'have to' may also mark deontic modality relatively frequently (see also Nuyts, Byloo & Diepeveen, 2010).

(146) In zijn kruistocht tegen de advocatuur in het algemeen en sommige advocaten in het bijzonder betoogt de jurist Hendrik Kaptein dat als het aan hem ligt advocaten zich niet *mogen* beroepen op de mazen in de wet. (WR-P-P-G-0000003954)
In his crusade against the legal profession in general and some lawyers in particular, the lawyer Hendrik Kaptein argues that if it is up to him, lawyers may *not rely on loopholes in the law.*

(147) Gemeenten *kunnen* de witte scholen niet uitbreiden met extra lokalen, als die schooluitbreiding een gevolg is van witte vlucht. (WR-P-P-G-0000132488)
Municipalities cannot *expand the white schools with extra classrooms, if that school expansion is the result of white children leaving.*

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[30]This may reflect a difference in the use of *moeten* 'must' in Dutch in the Netherlands and Belgium.

(148) Gesproken studie- en vaklectuur *hoeft* u pas terug te sturen als u die niet meer nodig heeft.   (WR-P-P-D-0000000005)
You only have to *return spoken study and subject literature if you no longer need it.*

In all cases the modal verb still expresses obligation.[31] Although the example in (147), marked by *kunnen* 'can', could also be interpreted as expressing not deontic, but dynamic modality, it is clear from context that it is legislation that prohibits municipalities to expand schools with extra classrooms, not an internal inability.

Finally, before turning to tense and modal *zullen* 'will', we look at dynamic modality, which is expressed mainly by the verbs *kunnen* 'can' and *willen* 'want', as in (149) to (150).[32]

(149) Als mensen met pensioen gaan, verkrijgen ze allereerst meer vrije tijd die ze *kunnen* besteden aan sport.   (WR-X-A-A-journals-txt-mem-007)
If people retire, they first of all get more free time which they can *spend on sports.*

(150) Als ik dus de CPU op 2,13 Ghz *wil* krijgen zal ik de bus op 171 Mhz moeten zetten, alleen dan valt mij systeem dus uit.   (WR-X-B-A-discussion-lists-tweakers-821468)
So if I want *to get the CPU at 2.13 GHz I will have to put the bus at 171 Mhz, but then will my system fail.*

As Palmer (2001) argues, dynamic modality 'has to be interpreted rather more widely than in terms of the subjects' physical and mental powers, to include circumstances that immediately affect them'. So, *kunnen* 'can' in (149) does not refer to personal ability per se, but more generally to possibility, comparable to Palmer's example below.

(151) He can escape. (Dynamic: the door's not locked)   (Palmer, 2001, p. 10)

In the sense that the door not being locked here enables one to escape, having more free time in (149) enables one to spend more time on sports. There is a clear difference in distribution of these two modal verbs when clauses are compared. Dynamic *kunnen* 'can' occurs 300 times in consequents and 150 times in antecedents, while dynamic *willen* 'want' occurs 239 times in antecedents, and only 84 times in consequents ($\mathcal{X}^2$=124.35, *df*=1, *p*<0.001, Cramér's *V*=0.40). Without further detailed analysis, this at least indicates that antecedents are marked more often for needs and wants, while consequents are marked more often for ability.

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[31]In the special case of (148) the modal verb gets a permission reading at clause level because of the negative polarity item *pas* 'only'.

[32]One could argue that *als* 'if' in (149) marks a temporal rather than a conditional relation. See the discussion in 2.2.

Returning finally to *zullen* 'will', as we have discussed in the previous section, tense and modality show interactions. This is also observed by de Haan (2006, p. 34), who argues that 'an obvious candidate for such interaction is the future', because events in the future always involve an amount of uncertainty. With respect to *zullen* 'will', Kirsner (1970, p. 120) argues that it expresses hypothetical meaning, not actuality. *Zullen* 'will' expresses the situation as 'less likely' than *moeten* 'must' 'must', and 'more likely' than *kunnen* 'can', as was already discussed in section 5.4. We will therefore look in more detail at the distribution of the modal verb *zullen* 'will' in the different tenses.[33]

Table 5.2:

Distribution of modal zullen *by tense*

	Simple present	%	Present perfect	%	Simple past	%	Past perfect	%	Total
Antecedent	3	1.55	0	0.00	178	92.23	12	6.22	193
Consequent	158	37.35	0	0.00	249	58.87	16	3.78	423

Note. Percentages are row-based.

To illustrate these figures, see the examples of *zullen* 'willen' in simple present, simple past, and past perfect tense in the consequents of (152) to (154) respectively.

(152) Als je dat gelooft *zal* het zeker zo lopen.   (WR-P-E-A-0005330763)
       If you believe that, it will *certainly work out that way.*

(153) Als boeken niet worden teruggestuurd, *zou* de toezending stagneren.
       (WR-P-P-D-0000000003)
       If books are not returned, shipment would *stagnate.*

(154) Als de Amerikanen en de Britten hem niet hadden omhelsd, als hij alleen in Zwitserland succes had gehad, dan weet ik niet of hij zo'n respectvolle stilte *bewaard zou hebben.*   (WR-P-P-G-0000159427)
       If the Americans and the British hadn't embraced him, if he'd only been successful in Switzerland, then I don't know if he would have kept *such a respectful silence.*

As we saw previously in section 5.4, an overwhelming majority of conditionals feature simple present verb tense in one or both clauses. What we saw in this section, is that the number of modalised clauses is low overall in comparison to

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[33]It is noted that in case of the perfect tenses, *zullen* 'will' functions as part of the compound tenses formed by *zullen* 'will' and a participle. The figures thus do not reflect, for instance, the past perfect tense of *zullen* 'will' itself, which would be *had zullen* 'would have'.

non-modalised clauses. The verb *zullen* 'will' is not used in combination with present perfect in either antecedents or consequents, which could be a reflection of the general lower frequency of this combination of tense and modal *zullen* 'will'.[34] This presents the problem that testing for an association between tense and the use of the modal verb *zullen* 'will' results in high probability of incorrect approximation, because of cells with low frequencies and even null counts, as can be seen in Table 5.2 above. We will therefore inspect the distribution by means of the standardised residuals, without losing sight of the approximate nature of these figures. A first strong deviation from the expected distribution is the low frequency of *zullen* 'will' in antecedents with simple present tense (z=-12.57, p<0.001), which occurs only three times in the entire corpus. An example is provided below.

(155) Als die versterking plaats *zal* vinden is het mijn stellige overtuiging dat de landbouw ook ten aanzien van grondbeslag in Nederland een toekomst heeft en ik wil ook graag vanuit mijn verantwoordelijkheid bijdragen om die versterking van de landbouw gestalte te geven. (fn000222)
If that reinforcement will *take place, it is my firm conviction that agriculture also has a future with regard to land use in the Netherlands, and out of my responsibility I would also like to contribute to shape that reinforcement of agriculture.*

As in English, the antecedent does not feature *zullen* 'will' often. According to Comrie (1986, pp. 95–96), *will* (or another means to 'indicate future time reference') is used in antecedents only when the consequent presents the cause of what is referred to in the antecedent, as in his examples in (156) and (157) below.

(156) If this will hurt you, I won't do it. (Comrie, 1986, pp. 95–96)

(157) If it will amuse you, I'll tell you a joke. (Comrie, 1986, p. 96)

Haegeman and Wekker (1984, p. 46) remark that English 'seems to have a rule that the modals *will* and *would* cannot appear in futurate or counterfactual conditional clauses unless these modals denote disposition or volition, [...] or unless they have the so-called "assumed likelihood"-meaning' as in their example in (158) below.

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[34]This does not mean the so-called 'future perfect' cannot be found in the corpus outside of conditionals, as in the example below.

(a) Geneviève *zal* zich eenzaam *gevoeld hebben*. (WR-P-E-G-0000002366)
Geneviève will have felt *lonely*.

A larger corpus search revealed an instance of the use of this tense and *zullen* 'will' in a consequent, as can be seen in (b), which shows that null counts in sampled data should be interpreted with caution.

(b) Als de pensioenleeftijd t zelfde blijft, *zal* ik dan exact 4 jaar van mijn pensioen *genoten hebben*. (WR-P-E-A-0000713789)
If the retirement age remains the same, I will have enjoyed *my retirement for exactly 4 years.*

(158) If you will not be in receipt of a scholarship or Award or if the Award will be inadequate to meet the full fees and expenses of your course and your maintenance, please state how you propose to meet those fees and expenses. (UCL application form for postgraduate students 1979) (Haegeman & Wekker, 1984, p. 46)

This 'assumed likelihood' seems to be comparable to the use of *zullen* 'will' in (155) and in (159) below, in which *blijken* 'appear' adds (evidential) modality to the clause.

(159) Als het een echte verschuiving in de strategie *zal* blijken, zal deze toe-spraak de geschiedenis ingaan als de belangrijkste van Bush. (WR-P-P-G-0000075423)
If it will *turn out to be a real shift in strategy, this speech will go down in history as the most important of Bush.*

Such antecedents may frequently be echoic (i.e., the antecedent has been asserted in previous context). In Nieuwint's (1986) analysis however, a conditional antecedent with *will* refers to something else than what an antecedent without *will* refers to. In Nieuwint's examples in (160) and (161) below, the antecedent of the former would refer to a 'real-world event', while the latter would refer to the prediction of such an event.

(160) If I die, some people are going to ask nasty questions. (Nieuwint, 1986, p. 381)

(161) If I'll die anyway, I might as well have another beer. (Nieuwint, 1986, p. 381)

In other words, the condition presented in the antecedent in (160) is '"I die" is true'; the condition presented in the antecedent in (161) is '"I'll die" is true'. The former being 'only [...] true at the moment of my death', whereas the latter is true now. The question now is whether or not this analysis also holds for (155) and (159) – the example provided has the quirk of death being inevitable for all. 'I will die' is true for every speaker, but 'that reinforcement will take place' is not. The same goes for 'turning out to be a real shift in strategy' in (159). The preceding text of the particular example in (159), does indeed mention the reinforcement, but does not assert it (*dat zal wel afhangen van een positionering van de landbouw een versterking van de landbouw ook als economische factor* 'that will depend on the positioning of agriculture and the reinforcement of agriculture also as an economic factor'). In this specific example, it seems to be the case that the consequent expresses 'a decision (or exhortation) to perform q in the future while the condition expressed is that there must be certainty (confirmation) that p will be realized' (Declerck, 1984, pp. 293–294). For reasons of space and focus, we cannot go into further detail here, but for further discussion of modal *will* in antecedents of conditionals, see Leech (1971), Haegeman and Wekker (1984), and Dancygier (1998, p. 26).

The volition-use of *zullen* 'will' was not found in the corpus, but given the low frequency of *zullen* 'will' in antecedents in present tense, no conclusions should be drawn from this.

In consequents, the frequency of *zullen* 'will' in combination with simple present tense is also lower than expected (z=-10.77, p<0.001). Whereas the example in (155) is one of only three attestations, the combination of tense and modality in the consequents of the example in (162) below is more common.

(162)   Ten tweede staat in het hoofdlijnenakkoord (het regeerakkoord van Balkenende II) dat het kabinet "nadere maatregelen" *zal* treffen als het begrotingstekort groter wordt dan 2,5 procent van het bbp [...]. (WR-P-P-G-0000063504)
Secondly, the agreement (the coalition agreement of Balkenende II) states that the government will *take "further measures" if the budget deficit exceeds 2.5% of GDP [...].*

This shows that, as we discussed in the previous section, in English *will* is used in the majority of consequents of predictive conditionals, while this is not the case for Dutch conditionals. Compare the consequent of (162) to the example in (163) below, with simple present tense and no modal verb in the consequent. The latter pattern makes up for 95.76%, while only 4.24% of consequents in simple present tense feature *zullen* 'will'.

(163)   Als ook de Senaat er zo over denkt wordt het wet.   (fn005732)
If the Senate also feels that way, it will *become law.*

The most striking deviation from what may be expected based on the total distribution is the use of *zullen* 'will' in simple past tense, i.e., *zouden* 'would', in antecedents (z=39.03, p<0.001) and consequents (z=30.81, p<0.001) when compared to non-modalised clauses and clauses with other modal verbs. This means that antecedents and consequents with *zullen* 'will' and simple past tense as in (164) and (165) respectively are much more frequent than what may be expected based on the distribution of modal verbs and tense.

(164)   Als ze een vrije vrijdag *zouden* krijgen, hebben ze meer tijd om hun huiswerk te maken.   (WR-P-P-G-0000144705)
If they would *get a Friday off, they have more time to do their homework.*

(165)   Als er een mogelijkheid is dat je zwanger bent, *zou* je natuurlijk kunnen testen, en dan weet je tenminste iets.   (WR-P-E-A-0006184732)
If there is a possibility that you are pregnant, you could *of course test, and then at least you know something.*

As we have seen in section 2.5.4 on counterfactuality, the combination of past tense and modal *zullen* 'will' in examples such as (164) and (165) create 'epistemic distance' (see also Boogaart & Trnavac, 2011, on imperfective aspect and 'irrealis modality'). The example in (164) above does indeed express a low likelihood (not counterfactuality) of the condition being fulfilled, but in (165), the epistemic distance is used as a politeness strategy.

Turning to *zullen* 'will' in combination with past perfect tense, as reported on in Table 5.2, I deem it necessary to explain how these cases were annotated, because treating *zou* 'would' with a perfective complement, as in (166), as an instance of past perfect tense is not without problems and therefore subject to debate. Let us look at the example in (166) below.

(166) De Franse president Chirac en de Duitse kanselier Schröder *zouden* Prodi bij wijze van spreken om de nek *zijn gevlogen* als hij Solbes – de man die met ijzeren hand regeert over de begrotingstekorten in de lidstaten – in deze economisch zware tijd onschadelijk *zou hebben gemaakt*. (WR-P-P-G-0000026291)
The French President Chirac and the German Chancellor Schröder would have hugged *Prodi, so to speak, if he* would have defused *Solbes – the man who rules the budget deficits in the Member States with iron – in this economically difficult time.*

It can be argued that *zouden* 'would' is 'just' a simple past here, on par with simple past verbs like *moesten* 'had to', or *vlogen* 'flew' . In that case, the example in (166) should indeed be classified as instances of simple past *zou(den)* 'would'. This would be consistent with treating *zullen* 'will' purely as a modal verb, as I argued for in section 5.4. However, this would also mean that, for instance, the antecedents and consequents of (167) and its counterpart with modified verb cluster in (168) would both be annotated for simple past tense (*zou* 'would') and modal *zullen* 'willen', without considering the complements of the finite verb (the perfective *hebben gelegen* 'have been' and *zijn gestopt* 'have stopped' in (167), the imperfective *liggen* 'be' and *stoppen* 'stop' in (168)). In this approach, (167) and (168) would receive identical annotation for verb tense and modality.

(167) De Wereldbank becijferde dat de wereldmarktprijs afgelopen seizoen meer dan een kwart hoger *zou hebben gelegen* als alleen al de vs. *gestopt zou zijn* met de productiesubsidies. (WR-P-P-I-0000000001)
The World Bank calculated that the world market price would have been *more than a quarter higher last season if the US alone* would have stopped *production subsidies.*

(168) De Wereldbank becijferde dat de wereldmarktprijs afgelopen seizoen meer dan een kwart hoger *zou liggen* als alleen al de vs. *zou stoppen* met de productiesubsidies.
The World Bank calculated that the world market price would be *more than a quarter higher last season if the US alone* would stop *production subsidies.*

I have chosen here to treat *zou* 'would' with a perfective complement as cases of past perfect tense. The prime reason for this choice is that the combination of *would* and a perfective complement has been, as we have seen in chapters 2 and 3, explicitly analysed as a means of implicating counterfactuality in a large

number of accounts (see especially section 3.2). This insight cannot be used fruitfully when choosing the alternative, more strict approach, which would render cases of *would* with either a perfective or an imperfective complement as identical from an annotational point of view. From a methodological standpoint, the current approach 'simply' provides a more informative feature set. Furthermore, given that the consequents of (166) and (167) are most naturally paraphrased with a pure past perfect (i.e., *was (om de nek) zijn gevlogen* 'had thanked' and *had gemaakt* 'had defused', *had bewaard* 'had kept', and *had gelegen* 'had been' and *was gestopt* 'had stopped'), the choice made here is, in my view, justifiable, but again not without some inconsistency with the discussions in section 5.4, in which *zullen* 'will' was treated purely as a modal verb.[35] The number of past perfect clauses with modal *zullen* 'will' is low, and although the problem is one mainly of theoretical implications, this does not, of course, render it unimportant. In line with the observations from the literature mentioned above, the small number of occurrences (see Table 5.2 above), they do show a clear use, as can be seen (166) and (167), but also in (169) below.

(169) Als de Amerikanen en de Britten hem niet hadden omhelsd, als hij alleen in Zwitserland succes had gehad, dan weet ik niet of hij zo'n respectvolle stilte *bewaard zou hebben.*   (WR-P-P-G-0000159427)
If the Americans and the British had not embraced him, if he had only been successful in Switzerland, I would not know if he would have kept *such a respectful silence.*

In this example, as in the above cases, either the antecedent, as in (166), or the consequent, as in (169), feature *zullen* 'will' and past perfect. In all of the cases found in the corpus in which the antecedent features past tense *zullen* 'will' (*zou(den)* 'would') with a perfective complement, the conditional has to be interpreted as a counterfactual, as the examples in (166) to (167) show, and as was already remarked in the previous section.

5.5.6 Conclusion

The results presented in this section show that most clauses in Dutch conditionals are not marked for modality. In case a clause is marked for modality, the most frequent type in antecedents is dynamic modality, especially in informal texts, and epistemic modality in formal texts, whereas epistemic modality is dominant in consequents across genres and registers. Of course, much more can be said about modality in (Dutch) conditionals, let alone its intimate connection with verb tense patterns.

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[35]To be clear here, I thus treat *zullen* 'will' + present perfect, as in *zal hebben gedaan* 'will have done' as present perfect, and *zullen* 'will' + past perfect, as in *zou hebben gedaan* 'would have done', as past perfect.

With respect to implicatures of unassertiveness, we looked in more detail at the modal verb *zullen* 'will', as it is frequently used in combination with past tense to create epistemic distance and to implicate counterfactuality. We have seen also that the present tense of *zullen* 'will' is not (by far) as systematically used as *will* in English predictive conditionals.

5.6 Aspect

5.6.1 Introduction

The term 'aspectuality' is used in the literature mainly as a cover term for both lexical aspect, dealing with situation types, and grammatical aspect, dealing with the (grammatically marked) 'internal temporal constituency of a situation' (cf. Comrie, 1976, p. 3; for a recent overview and discussion of terminology, see Binnick, 2020). In this study, I take into account lexical aspect only, because we have included the verbal aspect of the perfective and imperfective distinction in the feature of verb tense, and because aspect is not grammaticalised by exclusive means in Dutch (see e.g., Bogaards, 2019). As such, the feature of *aspect* represents the 'lexical situation type', which is also referred to as 'situation aspect', the aforementioned 'lexical aspect', and 'Aktionsart' (see Boogaart, 1999, Chapter 1; Binnick, 2006). This also means that known interactions between grammatical aspect, tense and modality, such as the incompatibility of perfective past and epistemic meaning discussed by Boogaart (2007b), fall out of the scope of this section.

In this section, I discuss the notion of lexical aspect in terms of situation types in antecedents and consequents of Dutch conditionals in section 5.6.2. Next I will discuss the annotation of situation types in antecedents and consequents of Dutch conditionals in section 5.6.3. In section 5.6.4, I will present the distribution of this feature in the corpus, after which I will compare the results with insights from the literature on aspect in conditionals in section 5.6.5. In section 5.6.6, I will provide a conclusion.

5.6.2 Situation types

Lexical aspect is expressed by the predicate of a clause, and concerns the temporal characteristics of the type of 'state of affairs' presented by a clause (for general discussion, see Boogaart, 2004).[36] The situation types this feature refers to are coded for the clause's main predicate, and are based on the four classes distinguished by Vendler (1967, Chapter 4), namely *states*, *activities*, *accomplishments* and *achievements*.[37] This feature is included in the current study,

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[36]This section is based on collaborative work with Maarten Bogaards, who has written the extended annotation guidelines for this feature as part of an internship and has worked on aspect in both Dutch and Mandarin Chinese (see Bogaards, 2019).

[37]For discussion, see e.g., Comrie (1976, Chapter 2), Verkuyl (1989), Binnick (2006).

because it has been suggested in the literature that time reference in conditionals may depend on the type of situation expressed by the main verb, as in Dancygier and Mioduszewska's examples below.

(170) If I knew the answer, I would help you (but I don't know it). (Dancygier & Mioduszewska, 1984, p. 130)

(171) If she came, I would propose to her (but I don't think she will come). (Dancygier & Mioduszewska, 1984, p. 130)

Dancygier and Mioduszewska argue that, in backshifted or epistemically distaced conditionals (see sections 2.5 and 3.3.7), state verbs tend to refer to the present, as *knew* in (170) makes a reference to the present, while event verbs, like *came* in (171), tend to refer to the future (see also Dancygier, 1993, p. 410; Fillmore, 1986; see Fleischman, 1995, pp. 523–524 on imperfective aspect in conditional sentences; and Boogaart and Trnavac, 2011 on the relation between imperfective aspect and epistemic modality). Fillmore (1992) connects static and dynamic predicates to differences between counterfactual interpretations and interpretations that are counter to expectation respectively. Schouten (2000, pp. 62–64) shows how conditionals with an event verb in the antecedent behave differently from antecedents containing states. Whereas the event verb in the antecedent in (172) is used in 'talking about an imaginary future event', changing its tense to the present tense changes the interpretation to what could be called uncertainty in (173), which is in line with the discussion in section 2.5.4.

(172) If I fell ill...   (Schouten, 2000, p. 62)

(173) If I fall ill...   (Schouten, 2000, p. 62)

Changing the tense of a stative verb in the antecedent, however, changes the conditional in quite a different way, as can be seen in the difference between (174) and (175).

(174) If I knew.   (Schouten, 2000, p. 62)

(175) ? If I know...   (Schouten, 2000, p. 62)

Here, the antecedent of (174) expresses the same kind of epistemic distance as (172), but (175), in present tense, can, according to Schouten (2000, p. 62), 'only be interpreted as meaning something like *as soon as I know* or a nonpredictive conditional with present time reference: *if (you say that) it is true that I know....*[38] Perhaps more clearly, Schouten's examples in (176) and (177)

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[38]Observe however that 'If I know' is possible with a temporal meaning (i.e., 'once/as soon as I know'), or in epistemic conditionals, as in (a).

(a) If I know the answer, I must be smart.

show how antecedents with a backshifted event verb cannot (easily) be combined with a past perfect consequent used to implicate counterfactuality, because the antecedent in (176) has future time reference and receives a 'hypothetical interpretation' ('*I will* or *will not* fall ill'), whereas the antecedent in (177) refers to the present time and receives a counterfactual interpretation ('I *do* not know'), and as such can be combined with a consequent also implicating counterfactuality.

(176) ? If I fell i11, I would have gone to the doctor's. (Schouten, 2000, p. 63)

(177) If I knew, I would have told you.   (Schouten, 2000, p. 63)

This difference, Schouten (2000, p. 64) argues, is a result of the 'inherent temporal characteristics' of two kinds of conditionals. Although this feature is not present in many accounts of conditionals, and it is not expected to be of equal importance as for instance verb tense and modality, we see an influence of situation types on specific implicatures of unassertiveness, and therefore it is included in the current study.

    As mentioned above, four situation types are distinguished. Verbs like *love* in (178), *know*, *believe*, *have* and *desire* refer to states of affairs that do not involve change.

(178) I love her.

In contrast, verbs like *walking*, *swimming*, and *running*, as in (179), refer to events, because they involve change.

(179) I am running.

(180) I am running a mile.

(181) I reached the top.

As we can see in (180), the verb *running* accompanied by a direct object ('a mile') refers to an accomplishment, as it adds an endpoint to the activity, as in 'paint a picture', 'make a chair', 'deliver a sermon', and 'draw a circle'.[39] Finally, 'reach the top' in (181) refers to an achievement, as there is an inherent endpoint, but, in contrast to 'running a mile', it is punctual instead of durative (cf. Dowty, 1986, p. 42).

    Before discussing the different situation types, it needs to be clarified what exactly the object of annotation is for this feature, as Dutch has no exclusive means for expressing lexical aspect. As de Vuyst (1983, pp. 29–30) shows, there is ample discussion on what situation types actually apply to: verbs, (verb) phrases or sentences (see Verkuyl, 1986, for discussion and references). By contrasting (179) and (180) above we have already seen that the inclusion of a direct object (see footnote can change the type of situation referred to, i.e., 'to

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[39]Note that 'a mile' is seen here as a 'quantised (direct) object'. See also Verkuyl (1972), Krifka (1989), and for a more recent discussion Smollett (2005).

run' refers to an activity, whereas 'to run a mile' refers to an accomplishment, because the latter, but not the former, expresses an endpoint. For this reason, in this study the subject-predicate unit was annotated, i.e., the main verb of the antecedent or consequent, its (grammatical) subject and, in cases of transitive verbs, its direct object. In general, quantitatively unspecified subjects and objects receive an atelic interpretation, i.e., not bound by an endpoint, while predicates with quantitatively specified subjects and objects receive a telic interpretation, i.e., bound by an endpoint (see Verkuyl, 1993). Another important remark is that the term *main verb* refers to the verb that 'in itself forms the core meaning of the verb phrase', in contrast to an auxiliary verb, which 'is then a supplier of additional information to that core meaning' (cf. Haeseryn et al., 1997, p. 46). This most deeply embedded verb of the sentence has the most direct relation to the subject and object(s). This means that in sentences with non-main verbs, the main verb must first be identified. In the consequent of (182) below, not *kunnen* 'can', a modal auxiliary, but *halen* 'get' is the main verb.

(182) We ja we hebben brood in huis maar je kan nog wat *brood bij halen* als je wilt.   (fn008361)
      We yes we still have bread but you can get some more bread *if you want.*

Here, it is not the case that *kunnen* 'can' expresses the subject's relation to the object, but *halen* 'get', i.e., *je kan wat brood bij halen* 'you can get some more bread' is annotated for situation type, here an accomplishment (see below), instead of *je kan wat brood* 'you can some bread'. The reason for using the main verb is twofold. First, it provides a richer and more informative annotation of the corpus data. Second, the majority of non-main verbs are temporal auxiliaries (*hebben* 'to have' and *zijn* 'to be'), which are part of the annotation of tense (see section 5.4), and modal auxiliaries, which are covered by the feature *modality* (see section 5.5).

As I discussed in the introduction to this section, in this study, grammatical aspect, which marks the 'different ways of viewing the internal temporal constituency of a situation' (Comrie, 1976, p. 30), will not be considered further'.[40] The feature *aspect* will thus only refer to lexical situation types based on the four Vendler classes, applied to the subject-predicate unit in the antecedent and the consequent of the conditionals in the corpus. The type of situation is determined by three binary features: $\pm telicity$ (telic vs. atelic), $\pm change$ (dynamic vs. stative), and $\pm duration$ (durative vs. punctual).[41] In (183), *vrij zijn* 'to be available' refers to a state, as the state of affairs does have duration (+duration), but does not change or extend over time (−change), and does not have an inherent endpoint (−telic).

(183) Ga ik even nog een bonte was doen als *de machine vrij is*.   (fn000584)
      I'm just going to do a color wash if the machine is available.

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[40]

[41]See Dowty (1979, Chapter 2) for a decomposition of Vendler classes in terms of the abstract predicates DO, CAUSE and BECOME.

In contrast to the other situation types, states refer to situations which do not involve change. Although stative situations can be argued to begin or end somewhere, 'as long as they are holding, they remain the same throughout, at every moment of their duration' (Boogaart, 2004, p. 1168). This can be seen clearly in (183) – a washing machine will be in use before and after it being available, but the situation the antecedent refers to is a state, as long as it is holding. A test to distinguish states from the other situation types is to use the predicate with a progressive verb form (see e.g., Dowty, 1979, p. 54). So, for (183), we can see that the predicate of the antecedent cannot be presented in progressive form, as shown in (184), whereas this is possible with the dynamic state of affairs in the consequent, as can be seen in (185).

(184) ? *De machine is vrij aan het zijn.*
  ? *The machine is being free.*

(185) *Ik ben een kleurenwas aan het doen.*
  I'm doing a color wash.

The next situation type is *activity*, which is dynamic and durative, but atelic, as in the antecedent of (186) below.

(186) Een andere jongere (geboren meisje) omschreef negeren als volgt: 'Nou, ik heb dan een vriendengroepje, en als *we met zn vieren lopen*, dan komen er andere jongens langs en die groeten dan iedereen, behalve mij, bijvoorbeeld.'   (WR-X-A-A-journals-txt-ped-010)
  Another young person (born a girl) described ignoring as follows: 'Well, I have a group of friends, and when we walk around with the four of us, other boys come by and they greet everyone, except me, for example.'

Here, *lopen* 'to walk' in the antecedent refers to an activity. A test for telicity is to include temporal *in* and *for* adverbials. Atelic predicates can be combined with *for* in English, but not with *in* (cf. Dowty, 1986, p. 39). In Dutch, this translates into durational adverbials like *urenlang* 'for hours' (cf. Verkuyl, 1972, p. 2) or *een uur lang* 'for an hour' as can be see in (187) and (188).

(187) ? *We lopen* met z'n vieren *in een uur*.
  ? *The four of us walk in an hour.*

(188) *We lopen* met z'n vieren *een uur lang*.
  The four of us walk for an hour.

As can be seen in (190), the reverse is true for telic predicates.

(189) *We lopen* met z'n vieren *vijf kilometer in een uur*.
  The four of us walk five kilometers in an hour.

(190) ? *We lopen* met z'n vieren *vijf kilometer een uur lang*.
  ? The four of us walk five kilometers for an hour.

Next to states and activities, there are the telic situation types *accomplishment*, as in the antecedent of (191), and *achievement*, as in the antecedent of (192), which are both dynamic, but only the former is durative.

(191) Onze jongens hebben (bijna) nooit luieruitslag. Als *ik ze verschoon*, gebruik ik zwitsaldoekjes en daarna laat ik de billetjes lekker uit zichzelf drogen voordat ik de nieuwe luier omdoe.   (WR-P-E-A-0004214842)
Our boys (almost) never have diaper rashes. If I change them*, I use Zwitsal cotton wipes and then I let the legs dry on their own before I put on the new diaper.*

(192) Als *dit project* bij de KGB *bekend werd*, zouden de vs. altijd nog winnen: de Sovjets zouden voortaan alle gestolen technologie wantrouwen. (WR-P-P-G-0000083346)
If this project got known *to the KGB, the US would still win: from now on the Soviets would distrust all stolen technology.*

To distinguish the two, again the progressive form can be used. Although achievements in progressive form do not result in ungrammaticality, they receive an 'iterative interpretation' (Boogaart, 2004, p. 1169), whereas accomplishments do not, as can be seen below.

(193) *Ik ben ze aan het verschonen.*
I am cleaning them.

(194) *Het project is* bij de KGB *bekend aan het worden.*
The project is getting known *to the KGB.*

In (194) the punctual state of affairs (i.e., having a coinciding begin- and endpoint, no internal structure), gets a in which the progressive refers to 'the process leading up to the actual state of affairs' (cf. Boogaart, 2004).

5.6.3   Inter-rater reliability

All antecedents and consequents in the corpus were manually annotated for situation type using the manual provided in Appendix A.7. For each conditional sentence, this resulted in two annotations: the situation type in the antecedent and the situation type in the consequent.

The agreement scores of this feature were the lowest of all features (*AC1*=0.75 and 0.69 for antecedents and consequents respectively; see section 4.5), which is not suprising, given the frequent mention of the interpretative nature of the situation types. As, for example, Boogaart (2004, p. 1171) argues, 'the determination of all Aktionsart features is partly dependent on other elements in the clause, context, and, ultimately, world knowledge'.

When we look in detail at the cases in which annotators did not agree, there is no clear pattern. What did occur frequently, however, is that durative verbs like *zeggen* 'to say' in (195) below were used to express a (punctual) decision.

(195) En als dan *gezegd wordt* ja maar dan hoeven we de lasten niet nog meer te verhogen voorzitter dan denk ik dat een gemeente welke dat ook is want dan denk ik dat een gemeente ook moet kijken wat hun ambitieniveau kost. (fn000151)
And if it is said *yes but then we do not have to increase the burden even more, chairman, then I think that a municipality whichever that is, because then I think that a municipality should also look at what their level of ambition costs.*

In such cases, the intended interpretation decision was used for annotation, resulting in this case in *achievement* for the antecedent.

A related source of disagreement concerned idioms and the figurative use of verbs, such as *slepen* 'to drag' in the consequent of (196) below (for the aspect of idiomatic verb phrases, see Glasbey, 2007).

(196) 'Iedere bezoekende buitenlandse delegatie dreigt Beshir en Taha dat ze voor een internationaal gerechtshof *worden gesleept* als ze de Janjaweed in Darfur niet ontwapenen', zegt hij met genoegen. (WR-P-P-G-0000096092)
'*Every visiting foreign delegation threatens Beshir and Taha to* be dragged *before an international court if they do not disarm the Janjaweed in Darfur*', he says with delight.

Here, 'to drag (before a court)' refers not to the physical process of dragging someone or something, but to the decision of going to court. Accordingly, such cases were annotated as achievements.

Another difficulty in annotating this feature involved non-main verbs that express aspectual information. Semi-aspectual non-main verbs are the following posture auxiliaries: *zitten* 'sitting', *staan* 'standing', *liggen* 'lying', *lopen* 'walking' and *hangen* 'hanging' plus *te* 'to' and an infinitive (see Broekhuis, Corver & Vos, 2015a, Chapter 6), as in (197) below.

(197) Kijk als ik hier avonds zo effe *zit te lezen of TV zit te kijken* joh dan hoor ik ze lachen of weet ik veel wat maar da niet erg. (fn000939)
Look if I sit here and read or watch TV *then come on I hear them laughing or I don't know but that's OK*

For future research, the semi-aspectual non-main verbs were annotated as an added, independent feature, whereas the main predicate, here *lezen/TV kijken* 'read/watch TV', is used for annotation of situation type. In this case, an activity. The same goes for the aspectual non-main verbs *gaan* 'going', *komen* 'come', *blijven* 'stay'+infinitive, and *aan het*+infinitive+*zijn*, as in (198) below.

(198) Je moet goed uitkijken als je *aan het schommelen bent*. (WR-P-P-G-0000107290)
You should be very cautious if [when] you're playing on the swings.

In this case, the main verb *schommelen* 'playing on the swings' was used for annotation, i.e., an activity.

5.6.4   Distribution of situation types

The results of the annotation are presented in Figure 5.5 below. For a more detailed view on the data, the reader is referred to page 478 in Appendix B.

Figure 5.5:
Distribution of situation types (aspect) by mode and register
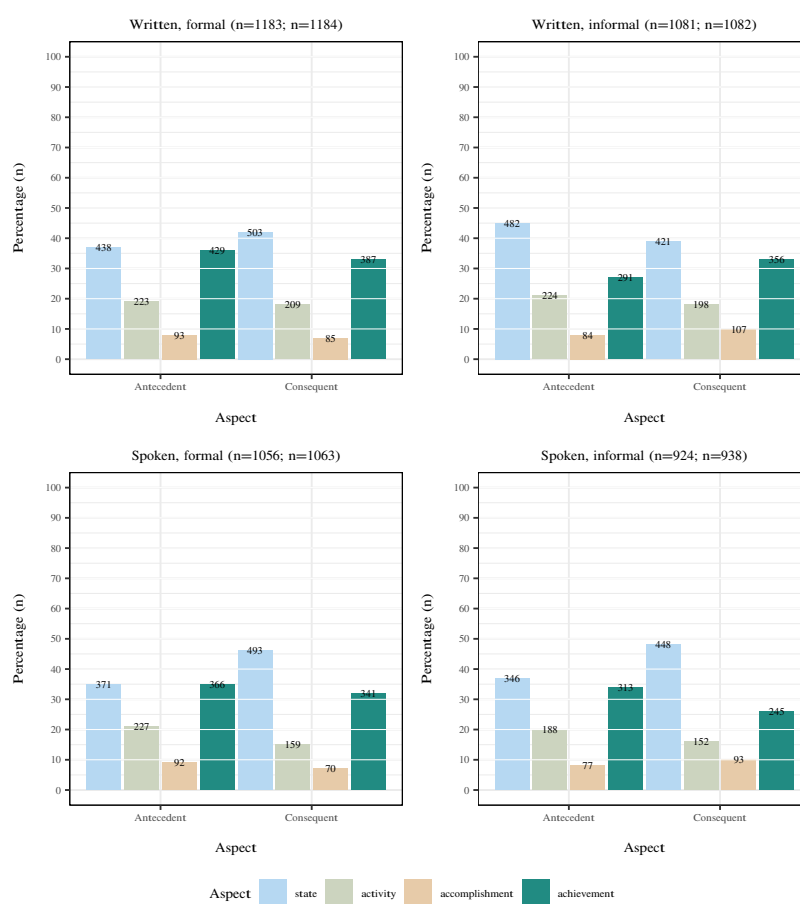
What we see in Figure 5.5, is that the distributions of situation types are very comparable between modes and registers. For both antecedents and consequents, states are most frequent. The difference with respect to other situation types seems largest in consequents, at the cost of achievements. To arrive at more detailed insights with respect to these distributions, and especially at a possible association between situation types in antecedents and consequents, a

four-way loglinear analysis was performed, which produced a final model with a likelihood ratio of $\mathcal{X}^2=26.65$, $df=30$, $p=0.64$. Removing the three-way interaction *mode* × *register* × *aspect (a)* would significantly decrease the fit of the model ($\Delta\mathcal{X}^2=9.35$, $df=9$, $p=0.03$), as would removing the two-way interactions *mode* × *aspect (c)* ($\mathcal{X}^2=17.52$ $df=3$, $p<0.001$; $\Delta\mathcal{X}^2=16.68$, $df=3$, $p<0.001$), *register* × *aspect (c)* ($\mathcal{X}^2=14.91$ $df=3$, $p=0.002$; $\Delta\mathcal{X}^2=13.13$, $df=3$, $p=0.004$), and *aspect (a)* × *aspect (c)* ($\mathcal{X}^2=100.28$ $df=9$, $p<0.001$; $\Delta\mathcal{X}^2=87.50$, $df=9$, $p<0.001$). We will break down these interactions, starting with the highest-order association. Breaking down the three-way interaction *mode* × *register* × *aspect (a)* indicates that this interaction is largely due to the associations between *mode* and *aspect (a)* ($\mathcal{X}^2=8.78$, $df=3$, $p=0.03$), and between *register* × *aspect (a)* ($\mathcal{X}^2=13.13$, $df=3$, $p<0.001$). The effect sizes of both associations are small (Cramér's $V=0.05$; Cramér's $V=0.06$). For the *mode* × *aspect (a)* association, none of the individual mode-aspect combinations significantly contribute to the overall association. For register, we see that antecedents in formal texts more frequently involve achievements as compared to informal texts ($z=2.10$, $p<0.05$; $z=-2.22$, $p<0.05$). Antecedents in informal texts feature states more often than expected as compared to formal texts ($z=1.96$, $p\leq0.05$; $z=-1.86$, $p>0.05$). For the two-way interactions, we see a weak association between *mode* and *aspect (c)* (Cramér's $V=0.06$). Only the distribution of states individually contributes to the overall significance, occurring more often than expected in consequents in spoken texts as compared to consequents in written texts ($z=2.25$, $p<0.05$; $z=-2.11$, $p<0.05$). The association between *register* and *aspect (c)* is also weak (Cramér's $V=0.06$). Only the distribution of accomplishments individually contributes significantly to the overall association, occurring more often in informal texts as compared to formal texts ($z=2.46$, $p<0.05$; $z=-2.34$, $p<0.05$). Finally, we see a weak association between *aspect (a)* and *aspect (c)* (Cramér's $V=0.09$), meaning that the situation type of one clause is only weakly influenced by the situation type in the other clause. Inspecting the residuals, we see that conditionals with accomplishments, achievements or activities in both clauses occur more often than expected ($z=6.78$, $p<0.001$; $z=2.42$, $p<0.05$; $z=3.94$, $p<0.001$). Conditionals with matching state situation types do not contribute significantly to the association. Accomplishments in antecedents are followed by activities in consequents less often than expected ($z=-1.98$, $p<0.05$). Antecedents expressing achievements are followed by accomplishments and by activities less often than expected ($z=-2.42$, $p<0.05$; $z=-3.11$, $p<0.01$). Finally, activities in antecedents are less often followed by accomplishments than expected ($z=-2.54$, $p<0.01$).

Although the analyses results in significant interactions, we can conclude that the interactions are all very weak. The situation type in antecedents and consequents are only very marginally associated with mode, register and the situation type in the other clause.

5.6.5   Comparison with previous studies

In this section, we will discuss each situation type found in the corpus. Starting with the most frequent situation type, namely *state*. In antecedents with a predicate expressing a state, this state functions as the condition for the consequent, such as having a certain opinion in (199) and a video game having certain system requirements in (200).

(199) Als *u van mening bent* dat het belangrijkste thema in onze geschiedenis de strijd tegen het water is, dan is Lely de man op wie u moet stemmen. (WR-P-P-G-0000040971)
If you believe *that the most important theme in our history is the battle against water, then Lely is the man you should vote for.*

(200) Als *er staat*: 'Recomme[nde]d: P4 1 GHz or greater', zoals bij UT2003, dan is het je toch wel duidelijk dat het niet een 2d spelletje is met kutgrapics die je op je P1 nog even kan spelen.   (WR-X-B-A-discussion-lists-tweakers-638496)
If it says*: 'Recommended: P4 1 GHz or greater', as with UT2003, then it is clear to you that it is not a 2d game with lousy graphics that you can play on your P1.*

When the consequent expresses a stative state of affairs, in a number of cases, it expresses a conclusion (i.e., an epistemic conditional cf. section 3.3.7), as in (201), but this is not always the case, as can be seen in the predictive conditional in (202).

(201) Als het hebben van een opvatting een mentale houding is, dan *is het opschorten ervan* dat waarschijnlijk ook.   (WR-X-A-A-journals-txt-antw-006)
If having a view is a mental attitude, then suspending it *is probably also an attitude.*

(202) Als Tom Holkenborg (1967) frequent flyer miles zou sparen, *had hij inmiddels genoeg* om drie keer de wereld rond te kunnen vliegen. (WR-X-A-A-journals-txt-nthr-005)
If Tom Holkenborg (1967) were to collect frequent flyer miles, he would have enough by now *to fly around the world three times.*

Most 'evaluative conditionals' (cf., Ford & Thompson, 1986, p. 368 as discussed in section 5.2.2) also express a state in the consequent, as in (203) and (204) below.

(203) *De liberalen zouden het een goed idee vinden* als [de] minister de NS een boete oplegt wegens wanprestatie.   (fn002308)
The liberals would think it a good idea *if [the] minister imposed a fine on the NS for bad results.* [42]

(204) Denk ja als jij toch gaat *is dat eigenlijk wel zo leuk.*   (fn006710)
Think yes if you go, that's actually quite nice.

Here, the consequents express an evaluation of the state of affairs expressed in the antecedents.

The second most frequent situation type is *achievement*, as exemplified in (205) and (206) below.

(205) Kijk en als *die dat huisje kopen* dan weet ik wel waar wij zitten uh in de winter.   (fn007858)
Look and if they buy that house *then I know where we will be uh in the winter.*

(206) 'Als *ik niet zo vroeg op kop was gekomen*, had ik doorgetrokken.' (WR-P-P-G-0000106163)
'If I had not taken the lead that early, *I would have continued going fast.'*

Here, the antecedents express a state of affairs that is telic and dynamic, but non-durative, i.e., punctual. In (205) the buying of a house is a decision made, which does not extend over time. Again, as was discussed in the previous section, such an activity can also be viewed as a long and complex process, in which case the predicate expressed not an achievement but an accomplishment. The difference can be seen in by using the aforementioned test in (207).

(207) *Ze zijn het huis aan het kopen.*
They are buying the house.

If the antecedent of (205) is viewed as an accomplishment (durative), then (207) should be unproblematic, i.e., it could refer to, for instance, the process of visiting the house, checking its state and finally signing a contract. The other interpretation, however, seems more viable, as the consequent refers to the decision to buy the house, not the process of doing so. In (206) the situation of taking the lead is also an instantaneous change of state, although, again, one could argue that a cyclist could also 'be taking the lead' when in the process of overtaking his or her competitors. In (208) and (209) below, the consequents express achievements.

(208) Als het rotweer is, *pak ik* gewoon *de bus* ;-)   (WR-U-E-D-0000000043)
If the weather is bad, I'll *just* take the bus *;-)*

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[42]One can analyse this example as involving a conditional relation between 'imposing a fine' and 'thinking it is a good idea' (i.e., evaluating), or between 'imposing a fine' and 'something being a good idea' (i.e., the assessment itself).

(209) 'Als ik andermans foto's zie, *zie ik mijn werk terug*', zegt hij vol over-
tuiging.   (WR-P-P-G-0000103206)
'*When I see other people's photos,* I see my own work', *he says with con-
viction.*

The punctual states of affairs in these examples do not have temporal dura-
tion, as 'taking the bus' refers to a decision, and 'seeing my own work' to an
evaluation of what the speaker sees.

As discussed in the introduction to this section, it was observed in the liter-
ature that 'conditionals with an event verb in the *if*-clause behave differently
from *if*-clauses containing states' (Schouten, 2000, p. 63; see section 5.6.1 for
discussion, examples and references). Whereas eventive verbs in antecedents
refer to future situations, stative verbs refer to present situations. Antecedents
with a backshifted event verb cannot (easily) be combined with a past perfect
consequent used to implicate counterfactuality, because, as discussed, the future
time reference receives a 'hypothetical interpretation', whereas stative verbs in
the antecedent refer to present time and receive a counterfactual interpretation
and can be combined with a consequent implicating counterfactuality. Corpus
examples of Dutch conditionals seem to suggest predictive conditionals allow
stative *weten* 'to know' in present tense to express predictive conditionality, es-
pecially in combination with adverbs like *weer* 'again', as in (210) below, which,
as the translation shows, would be expressed by means of *when* in English.

(210) Ik meld me morgen wel weer als ik hopelijk eindelijk een uitslag *weet*.
(WR-P-E-A-0004691879)
I will report again tomorrow if [when] I finally hope to know *[have] a
result.*

A discussed, a backshifted antecedent with a past perfect in the consequent
'signalling counterfactuality' (Schouten, 2000, p. 63) cannot be combined with
eventive verbs, but this is possible with stative verbs, as in (176) and (177),
repeated below for convenience.

(176) ? If I fell ill, I would have gone to the doctor's.   (Schouten, 2000, p. 63)

(177) If I knew, I would have told you.   (Schouten, 2000, p. 63)

Dutch conditionals with simple past stative verbs in the antecedent indeed can
(but do not have to) receive counterfactual interpretation too, as can be seen
in (211) below. This, again, seems not to be the case for simple past antecedent
with eventive verbs, as can be seen in (212) and (213) below.

(211) Tarik: Als ik mijn ouders niet *had*... Ik weet niet, ik denk niet eens dat
ik dan school had gehaald.   (WR-X-A-A-journals-003)
Tarik: If I didn't have *my parents... I don't know, I don't even think I
would have finished school.*

(212) Hun Nederlandse nageslacht *zou* er vermoedelijk meer mee *gediend zijn* als ze het voorbeeld *volgden* van vele immigranten in Amerika. (WR-P-P-G-0000116174)
Their Dutch offspring would probably be better served if they followed *the example of many immigrants in America.*

(213) ? Hun Nederlandse nageslacht *zou* er vermoedelijk meer mee *gediend zijn geweest* als ze het voorbeeld *volgden* van vele immigranten in Amerika.
Their Dutch offspring would probably have been better served if they followed the example of many immigrants in America.

Dancygier (1993), however, shows that the reference of simple past antecedents with counterfactual consequents 'may in fact be timeless', as in (214) below.

(214) If water boiled at 200 C, making tea would take twice as long. (Dancygier, 1993, p. 410)

Although states and achievements outnumber the other two situation types, the situation type *activity*, as in (215) and (216) below, are by no means infrequent. As they are, compared to the types discussed above, relatively straightforward in conditionals, it will suffice to end this section by briefly discussing a number of examples from the corpus.

(215) Daar ga misschien nog wel eventjes bij informeren want als ik zelf ook al twee keer per week *hardloop* kan ik ook best op dinsdagavond uh of op donderdagavond daar gaan hardlopen.   (fn008017)
Perhaps I will also briefly inquire about this because if I also run *twice a week I can also go running there on Tuesday night uh or on Thursday evening.*

(216) Ik zou toch wel vaker *fietsen* als ik in Vossenveld woonde. (WR-P-E-A-0005870848)
I would cycle *more often if I lived on Vossenveld.*

In (215), the antecedent presents a durative and dynamic, but atelic state of affairs, as does the consequent in the examples in (216). Turning to accomplishments, which are telic and dynamic like achievements, but also durative, as can be seen in the antecedent in (217) below, and the consequent in (218).

(217) Als jij dan alleen nog even iets van *een groente haalt* of zo dan hebben we vanavond uh wel iets lekkers te eten.   (fn006949)
If you just get something like a vegetable *or something, then we have something tasty to eat tonight.*

(218) Als er veel rolstoelers zijn onder de passagiers dan *kunnen de banken en tafeltjes er makkelijk uitgehaald worden*.   (WR-P-P-G-0000102534)
If there are many wheelchair users among the passengers, the benches and tables can easily be removed.

In (217), 'getting vegetables' is a dynamic, durative, like an activity, but has an endpoint and thus is a telic state of affairs. In (218), 'removing the benches and tables' is a durative, dynamic and telic state of affairs, as it has internal time-development, involves a change, and an endpoint, i.e., the benches and tables being removed.

5.6.6   Conclusion

The results presented in this section show that most most antecedents and consequents of Dutch conditionals refer to states, followed by achievements. To my knowledge, there are no corpus studies available reporting on distributions of situation types in Dutch. The figures reported in this section therefore could reflect, or, given the lesser prominence of aspect in studies on conditionals, may likely reflect the general distribution of lexical aspect. There seems to be only a very weak association with mode and register and between clauses, as the distributions of situation types in antecedents and consequents are very comparable across those dimensions.

It was already mentioned that aspect is not as frequently discussed in relation to conditionals as, for instance, tense and modality are. Still, we have seen that states in antecedents interact with tense with respect to implicatures of unassertiveness in the sense that they are more able to express counterfactuality than events in antecedents. Such interactions may be found in the analyses in the next chapter.

5.7   Person and number

5.7.1   Introduction

Person and number of the grammatical subjects in the antecedent and consequent of conditionals are not strongly linked in the literature to the connection between these clauses. However, mention is made of first-person subjects in counterfactuals, as in the example in (219) by Quirk et al. (1985), the example in (220) provided by Dancygier and Sweetser, and the 'counteridentical-P conditionals' as in (221), discussed by Declerck and Reed (2001).

(219) If I had seen you, I would have invited you home.   (Quirk et al., 1985, p. 1092)

(220) If I were he, I'd throw me out. (Dancygier & Sweetser, 2005, pp. 68–69)

(221) I {would/should} reconsider my assumptions if I were you. (Declerck & Reed, 2001, p. 100)

As we saw in chapter 3, examples of pragmatic conditionals frequently involve second-person subjects, as in Athanasiadou and Dirven's example in (222), and Geis's example in (223) below.

(222) If you are thirsty, there's beer in the fridge.   (Athanasiadou & Dirven, 1997a, p. 61)

(223) If you're hungry, there is food in the fridge.   (Geis, 1973, p. 233 cited in Declerck and Reed, 2001, p. 321)

As can be seen in these examples, the second-person subjects are related to the fact that suggestions or offers are made in the indirect speech act in the consequents of these conditionals.

In section 5.7.2, I will discuss person and number of grammatical subjects. In section 5.7.3, I will discuss their annotation. Then, in section 5.7.4, I will present the distributions of this feature in the corpus, after which I will compare these results with insights from the literature on person and number in conditionals in section 5.7.5. In section 5.7.6, I will provide a brief conclusion.

5.7.2   Person and number

In this study, the grammatical subject, i.e., the noun phrase congruent with the finite verb, is annotated for person and number in one feature.

Noun phrases are specified for *number*, the grammatical category that refers to quantity in a binary fashion, either *singular* or *plural*. Apart from some exceptions, such as mass nouns which are always singular, or 'pluralia tantum', which are always plural, all noun phrases can be either singular or plural. The difference can be seen in the inclusion of a suffix, in most cases *-s* or *-en*, to form a plural (Haeseryn et al., 1997, pp. 165–184; Booij, 2002), as in the examples in (224) and (225) respectively.

(224) Half 6, als *de trein* een beetje *doorrijdt*.   (WR-U-E-D-0000000301)
      Half past five, if the train drives *fast.*

(225) Half 6, als *de treinen* een beetje *doorrijden*.
      Half past five, if the trains drive *fast.*

What we see here, is that the subject in the antecedent, *de trein* 'the train' is singular in (224) and plural in (225), both by the form of the noun (suffix *-en* in the latter), and the conjugation of the finite verb *doorrijden* 'keep driving'. This conjugation is also what distinguishes singular *ze* 'she' from plural *ze* 'they', as in (226) and (227) below.

(226) Nu als *ze spuugt*, bijv. na hapje of sap, *lijkt ze* er gelukkig niet zo heel veel last van te hebben, *ze trekt* dan alleen een vies gezicht en dat is na een paar tellen ook over.   (WR-P-E-A-0004932452)
      Now if she vomits*, like after a snack or juice, luckily* she does *not seem bothered to too much,* she *just* makes *a dirty face and that is gone after a few seconds too.*

(227) Nu als *ze spugen*, bijv. na hapje of sap, *lijken ze* er gelukkig niet zo heel veel last van te hebben, *ze trekken* dan alleen een vies gezicht en dat is na een paar tellen ook over.

> *Now if* they vomit, *like after a snack or juice, luckily* they do *not seem bothered to too much,* they *just* make *a dirty face and that is gone after a few seconds too.*

The examples show that, in order to determine the number of the subject in a clause, both the form of the head noun and the finite verb can be used.

The feature *person* represents the grammatical distinction between speaker (first person), addressee (second person, either specific or general reference; see Haeseryn et al., 1997; Malamud, 2012; de Hoop and Tarenskeen, 2015), and other entities talked about (third person; cf. Broekhuis and Keizer, 2012, pp. 7–8), as in the antecedents of (228) to (230) respectively.

(228) Wie is er overleden? Als *ik* dat mag vragen.   (WR-U-E-A-0000000036)
    Who passed away? If I *may ask.*

(229) Als *je* het server-side doet weet je zeker dat het altijd goed gaat. ((WR-X-B-A-discussion-lists-tweakers-801435)
    If you *do it server-side you know for sure it will go well.*

(230) Als *de vermeende mondiale opwarming* slechts een urbanisatie-effect was zouden de winderige waarnemingen een veel minder uitgesproken trend moeten opleveren.   (WR-P-P-G-0000094705)
    If the alleged global warming *was only an urbanisation effect, the windy observations should produce a much less pronounced trend.*

Number and person are combined into one feature. Therefore six values are possible. The singular first, second and third person are exemplified above; their plural uses can be found below in the antecedents in (231) to (233) respectively.

(231) Als *we* ons beperken tot het pensioen na 65 jaar, dan kan bij benadering het volgende geconstateerd worden.   (WR-P-P-G-0000097881)
    If we *limit ourselves to the pension after the age of 65, the following can be approximated.*

(232) Het is jouw keuze, samen met je man en als *jullie* in je gezin op die manier gelukkig zijn, is het goed.   (WR-P-E-A-0004750168)
    It's your choice, together with your husband and if you *are happy in your family that way, that is fine.*

(233) Als *ze* blijven leven heeft dat nadelige gevolgen voor de export. (fn001784)
    If they *stay alive, it will have negative effect on export.*

These examples exhaust the person and number combinations discussed, although we will see in the next sections that some grammatical contexts do not allow for easy assignment into of one of these categories.

5.7.3   Inter-rater reliability

All clauses in the corpus were manually annotated for person and number using the manual provided in Appendix A.8. Please note that for each conditional sentence, this resulted in two annotations: the person and number combination in the antecedent and the person and number combination in the consequent. As I mentioned in section 4.5, the agreement scores of this feature were high ($AC1$=0.93 and $AC1$=0.84 for antecedents and consequents respectively).[43]

Most disagreements on this feature in the antecedent concerned incomplete clauses for which one annotator had included an annotation, while the other had annotated 'NA'. Examples are the antecedents in the following examples.

(234) Maar als door blijft gaan dan houdt op.   (fn008876)
       But if continues then ends.

(235) Dus als dat opzijzet dan is dat goed.   (fn008468)
       So if sets that aside then it is well.

(236) Als het in ijsland had staan was je het toch kwijt geweest? (WR-U-E-A-0000001279)
       If {had it/had been} in iceland you would have lost it?

In (234) we see that the finite verb *blijft* 'stays' does not give us a definitive answer on what subject is omitted, as it is congruent with both second and third-person singular subjects. This occurs many times in spoken data (see footnote 43 below), as we can see in (235) and (236) (see also Biber and Conrad, 2009, pp. 116–117, who remark that conversations involve 'many fractured clauses, incomplete utterances, etc'). In the former, the subject could be either person, and in the latter, either the second-person subject *je* 'you' was omitted, or *staan* 'had it' was expressed instead of the participle *gestaan* 'had been'. The same goes for (237) below, although in this case, it might be argued that it is very unlikely that the omitted subject is not *ik* 'I'.

(237) Uh voorzitter als daarop mag reageren?   (fn000197)
       Uh chairman if allowed to respond to that?

Technically, the subject could be first-person, second-person or third-person singular, as the verb *mogen* 'may' has the same form for all subjects in singular form. In all of these cases, the person and number feature was set to 'NA'. Incomplete consequents were found too, predominantly in spoken data, as can in (238) and (239) below.

(238) Als ik in de lift sta *moet naar de zesde verdieping*.   (fn000434)
       {If/When} I am in the elevator must go to the sixth floor.

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[43]As can be seen, the annotation of person and number in the consequent was almost 0.1 lower. This may be a result of the fact that consequents are more frequently incomplete, especially in spoken texts.

(239) *Toch triest* als je al zo jong niet meer mee kan doen.
       Still sad *if you can no longer participate at such a young age.*

In line with the annotation of antecedents, these consequents were annotated as having 'NA' for person and number.

Cases like (240) constituted another difficulty, and contributed to the lower agreement score for consequents.

(240) Meer regels en afspraken op huishoudenniveau vormen dus een nuttig in-
       strumentarium om vrouwen aan de tijdklem te helpen ontsnappen als de
       druk vanuit hun werk toeneemt.   (WR-X-A-A-journals-txt-mem-001)
       *More rules and agreements at household level therefore constitute a use-
       ful set of instruments to help women escape the time constraint as the
       pressure from their work increases.*

Here the consequent is an infinitival complement (see a.o. van Haaften, 1991; Broekhuis et al., 1995) and (optionally) introduced by the complementizer *om*. Depending on the type (*om+te*, *te-* and bare infinitivals; see Broekhuis, Corver and Vos, 2015b, Chapter 5) and theoretical perspective, such complements contain an implied subject (PRO) which is 'normally coreferential with [...] the subject or the object of the °matrix clause [...]' (Broekhuis, Corver & Vos, 2015b, pp. 766–767). Such non-finite clauses are frequently introduced by communicative or mental verbs, such as in *adviseren* 'advise' in (241), and, *dreigen* 'threaten' in (242).

(241) Wij *adviseren* u dan ook cd 1 pas terug te sturen als u het hele boek uit
       heeft.   (WR-P-P-D-0000000005)
       We therefore advise *you not to return CD 1 until you have finished the
       entire book.*

(242) De ouders van de kinderen hebben al *gedreigd* het recht in eigen hand te
       nemen als de verdachten terugkeren naar de wijk in Leeuwarden waar ze
       wonen.   (fn006050)
       The parents of the children have already threatened *to take the right into
       their own hands if the suspects return to the neighbourhood in Leeuwarden
       where they live.*

There is a large body of literature on the interpretation of implied subjects in infinitival clauses (see provided references above), and although the question at which level the conditional relation holds in such cases is of theoretical

interest,[44] I will follow the guideline presented in Appendix A, namely not to annotate features that are not directly observable and interpretative. Therefore these cases are labelled 'NA' for person and subject.[45]

Another source of disagreement concerned affirmative (or denying) consequents, as in (243) below.

(243) Vanmorgen zegt ze: we zouden de spenen toch doorknippen? Ja, zeg ik, maar alleen als jij het wil. (WR-P-E-A-0005983263)
This morning she says: wouldn't we cut the teats? Yes, I say, but only if you want it.

In this example, the consequent is an affirmation (*ja* 'yes') of something said prior to the uttering of the conditional. In such cases, it is unclear what the consequent actually is. In (243), what is conditionally affirmed is 'we were going to cut the teats, right?'. As is unclear however how to construe the structure of the consequent, these cases were labelled 'NA' after discussion.

5.7.4 Distribution of person and number

The results of the annotation are presented in Figure 5.6 below. For a more detailed view on the data, the reader is referred to page 479 in Appendix B.

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[44]The question here is whether the relation in the consequent is between the antecedent and the infinitival clause, or between the antecedent and the matrix clause. In (241) it is clear that the consequent is the infinitival clause, resulting in a relation between finishing the book and sending it back, not a relation between finishing the book and advising, i.e., the advise is not given conditionally, but conditional advise is given (see also sections 3.3.7 and 5.8.5 on discussion of conditional speech acts). (240) is more ambiguous, however, as a viable relation can be interpreted between the antecedent (an increase in work pressure) and either the matrix clause (having more rules and regulations) or the infinitival clause (helping women escape).

[45]In the database, the label 'infinitival' is preserved for possible future research.

Figure 5.6:
Distribution of grammatical person and number by mode and register
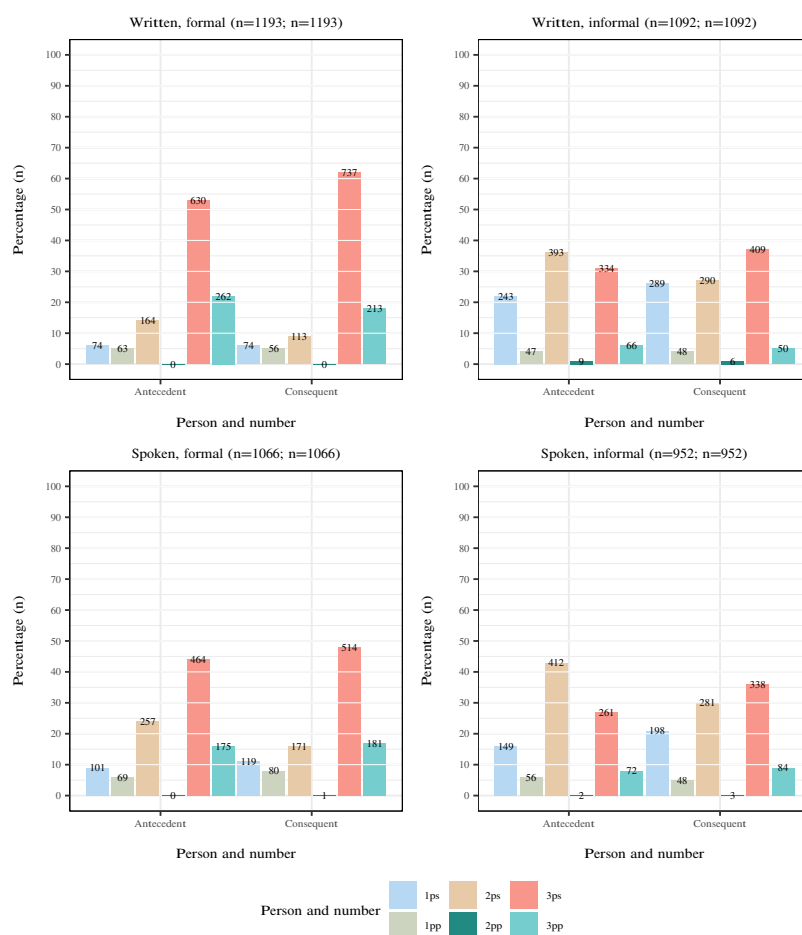
What we see when we compare the left side of Figure 5.6 to the right side, is that antecedents and consequents in formal texts, either written or spoken, feature third-person singular subjects most frequently (52.81%, 61.78%, and 43.53%, 48.22% in written and spoken texts respectively), while in informal texts, on the right side of Figure 5.6, the subject is most frequently second-person singular in the antecedent (43.28% and 35.99% in spoken and written texts), and third-person singular in the consequent (35.50% and 37.45% in spoken and written texts), but less dominantly so than in formal texts. Before we look at the patterns individually, we will test the distributions over mode and register, with special attention to possible interactions between subject (person and number) in both clauses.

A four-way loglinear analysis was performed on the data, which produced a final model that retained all effects, indicating that the highest order interaction (*mode × register × subject (a) × subject(c)*) was significant ($\mathcal{X}^2$=69.77, df=25, p<0.001). As such an higher-order interaction is difficult to interpret, the effect was broken down by comparing the three-way interactions against the model without the four-way interaction. This showed that removing the *mode × register × subject (c)* was detrimental to the model (Δ=20.44, df=5, p=0.001), as was removing the *register × subject (a) × subject (c)* interaction (Δ=105.04, df=25, p<0.001). To interpret these effects, the embedded two-way effects were inspected. This showed that the *mode × register × subject (c)* interaction was influenced mostly by the *mode × subject (c)* association ($\mathcal{X}^2$=35.64, df=5, p<0.001, Cramér's V=0.09), and, especially, the *register × subject (c)* associations ($\mathcal{X}^2$=482.37, df=5, p<0.001, Cramér's V=0.33). Looking at the strongest association more closely by inspecting the residuals, we see that both first-person and second-person singular subjects occur more often than expect in informal texts (z=9.12, p<0.001; z=8.18, p<0.001) as compared to formal texts (z=-8.68, p<0.001; z=-7.78, p<0.001), largely at the cost of third-person singular and plural subjects in informal texts (z=-6.56, p<0.001; z=-7.38, p<0.001) as compared to formal texts (z=6.24, p<0.001; z=7.02, p<0.001). Looking at the three-way interaction *register × subject (a) × subject (c)*, all two-way interactions are significant: *register × subject (a)* ($\mathcal{X}^2$=511.34, df=5, p<0.001, Cramér's V=0.34), *register × subject (c)* ($\mathcal{X}^2$=482.37, df=5, p<0.001, Cramér's V=0.34), *register × subject (c)* ($\mathcal{X}^2$=2552.14, df=25, p<0.001, Cramér's V=0.34).[46] The residuals of the first two interactions show the same pattern: first-person and second-person singular subjects are more common in informal texts (z=7.47, p<0.001; z=9.23, p<0.001 for antecedents, z=9.12, p<0.001; z=8.18, p<0.001 for consequents) as compared to informal texts (z=-7.11, p<0.001; z=-8.78, p<0.001 for antecedents, z=-8.68, p<0.001; z=-7.78, p<0.001 for consequents), and in antecedents, this difference between informal and formal texts is also significant for second-person plural subjects (z=2.53, p<0.05; z=-2.40, p<0.05). Conversely, first-person plural subject are

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[46]Note that the degrees of freedom between the former two interactions and the latter interaction differs. As the Cramér's *V* values are the same for these associations, the higher number of degrees of freedom suggests a stronger association.

observed more often in formal texts than in informal texts, although this difference does not reach significance. Third-person subjects are observed frequently less than expected in antecedents in informal texts as compared to formal texts (z=-7.32, p<0.001; z=6.96, p<0.001 for third-person singular subjects respectively, z=-8.18, p<0.001; z=7.78, p<0.001 for third-person plural subjects). The same is the case for consequents, in which third-person subjects are observed less frequently than expected in antecedents in informal texts as compared to formal texts (z=-6.56, p<0.001; z=6.24, p<0.001 for third-person singular subjects respectively, z=-7.38, p<0.001; z=7.02, p<0.001 for third-person plural subjects). Inspecting the residuals of this latter association shows that all combinations of the same person and number in the subject of both clauses contribute highly significantly to the overall association (z=23.60, z=21.73, z=22.71, z=6.10, z=9.02, z=19.46; p<0.001 for first-person singular, first-person plural, second-person singular, second-person plural, third-person singular, third-person plural respectively).

Given the results on person-number distributions in antecedents and consequents, we see that subjects in both clauses of conditionals pattern, especially first- and second-person subjects, in the sense that, for instance, a first-person subject in the antecedent is very likely to be followed by a first-person singular subject in the consequent. There are significant associations with mode and especially register, but the association between antecedent and consequent is strongest.

5.7.5   Comparison with previous studies

As a first observation, it is important to note that only person and number of the *grammatical* subject were annotated. A complex sentence, as in (244) below, in which the grammatical subject of the embedded sentence is the actual 'thematic subject' (*een school* 'a school'), was annotated for the person and number of the matrix clause (*ik* 'I').

(244)   Als ik erachter zou komen dat een school regels stelt om groepen leerlingen
te weren, zou ik onmiddellijk ingrijpen.   (WR-P-P-G-0000076623)
If I found out that a school sets rules to exclude groups of students, I
would intervene immediately.

The reason for doing so is consistency and prevention of interpretative issues as much as possible, as sometimes the matrix clause and sometimes the subordinated clause contains the most prominent subject (Verhagen, 2005, p. 94). In (244), we see that the grammatical subject of the antecedent is *een school* 'a school' in the embedded clause, while the grammatical subject of the matrix clause itself is *ik* 'I' in the matrix clause. In this case, the most plausible relation between the antecedent and consequent is indeed that between the matrix clause in the antecedent and the consequent, i.e., the intervening is dependent on the noticing, not on the school setting rules. This is different in the example in (245) below.

(245) Als je dat niet uh... als dat niet in je zit dan denk ik dat je nooit bij die waterpolitie moet uh gaan werken. (fn008602)
If you don't uh … if that's not in you then I guess you should never uh work for that water police.

The subject of the consequent in (245) is *ik* 'I'. In the sense of van Duijn and Verhagen's (2019) three-dimensional model of embedded viewpoints, however, the 'third-party subject' of the antecedent is *je* 'you', as the connection between the antecedent and consequent holds between 'having something in you' and 'not working for the water police'. Therefore, such an example could be seen as featuring a second-person singular subject, but as mentioned above, for consistency only the grammatical subject of the matrix was annotated in such cases.

The subject in imperative clauses is analysed differently in different traditions (for an overview of views on the subject in imperative clauses in generative grammar, i.e., non-overt subjects, *you*-deletion, see van der Wurff, 2007; see also Barbiers, 2007; Fortuin, 2004, p. 109; Fortuin and Boogaart, 2009; van Olmen, 2011, p. 318; van Olmen and Heinold, 2017). The implicit subject of imperative clauses in Dutch is always the addressee, and mostly seen as second-person singular (see e.g., de Haan, 1986, p. 254; Bennis, 2007). The relatively small number of imperative consequents allowed for manual inspection and in all cases (specific or generic) *je* was implied, as in (246) to (248).[47]

(246) Als je wilt liften, *laat* maar weten! (WR-U-E-D-0000000301)
If you want to hitch a ride, let *me know!*

(247) Als u een hertseldiskette hebruikt: – *Schakel* het systeem UIT. (WR-X-B-A-discussion-lists-tweakers-654320)
If you use a recovery disk: – Switch *the system OFF.*

(248) Als een verslaafd kind je alles van je weg heeft geroofd en een psychish wrak van je heeft gemaakt, okee, *bekijk* dan nog eens opnieuw wat de opties zijn. (WR-P-E-A-0004407425)
If an addicted child has robbed you of everything and has turned you into a psychic wreck, okay, review *the options again.*

Given these findings and the fact that imperative clauses are finite, the decision here is different than for infinitival clauses (which received *NA* for person and number). Imperative clauses are thus annotated for second-person singular subjects.

Apart from the mentions discussed in the introduction to this section, no literature was found on person and number in conditionals specifically. The results found are in line with more general observations of distributions of

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[47]Here, conditionals raise an interesting question with regard to determining whether *you* is used for specific or generic reference in (imperative) consequents, as it could be argued that the antecedent identifies the referent to which the implied subject of the imperative in the consequent refers. For a related discussion on subjects in paratactic conditionals (i.e., conditional imperatives), see Thumm (2000).

person in various registers. Various studies (see e.g., Poole & Field, 1976; Chafe & Tannen, 1987) have shown first and second-person pronouns to be 'more common in conversation than in many other registers' (cf. Biber & Conrad, 2009, p. 7). Furthermore, Biber and Conrad (2009, pp. 100–101) show that the frequency of conditionals in 'office hours conversations' is higher than in regular conversation and 'almost 50%' of those conditionals begin with 'if you...', as in the examples in (249).

(249) ...**if you** do that you'll have no problem graduating...
       ...**if you** go over to-to registrar, they will, get you going.
       ...**if you** haven't thought about that I-I'd recommend it.
       (Biber & Conrad, 2009, p. 101)

Biber (2006, p. 77) argues that conditional clauses are used to 'cushion the force of these directives by providing possible options and anticipating alternatives' as in his example in (250) below.

(250) Instructor: Now here's what you should do ***if* you want me to go over your graduation papers** you gotta do it this semester because ***if* you wait until the summer or the fall**
       Student: uh huh
       Instructor: then you'll have to go through somebody else and it'll just take longer   (Biber, 2006, p. 77)

Although the informal register here is composed of more than conversation, and Biber's (2006) and Biber and Conrad's (2009) findings are based specifically on an analysis of the aforementioned 'office hours conversations' and university conversations, we see the higher frequency of second-person pronouns (singular *je*, *jij*, *u*, and plural *jullie*, which coincide with English *you*) in the results of this study too. The more general observation that first and second-person pronouns are more frequent in informal texts is found here too (restricted to subjects only), which makes it plausible that the distribution we see in Figure 5.6 is (partly) a reflection of a more general association between pronouns and register, and not a specific property of conditionals in these registers.

5.7.6   Conclusion

The results presented in this section show that, apart from infinitival clauses and imperative consequents, in which the annotation of subjects posed some challenges, the distribution of person and number in subjects of conditionals seems to follow what is known from register differences in the literature in general. The association between register and person-number is stronger than that between mode and person-number, and we see in the results that insights from register studies on pronoun use are reflected in conditionals, i.e., informal texts feature more first- and second-person subjects than formal texts, which show an overwhelming preference for third-person (singular) subjects. Next to these associations between mode, register and subject in the individual clauses

of conditionals, the strongest association actually exists between the person and number of the subjects of both clauses, in the sense that subjects in one clause attract a subject in the other clause of the same person and number.

The results support the observation we started this section with, namely that examples of conditionals implicating a pragmatic or 'speech-act' connection between the antecedent and consequent in the literature frequently feature second-person subjects. Both register studies and politeness theory (see Biber, 2006, p. 77; Brown and Levinson, 1987, p. 272; see also section 3.3.4) show that conditionals can be, and are indeed used for directive speech act to tone down their directive force. Person and number remain, however, only indirectly linked to the implicatures of interest in this study. Nevertheless, it may provide useful in combination with distributions of other features, which will be investigated in the next chapter.

5.8 Sentence type

5.8.1 Introduction

In a number of the classifications discussed in chapter 3, it is mentioned that consequents of conditionals may be of a non-declarative sentence type, such as imperative consequents discussed at the end of the previous section (see examples (246) to (248)). In section 3.3.7, we already saw mentions of this in several classifications, as in Declerck and Reed's example, and van der Auwera's example repeated below.

(251) If Oswald didn't kill Kennedy, who did? (Declerck & Reed, 2001, p. 103)

(252) If you phone Mary, ask her to dinner.   (van der Auwera, 1986, p. 199)

These examples show that consequents of conditionals may also be interrogative or imperative, and in the accounts discussed in chapter 3, especially in section 3.3, non-declarative consequents were related to implicatures of indirect or (non-predictive) connection between antecedent and consequent, which suggests this feature to be relevant to this study.

In section 5.8.2, I will discuss the possible sentence types of consequents of Dutch conditionals. In section 5.8.3, I will discuss their annotation, and in section 5.8.4, I will present the distribution of sentence types in the corpus. Next, in section 5.8.5, I will compare the results with insights from the literature in section. In section 5.8.6, I will provide a brief conclusion.

5.8.2 Sentence types

The feature *sentence type* in this study represents the type of sentence in the consequent, which is reflected mostly in the word order of the consequent (for discussion, see section 5.8.5). Please note that there is no necessary or exclusive relation between sentence type and illocutionary act. For example, a declarative

sentence canonically performs an assertive speech act (i.e., in default situations, it has the illocution of a statement), but it can also be used indirectly to perform a directive speech act like a request (see e.g., Searle, 1975; Birner, 2013, p. 195). In this study, sentence type was annotated, not illuctionary force, and four sentence types were distinguished.

The first is *declarative*, as in (253) below.

(253) Als de economie minder dan 7 procent groeit, dreigt deflatie. (WR-P-P-G-0000055244)
If the economy grows less than 7%, there is a risk of deflation.

A declarative consequent makes an assertion of a proposition of which the truth, in conditionals, is dependent on the antecedent. The word order of the consequent is one of the patterns of syntactic integration discussed in section 5.3, namely subject-verb inversion in the integrative and resumptive patterns, or the regular main clause word order in the non-integrative pattern. The second type is the imperative consequent, which is canonically used to give a command or make a request, as in (254).

(254) Maar ook op de tv zullen ze dingen te zien krijgen, doe er gewoon over en als ze met vragen komen *probeer er zo goed mogelijk over te praten.* (WR-P-E-A-0006022805)
But they will see also things on TV, just talk about it and if they ask questions try to talk about it as well as possible.

There is no overt subject, or there is a second-person subject (see also section 5.7 on person). Third, conditionals can have interrogative consequents, as in (255), either to ask a question about a conditional, or ask a conditional question. The difference will be discussed later on in this section.

(255) Maar als opschorting niet begrepen kan worden als overwegen plus niet weten wat te geloven, *wat voor houding is het dan*? (WR-X-A-A-journals-001)
But if suspension cannot be understood as considering plus not knowing what to believe, what kind of attitude is it?

Next to declarative, imperative and interrogative consequents, exclamatory consequents were distinguished, as in (256), although this is not considered to be a sentence type by everyone. The definition used in this study will be discussed shortly.

(256) En als je meewilt naar Pauls housewarming in Chillburg, *gezellig*!! (WR-U-E-D-0000000301)
And if you want to come to Paul's housewarming in Chillburg, fun*!!*

As can be seen here, consequents of conditionals can be of any of the four sentence types, although the exclamative example in (256) is debatable. We will leave that discussion for section 5.8.5.

5.8.3   Inter-rater reliability

All consequents in the corpus were manually annotated for sentence type using the manual provided in Appendix A.9. As I have showed in section 4.5, the agreement score of this feature was high ($AC1$=0.92). The disagreements mainly concerned conditionals with incomplete or elliptical clauses such as those in (257) and (258) below.

(257) Ik gebruik eigenlijk ook nooit smileys en als, dan nog op de oude manier met haakjes en puntjes op mijn toetsenbord.   (WR-U-E-A-0000000013)
I never actually use smileys and if, then in the old way with brackets and dots on my keyboard.

(258) Daarmee ben ik zo'n 13 jaar geleden begonnen, als ik het me goed herinner met Door het oog van de naald van Ken Follett. (WR-P-P-G-0000032453)
I started that about 13 years ago, if I remember correctly with Eye of the Needle by Ken Follett.

In these cases, the consequents were classified as regular declarative clauses.

Another source of disagreement involved interrogative consequents. These could be interpreted as questions about a conditional, or as conditional questions. Examples to illustrate the difference are presented in (259) and (236), which we discussed already in section 5.7 and of which the latter is repeated below for convenience.

(259) Waarom krijg ik, als ik bij Google de zoekterm 'website' invul, bijna alleen evenementenlocaties en pretparken als hit? (WR-U-E-A-0000000129)
Why do I, when I enter the search term 'website' at Google, almost exclusively get event locations and amusement parks as a result?

(236) Als het in ijsland had [ge]staan was je het toch kwijt geweest?   (WR-U-E-A-0000001279)
If it had been in Iceland you would have lost it?

Looking at the example in (259), we see a question is asked conditionally by means of a sentence-medial antecedent. In other words, the speech act of asking 'why do I get these results' is conditional on the typing of 'website' at Google. One of the annotators had annotated this consequent as 'declarative', but it is clear that this is an interrogative consequent, introduced by the interrogative *wh*-word *waarom* 'why'. In (236), the situation is less clear, however. There is subject-verb inversion in the consequent, which could be either a sign of an interrogative word order, or of high syntactic integration (see section 5.3). This becomes clear when we compare it to its non-interrogative counterpart, for which only the question mark needs to be changed to a period.

(260) Als het in ijsland had [ge]staan was je het toch kwijt geweest.
If it had been in Iceland you would have lost it.

In this case, the consequent was labelled as an interrogative, although it must be remarked that by van der Auwera's (1986) analysis, which we will discuss later on in this section, something can be said for labelling this use as declarative too, as the conditional as a whole is questioned, instead of an interrogative consequent being dependent on the antecedent.

5.8.4   Distribution of sentence types

The results of the annotation of sentence type are presented below in Figure 5.7. For more detailed information, the reader is referred to page 481 in Appendix B.

Figure 5.7:
Distribution of sentence types by mode and register
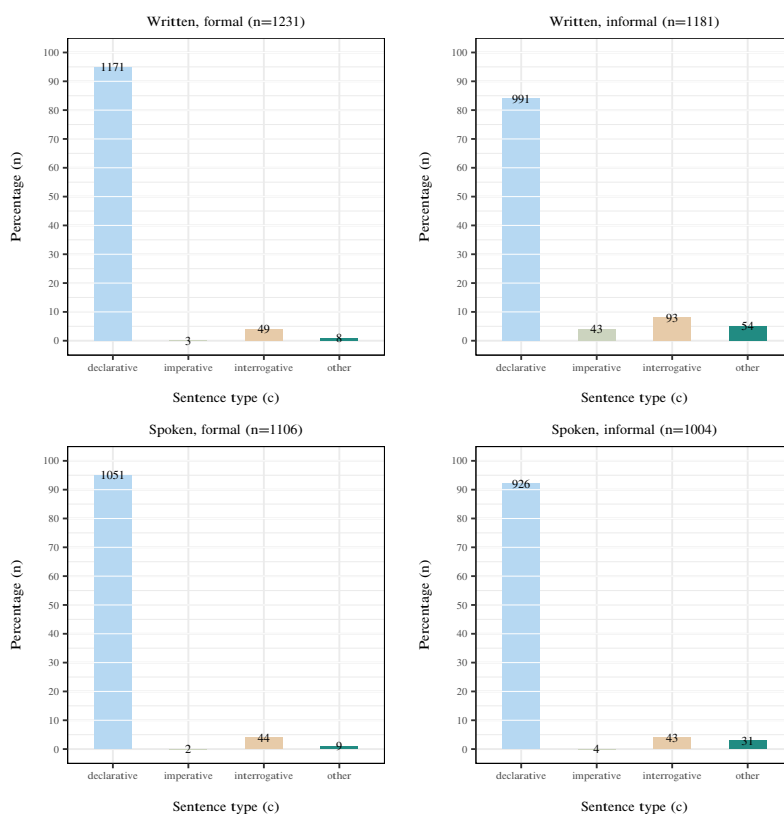
What we see in Figure 5.7 is in line with what may be expected: the declarative sentence type makes up for more than 90% of all consequents. The rest of this section must, therefore, be interpreted in light of this skewed distribution. The second most frequent sentence type is the interrogative consequent, which accounts for 5%, and occurs most frequently in written, informal texts.

A three-way loglinear analysis was performed on the data, which produced a final model that retained all effects, indicating that the highest order interaction (*mode × register × sentence type*) was significant ($\mathcal{X}^2$=10.83, *df*=3, *p*=0.01). Comparing the two-way interactions against the model without the three-way interaction showed that the *mode × sentence type* interaction was significant ($\mathcal{X}^2$=36.99, *df*=3, *p*<0.001; $\Delta\mathcal{X}^2$=40.26, *df*=3, *p*<0.001), as was the *register × sentence type* interaction ($\mathcal{X}^2$=104.82, *df*=3, *p*<0.001; $\Delta\mathcal{X}^2$=113.32, *df*=3, *p*<0.001). Both effects are small (Cramér's *V*=0.09; Cramér's *V*=0.15). Inspecting the residuals for the *mode × sentence type* interaction shows that only the distribution of imperative clauses over both modes individually contributes to the overall association between mode and sentence type. Unexpectedly, imperatives occur more often in written texts as compared to spoken texts (*z*=3.47, *p*<0.01; *z*=-3.71, *p*<0.01). As we can see in Figure 5.7, this is largely due to the informal register, with examples like (261) and (262) below.

(261) Bel me zsm terug als je dit leest!   (WR-U-E-D-0000000312)
     Call me back if [as soon as] you read this!

(262) Als je het echt proffie wil aanpakken, schrijf dan een applet.   (WR-X-B-A-discussion-lists-tweakers-142235)
     If you really want to tackle it in a professional way, write an applet.

The informal written texts in the corpus feature conditionals in text messages, as in (261), and in discussion lists, as in (262). The text messages, most of the conditionals with imperative consequents are used to ask someone for a favour, whereas in discussion lists, most imperative consequents are used to offer advice. This is most likely a reflection of what text messages and discussion lists are used for. The residuals for the *register × sentence type* interaction show that all but the distribution of declarative consequents significantly contribute to the overall association. Informal texts feature conditionals with imperative consequents more often than informal texts (*z*=4.36, *p*<0.001; *z*=-4.22, *p*<0.001), which is also the case for interrogative consequents (*z*=2.41, *p*<0.05; *z*=-2.33, *p*<0.05) and for other types of consequents (*z*=5.09, *p*<0.001; *z*=-4.92, *p*<0.001).

Looking at both registers, it is clear that the declarative type is the default sentence type. In informal texts, slightly more diversity is found in comparison to formal texts. As mentioned in the introduction, sentence types in conditional consequents are not often analysed in the literature discussed. From the figures presented here, it seems that the overwhelming frequency of declarative consequents explains this hiatus, as in formal, written texts, from which most of the data in previous studies are drawn, 95.1% of the consequents is of

the declarative type, versus 87.8% in informal texts. Although this looks like a small difference, the overall figures are distorted by the prevalence of declarative consequents. To be able to get insight into the use of declarative and non-declarative consequents, the results are discussed in light of the literature available on sentence type in general in the next section.

5.8.5 Comparison with previous studies

There is not much literature on sentence types in conditionals, and therefore this section will provide a close look at the data, resulting in a more descriptive overview of variation in sentence types of consequents. Of course, the relevant literature that is available will be used. Before doing so, please note that the word order in declarative consequents may vary, as we saw in section 5.3. As we have discussed integrative, resumptive and non-integrative conditionals in detail in that section, we will not discuss this topic further here.

What can be seen in the results, is that imperative consequents make up only 0.21% of consequents in formal texts, and 2.15% in informal texts. Although care has to be taken with low frequencies, it seems that Biber et al.'s (1999, p. 221) observation that imperatives are most frequent in spoken texts is not corroborated by these numbers, as 0.3% of consequents in spoken texts is imperative, versus 1.9% in written texts. The current results suggest that the dimension of register is more relevant. Imperative consequents may have the characteristics of prototypical imperative clauses in Dutch, namely that they feature the (stressed) stem of the verb on the first position of the sentence, and there is no overt subject (see a.o. Proeme, 1984, pp. 241–242; Piwek, 2000; Broekhuis, Corver and Vos, 2015a, pp. 87–96; see also section 5.7 on person and number). In the most prototypical use, imperatives are directive, meaning that they are used to get the addressee to 'do something' (see Austin, 1962, pp. 76–77; also see e.g., Hilton, 2016). (For analyses of conditional commands in terms of material implication, see Williamson, 2020, pp. 126–131. For alternative views, see e.g., Dummett, 1973; Edgington, 1995, p. 288.) Examples of such imperatives as consequents of conditionals are provided below in (263) and (264).

(263) Onderbouw even met een URL waar je dat vandaan haalt als je wilt.
(WR-X-B-A-discussion-lists-tweakers-1269237)
Substantiate with a URL where you read that if you want.

(264) Als iemand om advies vraagt, doe dan op z'n minst alsof je een soort van neutraal bent.   (WR-X-B-A-discussion-lists-tweakers-1416572)
If someone asks for advice, at least act as if you are kind of neutral.

Broekhuis, Corver and Vos (2015a) provide examples of the possibility to use imperatives as consequences in conditionals, as in (265) below, and they show that, contrary to independent imperatives, imperatives as consequences can occur in the past tense, as in (266).

(265) Als hij een slecht humeur heeft, berg je dan maar.
If he has a bad temper, you better hide (Broekhuis, Corver & Vos, 2015a, p. 85)

(266) Als hij een slecht humeur had, borg je dan maar.
If he had a bad temper, you'd better hide. (Broekhuis, Corver & Vos, 2015a, p. 86)

In the latter case, the recurrence meaning (i.e., *whenever*) arises. Next to the standard form of the imperative, there are other possibilities to convey 'imperative meaning', and de Haan (1986, p. 251) mentions various forms that can functionally be considered imperatives (see also Duinhoven, 1984, p. 148; Vandeweghe, 2000, p. 227; van der Wurff, 2007, pp. 51–55; Coussé & Oosterhof, 2012). Broekhuis, Corver and Vos (2015a) provides examples of infinitives with 'imperative force', such as (267), in which the verb is typically sentence-final, instead of sentence-initial.

(267) Je bord leeg eten$_{\text{infinitive}}$!
Empty your plate! (Broekhuis, Corver & Vos, 2015a, p. 72)

Such uses were found in the corpus, as in the example in (268) below.

(268) Als het regent, gewoon komen hè. (WR-U-E-A-0000001387)
If it rains, just come, okay.

Duinhoven (1995) provides examples of imperatives with past perfect tense, as in (269) below.

(269) Had me even gebeld!
You should have called me! (Duinhoven, 1995, p. 346)

Such imperatives are compatible with a conditional clause, as in the constructed example in (270), but they were not found as consequents in the corpus.

(270) Als je zo'n zin had om te praten, had me even gebeld!
If you were wanting to talk, you should have called me!

As we can see, this form of the imperative seems highly suitable in using conditionals for adding reasons to reproaches.

Next to the forms discussed so far, another possibility is the participial imperative, as in (271) and (272) adapted from Broekhuis, Corver and Vos (2015a), and Rooryck and Postma (2007) respectively.

(271) Opgepast!
Watch out! (Broekhuis, Corver & Vos, 2015a, p. 94)

(272) Ingerukt!
Dismiss[ed]! (military) (Rooryck & Postma, 2007, p. 274)

According to Rooryck and Postma (2007, pp. 287–291), participial imperatives can be grouped into one of two 'semantic subsets', namely the 'watch out' class, or the 'sod off' class, as in the respective examples above. As these two types of use are very clearly addressee and action oriented, it may be expected that restrictions, by means of a conditional clause, on 'watching out' or 'sodding of' can be applied, but, to my knowledge, no mention of this is made in the literature on participial imperatives. It does seem possible to use such imperatives as the consequent of a conditional, as can be seen in the constructed example in (273).

(273) Als je geen virusscanner hebt, opgepast!
    If you haven't got an antivirus programme, be warned!

Other forms of imperatives mentioned in the literature, such as the use of adverbial phrases and prepositional phrases, as in (274) and (275), were not found in the corpus either (see Duinhoven, 1995; Broekhuis, Corver & Vos, 2015a, p. 96).

(274) Als jullie nu nog niet weg zijn, naar buiten!
    If you still haven't left, outside!

(275) Als niemand nog heeft besteld, drie bier!
    If no one has ordered yet, three beers please!

Looking at interrogative consequents, we see that they are more frequent in informal texts than in formal texts (3.98% versus 6.22% respectively). In comparison, Biber and Conrad (2009, pp. 216–217) list questions as 'rare' in newspapers and academic prose, and 'very common' in conversations. In Figure 5.7 we see the the relative frequencies for interrogative consequents are similar in formal spoken and formal written texts (3.98%), and in informal spoken texts (most comparable to 'conversations') a slightly higher percentage (4.28%). In informal written texts, however, we see a much higher relative frequency (7.80%), which may be due to the conversational nature of text messaging and the already mentioned function of discussion lists, in which advising and answering questions plays a large role. This type of consequent was discussed in some detail in section 3.3.7 with respect to the difference between speech acts about conditionals and conditional speech acts, as in the examples from van der Auwera (1986) repeated for convenience below.

(276) If you inherit, will you invest?
    Yes, if I inherit, I will invest.   (van der Auwera, 1986, p. 198)

(277) If you saw John, did you talk to him?
    Yes, (I saw him and) I talked to him.   (van der Auwera, 1986, p. 198)

In (276), a question about a conditional is asked (i.e., 'is there a relation between inheriting and investing?'), while in (277) the question in the consequent is dependent on the antecedent (cf. van der Auwera, 1986; see also Declerck &

Reed, 2001, p. 103; Andor, 2015, Chapter 6; Elder, 2019a, Chapter 4). Similarly, in Dancygier and Sweetser's example in (278) below, the question in the consequent is 'presented as contingent on the newly acquired knowledge' of Deirdre's death.

(278) If you knew she was dead, why did you come down here? (SP.TV.113) (Dancygier & Sweetser, 2005, p. 115)

They further suggest that (279) is 'almost impossible' to interpret as a conditional question, because of the distancing verb forms.

(279) # If you had known she was dead, why had you (would you have) come down here?   (Dancygier & Sweetser, 2005, p. 115)

Dancygier and Sweetser (2005, p. 114) do however accept the possibility of distancing other speech-act conditionals and provide the following example, which features a declarative consequent.[48]

(280) If you need any help, the emergency number is 911.   (Dancygier & Sweetser, 2005, p. 114)

(281) If you needed any help, the emergency number would be 911. (Dancygier & Sweetser, 2005, p. 114)

Although the majority of conditionals with an interrogative consequent have present tense clauses, distanced conditional questions were found in the corpus, as can be seen in (282).

(282) Anders had ik er toch wel een zwarte in gezet? Als die geel goed stond? Oh ja ze staan dus ook niet goed.   (fn000623)
       Otherwise I would have put a black one in, right? If the yellow looked nice? Oh, yes, they don't look nice either.

It seems however that most 'distanced' interrogative consequents in fact are questions about conditionals, not conditional questions, as can be seen in (283) and (284) below.

(283) Want was de discussie ook gevoerd als er geen krapte was?   (fn000242)
       Was it also discussed if there was no shortage?

(284) Zou Geert Wilders 7 of 18 zetels halen als er nu verkiezingen waren? (WR-P-P-G-0000049699)
       Would Geert Wilders get 7 or 18 seats if there were elections now?

In (283), we see the simple past in the antecedent, and the past perfect in the consequent used to create epistemic distance, and in (286), we see the simple past in the antecedent and the simple past with *zullen* 'will' in its consequent to create epistemic distance.

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[48]The example in (281) was provided to them by Fauconnier through personal communication.

Finally, as we have seen in sections 5.4 and 5.5, the past tense can, of course, also be used in a purely temporal sense.

(285) Was wel zon dan als je beneden zat? (fn008093)
   Was there sun then when you were downstairs?

(286) Als een luchtalarm kwam waar gingen die dan heen? (fn007575)
   If an air alarm came where did they go then?

In (285) and (286), we see the simple past used to refer to a situation in the past, creating recurrence meaning.[49]

Consequents with other sentence types, such as imperatives, as in (287), may be conditional speech acts too.

(287) Open the window, if I may ask you to. (van der Auwera, 1986, p. 199)

For van der Auwera (1986, p. 202), this is an example of a conditional speech act, as it is 'both an assertion about an imperative and a performance of that imperative'. For the feature discussed in this section, however, not the function of the whole conditional was annotated, but only the sentence type of consequent, meaning that the examples from (276) to (287), if they were corpus attestations, would have received the *interrogative* label. Interrogative consequents were most frequent in written informal texts. One possible explanation mentioned above is that discussion boards are included in this sample, and they involved many instances of technological and parenting advice, as in (288) and (289) below.

(288) Als dat een vertekend beeld is waarom is dan de cpu zo warm in idle
   stand? (WR-X-B-A-discussion-lists-tweakers-1646342)
   If that is a distorted image, then why is the CPU so warm in idle mode?

(289) Wat nu als mijn dochter een even oud vriendinnetje vertelt wat ze weet?
   (WR-P-E-A-0006029261)
   What if my daughter tells an old friend what she knows?

Chat and messaging texts in the corpus frequently involved interrogative consequents too, as in (290) and (291).

(290) Als je tijd hebt, wil je dan vandaag even bellen naar die unicef veiling?
   (WR-U-E-D-0000000301)
   If you have time, would you call that Unicef auction today?

(291) He Wiebe is het goed als ik vanmiddag je fiets meeneem naar m'n werk?
   (WR-U-E-D-0000000301)
   Hey Wiebe is it okay if I take your bike to work this afternoon?

---

[49]If these examples would refer to a single, specific event, *toen* 'then' would have been used. In a more general sense, here we see how one situation usually preceding another could lead to conditionality by regularity. *Als* 'if' in this sense expresses that the relation between antecedent and consequent is based on a recurrent pattern and not a specific instance, which also relates to the unassertiveness of conditionals I argued for in chapter 2.

Next to declarative, imperative and interrogative consequents, exclamatory consequents were found in the corpus. This is the category in which the difference between formal and informal texts is largest (0.73% and 3.89%), although care has to be taken in interpreting these figures, as exclamatory consequents were grouped together with other consequents that did not fit the sentence types discussed. When the specific cases are reviewed, we see that in informal texts, a larger number of these uses consists of exclamatory, one-word consequents in chats and texting, as in (292) below.

(292) Als ik kan komen eten, graag :-) en ben met de auto, is 's avondspits ook handiger!   (WR-U-E-D-0000000305)
If I can come over and have dinner, yes please :-) and I've come by car, so that's more convenient at evening rush hour too!

Such 'exclamations' are not considered a sentence type by everyone however. 'Wishes and exclamations' are explicitly discarded by den Hertog (1903, p. 16), because there is no exclusive form tied to such speech acts. However, van den Toorn (1984, p. 309) does distinguish exclamatives as a sentence type. He provides examples like those in (293) and (294) below.

(293) Wat 'n hitte!   (van den Toorn, 1984, p. 59)
What a heat!

(294) Vuil, dat het er was!   (van den Toorn, 1984, p. 101)
Dirty, that it was!

Haeseryn et al. (1997) provide examples of different exclamatory uses of the pronominal *wat* 'what', as in (295) to (296) below.

(295) Wat een leven heeft die kerel!   (Haeseryn et al., 1997, p. 376)
What a life that guy has!

(296) {Wat/Hoe} mooi!   (Haeseryn et al., 1997, p. 376)
{What/how} beautiful!

(297) Wat heb ik geslapen!   (Haeseryn et al., 1997, p. 378)
What have I slept!

Here, *wat* 'what' is used with *een* 'a' and a nominal constituent, with an adjectival constituent, and with a verb phrase respectively. In (296) we see that *hoe* 'how' can also be used for exclamations (see also van den Toorn, 1984, p. 309). In fact, Broekhuis and Corver (2016, p. 1484) discuss exclamatives and propose to distinguish between *exclamations* and *exclamatives*, the former being a functional category, the latter a syntactic category, of which the first criterion is that 'exclamatives involve an exclamative *wh*-element'. Of their examples, the example in (298) is an exclamation but not an exclamative, while the example in (299) is an exclamation in the form of an exclamative.

(298) De boeken die Peter leest!
  The books Peter is reading!   (Broekhuis & Corver, 2016, p. 1484)

(299) Wat heb jij vandaag gewerkt!
  Boy, how you have worked today!   (Broekhuis & Corver, 2016, p. 1461)

In this study, I use the term 'exclamation', signalling a functional perspective. This term is not as strict as the 'pure exclamatives' as discussed by Broekhuis and Corver (2016, pp. 1481–1486), and the reason for doing so is that sentences with exclamative *wat* 'what' or *hoe* 'how' simply do not occur in the corpus, while examples like (300) do, and could functionally be seen as exclamations.

(300) Echt knap als een bot zichzelf op kan trekken en weer kan laten zakken.
  (WR-U-E-A-0000001218)
  Really clever {if/when} a bot can pull itself up and lower it again

This may seem like a stretch, but Broekhuis and Corver (2016, pp. 1460, 1480) also propose to view utterances like *bah!* 'yuk!' as exclamations, although not in syntactic, but in lexical terms, and exclamations like the example in (301) below in purely pragmatic terms.

(301) Wat vind je van dit schilderij? Dat is fantastisch!
  What do you think of this painting? That is fantastic!   (Broekhuis & Corver, 2016, p. 1480)

Castroviejo Miró (2008) also considers interjections like *gee!*, *wow!* or *damn!*, and for instance predicative constructions with predicate inversion, as in Castroviejo Miró's (302) example of an exclamation in (302).

(302) 'Delicious, the (Catalan) cream!'   (Castroviejo Miró, 2008, p. 75)

This also paves the way for including less-standard exclamatory patterns, such as the 'Mad Magazine sentence' in (303) below, as discussed by Akmajian (1984).

(303) Speaker A: I hear that John may wear a tuxedo to the ball...
  Speaker B: Him wear a tuxedo?! He doesn't even own a clean shirt.
  (Akmajian, 1984, p. 3)

So, by accepting a functionally defined category like 'exclamation', we are left with a somewhat heterogeneous category, of, basically, sentences that do not fit the three major sentence types. In other words, not all consequents can be classified easily into the sentence types discussed above.

Sometimes, the consequent consists of only one word or word group, mainly adverbs and adjectives like *graag* 'gladly' and *super* 'super', as in (304) and (305), and *boeien* 'interesting', as in (306) below (see also den Hertog, 1903, pp. 248–252).[50]

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[50]Note that *boeien* 'interesting' in the last example is not a verb ('to interest someone'), nor a noun ('buoys'), but a shortened and sarcastic use of the adjective *boeiend* 'interesting'.

(304) Dus als je de decoupeerzaag wilt meenemen als je in tilburg komt, graag!
(WR-U-E-D-0000000301)
So if you want to take the saw with you when you come to tilburg, please!

(305) Als je kan helpen, super, ander weekend mag ook we hebben genoeg te
klussen vanaf volgende week!   (WR-U-E-D-0000000041)
*If you can help, super, another weekend is also fine, we have enough odd
jobs from next week!*

(306) Ik heb er nog nooit problemen mee gehad, en als die er zijn. Boeien.
(WR-X-B-A-discussion-lists-tweakers-181829)
*I have never had any problems with it, and if there are any. Not interest-
ing.*

Another use in this rest category consists of conditionals with an noun phrase
as consequent, as in (307) below.

(307) Dat je tegen die tijd met je nieuwe vlam uitzoekt. En dan tot slot, omdat
het kan en omdat je die vroeger graag wilde, een DAT recoder, Minidisc
player en DCC recorder. En als je echt oud bent, een reel2reel tapedeck.
(WR-X-B-A-discussion-lists-tweakers-1646814)
*That by that time you will choose together with your new girlfriend. And
finally, because it is possible and because you used to want it, a DAT
recorder, Minidisc player and DCC recorder. And if you are really old, a
reel2reel tape deck.*

It must be noted though that in this use, the noun phrase in the consequent
always has a direct relation to previous context. In (307) it introduces an al-
ternative to other audio players. Affirmative interjections are also used as con-
sequents, as in (308) below (see also section 5.7).

(308) Vanmorgen zegt ze: we zouden de spenen toch doorknippen? Ja, zeg ik,
maar alleen als jij het wil.   (WR-P-E-A-0005983263)
*This morning she says: weren't we supposed to cut the teats? Yes, I say,
but only if you want it.*

Finally, prepositional phrases are also used as consequents, mostly in instruc-
tions.

(309) Als je van de kassa komt rechts om de hoek.   (WR-U-E-D-0000000030)
If you come from the cash register on your right around the corner.

(310) Als je rechts bent, dan in de linkerarm of als je links bent in je rechterarm.
(WR-P-E-A-0005370833)
*If you are right-handed, then in the left arm or if you are left-handed in
your right arm.*

As the number of all of these uses in the last category is small, no generalisations
should be made.

5.8.6 Conclusion

In this section, we observed that more than 90% of the consequents are of the declarative type. In section 5.3, we already discussed their word order patterns. Although the associations between mode and register on the one hand, and sentence type on the other are small, there seems to be a somewhat stronger association between register and sentence type. In informal texts, the dominance of the declarative type is smaller than in formal texts, leaving more room for the minority of other types of consequents, namely, in descending order, interrogative, exclamatory, and imperative consequents.

As the data are strongly skewed towards declarative consequents, it is not expected that sentence type will be a strong grouping feature, although deviations from the declarative type of consequent may, by their relative infrequency, strongly invite implicatures of connectedness. Of course, this remains to be seen in the next chapter.

5.9 Negation

5.9.1 Introduction

In chapter 3 we saw that negation was linked to a number of sub-types of conditionals, such as Declerck and Reed's 'preclusive P'-conditionals, in which p prevents q (section 3.3.11), and Wierzbicka's negative counterfactuals, as in (311) and (312) repeated below (see section 3.2.10).

(311) If it freezes, the contest will not be cancelled. (Declerck & Reed, 2001, p. 278)

(312) If X hadn't happened, Y would not have happened. (Wierzbicka, 1997, p. 29)

Furthermore, Akatsuka (1997b) links negation patterns in counterfactual conditionals to expression of desirability in the following line of reasoning: 'P [DESIRABLE], because if not P, then not Q [UNDESIRABLE]', as in (313) below.

(313) I was lucky that the fire did not cross the highway. If it had, my house would have been destroyed.   (Akatsuka, 1997b, p. 784)

Akatsuka argues that co-construction of such conditionals depends partly on the connection between antecedent and consequent and on the ability to reason from negation of a desirable situation to its undesirable consequence (see also the 'desirability table' in Akatsuka, 1997a, p. 345).

In section in section 5.9.2, I will discuss types of negation in antecedents and consequents of Dutch conditionals, and their annotation in section 5.9.3. In section 5.9.4, I will present the distribution of negation in the corpus, after which I will compare the results with insights from the literature in section 5.9.5. In section 5.9.6, I will provide a brief conclusion.

5.9.2 Types of negation

The feature *negation* represents the polarity of a clause, both of the antecedent and the consequent, i.e., it refers to whether or not the antecedent and consequent contains negation. This feature is thus not defined in terms of desirability or evaluation, as for example Akatsuka (1997a) does. Three types of negation are distinguished: *syntactic*, *morphological* and *implicit* or *lexical* negation. Syntactic negation is exemplified below.

(314) Dus toen dacht ik, als jij mij *niet* wil accepteren, dan hoef ik ook *geen* contact met jou. (WR-X-A-A-journals-txt-ped-010)
So then I thought, if you don't *want to accept me, then I* don't *have to contact you.*

In (314), both the antecedent and the consequent feature syntactic negation, in this case by means of the adverbial negations *niet* 'not' and *geen* 'no' respectively. Other adverbial negations are *nooit* 'never' and *nergens* 'nowhere', and negative pronouns are *niemand* 'nobody' and *niets* 'nothing' (see also Haeseryn et al., 1997, pp. 1645–1647; Postma & Bennis, 2006; Albert-Balázsi, 2018). Included in this type is *no* 'nee', which can function as an independent negative utterance (see Haeseryn et al., 1997, p. 1640), as in (315) below, and as an answer to a question phrased as a conditional, as in (316) (see van der Wouden, 2018 and references therein on uses of *nee* 'no'; see also section 5.8 for its affirmative counterpart).

(315) *Nee* als hij op racefiets is dan uh kan ik daar *niet* tegenaan skeeleren. (fn008171)
No*, if he is on a racing bike then uh I* can't *keep up on skates.*

(316) Als u mij nu direct vraagt verwacht u daar alle wonderen uh van deze wereld van? *Nee*. (fn000237)
If you ask me now directly, do you expect miracles from that? No.

In (317) below, the antecedent features morphological negation by means of the prefix *ont* 'de' in *ontraden* 'to advise against'.

(317) Als de minister ons amendement *ontraadt* dan wijkt hij ook eigenlijk af van de Europese richtlijn waarin dat recht op verzet nou juist is opgenomen. (fn000218)
If the minister advices against *our amendment, then he actually departs from the European guideline which includes the very right to object.*

Other prefixes used for negation are *on* 'un', *de* 'de', *dis* 'dis', *mis* 'mis', *min* 'de', *non* 'non', *niet* 'not', *in* 'in', *a* 'a', *il* 'il', *im* 'im' and *ir* 'ir', and the suffixes *loos* 'less', *vrij* 'free', *arm* 'low' and *luw* 'free' (see van der Wouden, 1995).

In (318) finally, both clauses are implicitly negated by means of the lexical negations *slecht* 'bad' and *moeilijk* 'difficult'.

(318) Als de inhoud van boeken me zo *slecht* beviel, was het erg *moeilijk* om
'mee te denken' over verbeteringen.   (WR-P-P-G-000012952)
If the content of books pleased me so badly*, it was very* difficult *to con-*
structively 'think along' about improvements.

Lexical items expressing negative meaning are exemplified in the guidelines in
section A.10 of Appendix A (based on Haeseryn et al., 1997, pp. 1640–1647;
Vandeweghe, 2000, pp. 144–146), but no exhaustive list could be provided.
Examples are *allerminst* 'not at all', *amper* 'barely', *nauwelijks* 'barely', *noch*
'neither', *ternauwernood* 'barely', *weinig* 'few', and *zonder* 'without', but also
clear cases of verbs like *twijfelen* 'doubt', *voorkomen* 'prevent' and *verbieden*
'prohibit', as in (319) below. The list was expanded and discussed by the an-
notators to minimise the risk of overlooking items of lexical negation. Unfortu-
nately, however, for reasons of inter-rater reliability, lexical negation had to be
removed as annotation from the dataset. We will discuss and asses this point
further in the next section.

(319) Terzijde liet de rechter doorschemeren dat het hem een lief ding waard is
als exploitanten van potentieel gevaarlijke attracties het zouden *verbieden*
dat jonge kinderen zonder ouderlijke begeleiding van de attractie gebruik
maken.   (WR-P-P-G-0000021933)
Aside that, the judge hinted that it would be worth it to him if operators
of potentially dangerous attractions would prohibit *young children from*
using the attraction without parental guidance.

5.9.3   Inter-rater reliability

The reliability of annotations for negation in the antecedent and in the con-
sequent is identical and high ($AC1$=0.92) with the 'regular kappa strategy',
and there is substantial agreement ($AC1$=0.65 and $AC1$=0.72) with pairwise
deletion (see section 4.5).

When looking in more detail at the cases in which the annotators did not
agree, the source of most disagreements appeared to be lexical negation, as
may be expected. Examples are provided in (323) and (324).

(320) Als je zegt dat woorden *alleen* in context betek[e]nis hebben dan onder-
vang je dat toch juist?   (WR-U-E-A-0000001226)
If you say that words only *have meaning in context, then you actually*
forestall that, right?

Indeed, the literature mentions *alleen* 'only' as 'implicit negation' (Haeseryn
et al., 1997, pp. 1640–1647; Vandeweghe, 2000, pp. 144–146). Haeseryn et al.
(1997) for instance provide a number of examples in which 'words or word
combinations have a negative meaning aspect', of which two are presented
below.

(321) Ze heeft nog *amper* tijd voor andere dingen. ('bijna *geen*')   (Haeseryn et al., 1997, p. 1647)
She barely *has time for other things. ('almost* none*')*

(322) Je hoeft er *pas* om tien uur te zijn. ('*niet* eerder dan') (Haeseryn et al., 1997, p. 1647)
*You don't have to be there until ten o'clock. ('*no *sooner than')*

It is questionable whether this is the case in (320). Even if such cases were reliably annotated, once one starts annotating lexical negation, the boundary between what is and what is not negation starts to shift, as can be seen in the examples below, in which the presence of negation is even more debatable.

(323) Er gaat pas een significante stroom lopen als de kring *gesloten* is. (WR-X-B-A-discussion-lists-tweakers-1794361)
A significant current will only start if the circuit is closed*.*

(324) Als iemand uh heel *raar* staat te doen.   (fn008661)
If someone is uh being very weird*.*

In (323), the post-annotation discussion showed that one annotator had interpreted 'a circuit being closed' as the negation of 'a circuit being open'. The question then arises where such 'negation' ends. The same goes for 'being very weird' in (324) – it is not the case that this should be interpreted as the negation of 'being (very) normal'. As Zwarts (1981, pp. 41–42; referred to by van der Wouden, 1998) argues, it has been a tradition to use 'lexical decomposition' to show that such implicit negation is indeed negation by paraphrasing words like *zelden* 'rarely' in terms of *niet vaak* 'not often'. In the examples Zwarts (1981) provides, we see in (325) that *zelden* 'rarely' indeed licenses the negative polarity items (NPI) *hoeven* 'must/have to', as does its explicitly negated paraphrase in (326), but not the non-negated counterpart in (327).

(325) Deze beambte heeft zich *zelden hoeven* in te spannen.   (Zwarts, 1981, p. 41)
This officer has rarely had to make an effort.

(326) Deze beambte heeft zich *niet vaak hoeven* in te spannen. (Zwarts, 1981, p. 41)
This officer has not often had to make an effort.

(327) ∗ Deze beambte heeft zich daar vaak hoeven in te spannen.   (Zwarts, 1981, p. 41)
This officer often had to make an effort there.

However, this procedure is circular, in the sense that when you paraphrase *rarely* as *not often*, you could as well paraphrase *often* as *not rarely* (for more detailed discussions, see Zwarts, 1981; van der Wouden, 1998).[51] The same problem with the annotation of lexical negation can be seen in consequents, as in those in (328) and (329).

(328) Als hij *niet* elders binnen het bedrijf aan de slag kan, komt hij in een *lastig parket*.   (WR-P-P-G-0000110880)
     If he cannot *work elsewhere within the company, he will be in a* difficult position.

(329) Als je op de middelbare school het *niet* haalt, dan krijgt die school een *slechte naam*.   (WR-X-A-A-journals-txt-ped-001)
     If you don't *make it in high school, then that school will get a* bad reputation.

In (328), the antecedent features syntactic negation with *niet* 'not', and the consequent was annotated by one annotator for lexical negation, because of the phrase *in een lastig parket zijn* 'being in a difficult situation'. The same goes for (329) in which the antecedent features *niet* 'not', while the consequent features *een slechte naam krijgen* 'getting a bad reputation'. In such cases, it seems that negation and negative evaluation are hard to separate. Furthermore, lexical negation can itself be negated without resulting in apparent double negation, as can be seen in (330) below.

(330) Zou een burgemeester ook *niet* een wedstrijd moeten *verbieden* als KNVB-officials zich komen misdragen zoals toen zij de wedstrijd Feyenoord – FC Twente gewoon door lieten gaan? (WR-P-P-G-0000003556)
     Shouldn't *a mayor also* forbid *a match if KNVB officials misbehave like when they just let the Feyenoord – FC Twente match continue to be played?*

Here, *verbieden* 'to forbid' constitutes lexical negation, but the phrase itself is negated by *niet* 'not' and on top of that, it could be said that the verb *zou* 'should' and the fact that the conditional is part of a rhetorical question all add to the complexity. A somewhat simpler example can be found in (331) below, which was annotated for having lexical negation by means of *limiet* 'limit'.

(331) Als je bekijkt dat oudere versies van outlook ook een *limiet* van 2 gig op een pst bestand hebben, is dat niet zo heel erg verwonderlijk hoor. (WR-X-B-A-discussion-lists-tweakers-974686)
     If you consider the fact that older versions of outlook also have a 2 gig limit *on a pst file, that's hardly surprising.*

As can be seen in (332) below, in which adding syntactic negation (*geen limiet* 'no limit') does not result in double negation.

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[51]See van der Wouden (1994, p. 73) and van der Wouden (1996) on *hoeven* 'must/have to' in conditional clauses. I will not discuss negative polarity items in this study.

(332) Als je bekijkt dat oudere versies van outlook *geen limiet* van 2 gig op een pst bestand hebben, is dat niet zo heel erg verwonderlijk hoor.
If you consider the fact that older versions of outlook have no limit *of 2 gig on a pst file, that's hardly surprising.*

In grammars, this type of negation is mostly just mentioned and followed by a non-exhaustive list of 'negative elements', but a clear definition is lacking. Such cases were numerous as well, the ways of expressing 'negative meaning' were ample, and the influence of lexical negation on inter-rater reliability was detrimental, Therefore, lexical negation was removed as a possible value of the feature *negation*. This does not have to be problematic, though, as most studies on negation focus on syntactic and/or morphological negation and not on lexical negation. Furthermore, lexical negation in conditionals was disregarded earlier in Reuneker (2016, p. 130), whose results show that morphological and syntactic negation together provided sufficient data to find a significant relation between negation and conditional use of prepositional phrases introduced by *zonder* 'without' (see also Tyler & Evans, 2003). Removing lexical negation from further analysis increased agreement for antecedents from 93% and $AC1$=0.65 to 98% and $AC1$=0.98, and from 93% and $AC1$=0.92 for consequents to 94% and $AC1$=0.98 (88% and $AC1$=0.85 for antecedents, 90% and $AC1$=0.88 for consequents using pairwise deletion). The above means that only antecedents and consequents featuring syntactic or morphological negation are included in the results presented and discussed in the next sections.

5.9.4 Distribution of negation types

The results of the annotation of negation are presented in Figure 5.8 below. For a more detailed view on the data, the reader is referred to page 482 in Appendix B.

Figure 5.8:
Distribution of negation types by mode and register
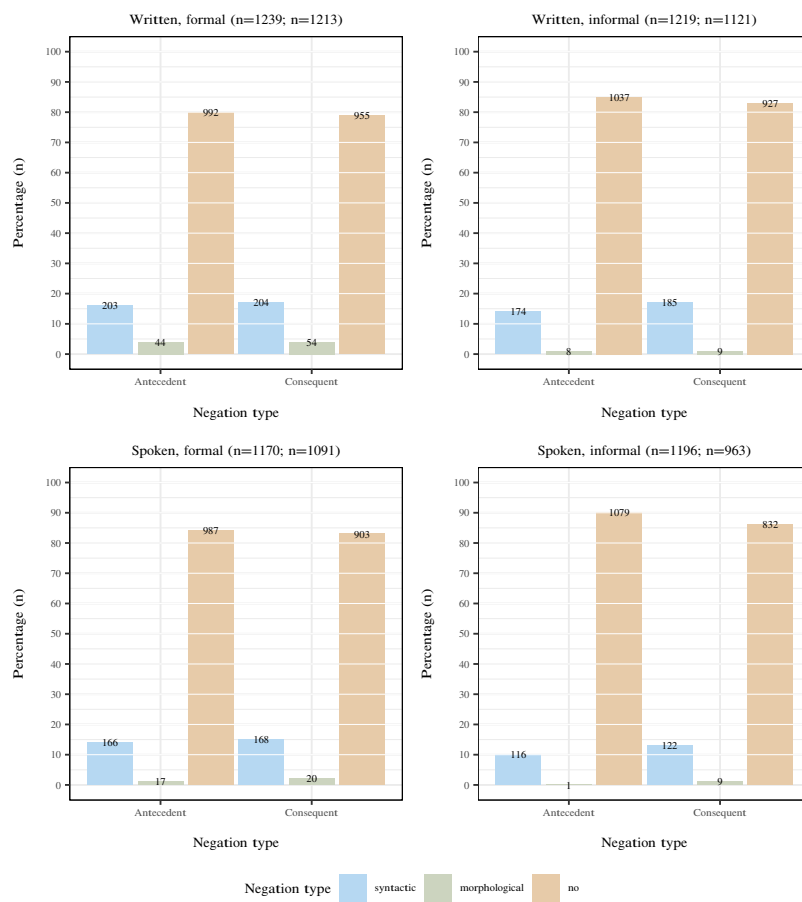
What we see is that most clauses of conditionals are not negated. The percentage of non-negated clauses is around 80%, except for antecedents in spoken, informal texts ($\pm$90%). The results presented here are comparable to Reuneker's (2016) findings: 18.5% of the consequents in that study, which was carried out using a different corpus, were negated, compared to 17.6% in this study overall. What we can further see in Figure 5.8 is that syntactic negation is more common than morphological negation across genres and registers.[52]

A four-way loglinear analysis was performed on the data, which produced a final model with a likelihood ratio of $\mathcal{X}^2$=20.73, df=17, p=0.24. The model retained only the following two-way interactions, removing which would worsen the fit of the model without the four- and three-way interactions *mode $\times$ negation (a)* ($\mathcal{X}^2$=28.80, df=2, p<0.001, Cramér's V=0.07; $\Delta\mathcal{X}^2$=21.65, df=16, p<0.001), *mode $\times$ negation (c)* ($\mathcal{X}^2$=15.17, df=2, p<0.001, Cramér's V=0.06; $\Delta\mathcal{X}^2$=11.85, df=16, p=0.002), *register $\times$ negation (a)* ($\mathcal{X}^2$=52.67, df=2, p<0.001, Cramér's V=0.10; $\Delta\mathcal{X}^2$=47.78, df=16, p<0.001), *register $\times$ negation (c)* ($\mathcal{X}^2$=32.07, df=2, p<0.001, Cramér's V=0.09; $\Delta\mathcal{X}^2$=28.57, df=16, p<0.001), and *negation (a) $\times$ negation (c)* ($\mathcal{X}^2$=77.15, df=4, p<0.001, Cramér's V=0.09; $\Delta\mathcal{X}^2$=55.02, df=16, p<0.001). As these figures show, the associations are significant, but weak, which is likely due to the size of the dataset. Inspecting the residuals, we see that antecedents in written texts feature syntactic and morphological negation more often than spoken texts (z=2.25, p<0.05; z=2.74, p<0.01 for written texts, z=-2.29, p<0.05; z=-2.79, p<0.01 for spoken texts respectively). For consequents, we see the same trend, although only morphological negation individually contributes to the overall association significantly (z=2.01, p<0.05; z=-2.14, p<0.05 for written and spoken texts respectively). For register, we see that antecedents in formal texts feature syntactic and morphological negation more often than informal texts (z=2.20, p<0.05; z=4.41, p<0.001 for formal texts, z=-2.20, p<0.05; z=-4.40, p<0.001 for informal texts respectively). For consequents, we see the same trend, and again, only morphological negation individually contributes to the overall association significantly (z=3.70, p<0.05; z=-3.89, p<0.05 for formal and informal texts respectively). Finally, the residuals for the association between negation in antecedents and consequents show that antecedents with syntactic negation are followed by consequents with syntactic negation and morphological negation more often than expected in comparison with non-negation consequents (z=5.19, p<0.001; z=3.20, p<0.001; z=-2.76, p<0.01 for syntactic, morphological and non-negated consequents respectively). This association is weaker for antecedents with morphological negation (z=2.23, p<0.01; z=3.77, p<0.001; z=-1.57, p>0.05 for syntactic, morphological and non-negated consequents respectively). Non-negated antecedents are followed by syntactically negated con-

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[52]As with remarks on for instance the feature of person and number, this distribution may reflect the general distribution of types of negation in clauses (i.e., independent of conditionals).

sequents less often than expected as compared with morphologically and non-negated consequents (z=-2.39, $p<0.05$; z=-1.89, p>0.05; z=1.33, p>0.05 for syntactic, morphological and non-negated consequents respectively).

It was not expected that negation would be strongly associated with mode, register or both. These figures tell us that such associations are present, and while they are significant, this is probably due to corpus size, as the effects are very small. This is reflected in Figure 5.8. Furthermore, the results show that it is not the case that negation strongly patterns across clauses, as was the case for, for instance, verb tense (see section 5.4). On a speculative note, this may be due to processing difficulties, and although an example such as in (333) may not seem inherently complex, 'language users might avoid negation in apodoses of 'als NEG'-conditionals, because double sentential negation can result in complex mental space-configurations and processing difficulties' (cf. Reuneker, 2016, p. 132).

(333) Ik vind dat kinderen dat *niet* hoeven te doen als zij dat *niet* willen. (WR-X-A-A-journals-003)
I think children should not *have to do that if they do* not *want to.*

For further research on the effects of double negation in conditionals, see Evans and Handley (1999) and references therein.

5.9.5   Comparison with previous studies

The majority of conditionals does not have negation in either clause (71.45%), as in (334). The second most frequent pattern is a non-negated antecedent together with a negated consequent (13.23%), as in (336), followed by negation in the antecedent, but not in the consequent (10.94%), as in (335). Finally, only 4.37% of *als*-conditionals has negation in both clauses, as in (337).

(334) Als je lief bent in de supermarkt mag je zo meteen bij de kassa iets uitzoeken.   (fn000415)
If you behave in the supermarket you can have something at the counter.

(335) Je bent zo weer een week verder als je *niet* uitkijkt.   (fn008327)
The week will pass by if you don't *watch out.*

(336) Deze tweede reden geldt *niet* als sprake is van een bestaande, open polis die partijen willen omzetten in een getaxeerde polis.   (WR-X-A-A-journals-txt-nthr-005)
This second reason does not *apply if there is an existing, open policy that the parties want to convert into a valued policy.*

(337) Ik heb overigens wel mee gedaan aan MvM. Als dat *niet* bestond was ik zelf *niet* geboren [...].   (WR-P-E-A-0004650486)
By the way, I did participate in MvM. If that did not *exist, I would* not *have been born myself[...].*

In (334) neither the antecedent nor the consequent is negated. Given the assumed causal relation between behaving well and getting a reward, this conditional amounts to a promise (see below). In (335), however, we see a negation in the antecedent, and its negatively evaluated results in the consequent.[53] In (336) only the consequent contains a negation, and presents the consequence of converting an existing policy, i.e., Declerck and Reed's (2001, p. 278) 'preclusive *P*-conditionals' mentioned earlier, comparable to the example in (311) above. In (337), finally, both clauses contain a negation, combined with past tense in both clauses (simple past and past perfect respectively), expressing what would have happened if the speaker had not participated in MvM ('Moeders voor Moeders', an organisation helping women with fertility problems). Here, we see Wierzbicka's aforementioned 'negative counterfactual', comparable to the example in (312) above.

Although there is a vast body of literature on both conditionals and negation, and negation *of* conditionals (see below), I did not find many studies on negation *in* conditionals, except for experiments done in the psychological literature on conditionals (see e.g., Evans, 1972; Evans, Clibbens & Rood, 1996; Evans & Handley, 1999; Handley, Evans & Thompson, 2006; Schroyens & Schaeken, 2003; Espino & Byrne, 2012; for recent discussion of negation in and of conditionals, see also Willer, 2022). However, such studies typically test reasoning abilities and, as Khemlani, Orenes and Johnson-Laird (2014, p. 6) mention, their materials 'introduce no temporal or causal relations, or any effects in which the meanings or referents of clauses modify the interpretation of sentential connectives'.[54] A classic fallacy focused on is 'denying the antecedent' (see e.g., Copi, 1973, pp. 22–23), in which the conclusion 'not *Q*' is fallaciously drawn from the conditional 'if *P*, then *Q*' and the negation of the antecedent (i.e., 'not *P*'; see Evans and Handley, 1999, p. 741; Juhos, Quelhas and Byrne, 2015; see also work on this fallacy in informal logic, e.g., Burke, 1994; Godden and Walton, 2004; Stone, 2012. See Cook, 2009, p. 87 for a definition). As (in)formal reasoning with conditionals and its associated fallacies lie outside the scope of this study, we will not pursue this line further.

In linguistic and pragmatic studies, negation and conditionals are studied together in terms of negation *of* conditionals mostly, rather than *in* conditionals.[55] In most cases, the question concern the logical analysis of 'not (if *p* then *q*)' as '*p* and not *q*'. Nieuwint for instance provides the following example.

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[53]Mind that, given the choice to exclude lexical negation, 'passing by' here does not constitute a negation.

[54]A notable and recent exception is Zevakhina and Prigorkina (2020), who devised an experiment based on Fillenbaum (1975) that shows conditionals featuring negation in both clauses 'significantly facilitate[s] the derivation of Conditional Perfection and [are] processed faster than the single negation or no negation'.

[55]See also the notion of 'polarity' in CCR (cf. Sanders, Spooren & Noordman, 1992); see section 3.3.8.

(338) *Premise:*
    It is not the case that if the peace treaty is signed, war will be avoided.
    Conclusions:
    The peace treaty will be signed.
    War will not be avoided.   (Nieuwint, 1992, p. 114)

Although 'not (if *p* then *q*)' implies '*p* and not *q*' (see e.g., Horn, 1989, p. 377), Nieuwint (1992, p. 114) argues that 'no speaker or hearer will deem both conclusions valid'. According to Grice (1989, pp. 80–85; cited in Horn, 1989, p. 378), someone who expresses the negation of a conditional, as in the (major) premise of (338) 'is not so much negating the contained conditional proposition as asserting his unwillingness to assert that proposition'. As can be seen, this is negation with scope over the (complete) conditional, instead of negation *within* conditionals, which is not what this section focuses on (but see section 2.6.4 for discussion).

Dancygier and Sweetser (2005, pp. 230–232) do focus briefly on what they call the 'if that NEG construction', as in their example reproduced in (339) below.

(339) "Look at my new microwave," Mrs. Dugan said. "If that's not just the weirdest durn thing I ever laid eyes on." [...]   (Dancygier & Sweetser, 2005, p. 230)

This insubordinate construction must include a negation and 'expresses the construal of the described situation as being at the far end of some pragmatic scale' (Dancygier & Sweetser, 2005, p. 231). By selecting conditionals from the corpus with negation in the antecedent and no consequent, we indeed get a Dutch counterpart of this construction, as can be seen in (340), but only once in the specific use described by Dancygier and Sweetser.

(340) Annemarie/Mariska, als jij straks *geen* borstvoeding gaat geven!   (WR-P-E-A-0006074405)
    Annemarie/Mariska, if you are not *going to breastfeed later!*

Although the insubordinate conditional in (340) seems comparable in terms of an implicature suggesting what the consequent would be were it expressed (i.e., *dan weet ik het ook niet meer* 'then I'm at a loss'), the Dutch example appears to resist paraphrasing using *that* as in Dancygier and Sweetser's 'if that NEG construction'. Nevertheless, both examples are comparable to rhetorical conditionals (or 'dracula conditionals', as discussed in chapter 3), in which the consequent is clearly false and implicates that the antecedent is false as well (e.g., *dan eet ik m'n hoed op* 'then I'll eat my hat'; see also Boogaart and Verheij, 2013, p. 20).

Unless-clauses, i.e., 'negative conditionals', are analysed often in terms of 'if not' (see e.g., Comrie, 1986; Dancygier, 1985; Declerck & Reed, 2000). Quirk et al., for instance, argue that 'the *unless*-clause is roughly similar to a negative

if-clause', and they suggest that *unless* puts 'greater focus' on conditions as an exception, resulting in the incoherence of their example in (342), because 'studying hard' is not an exceptional condition for passing an exam.

(341) If you hadn't studied hard, you'd have failed the exam.   (Quirk et al., 1985, p. 1093)

(342) # Unless you had studied hard, you'd have failed the exam.   (Quirk et al., 1985, p. 1093)

Dancygier (2002) and Dancygier and Sweetser (2005, pp. 183–187) analyse *unless* as '*Q*; [(not *Q*) if *P*]' meaning that *unless* presents the consequent as the default situation, and then 'adds the *If* P, ~Q scenario as an exceptional alternative'. We can thus see that 'if not' and *unless* are not the same, as also Fillenbaum's (1975) experiments show (see also Wright & Hull, 1986). Promises, such as in (334) above, are 'much less likely to be accepted' when phrased as *unless*-statements than threats and warnings, as in (335) above. This can also be seen in Fillenbaum's examples below.

(343) If you don't give me a ticket I'll give you \$20. (Fillenbaum, 1975, p. 259)

(344) # Unless you give me a ticket I'll give you \$20.   (Fillenbaum, 1975, p. 259)

Here, the paraphrase of the 'if not'-clause in (343) into an *unless*-clause (344) 'seems rather strange', according to Fillenbaum. However, it seems that warnings, as in (335) repeated below, are also affected by *unless*-paraphrasing, as can be seen in (346) below.

(345) Je bent zo weer een week verder als je *niet* uitkijkt.   (fn008327)
    The week will pass by if you don't *watch out.*

(346) # Je bent zo weer een week verder *tenzij* je uitkijkt.
    The week will pass by if unless *you watch out.*

The warning in (346) seems to conflict to a degree with the supposed default-status of the consequent as discussed by Dancygier (2002).[56] This is compatible with Daalder's (1994) analysis of Dutch *tenzij* 'unless' as 'exceptive conditionals' and Paardekooper's (1986, pp. 442–443) remark that *tenzij* 'unless' combines a 'facultative' meaning aspect (i.e., conditional meaning aspect) with that of exception.

5.9.6   Conclusion

In this section, we saw that in most cases neither clause in conditionals contains negation. In conditionals that do feature negation, in either the antecedent, consequent, or both, the most common type is syntactic negation. Negated

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[56]For more studies on conditional promises and threats, see e.g., Beller (2002), Haigh et al. (2011).

consequents are more frequent than negated antecedents, and conditionals with negation in both clauses make up for only a small minority (4.37%) of all conditionals. With respect to mode and register, we see only a weak association to negation.

With respect to the implicatures of unassertiveness and connectedness central in this dissertation, we have discussed negation mostly with respect to its link with implicatures of counterfactuality. Because such conditionals are linked in the literature discussed to referencing situations that did not occur, it is expected that this feature may cluster together with other features linked to counterfactuals, most prominently tense (see section 5.4) and modality (see section 5.5). Furthermore, the literature discussed displays a focus on the logical fallacy of 'denying the antecedent' when the proposition in the antecedent is accepted to be false, or a focus on the negation *of* conditionals, rather than negation *in* conditionals, and, lastly, a focus on negative polarity as a coherence relation between two clauses (see section 3.3.8), either implicating that the situation expressed in the antecedent causes (or enables), or prevents the situation expressed in the consequent. In the next chapter, we will test to which extent negation indeed can be viewed as a factor in licensing specific implicatures of conditionals. First, however, we will discuss focus particles in section 5.10, which is the last feature included in this study.

5.10   Focus particles

5.10.1   Introduction

In English, the conditional conjunction *if* can be used in combination with focus particles (also called *focus adverbs*; see e.g., Hoeksema & Zwarts, 1991), most notably *even* and *only*, as in (347) and (348) below.

(347) *Even if* nobody helps me, I'll manage.   (König, 1985, p. 3)

(348) *Only if* the sun shines will we play soccer on Sunday. (von Fintel, 1994, p. 140)

These two particles have received more attention than other particles, because discourse and focus particles are often defined as having no bearing on truth-conditions (see e.g., Levinson, 1983; Blakemore, 2004; van der Wouden & Caspers, 2010, p. 54), while *even* and *only* do (for an overview of this specific discussion, see Foolen, 1993, pp. 13–23). As we can see, 'adverb-like' words (cf. van der Wouden, 2000) like *only*, *even* and *certainly* express additional meaning with respect to their appendix, here the antecedent of the conditional. The Dutch equivalents of the aforementioned particles are *zelfs* 'even' and *alleen* 'only', as in (349) and (350) below.

(349) *Alleen als* hij meer dan 95 procent heeft kan hij het bouwbedrijf van de beurs halen en mag hij de resterende aandeelhouders via de rechter dwingen te verkopen.   (WR-P-P-G-0000102546)

> Only if *he has more than 95% he can remove the construction company from the stock market and sell the remaining shareholders through court.*

(350) Vrijheid wordt vergroot door opties, *zelfs als* die opties niet bijzonder aantrekkelijk zijn [...].   (WR-X-A-A-journals-001)
Freedom is enhanced by options, even if *those options are not particularly attractive.*

In section 5.10.2, I will discuss types of focus particles used in Dutch conditionals, and their annotation in section 5.10.3. In section 5.10.4, I will present the distribution of focus particles in the corpus, after which I will compare the results with insights from the literature in section 5.10.5. In section 5.10.6, I will provide a brief conclusion.

5.10.2   Types of focus particles

Before discussing types of focus particles, I will define what I will treat as focus particles in this study. Although precise definitions of different types of particles are not available or agreed upon (cf. van der Wouden & Caspers, 2010, p. 56), König (1991, pp. 10–16) proposes a number of characteristics. I will briefly discuss those that are most relevant to conditional clauses.

The first property, and one of the most distinctive, as argued for by König (1991, p. 13), is *positional variability*. In fact, one of the problems of finding focus particles in the corpus, is that they do not have to precede the conditional conjunction – contrary to what examples in the literature suggest. For instance, van der Auwera (1985) provides examples like the one in (351), but there are no examples in which *only* does not directly precede *if*, as in (352).

(351) The match will light only if you strike it. (van der Auwera, 1985, p. 71)

(352) The match will *only* light *if* you strike it.

One could argue for *scope ambiguity* here (Hoeksema & Zwarts, 1991, pp. 57–58), as (352) has two possible readings, partly dependent on stress, namely first that only the act of striking the match will light it, and second that the match will light only, but do nothing else, when you strike it. Whether or not one finds the first reading the most accessible, it is, at least a possible reading, meaning that the focus particle does not have to directly precede the conjunction. In fact, von Fintel (1994) provides examples of positional variation of *only*, as in (353) below.

(353) We will only play soccer if the sun shines.   (von Fintel, 1994, p. 140)

Again, two interpretations are available, namely 'only if the sun shines we will play soccer', and 'if the sun shines, the only thing we will do is play soccer'. In the former reading, *only* counts as focus particle for the antecedent, while in

the latter it does not. As can be seen, the focus particle can also be positioned in the consequent, while interacting with what is focused on elsewhere in the sentence. Searching the corpus for the pattern *only* directly followed by *if* does thus not suffice, and searching for sentences with *only* and *if* in any position results in many false positives, such as in the corpus example in (354).

(354) Uuh 't gaat ten eerste om 't jaarvergaderrooster. Zorg dat BAS niet *alleen* BAS is *als* er een BAS-bijeenkomst is.   (fn009207)
Ehm, first of all, it's about the annual meeting schedule. Make sure that BAS is not only *BAS {if/when} there is a BAS meeting.*

In this case, *alleen* 'only' does not add meaning to the antecedent of the conditional, but 'merely' to the noun phrase *BAS* in the consequent. In order to provide a clear comparison to (353), we will look at the constructed example in (355).

(355) We will play only soccer (and no other sport) if the sun shines.

Here too, *only* does not add meaning to the antecedent of the conditional, but only to the noun phrase *soccer* in the consequent, consequently excluding the first interpretation of the example in (353) discussed above.

To exclude cases like (355), we need another property of focus particles discussed by König (1991), namely their semantic scope, i.e., the part of the utterance a focus particle contributes meaning to. This is related to Hoeksema and Zwarts's (1991, p. 52) distinction between focus particles with phrasal scope and those with sentential scope. So, the scope of *zelfs* 'even' in Hoeksema and Zwarts's example in (356) below is phrasal, as it is restricted to the noun phrase *Jaap* it is attached to. In (357), however, *even* scopes over the sentence, meaning that it expresses that even Dieter left East Germany, not that Dieter even left (while others only complained, for instance).

(356) Zelfs JAAP vind ik leuk. [...]
I find even JAAP nice.   (Hoeksema & Zwarts, 1991, p. 55)

(357) DIETER has even left East Germany.   (Hoeksema & Zwarts, 1991, p. 55)

Using this terminology, we can say for (355) that *alleen* 'only' has phrasal scope over a part of the consequent (*soccer*), and that it does not modify the antecedent. For the two interpretations of (353), in the first interpretation ('only if the sun shines we will play soccer'), the particle *only* takes wide scope over the conditional, whereas in the second interpretation ('if the sun shines, the only thing we will do is play soccer'), the particle *only* takes narrow scope over the noun *soccer* (for a related discussion of the scope of the additive particle *still* in conditionals, see Tellings, 2017). A test to see whether a focus particle in a conditional has phrasal or sentential scope, is to formulate a question concerning the condition. If the answer, but not the question includes *alleen*

'only', this is an indication that the particle scopes over the antecedent. For (353), the relevant question is 'Will we play soccer?' and the answer is 'Only if the sun shines.', while for (355) the relevant question is 'Will we only play soccer?' and the answer is 'If the sun shines.'.

As with the other features, it is not possible to provide a detailed discussion of all the particles and analyses that have been proposed, especially for *even if* and *only if* (see the introduction to this section).[57] In the remainder of this section, I briefly discuss the two types of focus particles distinguished by König (1991, Chapters 4, 5), namely *additive* focus particles and *restrictive* focus particles. I will also propose a new type, *iterative focus particles*. I will discuss these briefly below, and I will discuss the most frequent Dutch particle in each respective group. In section 5.10.5, I will provide a more detailed discussion and an overview of the different particles used with conditionals in Dutch.

The first type of focus particle is the *additive* focus particle, of which the most prominent particle in Dutch is *zelfs* 'even' (for German conditionals with focus particles *auch* 'as well, even', *selbst* 'even', and *sogar* 'even', see Bücker, 2016). It focuses on the whole antecedent or on a part of it, but its scope 'is invariably the whole conditional in these cases, irrespective of the exact location of the focus' (König, 1991, p. 79), as can be seen in the examples in (358) and (359).

(358) The game will be on EVEN IF IT IS RAINING. (König, 1991, p. 79)

(359) I'll manage even if EVERYBODY is against me. (König, 1991, p. 79)

In these examples, *even* turns the conditional into an 'irrelevance conditional' (i.e., a concessive conditional), signalling an incompatibility between the antecedent and consequent, i.e., normally, the antecedent ('it is raining') would lead to the negated consequent ('the game will not be on'), but not now (cf. König, 1991, p. 3). The Dutch counterpart *zelfs* 'even' can be seen in the example below.

(360) *Zelfs als* er geen belastingverlaging moet worden gefinancierd, dient er al 15 miljard euro te worden bezuinigd om het begrotingstekort onder de 3 procent te drukken. (WR-P-P-G-0000105269)
Even if there is no need to finance a tax cut, 15 billion euros must already be cut to keep the deficit below 3 percent.

As Declerck and Reed (2001, p. 432) reflect on König's (1991) analysis, the '"if and only if" interpretation of *if* in *even if*-conditionals [...] is incompatible with the scalar meaning of *even* [...]'. *Even* is scalar in the sense that the relation between the antecedent and consequent holds even in the extreme or unexpected case presented, so it will hold for less unexpected cases too (cf. König, 1991, p. 80; see also Kay, 1990). In other words, its meaning is one of inclusion.

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[57]For a comprehensive list of English focus particles, see Quirk et al. (1985, p. 604).

The second type of focus particles is the *restrictive* particle, of which the most discussed particle is *only*, expressed by *alleen* 'only' in Dutch. It presupposes the conditional without the particle and entails that any alternative does not hold (cf. König, 1991, p. 94), creating an exclusivity reading (i.e., a biconditional reading). In contrast to *even*, *only* adds exclusivity meaning to a conditional. In the example in (361), *only* adds to the conditional meaning of 'If the allowance is more favourable [...], she will be paid that allowance' the aspect of presenting the antecedent as an extreme or unexpected case (cf. Athanasiadou & Dirven, 1997a, pp. 79–80). The same goes for (362), in which the interest by female elephants is the exclusive circumstance in which they will look for the male elephant.[58]

(361) *(Only) If* the allowance is more favourable to a widow than the retirement pension, she will be paid that allowance.

(362) En *alleen als* de dames interesse in hebben dan zoeken ze de man op. (fn007495)
       And only if *the ladies are interested, then they look for the man.*

In (363) we see that while *alleen* 'only' does not directly precede *als* 'if', the focus particle still scopes over the complete antecedent.

(363) Ik wil hem *alleen* overkopen *als* jij hem nog niet gedragen hebt trouwens. (WR-U-E-A-0000000157)
       I only *want to buy it* if *you haven't already worn it by the way.*

Athanasiadou and Dirven (1997a, p. 79) treat *only if* as a single complex conjunction with a 'reinforcing meaning'. The importance of focus particles for conditional connections I focus on in this study can be see in Athanasiadou and Dirven's (1997a) account, as they argue that *only* is compatible with hypothetical (i.e., 'cause-effect', 'condition', and 'supposition') conditionals, because it narrows down the antecedent to a pure condition, which is incompatible with their 'co-occurrence' and 'pragmatic' types of conditionals.

Finally, there is a group of particles that does not add additive or restrictive meaning to the conditional, but adds the notion of recurrence or *iteration*. The most frequent particle in this group is *altijd* 'always', as in (364) below.

(364) *Altijd als* zij uit Kenya komt dan dan is ze depressief.   (fn007979)
       Whenever she comes from Kenya (then) she is depressed.

Here, the focus particle marks the conditional as what was discussed in chapter 3 as a recurrent, habitual or generic conditional. Dancygier and Sweetser (2005, p. 95) describe this use of conditionals as follows: 'if P is known to obtain, then the eventuality with respect to Q will be predictable'. It seems that in English,

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[58]See Liu and Barthel (2021) for a recent discussion of the meaning contribution of *nur* 'only' in German, and an experimental study of biconditional reasoning with *wenn* 'if' and *nur wenn* 'only if'.

these conditionals are expressed more often using the temporal conjunction *when* or *whenever*. In line with footnote 5.8.5 on page 304, one could argue here for a continuum that goes from a unique event via recurrence to conditionality. In English, *if* can be used for the conditional and recurrent part of the continuum, whereas *when* can be used for the temporal part. In Dutch, *als* 'if' can be used for the complete continuum, also those cases in which only a temporal meaning is intended, meaning that Dutch *als* 'if' and English *when* show considerable overlap. *Wanneer* 'when' can be used for most of the continuum, including the conditional part. Of course, such an account should be researched further, including a diachronic perspective, to be of use. See also section 4.4.4, and especially the discussion in chapter 7 on this issue.

5.10.3 Inter-rater reliability

For the annotation of focus particles, a number of particles was indexed using a custom Python-script as a first step to annotation. The automatic annotations were checked manually and used as aids for the manual annotation of focus particle type, based on the manual provided in Appendix A.11. Because all conditionals were manually annotated for the other features, particles that were not found in the (scarce) literature were added to the annotation when they were attested. As shown in section 4.5, the agreement score of this feature was very high (95%; *AC1*=0.95).

Sentences for which both annotators had provided different annotations were discussed in detail afterwards. As may be expected based on the discussion above, a number of the disagreements were due to the scope of the focus particle. In (365), for example, one annotator had marked the sentence as featuring the focus particle *altijd* 'always'. After discussion, both annotators agreed that it did not scope over the conditional clause, but over the complete conditional, i.e., *altijd* 'always' scopes over *[het] was vroeger wel lekker makkelijk als ze op die zondag jarig was* 'It was easy if it was her birthday on that Sunday', instead of it being the case that always {if/when} she had her birthday on (that) Sunday, it was easy. As can be seen, this is a very subtle difference, and disagreement is therefore not surprising.

(365) Was vroeger *altijd* wel lekker makkelijk *als* ze op die zondag jarig was. (WR-P-E-A-0006592707)
    It was always *easy* if *it was her birthday on that Sunday.*

The converse was the case for the example in (366), in which one of the annotators had not annotated *pas* 'only' as a focus particle, while it does scope over the antecedent, adding temporal-necessity meaning to the conditional. In other words, only after the moment the entrepeneur has made turnover and has built a client base, 'they' will pay.

(366) Ze komen *pas* over de brug *als* de ondernemer zijn eerste omzet heeft gemaakt en al een kleine klantenkring heeft.   (WR-P-P-G-0000043356)
They only *pay* if *the entrepreneur has made his first turnover and already has a small client base.*

In all cases of this type of disagreement the disagreement was resolved.

Another disagreement worth noting concerned whether or not *al* 'already' functions as a focus particle in (367) below.

(367) Wij vinden het *al* irritant *als* we zo'n ding in de verte horen rinkelen, maar die gemzen en zwijnen horen dat echt van kilometers afstand. (WR-P-P-G-0000132135)
We already *find it annoying* if *we hear such a thing ringing in the distance, but those chamois and swine really hear it being miles away.*

In a way, *al* 'already' seems to be the counterpart of *pas* 'only'. Both particles are so-called 'time particles' (van der Wouden, 2002, p. 23) or 'aspectual particles' (Smessaert, 1999). Although I discuss these particles in terms of temporal scalarity, there is much more discussion on which types of use these particles allow.[59] Here, I suggest that *al* 'already' marks the condition as a 'relatively early' moment for the consequent to hold, while *pas* 'only' marks the condition as 'relatively late' (Smessaert, 1999, p. 37). As *al* 'already' seems to scope over the antecedent here, we found no reason not to consider it a focus particle.

5.10.4   Distribution of focus particle types

As all particles were grouped into restrictive, additive and iterative particles, the distributions of focus particles by mode and register are presented as types in Figure 5.9 below. For a more detailed view on the data, the reader is referred to page 483 in Appendix B.

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[59]See Vandeweghe (1992, p. 209), Smessaert (1999, pp. 35–39), and van der Wouden (2000, 2002) for Dutch, but also Löbner (1989, p. 193) and van der Auwera (1993) for discussions on these (types of) particles in other languages.

Figure 5.9:
Distribution of focus particle types by mode and register
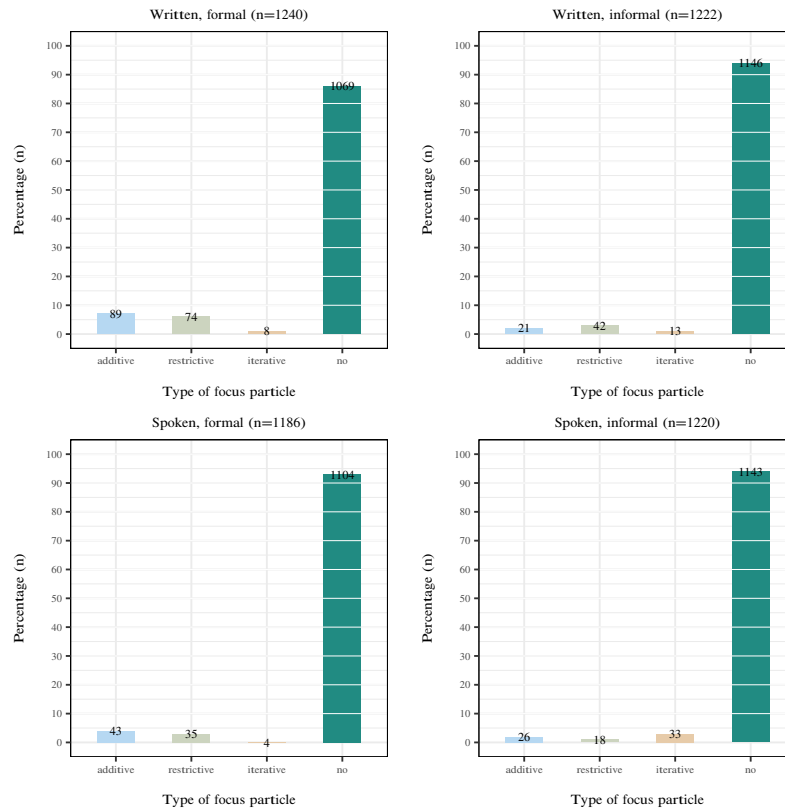
As we can see in this figure, the overwhelming majority of conditionals (91.66%) is not accompanied by any focus particle. Please note that the frequencies of conditionals with a focus particle is around 7% in all mode-register combinations, except for written formal texts, in which 13.79% of conditionals is accompanied by a focus particle (7.18% additive, 5.97% restrictive, and 0.65% iterative), which are mostly found in newspapers and academic journals, as in (368) below.

(368) Om deze conclusie te ontwijken, heb je logisch gezien de volgende drie opties: je kunt ofwel ontkennen dat proposities een discussie beslechten *alleen als* de discussies over die proposities beslecht zijn, ofwel ontkennen dat er ook maar een discussie beslecht is (de sceptische optie), ofwel toegeven dat er een oneindig aantal discussies beslecht zijn. (WR-X-A-A-journals-txt-antw-001)

> *To avoid this conclusion, you logically have the following three options: you can either deny that propositions settle a discussion* only if *the discussions about those propositions are settled, or deny that any discussion has been settled (the sceptical option), or admit that an infinite number of discussions have been settled.*

A further general observation is that the iterative type of focus particle is least frequent overall, although it seems to be used most in spoken, informal texts, such as in the example below.

(369) Heb je niet zoiets van nou ik wil eigenlijk liever gewoon vanavond uh niks doen?
Tuurlijk maar dat heb ik *altijd als* ik een dictaat ga lezen.   (fn000417)
Wouldn't you rather do nothing tonight?
Of course, but I always *feel like that* {if/when} *I start reading a dictation.*

Here, we see *altijd* 'always' adds iterative meaning to the conditional, in the sense that the antecedent and consequent form a recurrent or habitual pattern.

A three-way loglinear analysis was performed on the data, which produced a final model that retained all effects, indicating that the highest order interaction (*mode × register × focus particle*) was significant ($\mathcal{X}^2$=13.73, *df*=3, *p*=0.003). Comparing the two-way interactions against the model without the three-way interaction showed that the *mode × focus particle* interaction ($\mathcal{X}^2$=36.88, *df*=3, *p*<0.001, Cramér's *V*=0.07, *Cramér's* V=0.09; $\Delta\mathcal{X}^2$=37.04, *df*=2, *p*<0.001) and the *register × focus particle* interaction ($\mathcal{X}^2$=77.47, *df*=3, *p*<0.001, Cramér's *V*=0.13; $\Delta\mathcal{X}^2$=80.12, *df*=3, *p*<0.001) were significant but constituted only weak associations. Inspecting the residuals for the *mode × focus particle* association we see that additive particles occur more often than expected in written texts as compared to spoken texts (*z*=2.05, *p*<0.05; *z*=-2.07, *p*<0.05 respectively), which is also the case for restrictive particles (*z*=3.30, *p*<0.001; *z*=-3.34, *p*<0.001 respectively). The residuals for the *mode × focus particle* association show that formal texts feature more additive particles in comparison with informal texts (*z*=4.53, *p*<0.001; *z*=-4.52, *p*<0.001), and more restrictive particles (*z*=2.70, *p*<0.01; *z*=-2.69, *p*<0.01), but less iterative particles (*z*=-3.14, *p*<0.01; *z*=3.13, *p*<0.01).

As these associations are included in the higher-order interaction between *mode*, *register* and *focus particles*, it seems to be the case that both additive and restrictive particles are associated with written formal texts, whereas iterative particles are associated more with spoken informal texts, as can be seen in Figure 5.9. This might, on a somewhat speculative note, explain why iterative focus particles are largely neglected in the literature, as most data come from written texts or constructed examples, and as we will see below, a number of particles used in combination with Dutch *als* 'if' would likely be expressed using *when* or *whenever* in English. In order to get insight into the use of the types of particles discussed, the results are compared with insights from previous studies in the next section. Note, finally, that frequencies of focus particles are low overall, and as a result, associations must be interpreted with caution.

5.10.5   Comparison with previous studies

In this section, I analyse each type of focus particle in more detail, and I discuss the specific particles found for each type. Before doing so, however, it is important to remember that, as with the other features discussed in this chapter, focus particles were only analysed in conditionals, which means that the results may reflect general distributions. For instance, some focus particles can occur together with other conjunctions too, such as *alleen omdat* 'only because', as in (370), and *zelfs voordat* 'even before', as in (371).

(370) Vanaf 13 Kilo hebben we een Roemer Prince, maar ook *alleen omdat* we
       die gratis bij onze nieuwe auto kregen.   (WR-P-E-A-0005678029)
       From 13 kilo we have a Roemer Prince, but also only because *we got it*
       for free with our new car.

(371) Sterker nog, *zelfs voordat* Dols afstudeerde, was er al een hoogleraarspost
       voor hem geregeld in Estland.   (WR-P-E-C-0000000249)
       In fact, even before *Dols graduated, a professor post was already arranged*
       for him in Estonia.

In section 5.10.2, we already discussed the most frequent additive particle, *zelfs* 'even'. Another additive particle found in the corpus is *bijvoorbeeld* 'for example', which marks the antecedent as an example of a condition for the consequent. In (372), for example, the antecedent is one of the possible causes of how a municipality can sustain damage from a bankruptcy.

(372) Maar ook de gemeente kan de dupe worden van een faillissement, *bijvoor-*
       beeld als ze nog leningen heeft uitstaan. (WR-P-P-G-newspapers-16000)
       But the municipality can also be the victim of a bankruptcy, for example
       if *it still has loans.*

The question is whether or not this is indeed a particle, because 'positional variability' seems limited here. Moving *bijvoorbeeld* 'for example' to the consequent removes its scope from the antecedent, as can be seen in (373) below. Moving it to another position in the antecedent seems possible, though, as can be seen in (374) below.

(373) Maar ook *bijvoorbeeld* de gemeente kan de dupe worden van een faillisse-
       ment, *als* ze nog leningen heeft uitstaan. (WR-P-P-G-newspapers-16000)
       But for example *the municipality can also be the victim of a bankruptcy,*
       if *it still has loans.*

(374) Maar ook de gemeente kan de dupe worden van een faillissement, *als* ze
       bijvoorbeeld nog leningen heeft uitstaan.
       But the municipality can also be the victim of a bankruptcy, if for example
       it still has loans.

In (375) below, we see *ook* 'also', which seems to have a similar meaning as *zelfs* 'even' and *bijvoorbeeld* 'for example', because all three cancel the necessity implicature, although *ook* 'also' and *bijvoorbeeld* 'for example' do not express the scalar 'extremity value' of *even* 'zelfs', as discussed above.

(375) Bepaalde aspecten vereisen een hoge accuratesse en concentratie, ook als
       er sprake is van tijddwang.   (WR-P-P-F-legal-texts-1000)
       Certain aspects require high accuracy and concentration, even if there is
       a time constraint.

The next set of additive particles adds focus to a value in the antecedent on a contextually provided scale. Discussed by van der Wouden (2000) are *vooral* 'especially', as in his examples in (376) and (378), and *zeker* 'especially, certainly', as in (377) and (379).

(376) Italië is een fijn land, (vooral) als je van zon houdt.
       Italy is a nice country, (especially) if you like the sun. (van der Wouden,
       2000, p. 236)

(377) Het wordt vast leuk, zeker als je van fietsen houdt.
       It will be fun, especially if you like cycling.   (van der Wouden, 2000,
       p. 242)

In the corpus, examples like (378) and (379) were found.

(378) Het is voor mensen die slechtziend of blind zijn niet altijd even eenvoudig
       om een goede muziekleraar te vinden, *vooral als* je niet weet waar je moet
       zoeken.   (WR-P-P-D-newsletters-006)
       It is not always easy for people who are visually impaired or blind to find
       a good music teacher, especially if *you do not know where to look.*

(379) *Zeker als* ze zo slim is kan dat een hele nare ervaring voor haar zijn.
       (WR-P-E-A-discussion-lists-427000)
       Certainly if *she is so smart it can be a very dismal experience for her.*

In (378), the consequent expresses how hard it is for the blind to find a good music teacher. In (379) the antecedent presents a situation on a scale of conditions which make an experience a dismal one. For English, Declerck and Reed (2001, pp. 433–434) mention two particles seemingly equivalent in meaning, namely *especially* and *particularly*, which, like *even*, cancel the necessity implicature (see section 2.6.5 on conditional perfection). In their examples in (380) and (381), for instance, the focus particles contribute to the meaning that there are other situations that may function as conditions, but that the value in the antecedent is a particularly well-suited candidate.

(380) An amateur video poses fewer problems, especially if it is done in addition
       to professional photographs.   (Declerck & Reed, 2001, p. 433)

(381) Marjorca has a wealth of well-kept secrets, particularly if you head inland. (Declerck & Reed, 2001, p. 433)

Other particles that were found in the corpus and belong to the group of additive focus particles are *helemaal* 'completely', *juist* 'exactly', *met name* 'in particular', and *precies* 'precisely', as in (382) to (385) respectively, which all entail 'the corresponding sentence without particle' and presuppose that there is at least one other condition that would be satisfactory for the consequent' (König, 1991, p. 60).

(382) En dan is eigenlijk net of dat uh de wereld onder je vandaan zakt als je zoiets uh te horen krijgt. *Helemaal als* je dan weet van dat eigenlijk niks meer aan te doen is.   (fn008727)
And then it is almost as if uh the world is coming down on you when you hear something like that. Especially if *you know that nothing can be done about it anymore.*

(383) Met andere woorden: *juist als* sprake is van licht onrecht moet er niet gemoraliseerd maar beloond of gestraft worden.   (WR-X-A-A-journals-001)
In other words: precisely if *there is slight injustice not moralisation, but reward or punishment should be used.*

(384) Hieruit blijkt dat het valideren van dergelijke informatie een gecompliceerde taak is, *met name als* de wetenschappelijke evidentie over de te analyseren opvoedtechniek niet eenduidig en tamelijk beperkt is.   (WR-X-A-A-journals-003)
This shows that validating such information is a complicated task, particularly if *the scientific evidence about the parenting technique to be analysed is not unambiguous and fairly limited.*

(385) Dus het derde voorstel: je hebt een neutrale houding ten opzichte van de waarheid van *p precies als* je noch *p*, noch ¬*p* gelooft [...]. (WR-X-A-A-journals-001)
So the third proposal: you have a neutral attitude towards the truth of p *precisely if* you believe neither p *nor* ¬p.

In each of these examples, the inclusion of a focus particle entails 'the corresponding sentence without particle' and presupposes that there is at least one other condition that would be satisfactory for the consequent (König, 1991, p. 60).

For restrictive particles, we have already briefly discussed the most frequent particle in Dutch, *alleen* 'only'. Next to this particle, the temporal adverb *pas* 'only {if/when}', as in (386) below, is of this type, as it adds to a conditional the meaning that the consequent can only occur after the moment the antecedent

has been realised. As such, *pas als* 'only {if/when}' is on par with *alleen als* 'only if', because it marks the antecedent as a necessary condition for the consequent, but it also adds temporal information to this necessity.[60]

(386) *Pas als* dat probleem overwonnen is, komt de herschrijfbare dvd met dubbele capaciteit op de markt. (WR-P-P-G-newspapers-30000)
Only {if/when} *that problem has been overcome, the double-capacity rewritable DVD will be available.*

Another restrictive particle is *behalve* 'except', which adds exceptive meaning, as in (387) below.

(387) Zucht: 'Nederlanders worden zelden emotioneel, *behalve als* het om artikel 23 gaat.' (WR-P-P-G-newspapers-69000)
Sigh: 'Dutch people rarely get emotional, except {if/when} *it comes to Article 23.'*

As may be expected, *behalve* 'except' adds to the conditional the meaning that the antecedent is the opposite of a condition, just like *tenzij* 'unless', i.e., 'Q unless P' is equivalent to 'Q except if P' (Declerck & Reed, 2001, pp. 21, 447–448).[61] The last restrictive particles is *tenminste* 'at least', as in (388) and (389) below.

(388) Gelukkig mag ik wel knuffelbeesten uit de speelgoedwinkel, *als* ze *tenminste* niet te stoffig zijn. (WR-P-P-G-0000032058)
Fortunately, I can get stuffed animals from the toy store, at least if *they are not too dusty.*

(389) *Tenminste als* je je met stem ziek gemeld hebt dan denk dat ze je wel geloofden eigenlijk. (fn008359)
At least if you have reported sick by voice, then I think they actually believed you.

(390) Nou chatter205, ik kan waarschijnlijk niet meteen aan werk komen, dus ik zou het niet erg vinden om tijdelijk hier wat te werken. *Als* er *tenminste* werk is :). (WR-U-E-A-0000000222)
Well chatter205, I probably can't get work right away, so I wouldn't mind working here temporarily. At least/that is if *there is work:)*

The English counterpart is mentioned by Quirk et al. (1985, p. 604) in the set of 'restrictive-particularizing particles'. Like *al* 'already', *tenminste* 'at least' does not occur frequently directly before *als* 'if'. It can be moved to directly precede *als* 'if' and it seems to scope over the conditional, and the question test

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[60]Relevant to this particle is its counterpart *al* 'already'. See for the 'only-already puzzle' Löbner (1989, p. 193), Declerck (1994, p. 324), Smessaert (1999, p. 37). For reasons of space, I will not discuss this issue further here.

[61]This applies to conditionals in non-irrealis contexts, not for counterfactuals. See Declerck and Reed (2001, p. 435).)

does seem to work here, as in 'Are you allowed to have stuffed animals from the play store? At least if they are not too dusty', although it is questionable to which extent the answer is acceptable without the addition of an affirmative *yes* (i.e., 'Yes, at least if they are not to dusty'). A possible explanation for this is that *tenminste* 'at least' seems to occur with sentence-final antecedents most of the time and in what Declerck and Reed (2001, p. 367) call 'postscript-P conditionals', in which the sentence-final antecedent 'restricts the validity of Q "a posteriori"', as in their example in (391) below.

(391) I'll drop in and see you at 10 tonight, if you will be alone. (Declerck & Reed, 2001, p. 367)

For the example in (388) too, the antecedent seems to restrict the validity of the consequent *a posteriori* and *tenminste* 'at least' puts focus on the fact that a condition is added to the sentence-turned-consequent, or, in case of (390), to a presupposition (i.e., 'temporarily working here' presupposes that there is work to be done, which is focused on by the antecedent). Compare (388) with (392) below.

(392) Gelukkig mag ik wel knuffelbeesten uit de speelgoedwinkel(,) *als* ze niet te stoffig zijn. (WR-P-P-G-0000032058)
Fortunately, I can get stuffed animals from the toy store(,) if they are not too dusty.

The intonation pattern of these examples shows that *als* 'if' receives stress and appears after comma-intonation, whereas in the counterparts without *tenminste* 'at least' this is not necessary, i.e., these variants can be expressed as a single speech act.

Finally, a number of particles was found that, as was discussed in section 5.10.2, did not fit the characterisation of either additive or restrictive particles. However, all these particles seemed to add a similar type of meaning to the conditional, namely that of a recurrence of the situations expressed in the antecedent and consequent. These particles were, next to *altijd* 'always', which was already discussed, *elke/iedere keer* 'everytime', *telkens* 'everytime', and *meestal* 'usually', as in (393) to (395) respectively.

(393) *Elke keer als* van een client de follow-up tijd eindigt, wordt hij statistisch gezien uit de onderzoeksgroep gehaald (gecensored). (WR-X-A-A-journals-001)
Every time a client's follow-up time ends, he is statistically speaking removed from the research group (censored).[62]

(394) Tweeëndertig maanden duurt de intifada, de gewapende Palestijnse opstand, al. *Telkens als* er enig teken is van zelfs maar de kleinste kans op een terugkeer naar de vredesonderhandeling, laait het geweld op. (WR-P-P-G-newspapers-98000)

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[62]Interestingly, *als* 'if' can be replaced with *dat* 'that' in this example.

334 Connecting Conditionals

> *The intifada, the armed Palestinian uprising, lasts thirty two months already.* Every time *there is any sign of even the slightest chance of a return to the peace negotiations, the violence flares up*

(395) *Meestal als* hij een spel wilde spelen vertelde ik bij voorbaat al dat hij ook kan verliezen.   (WR-P-E-A-discussion-lists-492000)
Usually {if/when} *he wanted to play a game I told in advance that he could lose.*

In each of these cases, the focus particle highlights the recurrent, generic or habitual nature of the connection between antecedent and consequent. In (393), from an academic journal, the method of dealing with participants in a study is explained by using a conditional to express that each time a the follow-up time of participant ends, he or she is removed from the group. The connection of this use to research articles was also observed by Carter-Thomas (2007) who calls such conditionals 'factuals'. Her example in (396) below shows the similarity to the observation above.

(396) Patients were defined as "downstaged" ***if*** the final pathologic stage was less than the preoperative ultrasound stage. [...] (Carter-Thomas, 2007, p. 164)

In contrast to *altijd* 'always', *elke/iedere keer* 'everytime', and *telkens* 'everytime', *meestal* 'usually', as in (395) does not mark the conditional connection as a certain co-occurrence, but as a frequent co-occurrence. In other words, a conditional without a particle, or with the particles just discussed express that the consequent always follows the antecedent, the latter particle expresses only a highly frequent co-occurrence.

5.10.6   Conclusion

Based on the discussion in this section and the results of the annotations, we can conclude that focus particles are found in a minority of circa 9% of Dutch conditionals. In most cases, they are used to add additive or restrictive meaning to conditionals and, as the definitions of focus particles discussed showed, they can appear directly before the conjunction *als* 'if', but they do not have to. Especially in spoken, informal texts, a number of what I called 'iterative focus particles' were found. These particles add the notion of co-occurrence of two situations expressed in the antecedent and consequent. Finally, I note here that the above is not to be understood as a complete list of focus particles used with Dutch conditionals. These particles were the ones occurring in the corpus of this study, but as the corpus is well-balanced (see section 4.4), I do think this section paints a reasonably complete picture.

5.11   Conclusion

The primary aim of this chapter was to inventory distributions of grammatical features that were linked to implicatures of unassertiveness and connectedness in chapter 3. I analysed the distributions of features of Dutch conditionals in a representative and balanced corpus, and tested for associations between modes, registers and these features. The analyses and discussions in this chapter complete the preliminary work for answering the second research question, namely to what extent grammatical features of conditionals contribute to specific implicatures of unassertiveness and connectedness, and thus to the constructional status of different uses of conditionals in Dutch. Although a number of features were related directly to certain implicatures, which I will summarise below, it is the collaborative distribution of features that will help us answer the remaining question.

A secondary aim of this chapter was to provide an overview of the grammar of conditionals in Dutch, which will hopefully serve future research, independent of the goals aimed for in this study. This overview was complemented by comparisons with insights from previous studies of the feature in question. This was done to both maximise understanding of each feature in its grammatical context, and to avoid overlooking known factors involved in their distributions. A note on this latter point is in order. The literature on most features is ample, but scarce when limited to their study in conditionals. This is the case even more for studies on Dutch. Distributions of features in the current corpus were compared to distributions reported on in the literature on conditionals in case it was available, but for a number of features, such studies were not found. As a consequence, the distributions presented may reflect their general distribution outside of conditionals. For person and number, for example, it may be the case that their distribution reflects the general feature distribution across constructions, and the figures presented may thus be representative, but not typical for conditionals. This poses no problem for analyses in the next chapter, however, because clustering is performed only on conditionals and the variance between clusters (see next chapter) can be assessed independently of variance in feature distributions outside conditionals. In other words, implicatures of conditionals can, if they are indeed generalised, be indicated by clusters of features without needing a baseline of non-conditional feature distributions.

For summaries of the results for each feature, the reader is referred to the conclusions at the end of each of the preceding sections. Here, I will provide a summary only of the findings in direct relation to the implicatures mentioned above. We saw in this chapter that sentence-initial clause order was the most frequent order, and that sentence-final clause order was not only more frequent than expected based on the literature, but also that it was linked to implicatures of connectedness, or more specifically, connections at speech-act (pragmatic, discourse) level. With respect to syntactic integration, the integrative word order was preferred in written texts, and the resumptive order was

preferred in spoken texts. Non-integrative word order takes up the margins in all modes and registers. Although the literature on syntactic integration patterns in conditionals is scarce, the studies available suggest a strong relation to implicatures of connectedness (or 'semantic integration'). In terms of tense, an overwhelming majority of conditionals has simple present tense in both clauses. Tense in one clause is strongly influenced by tense in the other. Although associations between clauses were observed for several features, none was as strong as verb tense, which is largely due to the combination of past tenses in both clauses, either simple past-simple past, or past perfect-past perfect. These patterns were linked to implicatures of unassertiveness, and, more specifically, to epistemic distancing, as was the case with most uses of the past perfect and the past tense of *zullen* 'will' (*zou* 'would'). Contrary to English conditionals, however, Dutch conditionals do not occur with this epistemic modal in present tense in the consequent frequently, which bereaves us of what is treated in the literature as possibly the strongest indicator of the causal implicatures of connectedness (i.e., direct, predictive conditionals). Lexical aspect was added to the corpus study, because the literature suggests that states in antecedents with past perfect tense are used to implicate counterfactuality, contrary to antecedents with event verbs. We saw that most clauses of Dutch conditionals refer to states, followed by achievements. The link to implicatures of unassertiveness should, if it exists, result from the analyses in the next chapter, as it is suggested to be a combined effect of tense and aspect. The distribution of person and number in subjects of conditionals seems to follow what is known from register differences in the literature, and as the person-number feature is only implicitly related to implicatures of connectedness, most notably in pragmatic or speech-act conditionals, it is not expected to be a strong predictor in the next chapter. Sentence types of consequents have been linked to implicatures of connectedness in the literature, and although we saw that more than 90% of consequents is declarative, sentence types of the remaining consequents may indeed be useful for identifying pragmatic uses of conditionals, such as antecedents marking negative politeness strategies to mitigate an imperative consequent. Negation was annotated because of its use in studies on coherence relations (in which it is discussed in terms of polarity), but also because the literature suggests it may work in unison with tense and modality to strengthen implicatures of counterfactuality. In most conditionals, neither of the clauses contain negation. Focus particles, finally, most frequently add additive or restrictive meaning, but based on corpus findings, a category of 'iterative particles' was added to types distinguished in the literature. As the literature suggests focus particles to occur mostly or only in direct and predictive conditionals, this feature was deemed relevant to the current study.

While the results presented in this chapter are valuable on their own, as such an overview was not available for (Dutch) conditionals before, they are particularly useful when combined in exploratory multivariate analyses, which take into account possible interactions between features. The 'feature set' will, as discussed in the previous chapter, serve as input for data-driven, unsuper-

vised analyses in order to explore to what extent features of Dutch conditionals cluster together and may be seen as grammatical contexts licensing (generalised) implicatures of unassertiveness and connectedness (i.e., constructions). This is what we will undertake next in chapter 6.