

Conditional use of prepositional phrases in Dutch: the case of *zonder* ('without')

Conditionality can be expressed using a variety of grammatical constructions, ranging from the prototypical lexical marker if to other grammatical patterns. This corpus study investigates the expression of conditionality using prepositional phrases introduced by Dutch zonder ('without') compared to their non-conditional use and the use of als ('if'). The conditional use of zonder-phrases is discussed with respect to complement type, modal marking and negation. A regression analysis was performed to analyse the contribution of these factors to a conditional interpretation.

Keywords: conditionals, prepositional phrases, modality, negation, Dutch

1. Introduction

Conditional relations can be expressed using subordinating conjunctions, such as *if* and *unless*.

The expression of conditional relations is, however, not restricted to these conjunctions.

Grammatical constructions like the paratactic construction in (1) and inversion in (2) are known to be able to express conditionality as well.

- (1) *Break that vase* and I will break your neck. (Fortuin & Boogaart 2009: 642)
- (2) *Had he done that*, I would have been happy. (Comrie 1986: 642)

The antecedents 'break that vase' and 'had he done that' express the *protasis* (condition) and the consequents 'you may leave' and 'I would have been happy' the *apodosis* (effect). In a 'regular conditional' these would be expressed in a subordinate *if*-clause and main clause respectively.

This study is concerned with the conditional use of prepositional phrases (PP) with *zonder* ('without') in Dutch, as in (3).¹

- (3). Geen bezoeker mag naar binnen *zonder de metaaldetector te passeren*. [De Limburger, div02]
'No visitor may enter without passing the metal detector.'

While PPs have been investigated thoroughly, they have not been studied in connection to conditionality in detail. The main question of this study is which linguistic factors contribute to a conditional interpretation of sentences like (3), as paraphrased in (3').

- (3') Geen bezoeker mag naar binnen *als hij of zij de metaaldetector niet passeert*.
'No visitor may enter *if he or she does not pass the metal detector*.'

To offer sufficient detail, the scope of this study is restricted to the preposition *zonder*. Section 2 offers an overview of observations in the literature of the conditional use of PPs. Section 3 discusses the data selection. In section 4 the distributions of complement type, modal marking and negation are discussed and analysed as possible predictors of conditional use, followed by a conclusion and discussion in section 5.

2. Brief overview of the literature

In section 2.1 the classification of PPs as conditionals is elaborated and section 2.2 discusses observations on the conditional use of PPs offered in the literature.

2.1 Classifying PPs as conditionals

Classifying the use of PPs as conditional or non-conditional is a non-trivial task. Most studies on conditionals focus solely on *if* (Dancygier & Sweetser 2005: 6) and, as Wierzbicka (1997) remarks, most literature on conditionals does not identify what constitutes a conditional. She argues that “the concept of IF [...] cannot be meaningfully defined in terms of any other concepts” (1997: 18). Although she makes a compelling case, classifying conditionals beyond *if* can benefit from the definitions in the literature.

Declerck and Reed (2001: 8-9) define conditionals as “two-clause structures” in which one is introduced by *if* or “a word or phrase that has a meaning similar to *if*”. Similarly, Athanasiadou and Dirven (1997: 62) define conditionals as “the mutual dependency between the two propositions in the sub-clause and in the main clause of conditional sentences”. The bi-clausal structure and lexical item *if* make it hard to apply these definitions to non-prototypical conditionals. Athanasiadou and Dirven’s definition seems to be circular by including the phrase “conditional sentences”, which, if left out, leads to inclusion of other bi-clausal structures, such as causals. Rescher (2007: 2) argues conditionals to be “statement-connective statements [of which] the consequent [...] spells out what follows from the acceptance or supposition of the antecedent”. The structure of conditionals is extended to a bi-partite structure (i.e. not necessarily bi-clausal) in which the acceptance of the antecedent leads to what is expressed in the consequent. This resembles Nieuwint’s (1992: 178) characterisation of a conditional as a “contingent commitment to q, which becomes operative as soon as p materializes” and Quirk, Greenbaum, Leech, and Svartvik’s (1985: 991, 1089) characterisation of conditionals as sentences in which the situation in the matrix clause is “consequent on the fulfilment of the condition expressed in the subordinate clause”, either directly or indirectly. Van der Auwera

(1986: 200) puts forward the ‘Sufficiency Hypothesis’ in which “p is a sufficient condition for q”. In Stalnaker’s (1968: 102) account, a conditional is a device for adding an antecedent to “your stock of beliefs”, adjusting conflicting beliefs and evaluating the conditional depending on the truth of the consequent. Although the framework differs, Sweetser’s (1990: 127) description adheres to this view of conditionals as “the introduction to a hypothetical world”.

From this overview, preliminary criteria for classifying prepositional phrases as conditional protases were distilled.

- (4) Preliminary criteria for conditionals
 - (a) A conditional sentence is bi-partite (not necessarily bi-clausal).
 - (b) One part introduces a circumstance on which the other part is contingent; (hypothetically) accepting the protasis results in accepting the apodosis.
 - (c) The contingency relation is direct (the truth of the apodosis is a consequence of the fulfilment of the protasis) or indirect (the speech act in the apodosis depends on the protasis) (cf. Quirk et al. 1985: 1089).
 - (d) A non-standard expression of conditionality can be paraphrased by means of a standard conditional clause (e.g. *if, als, wenn*; cf. Declerck & Reed 2001; Athanasiadou & Dirven 1997; Dancygier & Sweetser 2005).

In section 2.2, these criteria are applied to examples of conditional PPs found in the literature. In section 3 they are used to classify *zonder*-PPs in the corpus.

2.2 Previous observations

The literature on conditionals and prepositional phrases offers some observations on the conditional use of PPs. Jespersen (1961: 369-370) gives examples of “prepositions serving to introduce a conditional clause with negative meaning”.

- (5) [...] the artist, of whatever kind, cannot produce a truthful work *without he understands the laws of the phenomena he represents*. (Jespersen 1961: 370)

Weijnen (1964: 144) remarks that *met* (‘with’) can receive a “circumstantial or even conditional” interpretation, as in (6).² Haeseryn et al. (1997: 1210) remark that prepositional phrases can function as adverbial adjuncts expressing a condition, as in (7).

- (6) *Met Pasen* krijg je een nieuwe jas. (Weijnen 1964: 144)
‘*With Easter* you’ll get a new coat.’
- (7) *Bij gladheid* moet je pompend remmen. (Haeseryn et al. 1997: 1210)
‘*In case of slipperiness* you must brake in a pumping manner.’

Athanasiadou and Dirven (1997: 93) remark that conditionality “can also be carried by a number of other constructions, such as a prepositional phrase using *without*”.

- (8) *Without water in the radiator*, the engine will overheat immediately.
(Athanasiadou & Dirven 1997: 93)

Declerck and Reed (2001) observe that temporal adverbial clauses can be used to express conditional meaning, as in (9).

- (9) You will be paid *AFTER the job is finished*, not before. [=You will [only] be paid *if the job is finished first.*] (Declerck & Reed 2001: 29)

Here, the conjunction *after* introduces a sub-clause, but it may also be used as a preposition, as in ‘You will be paid *after the job*’, which is equally compatible with a conditional interpretation (but see note 2). Broekhuis (2013: 196) remarks that adverbially used absolute *met*-constructions may “specify a condition under which the event in the main clause takes place.”

- (10) Jan spijbelt altijd *met zo ’n voetbalwedstrijd op TV*.
‘Jan always plays truant *with such a soccer game on TV.*’ (Broekhuis 2013: 196)
- (10’) Jan spijbelt altijd *als er zo ’n voetbalwedstrijd op TV is*.
‘Jan always plays truant *when there is such a soccer game on TV.*’ (Broekhuis 2013: 197)

As with Weijnen’s example, Broekhuis’ example seems to be temporal rather than conditional, albeit in a different way. Where the PP in Weijnen’s example refers to a point in time, Broekhuis’ example constitutes a recurring contingency between two events (i.e. *whenever* p, q; ‘course-of-event conditionals’ in Athanasiadou & Dirven 1997: 62) which may explain Broekhuis’ paraphrase by means of *als* in Dutch but *when* in English. Absolute constructions can also be

used with *zonder*, as in (11), making a negative statement about the predicative relation (Broekhuis 2013: 190).

(11) *Zonder das om* mag je de club niet in.

‘One is not allowed to enter the club *without a tie around (the neck)*.’ (Broekhuis 2013: 208)

Roch’s (2013) analysis shows that the conditional use of *ohne*-PPs is related to modality and negation, as in (12), and to the subjunctive mood in German.

(12) *Ohne größere Wanderung* ist es kaum möglich die Insel wirklich kennen zu lernen.

‘*Without a bigger hiking tour* it is almost impossible to really get to know the island.’ (Roch 2013: 33)

With respect to the criteria in (4), the examples above show a bi-partite structure in which the clause expresses a situation contingent on the fulfilment of the situation expressed in the PP, which consequently can be paraphrased by means of an *if*-clause. Conditional use of PPs appears to be related to absolute constructions, modality and negation. These clues are input for the corpus study in the next sections.

3. Data selection

In order to investigate the influence of the aforementioned clues on the conditional use of *zonder*-PPs, a corpus study has been carried out using journalistic texts from the CONDIV-corpus

(Grondelaers et al. 2000). A random set of 2200 sentences including *zonder* was extracted. In order to compare them with prototypical conditionals, an equally large set of sentences including *als* was extracted. Excluded from the data were mark-up (e.g. metadata, captions), *als* and *zonder* in proper nouns (e.g. ‘Artsen Zonder Grenzen’) and the phrase ‘zonder meer’, resulting in 2044 sentences including *zonder* and 1985 sentences including *als*. All instances of *als* and *zonder* were classified by a native linguist as either conditional or non-conditional, resulting in a set of 489 *als*-conditionals and 267 *zonder*-conditionals.³ The results are summarised in table 1 and examples are given in (3) and (13).

	Conditional (%)	Non-conditional (%)	Total
<i>Als</i>	489 (24.6)	1496 (75.4)	1985
<i>Zonder</i>	267 (13.1)	1777 (86.9)	2044

Table 1: Distribution of *als*- and *zonder*-conditionals

- (13) Die cursus is verplicht: *zonder certificaat daarvan* krijgt het paar geen vergunning om te trouwen. [NRC, nieuws9]

‘That course is mandatory: *without a license*, the couple will not be permitted to marry.’

The classification of *zonder*-PPs was based on the criteria in (4) and, as can be expected from section 2.1, proved less straightforward than that of *als*-clauses. Therefore, a subset of 200 sentences with *zonder* was classified by a second native linguist, resulting in *substantial agreement* (Cohen’s Kappa: $\alpha=0.681$, $p < 0.0005$). After discussion, disagreement was resolved in

most cases; examples are (14) and (15). In light of section 2, these cases are discussed in some detail.

- (14) Volgens de schrijvers kan het sinterklaasfeest *zonder Zwarte Piet* in een multiculturele samenleving een echt festijn worden voor alle Nederlandse kindertjes. [Telegraaf, nie_s6]

‘According to the authors the Sinterklaas party can become a real party in a multicultural society for all Dutch kids *without Zwarte Piet*.’

- (15) Parkeergarages zijn daarmee bijvoorbeeld goed te beveiligen tegen ongewenst publiek, en toch kunnen ze daardoor *zonder personeel* vierentwintig uur per dag open zijn. [Telegraaf, nie_sp9]

‘Car parks can be for instance protected against unwanted visitors and yet they can be accessible 24 hours a day *without staff*.’

Disagreement concerning (14) was due to the embedding of the PP ‘zonder Zwarte Piet’. If the PP is viewed as an adverbial modifying the predicate (i.e. an adjunct on the level of the clause, a bi-partite structure, cf. 4a), a conditional interpretation is more accessible than when viewing the PP as an adjunct within the noun phrase (a non-bi-partite structure). While acknowledging that it is a matter of interpretation rather than inherent conditionality, (14) was classified as conditional. Disagreement on the classification of (15) concerned ambiguity between two interpretations: 1) the absence of staff as condition for an operational car park or 2) the concessive reading in which the car park, *even if* there is no staff, can be operational. Only the second interpretation is viable

and the sentence was classified as non-conditional.⁴ An example for which disagreement was not resolved is (16).

(16) Steeds meer processen kunnen niet *zonder de hulp van informatietechnologie*. [De Limburger, div04]

‘More and more processes cannot do *without the help of information technology*.’

Here ‘kunnen niet zonder’ is an instantiation of the idiomatic Dutch phrase ‘niet zonder kunnen’, expressing an existential relation (X cannot exist without Y). Classifying these examples as conditionals means adding elements to the data to resolve ambiguity between an idiomatic expression in (16) and conditional use in (16’). It can also be questioned whether (16’) captures the meaning of the idiom in (16). These cases were classified as non-conditional.

(16’) Steeds meer processen kunnen niet [bestaan] *als er geen hulp van informatietechnologie is*.

‘More and more processes cannot [exist] *if there is no help of information technology*.’

The results of the classification show that 13.1% of the *zonder*-PPs in the sub-corpus received a conditional interpretation. The next section looks at the factors that may facilitate this use.

4. Factors in the conditional use of *zonder*-PPs

The literature reviewed and examples provided suggest that absolute constructions, modal marking and negation contribute to a conditional interpretation of *zonder*-PPs. These factors are discussed in 4.1–4.3 respectively and used as predictors in a regression analysis in 4.4.

4.1 Complement type

The majority of complements in PPs are NPs (including pronouns). The distributions of the complement types (NPs, CPs, absolute constructions, infinitival, dropped complements; examples 13, 17, 10, 3, 18 respectively) differ between conditional and non-conditional use (see table 2).

- (17) Op vakantie zal ik nooit een molen passeren *zonder dat ik een kijkje heb genomen*.
[De Limburger, div03]
'On vacation I will never pass by a windmill *without taking a look*.'
- (18) In de auto heb ik altijd de radio aan, *zonder vind ik het saai*. [Telegraaf, verstr2]
'In the car I always have the radio turned on, *without it* I think it's boring.'

	NP (%)	CP (%)	ABS (%)	INF (%)	DRO (%)	Total
<i>CND</i>	221 (82.8)	10 (3.7)	2 (0.3)	30 (11.2)	4 (0.8)	267
<i>NCND</i>	1261 (71.0)	207 (11.6)	6 (0.7)	289 (16.3)	14 (1.5)	1777

Table 2: Complement type conditional (*CND*) and non-conditional (*NCND*) *zonder*-PPs (Fisher's Exact, $p < 0.0001$)

As can be expected given five categories per type, the overall difference was significant. A Bonferroni-correction was conducted to control for multiple comparisons and to investigate individual differences between complement types in *zonder*-PPs. Complement types that differ significantly are the pairs NP-CP ($p=0.005$) and CP-absolute ($p=0.001$), which means that, when comparing the distribution of NPs and CPs, conditional *zonder*-PPs have more NP-complements (95.7%), and less CP-complements (4.3%) than non-conditional *zonder*-PPs (85.9%, 14.1%). When comparing the distribution of CPs and absolute constructions, conditional *zonder*-PPs have less CPs (83.3%) and more absolute constructions (16.7%) than non-conditional *zonder*-PPs (97.2%, 2.8%).

4.2 Modal marking

As can be observed in the examples, conditional use of *zonder*-PPs is frequently accompanied by modal auxiliaries and adverbs. Gabrielatos (2010: 2, 205) discusses several studies that claim a close relation between conditionals and modality and his own corpus analysis shows the modal marking of conditional clauses to be significantly higher than that of non-conditional clauses. Roch (2013: 34) makes a similar observation for *ohne*.

From this, a difference between modal marking of conditional and non-conditional use of *zonder*-PPs was expected. The 2044 *zonder*-PPs in the corpus were annotated for modal adverbs and auxiliaries (cf. Diepeveen et al. 2006: 13-55; Nuyts 2001: 171-234).⁵

	Modal marking (%)	No modal marking (%)	Total
<i>Zonder-CND</i>	167 (62.5)	100 (37.5)	267

<i>Zonder-NCND</i>	413 (23.2)	1364 (76.8)	1777
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Table 3: Modal marking in conditional and non-conditional *zonder*-PPs (χ^2 (df=1, N=2044)=174.52, p<0.01)

As table 3 shows, modal marking was significantly more frequent in conditional *zonder*-PPs and may contribute to a conditional interpretation. Modal marking in conditional *zonder*-PPs was therefore compared to modal marking in *als*-conditionals.

	Modal marking (%)	No modal marking (%)	Total
<i>Als-CND</i>	156 (31.9)	333 (68.1)	489
<i>Zonder-CND</i>	167 (62.5)	100 (37.5)	267

Table 4: Modal marking in *als*-conditionals and conditional use of *zonder*-PPs (χ^2 (df=1, N=756)=65.032, p<0.01)

Table 4 shows that conditionally used *zonder*-PPs are not only marked for modality more than other *zonder*-PPs, but also more than *als*-conditionals. An explanatory hypothesis is offered in section 5.

4.3 Negation

Negation is a frequently occurring phenomenon in the conditional use of *ohne*-PPs (Roch 2013: 36). This is reflected in the distribution of negation in *zonder*-PPs. Negation was annotated with respect to position (negation in protasis, apodosis, both or none). Both sentential and

morphological negation were included. However, *zonder* expresses the absence of its complement and combining it with negation in the protasis results in ungrammaticality (cf. 19).⁶

(19) * *Zonder geen hoed op*, mag je naar binnen.

* ‘Without no hat on, you may enter.’

(19’) *Als je geen hoed op hebt*, mag je naar binnen.

‘If you don’t wear a hat, you may enter.’

This means that negation in the conditional use of *zonder*-PPs should be compared not with conditional *als*, but with its negated counterpart, i.e. ‘als niet’ (‘if not’) or ‘als geen’ (‘if no’).⁷

	Negation in apodosis (%)	No negation in apodosis (%)	Total
<i>Als NEG-CND</i>	15 (18.5)	66 (81.5)	81
<i>Zonder-CND</i>	151 (56.6)	116 (43.4)	267

Table 5: Negation in ‘als NEG’-conditionals and conditional use of *zonder*-PPs ($\chi^2(df=1, N=348)=3.351, p<0.01$)

The most striking difference in table 5 is that conditional *zonder*-PPs attract negation in the apodosis significantly more than ‘als NEG’-conditionals (56.6% and 18.5% respectively). An explanatory hypothesis is offered in section 5.

4.4 Logistic regression analysis

The previous sections show that observations from the literature concerning modality and negation (but not complement type) were corroborated by the corpus data. These factors were used in a logistic regression analysis in order to find out to which extent they contribute to a conditional interpretation of *zonder*-PPs.

First, a model including only modal marking was run and predicted conditional interpretation significantly better than a model without predictors. Next, negation was added, which further increased the fit of the model. Including complement type did not produce a better model. An interaction-effect of modal marking and negation was found, but it decreased the quality of the model (i.e. the explanatory power) and was excluded.

	B (SE)	95% CI for odds ratio		
		Lower	Odds ratio	Upper
<i>Included</i>				
<i>Constant</i>	-3.21* (0.13)			
<i>Modal marking</i>	1.55* (0.15)	3.50	4.69	6.32
<i>Negation</i>	2.20* (0.15)	6.71	9.02	12.19

Table 6: Results of regression analysis ($R^2=.23$ (Hosmer-Lemeshow), .17 (CoxSnell), .31 (Nagelkerke). Model $\chi^2(2)=368.70$, $p<.01$. * $<.001$)

The final model (table 6) includes two main effects: modal marking increases the odds of a *zonder*-PP receiving a conditional interpretation 4.69 times and negation increases the odds 9.02

times. The goodness-of-fit values (R^2) indicate that the factors modelled are not the sole predictors for conditional interpretation, suggesting that further research is needed to uncover other factors.

5. Conclusion and discussion

This study has presented the results of a corpus investigation of conditional use of *zonder*-PPs. This use resembles ‘if not’-clauses in meaning and occurs in roughly 13% of *zonder*-PPs. It was shown that modal marking and negation contribute to this conditional interpretation.

In most analyses, *if* is seen as “the primary exponent of conditional meaning” (Dancygier 1998: 14): it sets up a ‘possible world’ (Stalnaker 1968) or ‘mental space’ (Dancygier & Sweetser 2005). This function is however not exclusive to *if*; Dancygier’s analyses show that other constructional aspects contribute to the conditional construction as a whole. Modality is a candidate, as it shares with conditionality notions like (un)certainly, hypotheticality and alternative scenarios. (See Gabrielatos 2010 and, for a formal-semantic analysis of the relation between conditionality and modality, Kratzer 2012.) Constructions other than those with prototypical conditional conjunctions are, in bare form, ‘underspecified’ as conditionals and might need modal marking to receive a conditional interpretation.⁸ This might explain the higher frequency of modal marking in the conditional use of *zonder*-PPs compared to *als*-conditionals.

Another difference was observed in frequency of negation in the apodoses of ‘als NEG’- and *zonder*-conditionals (18.5% and 56.6% respectively), which cannot be explained by the argument that negation attracts negation, as both constructions are negative. A preliminary hypothesis is that the difference is related to the ways in which ‘als NEG’ and *zonder* express negation. As

Verhagen (2005: 29) argues, sentential negation – in contrast to morphological negation – evokes a positive mental space in which the opposite of the negated proposition holds (cf. Fauconnier 1994: 96-98). For example, in (20), A refers to a situation in which there is no wine at the party and this ‘base space’ is referred to by *that* in B’s response. The negation also sets up a positive mental space (i.e. ‘there *is* wine at the party’) to which *that* in (21) refers.

(20) A: There *isn't any* wine at the party. B: I don't like *that*.

(21) A: There *isn't any* wine at the party. B: Too bad, I would have liked *that*.

This is not the case for *zonder*. As in (20), *that* in (22) refers to the base space, but in (23), B’s reaction appears incoherent, because the positive space is not available for reference.

(22) A: The party is *without* wine. B: I don't like *that*.

(23) ? A: The party is *without* wine. B: Too bad, I would have liked *that*.

Like morphological negation, *zonder* does not evoke a positive space. Consequently, sentential negation in apodoses of *zonder*-conditionals may reflect compensation for not evoking an alternative scenario by the *zonder*-PP, comparable to the way modal marking may compensate for the underspecification of *zonder*-PP’s as conditional protases. Additionally, 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 (see Evans & Handley 1999).

This study contributes to the understanding of conditionals beyond *if*. The preliminary hypotheses in this section suggest further research into the interaction of conditionality, modality and negation. Follow-up questions include what other factors, such as clause-order (cf. Reuneker 2016), are related to conditionality, how conditional interpretations arise with other prepositions and for what (pragmatic) reasons constructions beyond *if* are used to express conditional relations.

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Notes

¹ This study is part of a PhD project in which various forms of expressing conditional relations in Dutch are investigated.

² Weijnen's example seems to be temporal rather than conditional; 'with Easter' marks a time reference. Contrary to English *if*, Dutch *als* can mark both conditional and temporal relations.

³ These numbers do not indicate the relative frequency of conditional *als*-clauses and *zonder*-PPs. Roughly 3% of the sentences in the corpus contain a conditional, of which 62.5% is expressed by *als* and 1.8% by a PP.

⁴ The question remains whether a concessive conditional is conditional (cf. Huddleston & Pullum 2002: 737).

⁵ Gabrielatos (2010) provides useful metrics for scoring modal marking. For this study only the presence of modal marking was annotated.

⁶ As an anonymous reviewer remarked, this ungrammaticality may be due to the unmarked alternative ‘met een hoed op’ (‘with a hat on’).

⁷ An anonymous reviewer correctly points out that a comparison with *tenzij* (*unless*) would be interesting, because it incorporates negation.

⁸ Also see Beekhuizen’s (2016: 44) remark on *then* in V1-conditionals.

CONCEPT

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