

Preposition Stranding in Dutch: a Case of Acceptability



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Abstract

In Dutch, the grammaticality of the syntactic phenomenon known as preposition stranding is subject to the pronominalization of nominal constituents. The present work examined the acceptability of this construction in the absence of such pronominalization, through a number of syntactic constructions, namely contrastive left dislocations and interrogative wh-phrases. Data were obtained from native speakers of Dutch, and computed via two-way mixed ANOVA analyses. The findings revealed that sentence type and subtype, and the animacy of constituents were significant predictors of the acceptability of preposition stranding in Dutch, whereas participant gender displayed non-significant main effects and limited interaction effects on the acceptability of preposition stranding. The implications of the findings suggest that other variables related to the participants might exhibit distinct degrees of acceptability and elicit higher speaker variation.

Keywords: acceptability, animacy, contrastive left dislocations, gender, preposition stranding, pronominalization, wh-phrases

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1. Introduction

In linguistics, word order refers to the arrangement of the different constituents that make up a clause or a sentence. Some languages exhibit a moderately rigid word order, such as modern English, where the placement of the subject, verb, or object is quite inflexible, whereas other languages are more flexible towards word order, particularly those with heavier levels of inflection. Nonetheless, those languages with flexible word orders always have a preferred word order, and deviations from said word order result in markedness, that is, the ability to stand out as uncommon in contrast to a more regular form. Naturally, the markedness of a given expression is characterized by varying degrees of acceptability among native speakers of a language.

The present study aims to assess speaker variation in well-formedness, through the syntactic construction known as preposition stranding, a word order phenomenon whereby a preposition appears “stranded” from its object, rather than being adjacent to it. The acceptability of this construction will be investigated in a Dutch context, through native-speaker intuitions. For this investigation, pairs of sentences were constructed, namely contrastive left dislocations with a deleted resumptive pronoun, and interrogative wh-phrases (i.e. *Dat cadeau ben ik blij mee* vs *Welk cadeau ben je blij mee?*), from which native speakers of Dutch shall draw conclusions on the markedness (or lack thereof) of these sentences.

In constructing a fully-fledged presentation of the study findings, a number of sections shall follow: a thorough literature review, where the relevant academic literature on preposition stranding in Dutch is highlighted along with the pertinent linguistic and sociolinguistic variables of interest, a section for the methodology of the experiment, which addresses the instruments for data collection, participant information and procedure, a results section, which gives answer to the formulated research questions through statistical data, a discussion section, which contrasts the findings with the literature and states the strengths and limitations of the study along with potential ramifications for future research, and last but not least, a conclusion section, which provides a brief summation of the project.

2. Preposition stranding in Dutch and the R-pronouns

Preposition stranding (henceforth PS or P-stranding) is a linguistic phenomenon that occurs across a number of Germanic languages, wherein a preposition, such as *for*, *with*, or *about* is left “stranded”, oftentimes in the sentence-final position, following the movement/extraction of the nominal complement of the preposition out of the prepositional phrase (henceforth PP), thus no longer adjacent to one another. In English, the extraction of the complement of the preposition out of the PP may be carried out by means of wh-constructions, relative clauses, or pseudo-passives (Ursini, 2015):

- 1) **Which apples** are you talking **about**? Wh-construction
- 2) **The room** (that) we went **into** is occupied. Relative clause
- 3) **This chair** was sat **on**. Pseudo-passive

Contrary to English, Dutch has no pseudo-passives, in the sense that a translation equivalent shall be rendered by means of an impersonal passive construction (Broekhuis et al, 2013).

4a)*Deze onderwerpen zijn veel over gesproken.

These topics have been a lot about talked

4b) Er is veel over deze onderwerpen gesproken.

There has been a lot about these topics talked

“These topics have been talked about a lot”

While PS is certainly attested in English and the Scandinavian languages, its existence in West Germanic languages, such as German or Dutch, remains somewhat controversial and limited. In this regard, Dutch is particularly interesting, as it is considered to be a “fringe” language towards preposition stranding, in the sense that the grammaticality of this construction in Dutch is reliant on the so-called R-pronouns.

Generally, Dutch tends to disallow the extraction of a full noun phrase (henceforth NP) or regular pronoun out of a PP, unless the prepositional complement is pronominalized by an R-pronoun, which precedes the preposition. Introduced by Van Riemsdijk in 1978, the term R-pronoun relates to a morphosyntactic class of nominal constituents that are able to strand prepositions in Dutch (Noonan, 2017). Their label of R-word or R-pronoun adheres to a morphophonological property of theirs by which they end in an “r”, or have an “r” in them: *er* (there), *daar* (there), *waar* (where), *hier* (here), to name a few.

Table 1. Dutch pronouns with an R-form: (-/+R) alternation

PRONOUN	-R	+R	
Impersonal	<i>het</i>	<i>er</i>	“ it ”
Demonstrative: distal	<i>dat/die</i>	<i>daar</i>	“ that ”
Demonstrative: proximal	<i>dit/deze</i>	<i>hier</i>	“ this ”
Interrogative/relative	<i>wat</i>	<i>waar</i>	“ what ”
Quantifying	<i>iets</i>	<i>ergens</i>	“ something ”
	<i>niets</i>	<i>nergens</i>	“ nothing ”
	<i>alles</i>	<i>overal</i>	“ everything ”

The prepositions which allow for stranding in Dutch have the following characteristics: they take a NP as complement, this NP can be pronominalized, and when this NP is pronominalized into an R-pronoun, such as *er*, it appears before the adposition (P); otherwise, it may appear in the same position as the full NP (Sportiche, 1998): *op de tafel* → *er op*/ **op er*; *op Jan* → *op hem*/ **hem op*. In the case of *er*, the P can be stranded by movement of this pronominalized NP (which is a clitic) out of the PP. In the instance of wh-movement, the wh-word is replaced by its R-pronoun equivalent, namely *waar*.

5a) Jan heeft de krant met zijn hand op de tafel gelegd

Jan has the paper with his hand on the table

“Jan has put the paper on the table with his hand“

5b) Jan heeft *er* de krant *mee* op de tafel gelegd

Jan has it the paper with on the table put

5c) (*Wat) / ***Waar*** heeft Jan de krant *mee* op de tafel gelegd?

Where has Jan the paper with on the table put?

“What has Jan put the paper on the table with?”

Sentences 5a to 5c illustrate the aforementioned stranding phenomenon. The first sentence (5a) contains a non-R-pronoun, namely the possessive *zijn hand* (his hand), used to refer to the NP which is the complement of the preposition *met* (with). In the second sentence (5b), *zijn hand* is pronominalized into *er*, thereby stranding its preposition *met*, which surfaces as *mee*, its particular postposed form; for most Dutch adpositions, their preposed form is identical to their postposed form, with exceptions being *met* → *mee*, or *tot* (up to) → *toe*. Finally, the third sentence (5c) depicts stranding whereby the interrogative pronoun *Wat* (what) is replaced by its R-pronoun counterpart *Waar* (where).

The pronominalization of prepositional complements into R-pronouns in Dutch bears a resemblance to the type of linguistic phenomenon found in English in expressions such as *hereof* (of it), *herewith* (with this), or *whereupon* (upon which), a number of pronominal adverbs that replace interrogative pronouns, such as *what*, or *which*, and demonstrative pronouns, like *this*, or *that*, with the adverbs *where*, *here*, or *there*, when these interrogative or demonstrative pronouns are preceded by a preposition. Similar English expressions may include *hereby* (by this), *therefore* (for that), or *whereof* (of which). Contrary to Dutch, these English forms only exist in formal registers, and are indivisible lexical items; in Dutch, the R-pronoun and its P are combined syntactically, and they can be joined together into a single word, or be separated by intervening material (Tseng, 2004):

6a) *Hier* (*Deze oplossing) had Kim niet *aan* gedacht

Here / This (this solution) had Kim not on thought

“Kim had not thought about this“(*this solution)

6b) Kim heeft *eraan*/*hieraan*/*daaraan* gedacht

Kim has thereon / hereon / thereon thought

“Kim has thought about it / about this / about that”

6c) Kim heeft *er*/*hier*/*daar* niet *aan* gedacht

Kim has there/here/there not on thought

“Kim has not thought about it / about this / about that”

Sentences 6a to 6c depict how in contrast to ordinary NPs, Dutch R-pronouns must always precede the preposition of which they are an object (Bouma, 2000). While adjacent combinations of an R-pronoun and preposition can be materialized into a single word, as illustrated by sentence 6b, the two of them can be separated by other constituents; R-pronouns may be realized out of the PP and end up in the Midfield (Mittelfeld), as seen in 6c, or in the Prefield (Vorfeld), as seen in 6a (Van Eynde & Augustinus, 2014).

Amongst all of the Dutch R-pronouns that are capable of pronominalizing a given NP into the complement of a preposition, the R-pronoun *er* is able to perform a variety of functions, individually, and oftentimes simultaneously¹. In addition, Dutch

¹ The Dutch R-pronoun *er* is capable of functioning as an expletive subject in existential constructions and impersonal passives, as a licenser of a missing head noun in quantitative constructions, and as a complement to a stranded preposition. For a more in-depth discussion on the matter, see Bouma (2000) pp. 1-6; Campbell-Kibler (2001) pp. 93-94; Broekhuis (2013) p. 296.

does not only have prepositions, but it also has postpositions. Like the other languages of the Germanic branch of Indo-European, Dutch is primarily prepositional, in the sense that Ps (adpositions) typically precede their complements. However, in certain situations, the complement is realized to the left of P, and thus regarded as a postpositional construction. A source of postpositional constructions is a class of spatial adpositions, such as *in*, *aan*, *op*, *over*, *door*, or *om* (Tseng, 2004). In spite of the fact that postpositional constructions tend to mark directionality, their typical use concerns PPs with a pronominal complement (Lestrade et al, 2010). While the complement of an adposition such as *aan* may appear to the left (prepositional use) or to the right (postpositional use), the form of the object changes for the prepositional use, whereby *alles* becomes its quantificational R-word counterpart *overal* (everywhere), as seen in example 7b.

7a) Ik heb *aan* alles gedacht

I have at everything thought

“I thought of everything”

7b) Ik heb overal/*alles *aan* gedacht

I have everywhere at thought

“I thought of everything”

It has been posited that postpositions can always be stranded, as the restriction that operates on the stranding of the complement of the adposition (P) relates to whether or not the specifier position of the complement of the PP is accessible (Sportiche, 1998), and with postpositions, the specifier position is always accessible². In van Riemsdijk’s terminology, the complement of a postposition always has access to an escape hatch,

² In some postpositional constructions, ambiguity may remain in certain contexts that concern motion verbs without an auxiliary. A sentence like *de kinderen springen in het water* can be understood as a situation wherein children jump while in the water (locative static meaning), or a situation where children jump into the water (directional meaning).

thus allowing it to appear at a distance from said adposition (Tseng, 2004). In Dutch, the pronominalization of inanimate NPs neutralizes the preposition vs postposition alternation:

8a) Het kind klimt in de boom → klimt erin

“The child climbs in/into the tree”

8b) Het kind klimt de boom in → klimt erin

“The child climbs into the tree”

The extant literature states that preposition stranding in Dutch is only possible by the pronominalization of a NP into a so-called R-pronoun. However, it has been argued that PS is also possible in constructions where an R-pronoun is deleted; these constructions are known as contrastive left dislocations (henceforth CLD) with a deleted resumptive pronoun (Broekhuis, 2013), and shall be discussed in the following section. This resumptive pronoun can also be overt:

9a) Ik ben blij met dat cadeau

“I am happy with that present”

9b) Dat cadeau ben ik blij mee

That present, am I happy with

9c) Dat cadeau *daar* ben ik blij mee

That present there am I happy with

In sentence 9a, the preposition appears adjacent to its complement, with no stranding taking place. As for sentence 9b, stranding occurs and the R-pronoun is

omitted, with the preposition *met* surfacing in its stranded form *mee*. Lastly, sentence 9c contains a stranding situation whereby the R-pronoun *daar* is realized overtly, and the preposition *met* surfaces in its stranded form *mee*, as in 9b.

In Dutch, it has been attested that speaker variation occurs with regards to the use of P-stranding. One factor that is known to be relevant is the geographical location of the speakers. The Syntactische Atlas van de Nederlandse Dialecten / Syntactic Atlas of the Dutch Dialects (SAND) shows the geographical spread of P-stranding across the Netherlands, where stranding is prominent in the northern provinces, particularly in the provinces of Friesland and Drenthe, whereas the southern provinces like Limburg or Noord-Brabant exhibit little to no stranding (Barbiers et al, 2005). This type of “liberal” P-stranding (without an R-pronoun) is common in Dutch varieties, such as spoken Dutch, and in West Frisian, a West Germanic language with official status within the Dutch province of Friesland (Fleischer, 2002). Unlike Dutch, West Frisian allows stranding with “normal” non-pronominalized NPs (Hoekstra & Tiersma, 1994).

Figure 1. Geographical spread of P-stranding across the Netherlands as seen in the SAND corpus



The primary focus of this thesis will revolve around linguistic variables, namely sentence type and subtype, and properties that characterize certain constituents, such as animacy. However, the geographical spread of P-stranding across the Netherlands raises the question as to whether this variation in use may be caused by any other (sociolinguistic) factor that can be of relevance. In this thesis, I have decided to explore such variation in terms of the speakers' gender. The absence of previous research on gender effects in the acceptability of syntactic constructions in Dutch merits further investigation, hence the inclusion of the sociolinguistic variable of gender for this thesis. As with geographical location and use in spoken language (Barbiers et al, 2005; Fleischer, 2002), it is expected that gender may elicit speaker variation (although of a different type), through the assessment of constructions that might seem unnatural or unusual to native speakers of the Dutch language. One of these constructions under investigation (the other being interrogative wh- phrases) is contrastive left dislocations (CLDs).

3. A look into CLDs

Dutch employs a variety of strategies to dislocate elements from the main preposition: some of these peripheral dislocation types are CLDs, and Hanging Topic Left Dislocations (henceforth HTLDs), with differences existing amongst one another (de Vries, 2007; Bouma, 2008; Alexiadou, 2017; den Dikken & Surányi, 2017). It is important to distinguish CLDs from HTLDs, since both are constructions in which the verb does not seem to appear in the second position (V2), but rather in third (V3).

10a) Die man *die* ken ik niet CLD

That man d-pronoun know I not

10b) Die man, ik ken *hem* niet HTLD

That man I know him not

“I don’t know that man”

In LD constructions, the clause is considered to be “about” the left-dislocated element, and this “aboutness” requirement is typically met by the resumptive pronoun (Alexiadou, 2017). In the CLD, the resumptive element is a demonstrative pronoun (Greco & Haegeman, 2020), and usually, although not exclusively, preverbal, located in the left periphery; *die man, ik ken die niet* sounds less natural than *die man, die ken ik niet* (den Dikken & Surányi, 2017). Conversely, the resumptive element in the HTLD is always a personal pronoun, and usually, although not exclusively, located in the midfield; a sentence such as *die man, hem ken ik niet* is more marked than example 10b). Moreover, HTLDs may be introduced by an “as for” phrase (Alexiadou, 2017), as in *as for that man, I don’t know him*.

While superficially both constructions differ only in the form and placement of the resumptive element, it has been observed that these two constructions are not akin to one another. In HTLDs, the first constituent is base-generated, whereas CLDs involve movement, wherein the resumptive element is normally adjacent to the left dislocated constituent (*die man die ken ik*). The two constructions also differ in “connectivity”; while the left dislocated constituent in the CLD behaves like part of the clause in terms of binding and intonation, the initial element in the HTLD does not (Bouma, 2008). The left dislocated constituent in a HTLD is followed by a pause, which is not the case for CLDs (de Vries, 2007). Categorical combinations are another aspect in which CLDs and HTLDs diverge: unlike HTLDs, CLDs may be used with practically all categories and syntactic functions:

11a) Joop, ***dat*** is de leukste jongen

Joop, that is the nicest boy

“Joop, he is the nicest boy”

11b) Een rotzak, ***dat*** is hij

A bastard that is he

“A bastard, that’s what he is”

11c) Knap, ***dat*** is hij zeker

Handsome, that is he certainly

“Handsome, he certainly is”

11d) In de tuin, ***daar*** zaten ze

In the garden there sat they

“In the garden is where they sat”

11e) Met een hammer, ***zo*** sloopt hij de stoel

With a hammer so demolishes he the chair

“With a hammer is how he demolishes the chair”

11f) Dat hij zo laks is, ***dat*** ergert mij

That he so sloppy is that annoys me

“That he is so sloppy, that’s what annoys me”

As it can be seen by the placement of the distal demonstrative pronoun appropriate for each category and function (italicized and bolded), CLDs can operate as subjects of a small clause in a NP (11a), as predicates in a NP (11b), as predicates in an Adjective Phrase (11c), as locative or manner adverbials in a PP (11d and 11e), and as a subject in a Complementizer Phrase (11f). In the previous examples, the demonstrative is obligatorily adjacent to the peripheral phrase (de Vries, 2007).

The word order of the CLDs investigated in the experiment for this thesis is of an apparent V3, where the prepositional complement is the leftmost constituent, followed by the resumptive pronoun (overt or otherwise), the finite verb, the subject, an

adjective, a preposition, and occasionally, a non-finite verb (as in the following example 12b):

12a) Bananen (*daar*) ben ik dol op

Bananas (resumptive element) am I fond of

“I am fond of bananas”

12b) Die oude man (*die*) heeft Jan naar gevraagd

That old man (resumptive element) has Jan after asked

“Jan has asked for that old man”

The structure and features of CLDs are characterized by the placement of a non-subject in the Prefield (Vorfeld), whereby the subject appears in the postverbal domain (Bouma, 2008), the existing adjacency between the dislocated constituent and the demonstrative, the apparent V3 word order, or potential intonational effects, to name a few (de Vries, 2017). Overall, CLD is largely a spoken phenomenon. A number of factors that have been known to influence the acceptability of CLD constructions in the literature (Broekhuis, 2013) are the definiteness of the dislocated constituent (i.e. whether or not the constituent has a clear referent in the world), the animacy of the dislocated element (i.e. whether the constituent is human or non-human), and the grammatical number of the dislocated element (i.e. whether the constituent is singular or plural). The relevance of these factors will be examined more closely throughout the following section.

4. Definiteness, animacy and number as factors to consider

Animacy is a semantic property of nouns, which describes whether the referent of the noun is alive/sentient, and to what degree (Bloem & Bouma, 2013). Animacy has been revealed as a relevant property in language processing, able to determine sentence acceptability and grammaticality. The distinction between animate and inanimate

entities is traditionally taken as binary (such as + HUMAN; -HUMAN), in relation to lexical items. In Dutch, animacy may, for instance, exhibit a pattern of differential object marking among a limited class of contact verbs, namely *hit*, *bite*, and *kick*:

13a) De hond beet the man

The dog bit the man

“The dog bit the man”

13b) De hond beet in het brood

The dog bit in the bread

“The dog bit the bread”

These contact verbs take animate arguments as direct objects (13a), but inanimate arguments as prepositional objects (13b), due to an implication of sentience on behalf of the receiver of the action (de Swart & de Hoop, 2018). In this case, the preposition *in* would signal a shift in the selectional restrictions of the verb *bijten* (to bite), making it compatible with inanimate arguments. The absence of the preposition *in* would otherwise result in an odd/marked construction in the eyes of Dutch natives (*de hond beet het brood*). This is an example of how animacy influences the acceptability of constructions within a Dutch context.

Likewise, it has been posited that the animacy of constituents effectively influences the acceptability of P-stranding constructions in Dutch. The following table illustrates a number of CLD examples where P-stranding takes place, in which the prepositional complements vary in terms of animacy, definiteness, and grammatical number. As it shall be discussed down below, the animacy of the first constituent in CLDs is of particular interest, where inanimate constituents seem to increase the acceptability of the construction.

Table 2. CLD constructions with P-stranding

+ HUMAN + PLURAL + / - DEFINITE	+ HUMAN - PLURAL	- HUMAN + PLURAL +/- DEFINITE	- HUMAN - PLURAL
Die jongens ben ik dol op Jongens ben ik dol op	Mijn echtgenoot ben ik dol op	Die chocoladeperen ben ik dol op Bananen ben ik dol op	Dat cadeau <i>daar</i> ben ik blij mee Dat cadeau ben ik blij mee

Note: CLD constructions with P-stranding where the dislocated constituents vary in definiteness, animacy, and grammatical number.

Broekhuis (2013) made some observations on the acceptability of P-stranding in Dutch based on the animacy, definiteness and number of the prepositional complement. The left dislocated constructions differed in the realization of the resumptive element (overt or omitted). His findings revealed that - HUMAN constituents seemed to allow more PS in contrast to + HUMAN constituents. Essentially, - HUMAN constituents seemed to allow PS in both plural and singular forms; they were fully acceptable when the resumptive element was preverbal and overt, and acceptable to a certain percentage of the population (i.e. varying judgments amongst speakers) when the resumptive element was preverbal and omitted, as is the case with the CLD type under investigation in this thesis. As for + HUMAN constituents, they were marked in their plural and singular forms. However, when these constituents were realized as bare plurals (and therefore classified as indefinite), they were fully acceptable, and seen as more natural. Overall, it has been implicated that many speakers of Dutch object to the deletion of an R-pronoun as a resumptive element, in the cases where said resumptive pronoun can be overt: *Bananen, ~~daar~~ ben ik dol op*; *Dat cadeau, ~~daar~~ ben ik blij mee* (Broekhuis: 2013).

With regards to the interrogative wh-phrases to be explored in this study on the acceptability of PS in Dutch, animacy and grammatical number shall too convey variational effects. For instance, *Welk/e* lexical phrases may vary in terms of animacy and number: *welke man* vs *welke mannen*; *welk boek* vs *welke boeken*. The second type

of interrogative wh-phrases to be addressed are *Wie* (who) bare phrases, as in *Wie heeft Jan naar gevraagd?*; *Wie kun je niet over praten?*. In accordance with the literature (Coopmans & Schippers, 2008; Broekhuis, 2013), these *Wie* bare phrases cannot allow stranding, as the acceptable word order for such a question would involve movement of the adposition to the sentence-initial position: *Naar wie heeft Jan gevraagd?*; *Over wie kun je niet praten*; in other words, movement of the entire PP to the front of the interrogative clause, also known as pied-piping. An English equivalent of pied-piping may yield a construction such as *For whom has Jan asked?*.

One of the aims of this thesis is to gauge the extent to which omission of an R-pronoun may effectively influence the acceptability of PS constructions. Differences in acceptability rates are expected to occur between CLDs and interrogative wh-phrases, since questions do not allow a null R-pronoun, only an explicit wh-R-pronoun, whereas CLDs may contain an overt or null R-pronoun. On the whole, the literature has revealed that – HUMAN prepositional complements tolerate stranding to a greater extent than + HUMAN prepositional complements in LD constructions. The literature also defends that grammatical P-stranding in interrogative wh-phrases is not possible unless the wh-word is pronominalized into *Waar*; this does not occur with *Wie* bare phrases, nor does it occur with the *Welk/e* lexical phrases investigated in the study, which in accordance with the literature cannot trigger a grammatical PS construction unless the pertinent interrogative pronoun is replaced by its pronominal R-pronoun counterpart (Tseng, 2004):

14a) *Welk boek keek je naar?

Which book looked you at?

14b) *Wat keek je naar?

What looked you at?

14c) Waar keek je naar?

Where looked you at?

“What did you look at”

As a result, the present study aims to reveal if the subsequent findings on construction type and animacy are, in fact, in line with the statements found in the literature, and to determine the extent to which speaker variation towards PS occurs through gender, as it does through geographical location. In light of the linguistic properties appropriate to each of the constructions under investigation, and for the sake of comparability, CLDs shall be classified as definite or indefinite, and wh-phrases as bare or lexical. The following research questions are thus raised:

- 1) How significant is the main effect of construction type (CLDs vs wh-phrases) on the acceptability of PS in Dutch?**
- 2) How do the different construction subtypes (i.e. CLD def vs CLD indef; wh-bare vs wh-lexical) differ from one another in terms of acceptability?**
- 3) What is the effect of animacy on the acceptability of CLDs?**
- 4) To what extent does the gender of the participants (male vs female speakers) influence the acceptability of these constructions?**

In providing an elaborated response to these research questions, native speakers of Dutch shall complete an online questionnaire containing a number of items which depict PS in Dutch, in both CLD and wh-phrase instances. The methodology of the study shall be described in detail throughout the following section.

5. Methodology

The current section describes the relevant characteristics that make up the methodological part of this thesis, encompassing the number of participants that took part in the study, their characteristics and recruitment for the study, the range of materials employed, and the procedure itself. Variables and statistical data, although not elaborated upon, shall be introduced, as a means to shed light upon the data collection protocol.

5.1 Participants

The pool of participants was distributed among two different groups, for one of the purposes of the study: a group of Dutch males, and a group of Dutch females. All participants attested to being native speakers of Dutch, and to being above age 16. The recruitment of the participants was carried out through digital platforms, namely *Whatsapp*, *Facebook*, and *Instagram*. Participants were contacted individually by the researcher, who expressed the necessity to reach out to a number of Dutch natives in order to conduct an experiment pertinent to the completion of a master's thesis, wherein the selected participants would assess the acceptability of a number of sentences in Dutch. In total, 42 males and 46 females ($n = 88$) completed the questionnaire successfully. Participation in the study was voluntary, so no form of compensation was offered to the participants in exchange for their participation.

5.2 Materials

The range of materials employed in the experiment consisted of a 20-pair item list, adding up to 40 items in total, 20 of which were CLDs, while the other 20 were wh-phrase counterparts (i.e. *bananen ben ik dol op* → *Welke vruchten ben je dol op?*). Out of the 20 CLDs, 12 of them had a definite first constituent, and the remaining 8 had an indefinite first constituent. For the wh-questions, the distribution was half-half (10 *Wie* bare phrases and 10 *Welk/e* lexical phrases). Pairs were constructed to ensure the prevention of confounds, in other words, predicates that simply may happen to combine better with one type of sentence than with the other in terms of stranding.

A 7-point psychometric scale (Likert scale) measured the participants' acceptability of each and every one of the 40 items, on a scale from 1 (totally unacceptable), to 7 (totally acceptable). The assessment of the CLDs and wh-phrases took place in *Qualtrics*, a digital platform for the creation of online questionnaires, on which the quantitative statistical analyses were carried out. In addition, the Statistical Package for the Social Sciences (SPSS) computed the pertinent statistical data.

5.3 Procedure

Upon being contacted by the researcher and informed about what the questionnaire entailed, participants were presented with a mobile-friendly URL link which would redirect them to the information and consent form of the questionnaire, located on Qualtrics. This section pertained to ethical considerations and provisions that sought to ensure the protection of the participants, as well as to information on the structure and characteristics of the questionnaire and its estimated completion time. Participants were made aware that the collected data may be used by other researchers for purposes concerning data sets, articles and/or presentations, and that such data would remain anonymous, unable to be traced back to the participants. Likewise, participation in the study was stated to be voluntary; therefore, participants may withdraw from the study at any given time, and without the need to give a reason.

A contact form including the name of the researcher, his study programme, the name of the university in which he was enrolled, and his institutional e-mail address was also provided to the participants, in the event that they need further information or clarification on the research project. Upon acceptance of the consent form and their subsequent completion of the questionnaire, participants were informed very briefly on the aims of the project, whilst being acknowledged for their participation. Individual participant scores were counted and averaged, for every type or subtype of sentence. The variables of interest differed depending on the research question; for the first RQ, which assessed main effects of construction type on the acceptability of PS in Dutch, sentence type was coded as a within-subjects variable, with two levels (1= CLD, 2= wh-phrases). For the second RQ, a similar approach was followed, although the data was expanded onto a large number of linguistic variables: CLDs (1= CLD definite, 2= CLD indefinite), and wh-phrases (1= bare, 2 = lexical). The third RQ looked into animacy

effects on the acceptability of P-stranding exclusively within the CLD data, due to the design of the items for the questionnaire (*Wie* bare phrases always referring to + HUMAN entities, and the vast majority of *Welk/e* lexical phrases referring to – HUMAN entities); such limitations will be addressed later in the discussion section. For the fourth RQ, which assessed gender effects on the acceptability of PS across the aforementioned constructions, gender was always coded as a between-subjects variable (1= male, 2 = female). All computations were run on a 95% Confidence Interval.

6. Results

In the present study, the acceptability of PS in Dutch has been assessed through pairs of CLDs and wh-phrases. CLDs consisted of sentences wherein the first constituent, namely the prepositional complement, was definite or indefinite, whilst the wh-phrases were made up of sentences wherein the first constituent was either a bare phrase (those examples with *Wie*), or a lexical phrase (examples with *Welke* followed by a noun). The animacy and the grammatical number of the prepositional complements varied across the subtypes of sentences. The gender of the participants was taken into account, and measured as a between-subjects factor, while the different (sub) types of sentences were measured as within-subjects factors.

Three separate data sets were employed so as to answer the proposed research questions: 1) one data set with the global average scores per type of sentence (CLD vs wh-phrase) per participant; 2) a second data set with the average scores per subtype of sentence (CLD def vs CLD indef; wh-bare phrase vs wh-lexical phrase) per participant, and 3) a third data set with the average scores per subtype of CLD in terms of animacy (CLD_def_animate vs CLD_def_inanimate; CLD_indef_animate vs CLD_indef_inanimate) per participant. A two-way mixed ANOVA was the statistical test of choice for all of the analyses. The total sample of participants consisted of 42 males and 48 females (n = 88). All analyses were computed on a 95% Confidence Interval (CI).

Before conducting any analysis, the assumption of homogeneity of variance was tested, whereby the population variances (i.e. the distribution of scores around the mean) of the samples are considered equal. In all of the analyses, this condition was

satisfied. Similarly, for every research question concerning main effects of sentence type or subtype on the acceptability of P-stranding in Dutch, Levene's Test of Equality of Error Variances tested the equality of variances across the different types or subtypes of sentence under examination; the resulting p values, which were larger than .05 in all cases, indicated non-significant variances. Due to the inability to establish a proper comparison between the two subtypes of wh- phrases as a result of the design of the questionnaire items (to be expanded upon in the discussion), animacy effects were also explored for the two subtypes of CLDs, in an attempt to find a link between their distinct acceptability rates by the participants.

RQ1: How significant is the main effect of construction type (CLDs vs wh-phrases) on the acceptability of PS in Dutch?

A two-way mixed ANOVA was conducted to investigate the impact of sentence type (CLDs, and wh-phrases) and participant gender on the acceptability of PS in Dutch. There was a highly significant main effect of sentence type $F(1, 86) = 86.126$, $p = .000$.

Table 3. Tests of Within-Subjects Contrasts for sentence type and participant gender

Source	sentence_type	Type III Sum of Squares	Df	Mean Square	F	Sig.
sentence_type	Linear	47,943	1	47,943	86,126	,000
sentence_type * GENDER	Linear	,343	1	,343	,616	,435
Error(sentence_type)	Linear	47,873	86	,557		

Note: highly significant main effect of sentence type ($p = <.05$), and non-significant interaction effect between participant gender and sentence type ($p = >.05$).

The wh-question type of construction, as seen in Figure 3 ($M = 4.06$, $SD = 1.381$) tolerated P-stranding to a greater extent than the CLD type ($M = 3.02$, $SD = 1.294$), as depicted in Figure 2. The difference, as seen in Table 3, was highly significant ($p = .000$). No outliers were found. The findings confirm a true effect of construction type towards the acceptability of PS, given that as a speaker, one could

always assume an empty R-pronoun to be present, whereas one cannot assume that for wh-questions.

Figure 2. Frequencies, Mean and Standard Deviation of CLDs (overall)

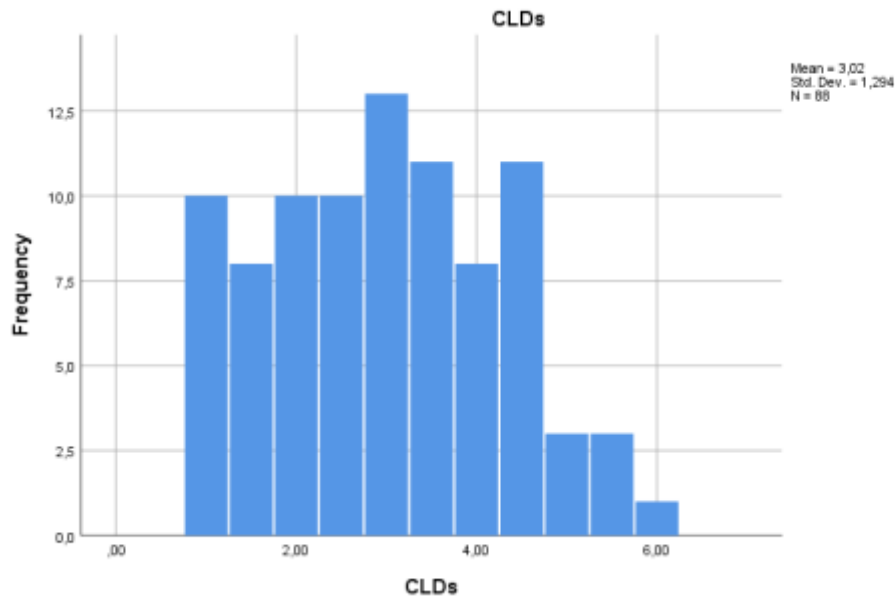
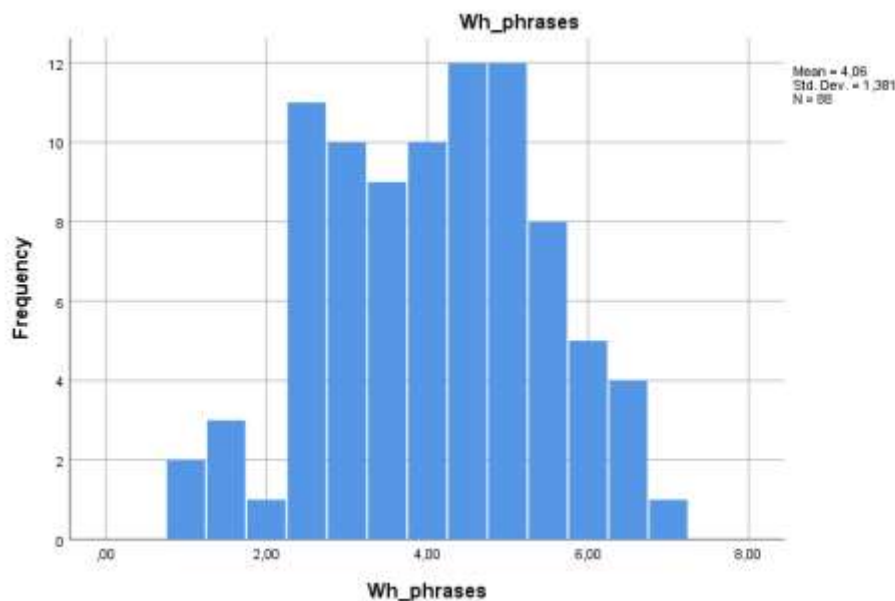


Figure 3. Frequencies, Mean and Standard Deviation of wh-phrases (overall)



RQ2: How do the different construction subtypes differ from one another in terms of acceptability?

A two-way mixed ANOVA was conducted to investigate the impact of sentence subtype in CLDs (CLD definites and CLD indefinites) and participant gender on the acceptability of PS in Dutch. There was a highly significant main effect of CLD subtype $F(1, 86) = 5.838, p = .018$.

Table 4. Tests of Within-Subjects Contrasts for CLD subtypes and participant gender

Source	CLDs	Type III Sum of Squares	df	Mean Square	F	Sig.
CLDs	Linear	1,638	1	1,638	5,838	,018
CLDs * GENDER	Linear	1,323	1	1,323	4,715	,033
Error(CLDs)	Linear	24,123	86	,280		

Note: highly significant main effect of CLD subtype ($p = <.05$), and significant interaction effect between participant gender and CLD subtype ($p = >.05$).

Participant scores indicated that the CLD indefinite construction, as seen in Figure 5 ($M = 3.16, SD = 1.38$) tolerated P-stranding to a greater extent than the CLD definite construction ($M = 2.98, SD = 1.309$), as depicted in Figure 4. The difference, as displayed in Table 4, was highly significant ($p = .018$). No outliers were found for any of the two CLD constructions.

Figure 4. Frequencies, Mean and Standard Deviation of CLD definites

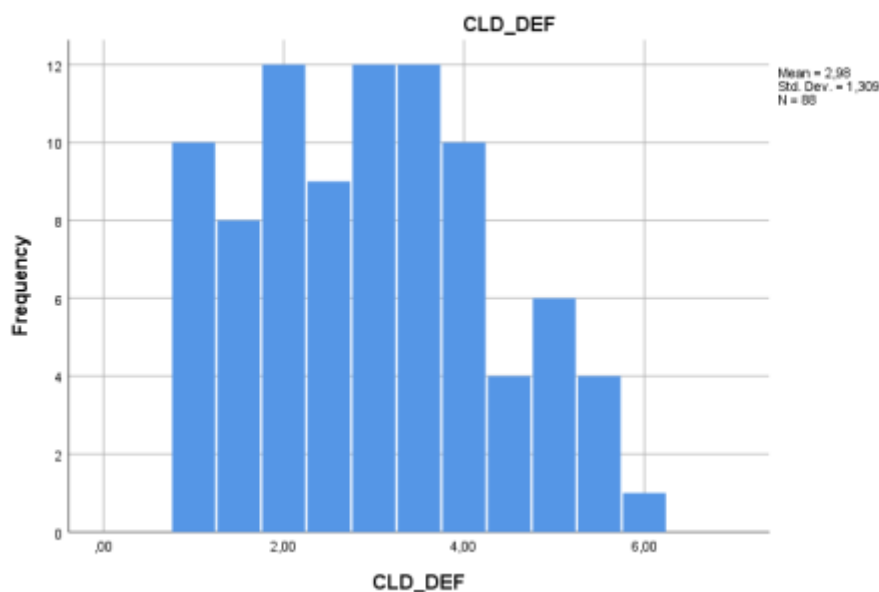
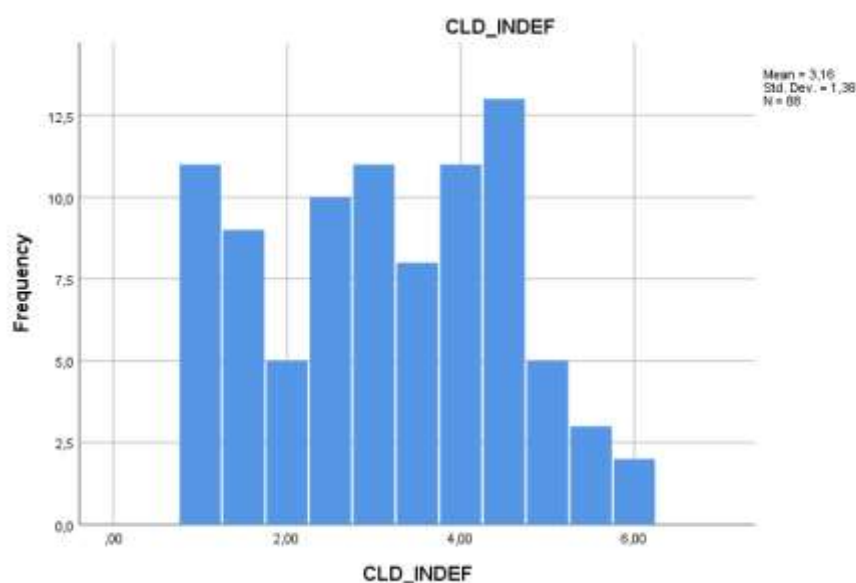


Figure 5. Frequencies, Mean and Standard Deviation of CLD indefinites



Moving onto the wh-phrases, the same procedure was followed in order to obtain the desired results. A two-way mixed ANOVA was conducted to investigate the impact of sentence subtype (wh-bare phrases and wh-lexical phrases) and participant gender on the acceptability of PS in Dutch. There was a highly significant main effect of wh- subtype $F(1, 86) = 128.054$, $p = .000$.

Table 5. Tests of Within-Subjects Contrasts for wh-phrase subtypes and participant gender

Source	wh_phrases	Type III Sum of Squares	Df	Mean Square	F	Sig.
wh_phrases	Linear	81,994	1	81,994	128,054	,000
wh_phrases * GENDER	Linear	,064	1	,064	,100	,752
Error(wh_phrases)	Linear	55,066	86	,640		

Note: highly significant main effect of wh-subtype ($p = <.05$), and non-significant interaction effect between participant gender and wh- subtype ($p = >.05$).

The wh-lexical phrase subtype of construction, as seen in Figure 7 ($M = 4.77$, $SD = 1.411$) tolerated P-stranding to a greater extent than the wh-bare phrase subtype ($M = 3.40$, $SD = 1.566$), as seen in Figure 6. The difference, as depicted in Table 5, was highly significant ($p = .000$). No outliers were found for wh-bare phrases, but a couple

of outliers were found for wh-lexical phrases. These two particular participants were found to score very low for the wh-lexical phrase subtype. Specifically, both participants rated wh-lexical phrases with an average of 1 (out of 7), whatever the reason. Upon their temporary removal from the data set, a new set of analyses was conducted to test for significance effects across the board. The results showed that a number of p values were reduced (i.e. approaching significance), although to a marginal extent. As such, both participants were not deemed as significant outliers, and remained within the data set.

Figure 6. Frequencies, Mean and Standard Deviation of wh-bare phrases

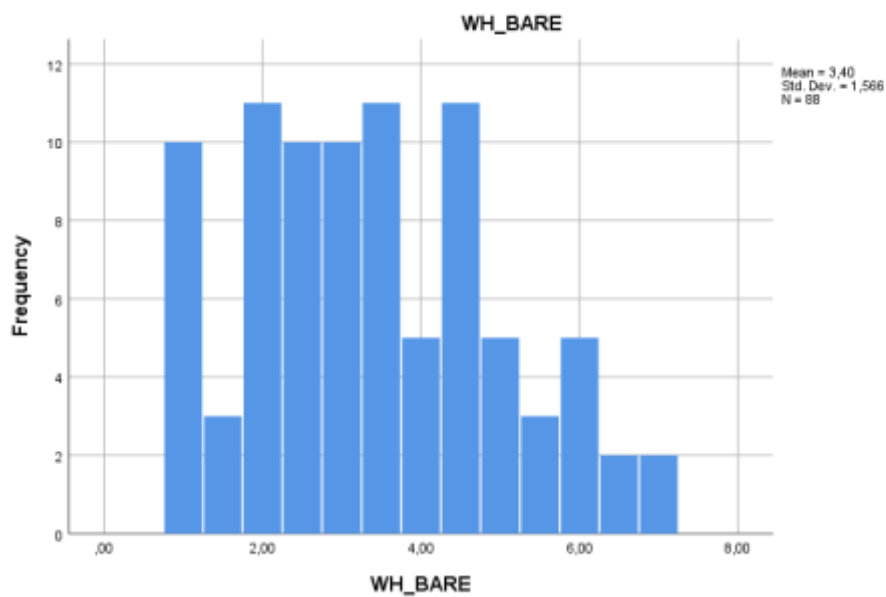
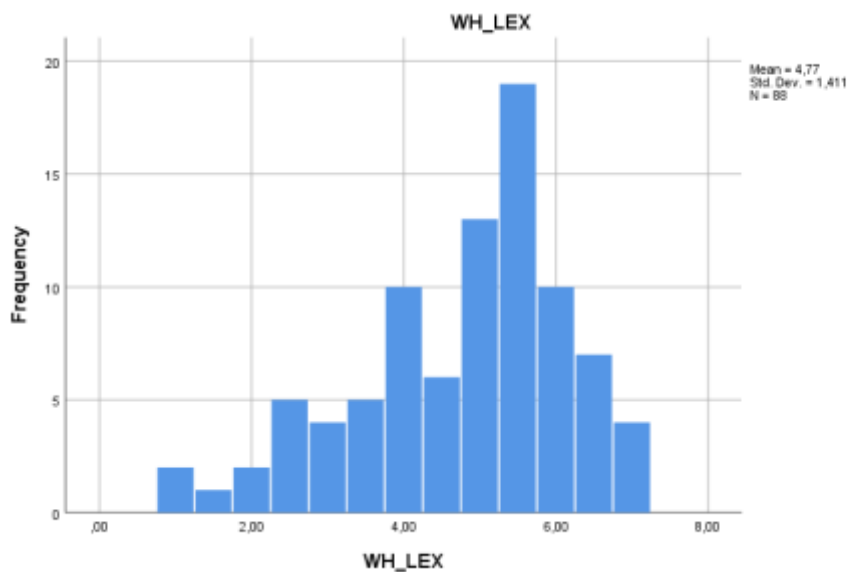


Figure 7. Frequencies, Mean and Standard Deviation of wh-lexical phrases



Ultimately, the hierarchy of acceptability for the four subtypes of sentences (taking into consideration the Means) was as follows: wh-lexical phrases > wh-bare phrases > CLD indefinites > CLD definites.

RQ3: What is the effect of animacy on the acceptability of CLDs?

In order to find out how and why the two subtypes of CLD constructions differed amongst one another, animacy effects have been examined by counting and averaging the individual participant scores for the CLD definites and CLD indefinites, which had either a + HUMAN entity as prepositional complement, or a – HUMAN entity as prepositional complement.

Two-way mixed ANOVA analyses were conducted to investigate the impact of the animacy of the prepositional complements from the CLD definite and CLD indefinite subtypes and participant gender on the acceptability of PS in Dutch. There was a highly significant main effect of animacy for CLD definites (Table 6) $F(1, 86) = 45.445$, $p = .000$, and a marginally significant effect of animacy for CLD indefinites (Table 7), $F(1, 86) = 4.014$, $p = .048$. Within the CLD data, animacy clearly had a greater impact for the acceptability of the definite constructions, as opposed to the indefinite constructions, where the influence of animacy on acceptability was marginal. Moreover, - HUMAN prepositional complements revealed higher acceptability rates than + HUMAN prepositional complements, in both the definite CLD subtype ($M = 3.197$, $SD = 1.344$), and the indefinite CLD subtype ($M = 3.252$, $SD = 1.403$).

Table 6. Tests of Within-Subjects Contrasts for CLD definites (based on animacy) and participant gender

Source	animacy_CLD_def	Type III Sum of Squares	Df	Mean Square	F	Sig.
animacy_CLD_def	Linear	4,867	1	4,867	45,445	,000
animacy_CLD_def *	Linear	,029	1	,029	,272	,603
GENDER						
Error(animacy_CLD_def)	Linear	9,210	86	,107		

Note: highly significant main effect of animacy on CLD definites ($p = <.05$), and non-significant interaction effect between participant gender and CLD definites based on animacy ($p = >.05$).

Table 7. Tests of Within-Subjects Contrasts for CLD indefinites (based on animacy) and participant gender

Source	animacy_CLD_Indef	Type III Sum of Squares	df	Mean Square	F	Sig.
animacy_CLD_Indef	Linear	1,107	1	1,107	4,014	,048
animacy_CLD_Indef *	Linear	,497	1	,497	1,803	,183
GENDER						
Error(animacy_CLD_Indef)	Linear	23,725	86	,276		

Note: marginally significant main effect of animacy on CLD indefinites ($p = <.05$), and non-significant interaction effect between participant gender and CLD indefinites based on animacy ($p = >.05$).

Having determined the impact of animacy on the acceptability of one of the sentence types (CLDs), next is an overview of the gender affects across the different subtypes of sentences.

RQ4: How relevant is participant gender for the acceptability of these constructions?

The sociolinguistic variable of gender was chosen for this study to assess acceptability rates amongst male and female participants; the extent to which this variation occurred is discussed hereon. For the assessment of the main effects of construction type on PS in Dutch, participant gender showed no significant main effect (Table 8): $F(1, 86) = .229$, $p = .633$. Similarly, the interaction between construction type and participant gender was non-significant, as previously depicted by Table 3; $F(1, 86) = .616$, $p = .435$.

Table 8. Tests of Between-Subjects Effects of participant gender and sentence type

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	2200,052	1	2200,052	719,746	,000
GENDER	,700	1	,700	,229	,633
Error	262,877	86	3,057		

Note: non-significant main effect of participant gender on sentence type ($p = >.05$).

In CLDs, no significant main effect of participant gender was found (Table 9): $F(1, 86) = .122$, $p = .728$. The interaction between CLDs and participant gender was, however, significant, as previously seen in Table 4: $F(1, 86) = 4.715$, $p = .033$. With regards to the wh- phrases, there was no significant main effect of participant gender (Table 10): $F(1, 86) = .582$, $p = .448$, nor was there any significant interaction between wh- phrases and participant gender (Table 5); $F(1, 86) = .100$, $p = .752$.

Table 9. Tests of Between-Subjects Effects of participant gender on CLD subtypes

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	1658,823	1	1658,823	493,733	,000
GENDER	,408	1	,408	,122	,728
Error	288,939	86	3,360		

Note: non-significant main effect of participant gender on CLD subtypes ($p = <.05$).

Table 10. Tests of Between-Subjects Effects of participant gender on wh-phrase subtypes

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Intercept	2937,743	1	2937,743	767,649	,000
GENDER	2,227	1	2,227	,582	,448
Error	329,117	86	3,827		

Note: non-significant main effect of participant gender on wh-subtypes ($p = >.05$).

Moving onto animacy effects within the CLD data, participant gender showed no significant main effect for CLD definites; $F(1, 86) = .079$, $p = .779$ (Table 11), nor did it display significant interaction effects: $F(1, 86) = .272$, $p = .603$ (Table 6). The same scenario took place in relation to CLD indefinites; no main effect of gender $F(1, 86) = .606$, $p = .438$ (Table 12), and no significant interaction effects either: $F(1, 86) = 1,803$, $p = ,183$ (Table 7).

Table 11. Tests of Between-Subjects Effects of participant gender on CLD definites (based on animacy)

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Intercept	1611,310	1	1611,310	463,037	,000
GENDER	,275	1	,275	,079	,779
Error	299,269	86	3,480		

Note: non-significant main effect of participant gender on CLD definites based on animacy ($p = >.05$).

Table 12. Tests of Between-Subjects Effects of participant gender on CLD indefinites (based on animacy)

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Intercept	1771,159	1	1771,159	482,999	,000
GENDER	2,224	1	2,224	,606	,438
Error	315,362	86	3,667		

Note: non-significant main effect of participant gender on CLD indefinites based on animacy ($p = >.05$).

In sum, no significant main effect of participant gender was found in the acceptability of PS in Dutch through any of the construction (sub)types, and in terms of interaction effects, only the CLDs experienced a significant interaction effect with participant gender, where considerable discrepancies towards the acceptability of CLD definites or CLD indefinites took place among participants. These discrepancies may be attributed to the speakers' perception of animacy towards grammaticality, since the impact of animacy on acceptability of P-stranding was highly significant for the CLD definites, and marginally significant in the case of the CLD indefinites. Male participants tolerated P-stranding constructions to a greater extent than female participants, but the difference in acceptability rates between male and female respondents was not statistically significant. Apart from the linguistic property of animacy that is found in nouns (prepositional complements, in this study), and gender, other sociolinguistic factors concerning the participants may be at play. A number of these potential factors are discussed in the following discussion section, concerning future research.

7. Discussion

The findings of the study have shown how the type or subtype of sentence has been a highly significant predictor of acceptability of PS in Dutch, whereas the sociolinguistic variable of *gender* has had little impact on the different outcomes. The linguistic property of animacy was too a significant predictor of the acceptability of PS within the CLD data.

The results are summarized as follows: the first data set, which contrasted the global average scores for CLDs and wh-phrases per participant, revealed that wh-phrases were far more acceptable than CLDs as a whole. Once the investigation underwent further scrutiny by means of a second data set which disseminated the CLD and wh-phrases data into pertinent subgroups, highly significant main effects of sentence subtypes were detected across the CLD and wh-phrases constructions. The most favored construction by the participants was the wh-lexical phrase, with a Mean of 4.77 out of 7, followed by the wh-bare phrase type (3.40 out of 7), the CLD indefinite type (3.16 out of 7), and lastly, the CLD definite type, which was the least accepted construction in the study, with a Mean of 2.98 out of 7.

These findings agree to a certain extent with the observations by Broekhuis, who suggested that left dislocated bare plurals (as the indefinites in this study) were fully acceptable, in contrast to left dislocated nouns that are preceded by a determiner (as the definites in this study), which were marked or slightly marked; while the indefinite CLD subtype was far from fully acceptable, it certainly tolerated P-stranding to a greater extent than the definite CLD subtype. The overall low acceptability rates of the CLD constructions in this study also correspond to what Broekhuis argued: that many Dutch speakers do not favor the deletion of an R-pronoun as a resumptive element, if this resumptive element can be realized explicitly. In general, *Wie* bare phrases also received low acceptability ratings by the participants, thereby confirming their ungrammaticality in the eyes of Dutch natives, as suggested by Coopmans & Schippers (2008). However, it is important to note that the overall acceptability ratings for the *welk/e* lexical phrases diverge from the literature; Tseng (2004) argued that stranding in interrogatives must occur through the pronominalization of the *wh*-word into *Waar*, and the absence of such pronominalization would otherwise render the construction as ungrammatical. In this study, *welk/e* lexical phrases were, by far, the most accepted construction by Dutch natives, with a Mean of 4.77 out of 7. Therefore, it seems that this construction was indeed somewhat acceptable to the majority of the participants.

A third data set looked into distinct acceptability rates between the CLD subtypes (definite, indefinite) through the use of animacy as a variable. Animacy had a highly significant main effect on the acceptability of CLD definites ($p = .000$), and a marginally significant effect on the acceptability of CLD indefinites ($p = .048$). Inanimate prepositional complements received higher acceptability rates than animate prepositional complements, in both CLD subtypes ($M = 3.197$ and $M = 3.252$, respectively). This finding is in line with Broekhuis' observations (2013) in the literature: - HUMAN prepositional complements seem to allow more stranding than + HUMAN prepositional complements.

Lastly, participant gender revealed no significant main effects towards the acceptability of any of the constructions that were investigated, and only CLDs had a significant interaction effect with participant gender. This exemplifies how gender, in this instance, is not as decisive towards the speakers' acceptability of P-stranding constructions, as is geographical location towards the use of P-stranding, as attested by the Syntactic Atlas of the Dutch Dialects (SAND).

The present study has a number of strengths, but also certain limitations. Starting off with the strengths, no previous study had looked into the acceptability of (unusual) syntactic constructions in Dutch across male and female participants, hence the novelty of the research. The items for the online questionnaire were constructed on pairs, as a means to avoid the rise of confounds through predicates that simply may happen to combine better with one type of sentence than with the other in terms of stranding. In addition, the list of items for the questionnaire was rather heterogeneous in relation to the properties of animacy, definiteness or grammatical number of the prepositional complements that allowed stranding. The pool of participants was also large enough (42 males and 48 females) in order to yield reliable results. The brief completion time of the questionnaire was a strong incentive towards the recruitment of potential participants.

On the other hand, the study also has a range of limitations. In spite of the fact that the number of participants that took part in the study was large enough for reliability purposes, an even larger sample size may have elicited higher variation, and likely, slightly different results. The design of the questionnaire, albeit diverse, suffered from comparability issues: aside from the CLD data, animacy was unable to be incorporated as an actual comparative variable for the *wh*-data, due to the restrictions on how the interrogative *Wie* bare phrases operate (*Wie* bare phrases must always refer to + HUMAN entities, unlike *Welk/e* lexical phrases, which may refer to + HUMAN or – HUMAN entities). Similarly, the vast majority of *Welk/e* lexical phrases contained a – HUMAN prepositional complement, thereby preventing a fair comparison between animate and inanimate prepositional complements.

The factor of grammatical number also suffered from comparability issues in the CLD and *wh*- phrase data sets; CLD indefinites were exclusively defined as bare plurals (i.e. no singular indefinite constituent like *een man* made it into the list of prepositional complements for the CLDs). In retrospect, indefinite NPs are not natural focus or topic constituents, so it is hard for them to move to the sentence-initial position. Therefore, singular indefinites may have not been the wisest choice for prepositional complements in the CLDs, as their presence may have resulted in extremely odd constructions in the eyes of Dutch natives. Within the *wh*- data, these comparability issues were reflected in both sentence subtypes: in *Wie* bare phrases, it is not clear whether the referent is a singular noun or a plural noun, and similarly to the case with animacy, *Welk/e* lexical phrases lacked a balanced distribution, whereby most of the prepositional complements

referred to plural nouns, disallowing again a proper comparison between singular and plural constituents. As such, grammatical number was not included as a variable for the study.

From the perspective of linguistic variables, the present study could be fine-tuned through the adjustment of the questionnaire items. Given the multiple comparability issues that arose from the *Wie* bare phrase sentence subtype, their removal could in turn facilitate the exploration of animacy and number effects in the *Welk/e* lexical phrase subtype, which also suffered from comparability issues in that regard. Unlike *Wie* bare phrases, *Welk/e* lexical phrases may allow for the full spectrum of possibilities in terms of the animacy and grammatical number of the constituents. In addition to the list of shortcomings, a number of sociolinguistic variables could have been controlled for, such as the age or the socioeconomic status (SES) of the participants. By selecting respondents from a similar age and socioeconomic status (SES), it would allow for greater concentration on a variable of choice, such as gender.

All in all, the ramifications for future research are abundant. A number of sociolinguistic variables could be explored, to test for the acceptability of these syntactic constructions across varying population groups. Age is one of these sociolinguistic variables, whereby younger and older generations of speakers could be contrasted; as language is constantly in a state of change, one may ponder if the older generations of speakers may be more conservative, and reluctant towards new forms of speech.

Regional variations may be further explored beyond the national scale (i.e. the different provinces throughout the Netherlands); these variations could also be elicited on an international scale, by comparing speakers of Dutch from the Netherlands against speakers of Dutch from Flanders in Belgium, or against speakers of Dutch from Suriname. Given the geographical spread of P-stranding across the Netherlands as described by the SAND corpus, it is expected that a different type of speaker variation might manifest through the speakers of Dutch from other regions outside the Netherlands, who may prompt distinct degrees of acceptability for the P-stranding constructions examined in this study. A high or low socioeconomic status (SES) in terms of educational background and access to literary sources may too influence the speakers' perception of what is acceptable, and what is not.

Last but not least, bilingualism may serve as a powerful tool to gauge acceptability rates, and quite possibly, cross-linguistic influence. The Netherlands is renowned for the ability of its residents to speak the English language at high levels of proficiency, oftentimes at native-like levels. The presence of English is ubiquitous in Dutch society, ranging from programs in the media, to education in institutions of higher learning. Although input (exposure) to English is substantial within Dutch society, the output (production) of English may differ among its residents. As a consequence, those speakers with a higher English production on a regular basis may transfer, wittingly or unwittingly, grammatical structures from the English language onto their production of Dutch. A proposed contrastive study could test speakers of Dutch who are primarily monolingual (i.e. those whose daily speech production revolves mostly around the Dutch language) against speakers of Dutch who generally speak more English than Dutch, and do it at high levels of proficiency. The findings could shed light upon cross-linguistic effects that might arise in the word order of Dutch sentences, such as the constructions discussed in this thesis, some of which, although odd enough to certain Dutch natives, do indeed bear a resemblance to their equivalent structures in the English language, viz. the *wh*-bare phrases, and *wh*-lexical phrases.

8. Conclusion

In the present thesis, sentence (sub)type and the animacy of prepositional complements were revealed as significant predictors of acceptability for *P*-stranding constructions in Dutch. The translation of all the previous numeric data into actual acceptability rates reveals that only the *wh*-lexical phrase construction falls within the realm of acceptability in accordance with the 7-point psychometric Likert scale employed in the assessment, falling between “4” (barely acceptable), and “5” (slightly acceptable). Conversely, the remaining syntactic constructions, namely *Wie* bare phrases and the two CLD subtypes (animacy effects included), were deemed as marked or slightly marked as a whole.

The findings correspond to the predictions made by Broekhuis (2013) in the case of CLDs, who argued that the deletion of a resumptive element was not favored by Dutch natives if this resumptive element could be realized explicitly, and with the observations by Coopmans & Schippers (2008), who posited that interrogative *Wie*

phrases may not allow grammatical stranding, as this type of interrogative construction must be rendered by means of pied-piping, where the entire PP is moved to the front, with the adposition placed in sentence-initial position, adjacent to its object, the *Wie* pronoun, and not stranded from it. The overall low ratings for these constructions by Dutch natives confirm the aforementioned statements from the literature. As for the *welk/e* lexical phrases, their acceptability ratings contradicted their alleged ungrammaticality in accordance with the literature (Tseng, 2004).

To conclude, participant gender did not depict any stark contrast between and within population groups in terms of statistically significant data, displaying only significant interactional effects for the CLD subtypes, whereby discrepancies occurred among some participants of the same sex. On the whole, male participants accepted the different syntactic constructions to a greater extent than female participants, although the gap was negligible from a statistical point of view. In order to see whether this gap can be broadened, and as suggested in the discussion, future research could expand upon a number of variables, namely *age* or *socioeconomic status* (SES), to test whether larger statistically significant effects between and within population groups may arise.

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Appendix 1: Questionnaire items

Table 13. CLDs and wh-phrases employed in the questionnaire and their translation into English

CLD examples	Translation of CLDs into English	Wh-phrase examples	Translation of wh-phrases into English
<i>Politici kan ik niet over praten</i>	I cannot talk about politicians	<i>Wie kun je niet over praten?</i>	Who can you not talk about?
<i>Bananen ben ik dol op</i>	I am fond of bananas	<i>Welke vruchten ben je dol op?</i>	Which fruits are you fond of?
<i>Het Engelse examen is hij klaar voor</i>	He is ready for the English exam	<i>Welk examen is hij klaar voor?</i>	Which exam is he ready for?
<i>Mijn zus ben ik trots op</i>	I am proud of my sister	<i>Wie ben je trots op?</i>	Who are you proud of?
<i>Wafels ben ik enthousiast over</i>	I am excited about waffles	<i>Welke koekjes ben je enthousiast over?</i>	Which cookies are you excited about?
<i>Spoken is zij bang voor</i>	She is afraid of ghosts	<i>Welke wezens is zij bang voor?</i>	Which creatures is she afraid of?
<i>Docenten roddelen wij over</i>	We gossip about lectures	<i>Wie roddelen jullie over?</i>	Who do you (pl.) gossip about?
<i>Die studenten vertrouw ik op</i>	I trust in those students	<i>Wie vertrouw je op?</i>	Who do you trust in?
<i>Dat cadeau ben ik blij mee</i>	I am happy with that gift	<i>Welk cadeau ben je blij mee?</i>	Which gift are you happy with?
<i>Dit fabeltje heeft zij in geloofd</i>	She has believed in this myth	<i>Welk fabeltje heeft zij in geloofd?</i>	Which myth has she believed in?
<i>Deze kandidaten heeft Jan op gestemd</i>	Jan has voted for these candidates	<i>Welke kandidaten heeft Jan op gestemd?</i>	Which candidates has Jan voted for?
<i>Die oude man heeft Jan naar gevraagd</i>	Jan has asked for that old man	<i>Wie heeft Jan naar gevraagd?</i>	Who has Jan asked for?
<i>Deze glazen hebben wij uit gedronken</i>	We have drunk from these glasses	<i>Welke glazen hebben jullie uit gedronken?</i>	Which glasses have you (pl.) drunk from?
<i>Corona is zij van hersteld</i>	She has recovered from Corona	<i>Welke kwalen is zij van hersteld?</i>	Which illnesses has she recovered from?
<i>Filmsterren ben ik jaloers op</i>	I am jealous of movie stars	<i>Wie ben je jaloers op?</i>	Who are you jealous of?
<i>Tieners heb ik genoeg van</i>	I have had enough of teenagers	<i>Wie heb je genoeg van?</i>	Who have you had enough of?

<i>Mijn oma heb ik van geleerd</i>	I have learnt from my grandmother	<i>Wie heb je van geleerd?</i>	Who have you learnt from?
<i>Die eerste oefeningen kan ik niet op focussen</i>	I cannot focus on those first exercises	<i>Welke oefeningen kun je niet op focussen?</i>	Which exercises can you not focus on?
<i>Die vrouw heeft zij vaak aan gedacht</i>	She has often thought of that woman	<i>Wie heeft zij vaak aan gedacht?</i>	Who has she often thought of?
<i>Die buren heb ik over geklaagd</i>	I have complained about those neighbors	<i>Wie heb je over geklaagd?</i>	Who have you complained about?

Appendix 2: Supplementary tables and figures

Table 14. Example of Box's Test of Equality of Covariance Matrices

Box's M	1,549
F	,503
df1	3
df2	1828978,079
Sig.	,680

Note: observed covariance matrices of the dependent variables are equal across groups ($p = >.05$).

Table 15. Example of Levene's Test of Equality of Error Variances

		Levene Statistic	df1	df2	Sig.
CLDs	Based on Mean	,270	1	86	,605
	Based on Median	,276	1	86	,600
	Based on Median and with adjusted df	,276	1	85,914	,600
	Based on trimmed mean	,287	1	86	,593
Wh_phrases	Based on Mean	,019	1	86	,890
	Based on Median	,051	1	86	,822
	Based on Median and with adjusted df	,051	1	85,441	,822
	Based on trimmed mean	,020	1	86	,887

Note: equality of variances across the two types of sentences, as depicted by the significance p value of $>.05$ for both sentence types.

Table 16. Means and Standard Deviations per subtype of CLD per participant gender

	GENDER	Mean	Std. Deviation	N
CLD_DEF	Male	2,9381	1,26432	42
	female	3,0152	1,36120	46
	Total	2,9784	1,30890	88
CLD_INDEF	Male	3,3048	1,37414	42
	female	3,0348	1,38824	46
	Total	3,1636	1,38025	88

Table 17. Means and Standard Deviations per subtype of wh-phrase per participant gender

	GENDER	Mean	Std. Deviation	N
WH_BARE	Male	3,5000	1,54431	42
	female	3,3130	1,59703	46
	Total	3,4023	1,56587	88
WH_LEX	Male	4,9048	1,34436	42
	female	4,6413	1,47220	46
	Total	4,7670	1,41077	88

Table 18. Means and Standard Deviations of CLD definites (based on animacy) per participant gender

	GENDER	Mean	Std. Deviation	N
CLD_Def_Animate	Male	2,8357	1,27142	42
	Female	2,8891	1,37538	46
	Total	2,8636	1,31945	88
CLD_Def_Inanimate	Male	3,1429	1,30686	42
	Female	3,2478	1,39088	46
	Total	3,1977	1,34472	88

Table 19. Means and Standard Deviations of CLD indefinites (based on animacy) per participant gender

	GENDER	Mean	Std. Deviation	N
CLD_Indef_Animate	Male	3,2619	1,42811	42
	Female	2,9304	1,36981	46
	Total	3,0886	1,39979	88
CLD_Indef_Inanimate	Male	3,3143	1,38098	42
	Female	3,1957	1,43635	46
	Total	3,2523	1,40336	88

Figure 8. Mean of the CLD and wh-phrases construction subtypes

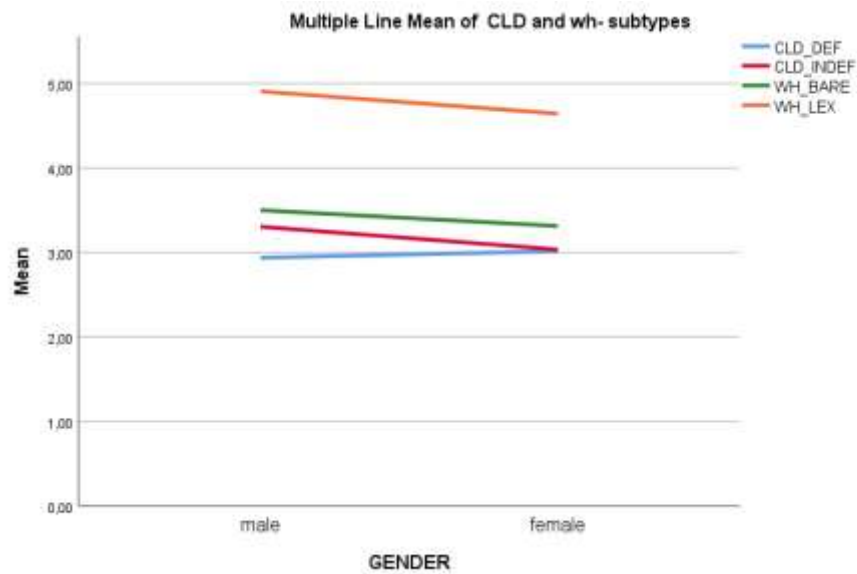


Figure 9. Data distribution in the wh-lexical phrase subtype: two non-significant outliers

