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Managing interpersonal discourse expectations: a comparative analysis of contrastive discourse particles in Dutch

Abstract: In this article we investigate how speakers manage discourse expectations in dialogue by comparing the meaning and use of three Dutch discourse particles, i.e. *wel*, *toch* and *eigenlijk,* which all express a contrast between their host utterance and a discourse-based expectation. The core meanings of *toch, wel* and *eigenlijk* are formally distinguished on the basis of two intersubjective parameters: (i) whether the particle marks alignment or misalignment between speaker and addressee discourse beliefs, and (ii) whether the particle requires an assessment of the addressee's representation of mutual discourse beliefs. By means of a quantitative corpus study, we investigate to what extent the intersubjective meaning distinctions between *wel*, *toch* and *eigenlijk* are reflected in statistical usage patterns across different social situations. Results suggest that *wel*, *toch* and *eigenlijk* are lexicalizations of distinct generalized politeness strategies when expressing contrast in social interaction. Our findings call for an interdisciplinary approach to discourse particles in order to enhance our understanding of their functions in language.

1 Introduction

Dialogue can be seen as a form of joint action in which the highest goal is to align the mental representations of the discourse participants (*interactive alignment;* Pickering and Garrod 2004). In order to form a coherent model of the discourse, speech partners need to make use of various types of communicative knowledge:

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they have to be able to (a) represent concepts and ideas by means of language, (b) to organize forms and convey meanings beyond the sentence level, and (c) to use language to express personal and social identities, to express attitudes and perform actions, and to manage relationships between self and other (Maschler and Schiffrin 2015).

Language provides us with specific tools to manage interactive alignment in the form of *discourse particles* (also referred to as *discourse markers* or *pragmatic markers*), lexical expressions that do not contribute to the truth-conditional meaning of a sentence, but relate the utterance in which they occur to the wider (extra-)linguistic context (e.g. Fischer 2006; Fraser 1999; Schiffrin 1987). The present study focuses on three Dutch discourse particles that mark a relation between their host utterance and a discourse-based expectation, as exemplified in (1a)–(1c):

(1) a. *Edmonton ligt niet in Ontario, maar <u>wel</u> in Canada.*
        'Edmonton is not in Ontario, but it ís in Canada.'
     b. *Ik heb de hele reis geslapen, maar ik heb <u>toch</u> een jetlag.*
        'I slept for the whole journey, but I am still jetlagged.'
     c. *Dame Edna is <u>eigenlijk</u> een man.*
        'Dame Edna is actually a man.'

In (1a), *wel* indicates a contrast with the possible expectation that Edmonton is not in Canada (based on the information in the first clause); *toch* in (1b) signals a contrast with the possible expectation that the speaker does not have a jetlag (based on the information that she slept for the whole journey); in (1c), *eigenlijk* marks a contrast with the possible expectation that a someone called "Dame" is a woman. Whereas *wel*, *toch* and *eigenlijk* thus all express a contrast between their host utterance and a discourse-based expectation, they cannot be used interchangeably. Our goal in this article is to account for the subtle meaning distinctions expressed by *wel, toch* and *eigenlijk*.

Discourse particles are notorious for their polyfunctionality: their use and interpretation is typically determined by the properties of the (extra-)linguistic context. Decades of research on discourse particles have proven that their meanings and functions are hard to define (for reviews, see e.g. Aijmer 2002; Degand et al. 2013; Fischer 2006; Traugott 2007). They have been phrased amongst others in terms of speech act level operations (Waltereit 2001), context markers (Zeevat 2003), as markers relating to the epistemic states of the discourse participants (Zimmermann 2012), or as markers specifying the relation between speech partners (Mosegaard-Hansen 1998). Variation in the use and interpretation of individual discourse particles has amongst others been related to the presence or absence of stress (e.g. Egg and Zimmermann 2012), their syntactic position in the sentence (e.g. Degand 2014; Degand and Fagard 2011; Mulder and Thompson 2008) or their

position in the conversational turn (e.g. Clift 2001; Degand and van Bergen 2018). There is general agreement in the literature that the range of interpretations of individual discourse particles are connected, but it remains unclear how exactly these interpretations relate to each other (for discussion, see e.g. Fischer 2014). Some researchers assume that each discourse particle is associated with multiple distinct mental representations that share a common core, also referred to as their *basic*, *generic*, *abstract*, *underspecified* or *underlying* meaning (the polysemy view, e.g. Degand 2009; Mosegaard-Hansen 2008; Fox Tree and Schrock 2002). Others assume that each discourse particle has one invariant mental representation (which typically overlaps with the core meaning), from which variable interpretations are derived by means of more general mechanisms (i.e. *pragmatic enrichment*) (the monosemy view, e.g. Fraser 1999; Fischer 2006). We do not aim to resolve this issue here. In discussing the meanings of *wel*, *toch* and eigenlijk, we focus on their stressed uses, as illustrated in (1) above, but we assume a high degree of relatedness between their variable interpretations, and assume a core meaning for each of the particles (without necessarily claiming that this covers all of their possible uses).

In this article we take a comparative approach to *wel, toch*, and *eigenlijk*. We combine insights form formal semantics, cognitive linguistics and socio-pragmatics, and use qualitative and quantitative research methods to analyse their meaning and use distinctions. The article is organized as follows: In Section 2, we discuss how the core meaning distinctions between *wel, toch* and *eigenlijk* can be formally accounted for on the basis of two intersubjective parameters. The first is whether their meaning includes an opposition between speaker- and addressee-based discourse beliefs; the second is whether their meaning includes an assessment of the addressee's perspective on mutual discourse beliefs. In Section 3, we relate these parameters to a general pragmatic principle underlying social interaction, that is, the universal need to be polite (Brown and Levinson 1987). On the basis of this principle, we predict that the meaning distinctions between *wel*, *toch*, and *eigenlijk* determine their pragmatic suitability in distinct types of social situations. In Section 4, we discuss the well-known tendency of discourse particles to cluster, and formulate hypotheses about the likelihood of co-occurrences of *wel*, *toch* and *eigenlijk* on the basis of their interpersonal meaning characteristics. In Section 5, we empirically test our predictions in a quantitative corpus-based analysis, investigating relative occurrence frequencies as well as collocations of *wel*, *toch* and across various types of conversational interaction. In Section 6 we discuss the implications of our findings for research on discourse particles, and call for an interdisciplinary approach to enhance our understanding of their function in language.

2 Semantic distinctions between *wel, toch* and *eigenlijk*

In this section, we will give a formal account of the core meaning distinctions between *wel, toch* and *eigenlijk*. These particles have been discussed in several works that mostly address their meaning and uses (e.g. Abraham 1984; Elffers 1992; Hogeweg 2009; Sudhoff 2012; van Bergen et al. 2011; Zeevat 2000), but also their relation to sentence type (e.g. Vismans 1994), sentence position (e.g. van der Wouden and Foolen 2011), or their historical development (e.g. Zeevat and Karagjosova 2009). Their German cognates *wohl, doch* and *eigentlich*, which have very similar semantics, have also received quite some attention in the literature (e.g. Eckhardt 2009; Egg 2010; Egg and Zimmermann 2012; Hentschel 1986; Karagjosova 2004, 2009), and the Dutch and German counterparts have been compared in various studies (e.g. Foolen 2003, 2006; Hogeweg et al. 2011; Westheide 1985). Doing justice to all of these studies in this paper is not possible. We will discuss a number of studies that show that *wel, toch* and *eigenlijk* similarly encode a contrast between a proposition expressed in the host utterance and a proposition in the common ground, but differ with respect to the status of this presupposed proposition. We will define this difference in terms of *intersubjectivity*, a notion used in Cognitive Grammar to refer to the cognitive coordination between the speaker and the addressee (e.g. Verhagen 2005).[1] We argue that the difference between *wel, toch* and *eigenlijk* is determined by (a) whether the speaker assumes that the proposition is a mutually shared belief, and (b) whether the speaker assumes the addressee to assume that the proposition is a mutually shared belief. Applying the notion of intersubjectivity to the analysis of discourse particles is in line with Zimmermann's (2012) semantic definition of discourse particles, i.e. expressions that "convey information concerning the epistemic states of the speaker, or her interlocutors, or both, with respect to the descriptive or propositional content of an utterance" (Zimmermann 2012: 2012).

2.1 *Wel* versus *toch*

Let us first look at the particles *wel* and *toch*. In some contexts, *wel* and *toch* seem to be interchangeable. In a situation where the speaker was under the assumption

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that Jan would not attend a particular meeting and then runs into him at this meeting, he could utter either (2a) or (2b).

(2)   a.   *Hé, je bent er <u>toch</u>!*
       b.   *Hé, je bent er <u>wel</u>!*
             'Hey, you áre here!'

By contrast, in other contexts only one of the particles is appropriate. In a situation in which speaker B disagrees with speaker A about whether Jan would come to the meeting as in (3), only *wel* is appropriate.

(3)   Speaker A: *Jan komt niet.*
                     'Jan is not coming.'
       Speaker B: *Jan komt <u>wel</u>!*
                     'Jan ís coming!'

In a situation where both A and B believed that Jan would not come to the meeting, but this information needs to be revised, only *toch* is appropriate.

(4)   Speaker A: *Jan komt niet.*
                     'Jan is not coming.'
       Speaker B: *Oh, jammer.*
                     'Oh, too bad.'
       (Speaker A gets phone call from Jan)
       Speaker A: *Jan komt <u>toch</u>!*
                     'Jan ís coming!'

Both *wel* and *toch* have been formally analysed as corrections of the common ground (*cg*) (e.g. Hogeweg 2009; Zeevat and Karagjosova 2009). This explains why they sometimes seem to be interchangeable, as in (2), but it does not explain why in some situations only one of them is appropriate, as in (3) and (4). Hogeweg et al. (2011) argue that the difference between *toch* and *wel* can be accounted for with a formal discourse model that is more fine-grained than only consisting of the *cg*. Several such models of discourse have been proposed in the literature differing in how many and which components they consist of. Components are typically included because they contribute to an explanation for particular linguistic phenomena, such elliptical follow-ups (Ginzburg 1996), declarative questions (Gunlogson 2008) or reactions to assertions and polar questions (Farkas and Bruce 2010). Hogeweg et al. (2011) make use of the model proposed by Farkas and Bruce (2010). Farkas and Bruce follow, among others, Ginzburg (1996), Roberts (1996) and Büring (2003) in including a discourse component that records the question under discussion. They label the component *the Table*, representing what is currently at issue. Farkas and Bruce (2010) argue that an assertion puts a
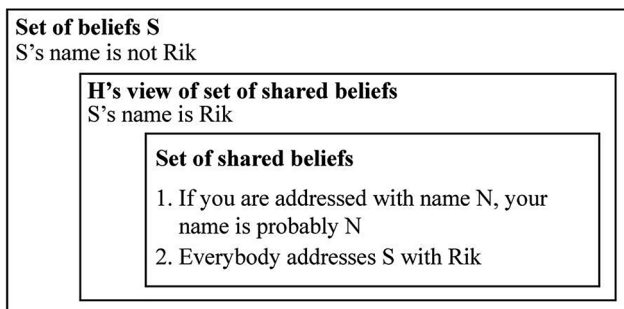
proposition on the Table, which should be seen as *proposing* an addition to the *cg*, rather than actually adding it. Only when the discourse participants explicitly or implicitly indicate that they accept the asserted information (for example, by saying yes, by nodding or simply by not objecting to it), it becomes part of the *cg*. Hogeweg et al. (2011) argue that the difference between *wel* and *toch* can be explained by this distinction between Table and *cg*; *wel* contrasts with a proposition on the Table, whereas *toch* contrasts with a proposition in the *cg*. That is, a speaker uses *wel* to correct an assertion made by her interlocutor to prevent this information from becoming part of the *cg*; *toch* is used to correct information that was already accepted by both the addressee and the speaker, but needs to be revised. The crucial difference is thus that *wel* marks an opposition between the beliefs of the speaker and addressee, while *toch* does not.

2.2 *Eigenlijk*

Let us now turn to *eigenlijk*. Van Bergen et al. (2011) argue that *eigenlijk* marks that a proposition is unexpected from the addressee's perspective. Example (4) could be uttered by a speaker whose official name is Erik but is addressed by everybody as Rik (van Bergen et al. 2011: 3882):

(5)   *Ik heet eigenlijk Erik.*
        'My name is [eigenlijk] Erik.'

According to van Bergen et al. (2011), *eigenlijk* marks that the assumption that the speaker is called Rik is false, but understandable given the evidence available to the addressee. They make this meaning of *eigenlijk* explicit by assuming embedded discourse models as in Figure 1.

Set of beliefs S
S's name is not Rik

    H's view of set of shared beliefs
    S's name is Rik

        Set of shared beliefs

        1. If you are addressed with name N, your
            name is probably N
        2. Everybody addresses S with Rik

Figure 1: Schematic representation of (5), where S refers to the speaker (in this case, Rik), and H to the addressee (or Hearer) (adapted from van Bergen et al. [2011: 3883]).

In Figure 1, the outmost box represents the speaker's model of the discourse when uttering (5). This box contains the proposition that the speaker's name is *not* Rik (but Erik), plus a second box representing the addressee's discourse model. This second box is embedded in the speaker's discourse model: it represents the set of shared beliefs (or *cg*) assumed by the addressee (as assumed by the speaker). The addressee's discourse model contains the proposition that the speaker's name is Rik, plus a third box representing the common ground assumed by the speaker. This third box is thus doubly embedded: it is incorporated in the addressee's discourse model, which in turn is incorporated in the speaker's discourse model. As a whole, Figure 1 thus represents the speaker's view of the discourse, including her view of the *cg*. The *cg* as viewed by the addressee may differ (and it does according to the speaker using *eigenlijk*). From the information in the innermost box, the addressee is assumed to infer that S's name is Rik. The utterance containing *eigenlijk*, then, marks a contrast with this inference; additionally, *eigenlijk* encodes that this inference is plausible given the information available to both speaker and addressee. The speaker just happens to be more informed than the addressee on this particular matter: he knows that his name is not Rik, but Erik.

2.3 *Wel*, *toch*, *eigenlijk* and intersubjectivity

We propose two intersubjective parameters to analyse the core meaning distinctions between *wel*, *toch* and *eigenlijk*: the first is whether the particle marks an opposition between speaker and addressee beliefs about the discourse, and the second is whether the particle relates to the addressee's view about the set of mutually shared beliefs about the discourse. As shown in Table 1, the three particles each have a different combination of these two properties.

Eigenlijk and *wel* share the property that they express an opposition between the speaker's beliefs and the addressee's beliefs. The difference between *wel* and *eigenlijk* is that the use of *eigenlijk* additionally requires an assessment of the addressee's meta-beliefs, whereas this is not the case for the use of *wel*. Including reference to the addressee's perspective on the set of shared beliefs is a meaning aspect that *eigenlijk* shares with *toch*. *Toch* corrects information that is assumed to be a mutually shared belief by both the speaker and the addressee: the use of *toch*

Table 1: Intersubjective meaning aspects of *wel, toch* and *eigenlijk*.

	wel	*toch*	*eigenlijk*
Opposes speaker and addressee beliefs	✓	✗	✓
Refers to addressee beliefs about mutual beliefs	✗	✓	✓

hence requires an assessment of the addressee's meta-beliefs with respect to (that is, her beliefs about the discourse status of) the information to be corrected.

As we saw, the difference between *wel* and *toch* can be captured by formal discourse models consisting of more than just *cg*, such as the one by Farkas and Bruce (2010), which assumes an additional component (the Table). It is more difficult to fit the three-way distinction between *eigenlijk, toch*, and *wel* into an existing formal discourse model. Although current models allow for differences between speaker and addressee, for example in terms of the propositions each of them has publicly committed to (e.g. Farkas and Bruce 2010; Krifka 2015), such models typically assume one discourse representation for both speaker and addressee. Gunlogson (2008), who proposes a formal model of discourse representation to analyse (among others) the use of declarative questions, puts it as follows:

> Strictly speaking, each agent should have their own version of the overall discourse structure […]. I follow common practice in idealizing away from that level of representation for present purposes, assuming that the agents' individual representations of the context do not differ substantially enough to impede the progress of the discourse. (Gunlogson 2008: 8).

As discussed above, van Bergen et al. (2011) analyse *eigenlijk* as indicating that the proposition that the utterance containing *eigenlijk* contrasts with, is a false but plausible conclusion given the information available to the addressee. The idea that speakers reason about plausible conclusions from the perspective of the addressee is in line with psycholinguistic studies such as Ouyang and Kaiser (this issue), who show that the prosodic prominence of a correction depends on the probability of the corrected information, and on the addressee's knowledge of this probability. The choice for a specific form (e.g. degree of prominence or the type of contrastive particle) hence not only depends on what information is assumedly shared, but also on what information is assumed not to be shared. In order to formally account for this, it is thus necessary to assume separate versions of the discourse structure for each individual – more specifically, in order to account for *eigenlijk*, each individual discourse model should incorporate the other individual's model of the discourse. Allowing for discourse representations to differ between individual discourse participants, and for a discourse model of one discourse participant to be embedded in the discourse model of the other discourse participant[2], thus seems a welcome development for formal discourse

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2 We focus on situations with two discourse participants, but more participants may be involved in a conversation; it may be that analyses of certain modal particles require an incorporation of more than two viewpoints. In that case, the theory of polyphony may provide valuable insights (Ducrot 1984).

representation theories. Such a development would also contribute to bridging the gap between formal approaches to discourse on the one hand, and cognitively oriented approaches (in particular theories relating to intersubjectivity) as well as conversation-analytic and relevance-theoretic approaches (in which the notion of common ground is explicitly rejected; e.g. Sperber and Wilson [1986]), on the other. As mentioned in the introduction, the idea of discourse participants having different beliefs and opinions is seen as the driving force for using language in the first place (e.g. Verhagen 2005); this should be recognized in formal theories of discourse representation.

In the next section, we relate the intersubjective meaning characteristics of *wel*, *toch* and *eigenlijk* to their use in conversational interaction. Under which conditions do we overtly acknowledge our speech partner's beliefs when expressing a contrastive discourse relation? Why do we not overtly refer to our interlocutor's beliefs all the time? In order to answer these questions, we will examine *wel*, *toch* and *eigenlijk* in relation to the socio-pragmatic aspects of language in use.

3 Pragmatic distinctions between w*el, toch* and *eigenlijk*

From a socio-pragmatic perspective, language is seen as a product of human social interaction, and as a tool for expressing social relations (e.g. Enfield and Levinson 2006). In their seminal theory of politeness, Brown and Levinson (1987) propose a universal principle underlying social interaction, namely that interlocutors are aware of and respect each other's social identity or "face". Speakers do so by trying to avoid so-called face-threatening acts, and/or employ strategies to minimize the threat, i.e. by being *polite*. Based on a comparative, crosslinguistic analysis, the authors define three universal social dimensions that together determine the need for face-saving: (1) the *social distance* between interlocutors, i.e. speakers tend to be more polite to strangers than to peers; (2) the *relative power* between interlocutors, i.e. speakers tend to be more polite to their social superiors and less polite to their social inferiors; and (3) the intrinsic weightiness of *act imposition*, i.e. speakers tend to choose more polite forms for more imposing acts (Brown and Levinson 1987).

Since Brown and Levinson's highly influential work, research on politeness has extensively grown and taken various directions (for reviews, see e.g. Brown 2017; Holtgraves 2019). In post-modern politeness theories, a distinction is made between politeness as an abstract, theoretical construct (which corresponds to

Brown and Levinson's definition), also referred to as second-order politeness, and politeness as folk concept (i.e. what natural language users perceive as polite or impolite), also known as first-order politeness (e.g. Eelen 2001; Watts 2003). Researchers in this post-modern tradition take second-order politeness to be "unmarked", "expected", "socially appropriate" "politic" or "normative" behaviour, which typically passes unnoticed and is therefore considered uninformative of how politeness is negotiated between interlocutors in naturally occurring dialogue. In viewing politeness as essentially a situated notion, they plea for a uniquely discursive approach in politeness research (for discussion, see e.g. Brown 2017; Holtgraves 2019; Locher and Watts 2005; Terkourafi 2005). We agree that "no linguistic expression can be taken to be inherently polite" (Locher and Watts 2005: 16): whether or not an utterance is perceived as polite may differ from one situation to the next. However, natural language users' ideas about what counts as (im)polite must stem from somewhere. Given the central role of statistical leaning in many aspects of language acquisition (e.g. Rebuschat and Williams 2012), we believe that the detection of statistical regularities in the use of specific linguistic expressions can be highly informative of how politeness norms are established (see also Brown 2017; Terkourafi 2005).

In relating the semantics of *wel*, *toch* and *eigenlijk* to their pragmatic functions in language use, we focus on second-order politeness: we will link their core, generalized meaning distinctions to abstract, generalized politeness strategies. More specifically, we argue that the choice for one contrastive particle over the other can be motivated by speakers' adherence to the universal politeness principles defined by Brown and Levinson (1987). The shared meaning aspect of *wel*, *toch* and *eigenlijk* was defined as a discourse-structuring one, marking a contrastive relation with the (extra-)linguistic context. In socio-pragmatic terms, expressing contrast is a face-threatening act, with which the speaker shows to have a negative evaluation of some aspect of the addressee's face (Brown and Levinson 1987: 66). We propose that the intersubjective meaning distinction between *wel* on the one hand and *toch* and *eigenlijk* on the other corresponds to a socio-pragmatic distinction in terms of politeness. By using *wel*, the speaker "baldly" expresses the face-threatening act; by using *toch* or *eigenlijk*, the speaker arguably mitigates this threat by overtly recognizing the addressee's face: she signals that her addressee's belief is false, but not ridiculous, because speaker and addressee shared this false belief before (in the case of *toch*) or would have shared this false belief had the speaker not had the additional knowledge she happens to have (in the case of *eigenlijk*).

Maschler and Schiffrin (2015: 204) argue that "if discourse markers are, indeed, indices of the underlying cognitive, expressive, textual, and social organization of a discourse, it is ultimately properties of the discourse itself

(which stem, of course, from factors as various as the speaker's goals, the social situation, and so on) that provide the need for (and hence the slots in which) markers appear." Under this assumption, we predict that the meaning distinctions between *wel*, *toch* and *eigenlijk* be reflected in their preferred usage contexts. We defined the difference between *wel* on the one hand and *toch* and *eigenlijk* on the other as the exclusion versus inclusion of reference to the addressee's meta-beliefs about mutual beliefs, and argued that the overt acknowledgement of the addressee's perspective corresponds to a face-saving strategy. Under the assumption that the need for face-saving depends on the social distance between interlocutors (Brown and Levinson 1987), we expect *wel* to be less suitable, and *toch* and *eigenlijk* to be more suitable as the social distance between dyads increases. Moreover, the meaning distinction between *toch* on the one hand versus *wel* and *eigenlijk* on the other was defined as signalling the absence versus presence of an opposition between speaker and addressee. We argued that *toch* signals a contrast with a belief that is assumed to be shared between interlocutors, whereas *wel* and *eigenlijk* mark an opposition between the speaker's versus the addressee's perspective on mutual beliefs. Arguably, such interpersonal contrasts will most often occur in situations where one interlocutor has more knowledge about a topic than the other (e.g. a teacher correcting a student's false conclusion, an expert rectifying a nonprofessional's assumption). We therefore expect *wel* and *eigenlijk* to be typically used in situations where speech partners differ in knowledge; *toch*, expressing the absence of an interpersonal contrast, is expected to be more suitable in situations where there is no knowledge difference between dyads. Lastly, we predict a difference between the use of *wel* and the use of *eigenlijk* in terms of speaker power. Under the assumption that speakers tend to be more polite to their social superiors and less polite to their inferiors (Brown and Levinson 1987), we expect that in situations where speakers express a contrast, they will typically use *wel* if their addressee has less power and *eigenlijk* if their addressee has more power.

4 Collocations of *wel*, *toch* and *eigenlijk*

A characteristic feature of discourse particles is that they tend to "cluster", i.e. collocate with other discourse particles (e.g. Aijmer 2002; Thurmair 1991; van der Wouden 2002). This also holds for the particles of interest in this article. Apart from clustering with other discourse particles, they also collocate with each other, as shown in the examples below:

(6)   A   *Ik vind het oneerlijk dat Adele de meeste Grammy's heeft gewonnen.*
            'I think it's unfair that Adele won most Grammy awards.'
      B   *Ik vind het <u>wel</u> terecht.*
           'I do think it's fair.'

(7)   a.   B′   *Ik vind het <u>toch wel</u> terecht.*
                'I do think it's fair (after all).'
      b.   B″   *Ik vind het <u>eigenlijk wel</u> terecht.*
                'I actually think it's fair.'

In addition to the response that B's opinion contrasts with A's opinion (as marked by *wel* in (6)), *toch* in (7a) signals that this opposition in contrast to a previously shared belief between A and B (i.e. that B changed his mind); *eigenlijk* in (7b) marks that the opposition between A and B is in contrast to A's plausible (but false) inference that A and B have the same opinion on the topic. *Eigenlijk* and *toch* can also be combined, cf. (8).

(8)   B   *Ik vind het <u>eigenlijk toch</u> terecht.*
           'I actually think it's fair (after all).'

In this response, *eigenlijk* no longer modulates the opposition between A and B, but rather the interpersonal meaning expressed by *toch*. By adding *eigenlijk*, B signals a contrast between his change of mind (expressed by *toch*) and A's plausible (but false) inference that B has not changed his mind.

These examples illustrate that the meanings of *wel, toch* and *eigenlijk* are not mutually exclusive but compatible with each other: a combination of two contrastive particles provides speakers with a more nuanced way of expressing counter-expectation relative to using a single contrastive particle. We therefore expect to find combinations of any of the three contrastive particles in our corpus. However, the probability of occurrence of specific particle combinations may differ based on their interpersonal meaning characteristics. In terms of face-saving, mitigating a "bold-on-record" contrast by combining *wel* by with either *toch* or *eigenlijk* will be more useful than adding nuance to an already mitigated contrast (i.e. combining *toch* with *eigenlijk*). This should be reflected in their probability of co-occurrence: we predict collocations of *eigenlijk* and *toch* to be less likely than combinations of *wel* with either *toch* or *eigenlijk*. At the same time, since any combination of *wel, toch* and *eigenlijk* contains at least one intersubjective particle (which itself mitigates a face-threatening act), we expect particle collocations to be overall more likely in situations where the need for face-saving is high.

5 Division of labour between *wel, toch* and *eigenlijk*: a corpus study

We tested our predictions on the division of labour between *wel*, *toch* and *eigenlijk* in language use by examining their use in naturally produced conversations. In a corpus-based quantitative analysis, we investigated usage differences between contrastive discourse particles by comparing their relative frequencies of occurrence in conversational situations that varied along two of the social dimensions identified in Brown and Levinson (1987), that is, social distance and relative power.[3] We took their shared meaning aspect (i.e. marking a contrastive discourse relation) as a proxy for their intrinsic face-threatingness, hence keeping the third social dimension roughly constant.

## 5.1 Corpus selection and data extraction

For our quantitative analysis, we made use of the *Corpus Gesproken Nederlands* (CGN; Oostdijk 2000), a collection of approximately 1,000 h of transcribed contemporary Dutch speech collected between 1998 and 2004. The corpus is divided into multiple components, representative of different types of socio-situational settings. From this corpus we extracted all occurrences of *wel, toch* and *eigenlijk* and calculated their relative frequency of occurrence (*N* per 1,000 words), as shown in Figure 2.

This figure shows the relative frequency of the three contrastive particles across 10 corpus components; the type and size of each component (in number of words) is indicated between brackets. The dashed line indicates the average number of contrastive particles per 1,000 words in the full data set. As can be seen from the figure, the relative frequency of contrastive particles depends on the social characteristics of the communicative situation: they are least often used in prepared monologues (e.g. news reports, speeches) and most often occur in spontaneous conversations between peers. Given that we are interested in the use of *wel*, *toch* and *eigenlijk* in conversational interaction, we concentrated on the six components most representative of interactive discourse situations. From these six components we extracted all dyadic interactions, that is, conversational interactions between two interlocutors. This yielded a collection of 1,361 dialogues with 892 different

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3 This quantitative approach entails that we may include idiosyncratic or non-core uses that have been identified for *wel* (Hogeweg 2009) and *toch* (Foolen 2003), or uses that are not addressed to the addressee. However, we expect the core uses of the particles to be frequent enough to generate the hypothesized differences in distributions. We come back to this in the discussion.
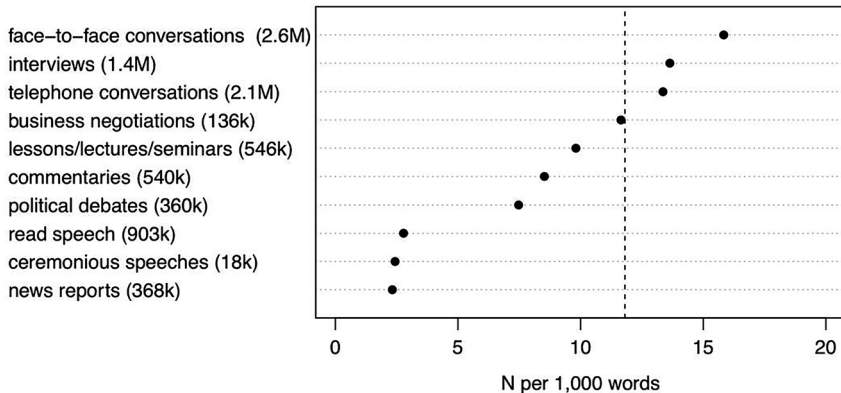
Figure 2: Frequencies of occurrence of contrastive particles per 1,000 words across corpus components.

speakers (368 female), with an average length of 10 min per dialogue. From the total frequency of occurrence of the three particles in this subcorpus ($N = 39{,}967$), the proportion of *wel* is highest (64%; $N = 25{,}647$), followed by *toch* (24%; $N = 9{,}471$), which in turn occurs more frequently than *eigenlijk* (12%; $N = 4{,}849$).

We classified each component according to the assumed social distance and relative power between interlocutors (see Table 2). Face-to-face conversations and telephone conversations in the CGN are recorded interactions between friends and family members in their private habitat (Oostdijk 2000); we therefore classified these components as representing a small social distance and an equal power relation between dyads. The other four components contain interactions recorded between less closely connected interlocutors in less personal settings; these were classified as representing a large(r) social distance between dyads.[4] For interviews and student-teacher interactions, we assumed a knowledge difference between interlocutors: we argued that an interviewee will typically know more than an interviewer about the topic of the interview, and a teacher typically has more knowledge than his students do about the content of his lecture. We used this general knowledge difference as a proxy for relative power: the power relation between dyads in these components was hence classified as unequal. For business negotiations and political debates, we did not assume such a knowledge difference between interlocutors; the power relation in these dialogues was therefore classified as equal.

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[4] For our current purpose, we opted for a binary split in terms of social distance, but one could argue for a finer-grained distinction. The social distance between dyads in interviews and teacher-student interactions could for instance be classified as larger when compared with interactions between peers, but smaller relative to business negotiations and political debates, the latter representing more formal discourse situations.

Table 2: Social composition of the subcorpus.

CGN component	Social distance	Relative power	N dialogues
Face-to-face conversations	small	equal	631
Telephone conversations	small	equal	338
Business negotiations	large	equal	65
Political debates	large	equal	3
Interviews	large	unequal	320
Lessons/lectures/seminars	large	unequal	4
TOTAL			1,361

5.2 Analysis

For each speaker in each dialogue, we calculated the relative frequency of use (N per 10,000 words) of *wel*, *toch* and *eigenlijk*. For each of the particles, we performed three mixed-effects logistic regression analyses predicting the probability of particle use based on three variables. First, for dialogues with an equal power relation between speech partners, we analysed effects of *social distance* (small vs. large) on the probability of use of each particle. Next, we restricted our analysis to dialogues with a larger social distance between dyads to assess effects of *Relative Power* (equal vs. unequal) on the probability of particle use. The third analysis was restricted to dialogues with an unequal power relation between dyads, to assess to what extent the probability of particle use depended on *Speaker Power* (high vs. low). For this purpose, we listened to each dialogue and coded which dyad arguably had more knowledge (interviewee, teacher) and who had less knowledge (interviewer, student). To control for speaker- and dialogue-specific idiosyncrasies in particle use, all models included random intercepts for speakers and dialogues. Analyses were performed using the *lme4* (Bates et al. 2015) and *lmerTest* (Kuznetsova et al. 2017) package implemented in R (R Core Team 2018).

5.3 Results

5.3.1 Wel

Figure 3 shows the mean *wel* rate across conversational settings. As can be seen from the figure, *wel* is used about twice as frequently in dialogues with a small social distance between dyads. This was confirmed by the statistical analysis: in dialogues with an equal power relation between interlocutors, speakers were significantly more likely to use *wel* if the social distance between dyads was small,
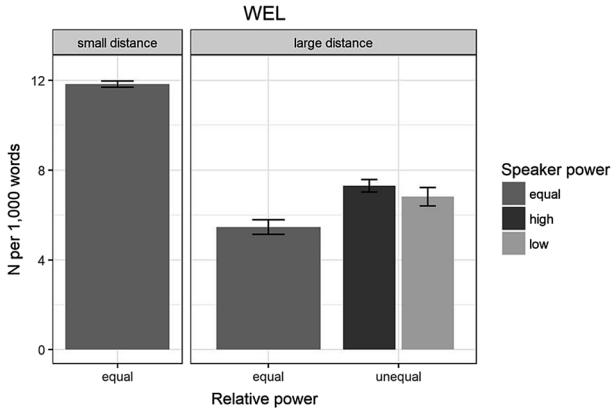
Figure 3: Relative frequency of *wel* use across social settings.

$\beta = 0.77$, $SE = 0.08$, $p < 0.001$. In dialogues with a large social distance between dyads, speakers were significantly more likely to use *wel* if the power relation between interlocutors was unequal, $\beta = 0.23$, $SE = 0.10$, $p < 0.05$. Zooming in on unequal power dialogues, the third analysis revealed that speakers with higher power were significantly more likely to use *wel* than speakers with lower power, $\beta = 0.23$, $SE = 0.07$, $p < 0.01$.

5.3.2 Toch

Figure 4 represents the relative frequency of *toch* across socio-situational settings. The figure suggests that *toch* most typically occurs in formal dialogues where the social distance between dyads in large, and where there is no assumed power difference between dyads. The statistical analysis confirmed this picture: in dialogues between interlocutors with equal power, dyads were significantly more likely to use *toch* if the social distance between them was large, $\beta = 0.35$, $SE = 0.09$, $p < 0.001$. Second, in dialogues with a large social distance between dyads, speakers were significantly more likely to use *toch* when dyads had equal power, $\beta = 0.54$, $SE = 0.11$, $p < 0.001$. In dialogues with an unequal power relation between dyads, we found no evidence for an effect of *Speaker Power*, $\beta = 0.12$, $SE = 0.10$, $p = 0.21$, suggesting that the likelihood of *toch* use was independent of whether a speaker had more or less knowledge than her interlocutor.
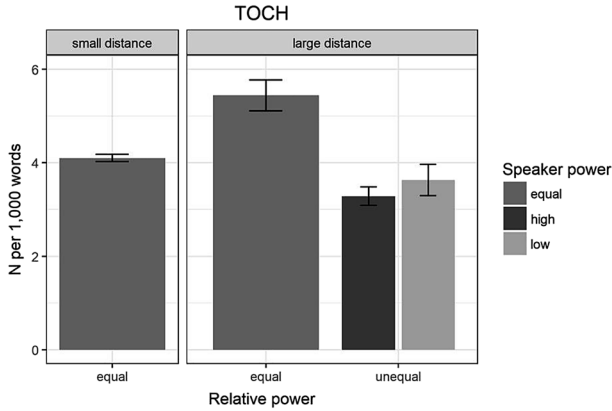
Figure 4: Relative frequency of *toch* use across social settings.

5.3.3 *Eigenlijk*

Figure 5 shows the relative frequency of *eigenlijk* across the corpus components. This figure suggests that *eigenlijk* use is most typical in dialogues where there is an assumed knowledge difference between dyads. In equal power dialogues, speakers were significantly more likely to use *eigenlijk* if the social distance between dyads was small, $\beta = 0.27$, $SE = 0.06$, $p < 0.001$. In dialogues where the social distance between dyads was large, speakers used *eigenlijk* significantly more often if there was a power difference between speaker and addressee, compared to dialogues where the mutual power relation was equal, $\beta = 1.10$, $SE = 0.18$, $p < 0.001$.
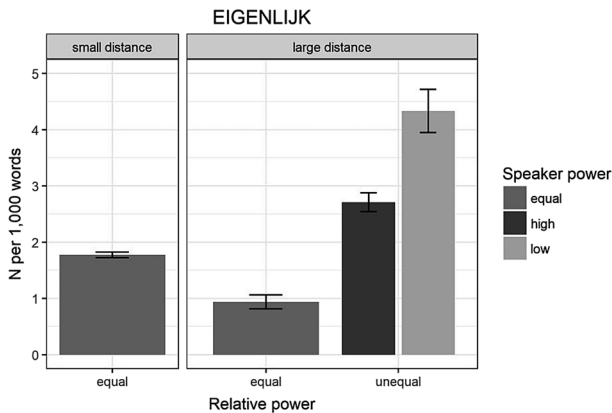

Figure 5: Relative frequency of *eigenlijk* use across social settings.

Table 3: Preferred social contexts of *wel*, *toch* and *eigenlijk*.

Social distance	Relative power	*wel*	*toch*	*eigenlijk*
Small	Equal	++	−	+
Large	Equal	−	++	−
	Unequal	+	−	++

Moreover, within unequal power dialogues, speakers with lower power used *eigenlijk* more often than speakers with higher power, $\beta = 0.39$, $SE = 0.06$, $p < 0.001$.

5.4 Summary

Comparing the statistical use patterns of *wel*, *toch* and *eigenlijk*, our findings confirm that their relative frequency of occurrence is differentially influenced by the social characteristics of the discourse: their usage profiles can be distinguished on the basis of (a) the social distance and (b) the power difference between interlocutors (see Table 3).

The social distance between speech partners distinguishes between the use of *wel* on the one hand and the use of *toch* and *eigenlijk* on the other. *Wel* was found to typically occur in interactions between peers, which fits the assumption that overtly expressing disagreement is most suitable in situations where the need to mitigate face-threats is low. Conversely, speakers use *toch* and *eigenlijk* most often in situations where the social distance between dyads (and hence the need for face-saving) is large. This suggests that speakers who overtly acknowledge their addressee's meta-beliefs when expressing a contrast (by using *toch* or *eigenlijk*) do so to mitigate this face-threatening act.

In formal social settings, the assumed power relation between dyads sets apart the use of *toch* from uses of *wel* and *eigenlijk*. *Toch* (expressing a contrast with a mutually shared belief) typically occurs in dialogues with an equal power relation between dyads; by contrast, *wel* and *eigenlijk* (expressing an opposition between speaker and addressee) typically occur in dialogues where dyads differ in power. This finding corroborates our assumption that speakers be more likely to express a contrast in situations where they have more knowledge about a particular topic than their addressee (e.g. a teacher correcting a student's false conclusion, an expert rectifying a nonprofessional's assumption). Moreover, we predicted that *wel* be more typical for situations where speakers have more power, and *eigenlijk* be preferred in cases where speakers have less power than their interlocutor. This hypothesis was based on the assumption that expressions of contrast be more

likely mitigated if the need for face-saving increases. Our findings confirmed this hypothesis, suggesting that overtly recognizing the addressee's beliefs about mutual beliefs is of greater socio-pragmatic importance when threatening the face of a social superior relative to a social inferior.

5.5 Collocations

To empirically test our predictions concerning contrastive particle collocations, we extracted all two-word collocations consisting of any combination of *wel*, *toch* and *eigenlijk* from the six dialogic components of the CGN, yielding a total of 4,442 collocations; an overview is presented in Table 4.[5]

First, we predicted that collocations of *eigenlijk* and *toch* be less likely than combinations of *wel* with an intersubjective contrastive particle. Recall, however, that *wel* occurs much more frequently (64%) than both *toch* (24%) and *eigenlijk* (12%). Based on their mutual frequency distribution, it follows that most two-particle collocations will contain *wel*. For our hypothesis to be confirmed, the proportion of collocations containing *wel* should thus be higher than its expected proportion based on frequency alone. To test this hypothesis, we calculated the expected proportion of each of the six possible particle combinations (i.e. *toch wel*, *wel toch*, *eigenlijk wel*, *wel eigenlijk*, *eigenlijk toch*, *toch eigenlijk*) on the basis of their mutual frequency distribution. This yielded an expected proportion of collocations

Table 4: Frequencies of contrastive particles and contrastive particle collocations across conversational settings.

CGN component	Social distance	Relative power	N particles	N collocations
Face-to-face conversations	small	equal	43,251	1,604
Telephone conversations	small	equal	35,772	1,386
Business negotiations	large	equal	1,677	92
Political debates	large	equal	2,863	490
Interviews	large	unequal	10,396	684
Lessons/lectures/seminars	large	unequal	5,501	186
TOTAL			108,780	4,442

5 The corpus also contained a number of three-word collocations of *wel*, *toch* and *eigenlijk* (e.g. *ik vind het eigenlijk toch wel terecht* 'I actually do think it's fair (after all)'). Because these three-word collocations are rare ($N = 78$), they were left out of the analysis.

containing *wel* of 91% ($N = 4,024$).[6] Results from a chi-square analysis revealed that the attested proportion of collocations containing *wel* (93%; $N = 4,131$) was significantly higher than expected, χ^2 (1) = 30.69, $p < 0.001$, corroborating our assumption that contrastive particles cluster for general face-saving purposes.

To assess whether contrastive particles more likely cluster in cases where the need for face-saving is high, we calculated for each subcomponent the expected proportion of particle collocations based on their individual occurrence frequencies. This yielded an overall expected proportion of 4.1% collocations in the full data set ($N = 4,442$). Results from a chi-square analysis showed that this proportion significantly differed according to the social discourse characteristics, χ^2 (2) = 96.94, $p < 0.001$. In dialogues where the social distance between dyads was small, the proportion of collocations (3.8%) was significantly smaller than expected ($z = -8.14$). In dialogues with a large social distance between interlocutors, the proportion of collocations did not significantly differ from the expected proportion if dyads were equal in power (4.2%), but in cases of a power difference between dyads, the proportion of collocations (5.5%) was significantly larger than expected ($z = 9.58$). These findings thus provide evidence that contrastive particles typically co-occur in situations where face-threatening acts are more serious.[7]

In sum, findings from the collocation analyses confirm our hypothesis that speakers combine contrastive particles for general face-saving purposes in social interaction. We found that *toch* and *eigenlijk* are more likely to co-occur with *wel* than with each other, suggesting that mitigating a "bald on-record" contrast is pragmatically more useful than mitigating an already mitigated contrast. Moreover, we found that particles least likely cluster in interactions between peers, and most likely cluster in formal interactions with an assumed power difference between dyads, hence showing a preference for social situations in which the need for face-saving is high. Together, these findings provide further evidence for the relation between the semantics of contrastive particles and their pragmatic function in conversational interaction.

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6 For our analysis, we collapsed over the mutual order of particles in the clusters. Although the sequence of particles in clusters is not random (for discussion, see e.g. Braber and McLelland [2010] and the references therein), an analysis of order effects is beyond the scope of this article.
7 Effects of Speaker Power on the probability of particle collocations were not analysed, mainly for practical reasons. Information about speaker power was only available for speakers in dyadic conversations, whereas the current data set also involves interactions between more than two interlocutors. If contrastive particles are indeed combined for face-saving reasons, we would predict a higher proportion of collocations if speakers have less power than their interlocutors (and hence a greater need to mitigate face threats), but we will leave this for future research.

6 Discussion

In this paper we investigated how speakers manage interpersonal discourse expectations by comparing the meaning and use of three contrastive discourse particles in Dutch. We related the semantic distinctions between *wel*, *toch* and *eigenlijk* to distinct pragmatic functions in language use. We accounted for this relation in terms of speakers' adherence to a universal socio-pragmatic principle underlying social interaction, that is, the need to be polite (Brown and Levinson 1987).

Results from a quantitative corpus-based analysis showed that the proposed core meaning distinctions between *wel*, *toch* and *eigenlijk* correspond to distinct statistical usage patterns across different communicative situations. *Wel* was found to be most typical for informal interactions between peers, whereas *toch* and *eigenlijk* were typically used in conversations where the assumed social distance between speaker and addressee was large. Within formal social situations, *toch* (encoding a contrast with a mutually shared belief) occurred typically in dialogues between assumedly equally knowledgeable interlocutors (e.g. politicians, business partners). By contrast, *wel* and *eigenlijk* (encoding opposing interpersonal beliefs) typically occurred in situations where interlocutors assumedly differed in knowledge (e.g. interviews, teacher-student interactions). In addition, we found distinct patterns for *wel* and *eigenlijk* in terms of speaker power: *wel* ("baldly" expressing contrast) was typically used by speakers interacting with a socially inferior addressee, whereas *eigenlijk* (mitigating the expression of contrast) was typically used by speakers interacting with a social superior. Findings from the collocation analysis revealed that *toch* and *eigenlijk* (both overtly acknowledging the addressee's view on mutual beliefs) more often clustered with *wel* (not overtly addressing the addressee's perspective on mutual beliefs) than with each other, suggesting that contrastive particles are more likely combined to mitigate a "bald" expression of contrast than to add nuance to an already mitigated face-threatening act. In addition, the probability of contrastive particle collocations was overall higher in interactions with a large social distance and an unequal power relation between dyads, i.e. in situations where the need for face-saving is high.

Taken together, our findings suggest that general pragmatic principles have conventionalized into distinct lexical expressions when expressing contrastive discourse relations in Dutch: we interpret the intersubjective meaning distinctions between *wel*, *toch* and *eigenlijk* as lexicalizations of distinct generalized politeness strategies in social interaction. We propose to formally analyse contrastive particles as triggers of (multiple) generalized conversational implicatures (Grice 1975; Levinson 2000). *Wel*, *toch* and *eigenlijk* do not only mark structural

(i.e. contrastive) discourse relations, but they also give rise to default inferences about interpersonal discourse relations. Such interpersonal inferences may be analysed akin to other types of conversational implicatures in formal discourse models (e.g. Layered DRT, Geurts and Maier 2003), provided that these discourse models are (a) speaker-specific, and (b) allow for embedding of the addressee's discourse model into the speaker's discourse model. Future research would have to demonstrate how exactly this could be implemented.

In interpreting *wel*, *toch* and *eigenlijk* as lexicalizations of distinct generalized politeness strategies, we referred to the second-order rather than first-order notion of politeness. This does not imply that speakers always use *toch* with the deliberate intention to be polite, or that addressees will interpret each use of *eigenlijk* as an act of polite behaviour: we agree with the postmodern view that what counts as (im) polite is contextually determined. We would not want to deny that *wel*, *toch* and *eigenlijk* may be strategically employed by speakers to achieve a specific communicative goal. Rather, we would argue that *wel*, *toch* and *eigenlijk* could be used strategically precisely because they trigger default inferences about inter-personal relations. Speakers may for instance use *toch* not because they assume that a proposition is a mutually shared belief, but because they want to argue that it is, in order to create the impression of interpersonal alignment and, as such, to establish social coherence (see also Aijmer and Simon-Vandenbergen 2004). At the same time, we expect the pragmatic use range of the three contrastive particles to be constrained by their semantics. For instance, we predict that the semantics of *wel* (expressing an interpersonal opposition) will not allow for strategic use with the purpose of establishing social coherence (like *toch*). Follow-up research could empirically investigate the interaction between intersubjective discourse particles and first-order politeness, for instance by comparing how speakers use and ad-dressees interpret *wel*, *toch* and *eigenlijk* across different types of experimentally controlled social situations (for an overview of comparable experimental in-vestigations of first-order politeness, see Holtgraves 2019).

Our comparative analysis supplements crosslinguistic comparative studies of discourse particles. In these studies, researchers use (back-)translations of discourse particles in parallel corpora as a heuristic to establish and further refine semantic-pragmatic fields (e.g. Aijmer and Simon-Vandenbergen 2004; Degand 2009; Mortier and Degand 2009). Our findings show how a similar goal can be achieved by comparing discourse particles with partly overlapping semantics within one language. Remarkably, crosslinguistic analyses of discourse particles in the semantic field of (counter-)expectation report that occurrences of *eigenlijk* are for the most part left untranslated both in English (Aijmer and Simon-Vandenbergen 2004) and in French (Mortier and Degand 2009), suggesting that *eigenlijk* covers some part of the semantic field of (counter-)expectation that is not

covered by its assumed English (*actually, in fact*) and French (*en fait*) counterparts. Although this needs further research, we speculate that reference to addressee's view on the common ground may be a meaning aspect that is unique to *eigenlijk* (for a similar suggestion, see van Bergen and Bosker 2018).

A quantitative approach to pragmatic phenomena of course has its limitations. When classifying our data according to the three social dimensions, we generalized over individual speakers and dialogues. As for social distance, face-to-face and telephone conversations between friends and family members were classified as representing a small social distance, whereas this relation may vary both within and across families and friends. Social power was defined in terms of knowledge, whereas power relations are co-determined by multiple factors (e.g. age, socio-economic status, gender), and knowledge depends on the specific topic of conversation. Third, we assumed that all contrastive relations expressed by *wel*, *toch* and *eigenlijk* were equally imposing face-threatening acts, whereas the weightiness of individual act impositions will probably strongly depend on the topic of conversation. Any of the corpus components will no doubt contain all kinds of idiosyncratic uses of *wel*, *toch* and *eigenlijk*, which likely contributed to the fact that we found statistical preferences rather than categorical distinctions in their usage profiles. However, we have no a priori reason to assume that the proportion of idiosyncratic uses differed systematically across the three particles or between the corpus components. Moreover, our statistical analyses confirmed that social distance, relative power and speaker power significantly explained variation in uses of *wel, toch* and *eigenlijk* above and beyond speaker-and dialogue-specific variation. We therefore conclude that the variation *between* the social dimensions outweighed the variation *within* the social dimensions.

From the part of the speaker, we have shown that contrastive discourse particle use in Dutch depends on various kinds of discourse expectations. First, speakers have to assess to what extent their addressee's discourse representation aligns with their own model of the discourse. Second, speakers have to assess the potential threatingness of expressing misalignment between discourse models to their addressee's face. We showed how the social characteristics of the discourse can modulate this assessment and, as such, motivate the speaker's choice between *wel, toch* and *eigenlijk*. From the part of the comprehender, discourse particles could in turn be used as cues to modulate expectations about likely discourse continuations during listening (see e.g. van Bergen and Bosker 2018; Koehne et al. this issue), but also to modulate expectations about the social relation between interlocutors. An interesting follow-up study would be to investigate whether such socio-pragmatic inferences influence comprehenders' affective evaluation of a dialogue. Such affective responses could potentially be measured online using facial electromyography ('t Hart et al. 2019).

In sum, we have combined insights from formal semantics, cognitive linguistics and socio-pragmatics, and used qualitative as well as quantitative research methods to account for the meaning and use of three contrastive discourse particles in Dutch. We believe that such an interdisciplinary approach is necessary to fully understand the use and distribution of discourse particles (and perhaps, of language in general).

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